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Final comparative report: “A blue-print of Capabilities for work and education”

Work package 2:

Theoretical framework and methodology of capability acquisition

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Theoretical framework and methodology of capability acquisition – A final report

“Making Capabilities Work” (WorkAble) scrutinises strategies to enhance the social sustainability and economic competitiveness of Europe by strengthening the capabilities of young people to actively shape their personal and work lives in knowledge societies and cope with today's economic, cultural, demographic and technological challenges. Bridging quantitative and qualitative methods, WorkAble assesses the potential of innovative European strategies for dealing with local labour-market demands and regional inequalities. Adopting a comparative and interdisciplinary approach, it systematically analyses whether and how young people are enabled to participate in working life and society. Applying the Capabilities Approach (CA) as a common heuristic framework, 13 partners from different disciplines (educational science, sociology, economics, philosophy, political studies and social work) in 10 European countries collaborate closely in a multidimensional research process. WorkAble surveys whether and how the match between young people's supply of skills and competencies and changing labour-market needs is sustained and secured, while simultaneously broadening their options for living in and actively shaping European knowledge societies. It explores how educational strategies are implemented and assesses whether they enable young people to convert knowledge, skills and competencies into capabilities to function as fully participating active citizens. This calls for a three-phase research design: 1) a comparative institutional mapping and analysis of vocational and labour-market policies in all educational regimes; 2) case studies to reconstruct the conceptions, aspirations and practices of local actors implementing educational and training programmes; and 3) quantitative secondary analyses of national and European longitudinal data revealing how effectively these strategies enhance economic performance and close the capability gap for young people.

The present report is the conclusion of the work on fundamental theoretical and methodological aspects of capability research. This work package aims at designing an overall theoretical framework of the project and at providing knowledge about how to deal with methodological requirements of operationalising a capabilities perspective in welfare and labour market related service research concerning the situation of vulnerable young people in Europe.

This work includes a reformulation, a specification for our research project and an operationalisation of the CA for the subsequent empirical work.

The examinations in this report are as follows:

UNIPV, DPU and FORBA deal with the reformulation of the Capability Approach so as to address the specific research questions of this project (conceptual issues), CEREQ, HES-SO, UNIBI, NAPIER and BICOCCA specify the steps which characterise the well-being process and the plurality of factors that can affect this process (applications of the theoretical framework), and UNIPV, UGOT, UMU and CEREQ deal with the methodological requirements for an effective operationalisation of our theoretical framework (measurement).

Enrica Chiappero-Martinetti and Anna Sabadash (UNIPV) provide a proposal for an extended framework that combines and integrates the human capital and capability approaches. They explore ways of overcoming the “economistic” and instrumental limitations of human capital models by moving beyond the narrow economic sphere towards different dimensions of personal development introduced by the capability approach (CA).

Christian Christrup Kjeldsen and Niels Rosendal Jensen (DPU) examine the background and historical context of the human capital approach, compare it with the CA, and finally apply the CA to education. Following Sen, they come to the conclusion that education can provoke public debate and dialogue on social and political affairs, that it has an instrumental role in supporting the ability to participate in decision making, and that it can empower excluded groups to organise themselves politically.

Dirk Michel and Christian Christrup Kjeldsen (DPU) focus on the relation between education, capabilities, and well-being. They see the difficulty with this relation in tracing one’s understanding of “the good life” and how to realise it. In addition, they contrast the importance of freedom of choice in the CA with the concept of latent and manifest incapacitation.

Roland Atzmüller (FORBA) considers the relevance of the CA for the analysis of changing forms of work and skills. Societal abilities has become more and more important in debates about work. The recent demands that employees are confronted with are to apply their affective abilities, to optimize their private lives and to constantly renew their individual competencies (Life Long Learning). As these new forms of work strongly rely on the mobilisation of individual

abilities, the CA could offer an adequate tool for assessing whether, and how, the capabilities could enhance the well-being and freedom of employees, or whether the growing social insecurity and precariousness undermine the capability cycle.

Thierry Berthet (CEREQ) questions the CA from the perspective of policy analysis, using the example of the career- and school-based guidance system for young adults in France. As the CA proposes a theoretical framework centred on choice, freedom, collective goods and services, political accountability and knowledge-based social policies, and as it is designed to evaluate the accuracy of public action to fulfil individual and collective well-being, it can serve as a very promising approach to the analysis of guidance practices.

Jean Michel Bonvin and Maël Dif-Pradalier (HES-SO) focus on the normative and epistemological steps necessary to implement the CA in the fields of education and welfare. They emphasise that what is needed is a normative yardstick, and a shared understanding of normative aspects – although they were fully aware that there is no objective description of social situations.

Hans-Uwe Otto and Holger Ziegler (UNIBI) concentrate on the conceptual difference between analysing whether institutions are able to ‘produce’ valuable functionings or whether they are enhancing the capabilities sets of their clients. Following the CA the proper aim of welfare institutions might not be primarily to change the actual beings and doings of its clients, but rather to expand the scopes and scales of their capabilities set respectively their “substantive freedoms” (Sen 1999).

Colin Lindsay (NAPIER) offers his ideas on activation policies for young people and the question whether there is a role for the CA in the UK activation model. Even though there can be found some (very limited) opportunities for autonomy in terms of capability for voice , the policy debate has mainly focused on how “improvements can be made along human capital and Work First Plus lines”, while debates on capabilities mostly take place where no policy decisions are made.

Lavinia Bifulco, Raffaele Monteleone, Carlotta Mozzana and Irene Rolfini (BICOCCA) engages with the CA from a sociological point of view and pointed out some controversial aspects in Sen’s insistence on the social embeddedness of individual agency. They emphasise that there is no capable person without a capability-enhancing context and reflect on the links between individual capabilities and what can be called “institutional capabilities”.

Anna Sabadash (UNIPV) presents an empirical study that aims at the integration of the human capital approach and the CA by empirically estimating an individual's well-being. On the basis of this research she expects to establish whether extending the HC approach by some elements of the CA could contribute added value to the understanding of the driving forces behind the different dimensions of well-being on the individual level.

Björn Halleröd & Mattias Strandh (UGOT & UMU) endeavor to design an ideal-type empirical investigation that would capture the central element of the CA. While the CA provides theoretical and conceptual clarity, it confronts us at the same time with a series of challenging empirical issues, of which the central one was how to measure capabilities (as opposed to resources or functionings). One of their conclusions is that “the door stays closed when not doing longitudinal research.”

Josiane Vero (CEREQ) assesses that – even though the Capability Approach allows an alternative way to examine individual situations and social arrangements – the operationalising is the most important challenge that lies ahead for the Capability Approach. On the base of quantitative methods, there are a number of issues to be resolved, which need to be developed if the framework is to be fully applicable as a framework for measuring working lives. Her attempt is to tackle some of them.

Overview of the discussion

A central starting point of the debate is the relation between the human capital and the capabilities approach. The main benefits and limitations of these approaches are discussed.

The human capital approach (HCA) is appreciated as an important tool in micro-analysis and for the study of the courses of economic wellbeing, the forces underlying the educational choices as investment decisions as well as possible confounding effects of omitted variables (innate ability, family and social background, education funding mechanisms, etc). However the valuation techniques developed by the HC theory for estimation and monetary aggregation of human capital assign a rather restricted instrumental role to education which takes little account of other important non-material aspects. Also cultural, gender, emotional, historical differences that influence educational and work related choices and individual's well-being are insufficiently considered from a human capital perspective.

The papers point out that with respect to the tasks of connecting social sustainability and economic competitiveness and the necessity to account for the individual-oriented accents of knowledge societies the focus in human capital should be extended to include not only knowledge and skills derived from education, but also other components which can lead to or act as different levels of well-being. It is argued that the Capability Approach (CA) allows for an alternative way to assess individual situations and social arrangements focussing on individual and collective agency, quality of life conditions, etc.

While the CA advocates collective goals to be achieved at the benefit of individuals, it proposes a theoretical framework centered on choice, freedom, collective goods and services, political accountability and knowledge based social policies. With the CA the focus on education goes beyond investments and employability but also highlights the significance of developing critical reflection and strengthening democratic participation in society, in particular the ability to debate, public reasoning and the inclusion of traditionally excluded voices.

However the CA might currently be regarded as a framework of thought, a normative tool, rather than a fully specified theory designed to evaluate the accuracy of public action to fulfill individual and collective well being. Moreover the CA has only recently become of interest in empirical studies of issues related to employment, work, education and training while it has been used in a wide scope of domains, most significantly in welfare economics in order to assess a variety of aims, such as poverty, or inequality assessment, quality of life measurement, etc. With respect to evaluating educational and labour market policies it was also debated whether it is appropriate to consider the CA as a transcendental ideal or as a comparative yardstick – most of the papers, following Amartya Sen, provided arguments for the latter perspective.

Despite the fact that the CA is not yet fully operationalised for analysing educational and labour market policies for vulnerable young persons in Europe and that there is an ongoing debate about what resources, factors of conversion, etc. exactly matter in the field of welfare and education in different European countries the papers show potential of the CA to provide a fundament for a pragmatic approach, which combines and integrates the concepts of human capital – and related strategies emphasizing the employability of young persons – in developing an extended framework, which empirically reflects and estimates the quantitative and qualitative aspects of the individuals' capabilities to shape their personal well-being.

Given the fact that within a ‘post-fordist’ or ‘post-industrial’ knowledge based mode of production the (taylorist) division of labour was reduced and skilled work was rehabilitated the significance of “key skills”, competences etc. are highlighted and - apart from technical and functional skills and knowledge - a range of “societal” abilities (communication, cooperation, problem solving, creativity etc) became more and more important. The papers figure out that a pragmatic approach combining employability and human capital approaches with the CA could provide a framework to evaluate the new skill demands.

Particularly as new forms of work rely on the mobilisation of individual abilities which go beyond technical knowledge the CA could offer an adequate tool to assess whether and under which conditions the former could enhance the well being and freedom of employees or whether growing insecurity and precarity undermines the capability cycle. The papers stress the necessity to examine the links between the CA approach and policy analysis such as the role of public policies and institutional arrangements as important social conversion factors which may enable persons to convert resources into valuable functions and provide a mediating space which influences people’s capabilities in terms of their real freedoms and their realm of autonomy. In this sense institutions and professionals are important pillars of an educational and welfare ecology, providing infrastructures, but also structures of power which may selectively broaden or restrict people’s life chances and opportunities for well-being and agency. In this context the collective responsibility in supporting but also constraining fundamental individual choices are debated as well as the links between individual capabilities and what can be referred to as “institutional capabilities” which also includes the question to what degree local agencies are centrally controlled, dependent on central government for funding, and driven by an analysis (or informational basis) defined by central government. The general issue here is to identify the resources and individual, societal, political, legal, institutional, cultural, etc. conversion factors that impact on the development of capabilities, and to figure out how all these factors combine to increase or obstruct the enhancement of capabilities, i.e. to what extent they promote or impede their beneficiaries’ individual freedom to choose. In this context the papers point to the significance of the cognitive dimensions of public policies, which may be grasped by means of the concept of informational base of judgment and decision process analyses, particularly with respect to normative references conveyed within collective interventions.

In this context the individualised models of activation policy are discussed and ‘capability-friendly’ forms of public action to activate the unemployed are contrasted with a model of ‘work first’ activation, which is informed by the concept of ‘employability’. In the context of the latter the aim remains to move people into existing opportunities (with any kind of work seen as positive) rather than on enhancing the choices open to the individual to engage in work (and other aspects of life) of value.

In ‘capability-friendly’ forms of public action concepts such as the capability to achieve good work, capability for education, the capability for voice and their socially and institutionally unequal distribution come to the forefront.

A broad part of the discussion was about identifying the most appropriate (qualitative or quantitative) methods for grasping capabilities. How the capabilities approach can be made applicable as a framework for measuring working lives and how it can be operationalised to inform research on young people’s experiences of activation and learning programmes is still an unresolved question.

At the theoretical level CA disentangles resources, functionings and capabilities from each other but the problem of finding valid empirical indicators of these three aspects – particularly - how to measure capabilities, which are (as opposed to resources or functionings) not directly observable - still remains. Measuring capabilities implies to measure what people can do or can be, because the notion of capabilities contains conceptions about the freedom to choose. Problem of formulating multidimensional and context-dependent contra factual assumptions about what given individual is able to do at a given time, of grasping adaptive preferences, of selecting relevant capabilities and weighting these capabilities, of path-dependency in the development of capabilities and the conversion from resources into capabilities as well as from capabilities into functionings and of cluster capabilities into capability sets. In order to make preferences and individual understandings about well being and “available” potentials visible, some argued for qualitative methods, in particular theme-oriented interviews in combination with biographical-narrative interviews while others discuss the potentials of inferential statistics. In particular with respect to quantitative methods it becomes apparent that the door stays closed when not doing longitudinal research, which is particularly true for the investigation of working lives and professional pathways of young people in Europe. Against this background the evaluation of

capabilities and path dependency becomes a question of comparing pathways over time, between individuals within the same context and between individuals in different contexts.

Some basic insights

The human capital and the capabilities approach have a vast potential in complementing each other both theoretically and empirically.

While the human capital approach – despite the fact that it is too fixated on the economic return – provides a suitable starting point, it can be successfully enriched by the insights from the capabilities approach in order to encompass a vast variety of circumstances, factors and motivations faced by individuals, and bring the theoretical modelling and the empirical analysis closer to the reality and may provide a better understanding the role education plays in ones life achievements. It seems to be obvious that attempts to reintegrate people into the dual system via training guarantees will not be sufficient without taking into account the problem of whether people will be able to form a stable employment biography and an identity enabling them to cope with the social and economic circumstances of post-fordist respectively knowledge societies.

While more conventional frameworks of public policy analysis have comparatively little to say with regard to issues such as employment quality, self-fulfilment, real freedom to choose one's job or education, active citizenship etc., the normative framework provided by the CA – particularly with the key notions of “capability for work and education” and “capability for voice” – allows to tackle crucial political issues with regard to the current transformations of social policies, and particularly those addressing young adults facing multiple difficulties. Beyond the question of increasing employment or qualification the crucial issue whether they translate in a corresponding enhancement of individual's capability sets come to the forefront. Research based on conceptions such as human capital and employability needs to be enriched by enlarging the measuring base to non-marketable benefits derived from educational and employment success. In this respect the CA provides a comparative metric which allows not only assessing the efficiency but also the substantial content and legitimacy of public policies.

In contrast with most conventional approaches, the CA opens a new and most needed research agenda to both investigate and assess current developments in the fields of welfare and education, and it suggests new avenues for policy-making, that aim not only at increasing

efficiency or balancing public budgets, but primarily at enhancing the capabilities or real freedom to choose of its beneficiaries.

The problem of the capability approach might currently be its lack of the robustness which human capital approach provides on the fundament of hard data, that has great influence on political decision making. Nevertheless the Capability Approach expands training concept to include anything other than work and seeks to develop a broader “life-fitness” through education. The promise of a pragmatic synthesis is that a focus on economy, skills and growth, which are undeniable important issues for society – is completed with a broader perspective on education and social justice as the glue that binds society together.

The capability concept would be tremendously qualified by developing a more counterfactual questioning technique with a special attention towards individual choice. This implies to get behind the actual doings and beings and uncover what the individual could have chosen and whether the individual actually had a choice and to what degree - not only their happiness or valuation.

The Capability Approach (CA) represents an important theoretical tool, facilitating our understanding of poverty, wellbeing and standard of living. It provides theoretical and conceptual clarity, but, it also leaves us with a series of challenging empirical issues.

In order to analyse and compare educational and employment policies the CA provides promising a basic analytical framework, this however has to be modified to the field and to be supplemented with other social scientific approaches in order to provide an appropriate fundament for the ambitious objective to create a testable model, which reflects the quantitative and qualitative aspects of the individuals’ capabilities to shape their personal well-being in its full spectre of dimensions.

CONCEPTUAL ISSUES

Enrica Chiappero-Martinetti & Anna Sabadash

Human capital and human capabilities: towards a theoretical integration

1. Introduction

Human capital (HC) theory, pioneered by Schultz and Becker in the early 70s, has firmly entered the economic discussion about growth and development. Moreover, it became an important tool in micro-analysis and was used to study the courses of economic wellbeing and the forces underlying the educational choices as investment decisions. It has lately been criticized for the restricted instrumental role assigned to education disregarding other important non-material aspects related to it, as well as for its inability to satisfactorily reflect cultural, gender, emotional, historical differences that can affect educational choices and individual's well-being. Though the "economistic" component of educational investment constitutes an important part of the individual well-being, we should not neglect its other dimensions and the impact that education can have on different domains of human life. Today's social sustainability, economic competitiveness and individual-oriented accents of knowledge societies made many think of alternative approaches to assessing other, non-monetary, aspects of human well-being, with the capabilities approach (CA) being one of the most popular among them.

In this paper we are going to discuss the main valuation techniques developed by the HC theory for estimation and monetary aggregation of human capital. While reviewing existing definitions and modeling tools (with the special attention to the role of education in the formation of HC) we will point out their main benefits and limitations. We are going to shed out the key points derived from the vast literature on measuring the effect of different variables on HC and vice versa. In particular, we will discuss the main approaches, assumptions and proxies used to assess HC.

We will then investigate the possibilities to overcome the "economistic" and instrumental limitations of the HC models, which only consider person's increased productivity and income-generating abilities, by moving beyond the straight economic sphere towards different dimensions of personal development, using the CA. We will start from extending the definition of HC to include not only knowledge and skills derived from education, but also other components which can lead to or can act as different levels of well-being. Thus, for example, while speaking

about human well-being as a vector of functionings, we suggest thinking about such its components as health, employability, self-worth, social integration and political participation.

This would open the road to the more ambitious goal – to recommend a pragmatic approach, which combines and integrates both concepts (HC and CA) in developing an extended framework, which reflects the quantitative and qualitative aspects of the individuals' capabilities to shape their personal well-being. This scheme shall also be helpful for implementing future empirical exercises.

2. Definition of human capital from the classical human capital perspective

The concept of HC has a long history dating back to Adam Smith and William Petty and was originally introduced to analyze man as a producer and to measure and quantify his abilities to engage in productive activities. The establishment of the human capital theory in the modern neoclassical economic literature and the best-known application of the idea of "investing into human capital" is connected with the seminal works of Shultz (1961), Becker (1964) and Mincer (1974) (representatives of the *Chicago School* of economics). In this view, there is no behavior that can not be interpretable as economic, however, altruistic, emotional, uninterested, and compassionate it may seem to others (Gendron 2004). In the standard human capital approach, the capital, embodied in persons is considered as a mean of production, together with physical and financial capital. Similarly to other means of production, investments into human capital, realized through education, on-the-job training, medical treatment and job search, can only be made at a cost (direct, like tuition fees or costs of medical treatment, and indirect, like forgone earnings and leisure) and yield additional output that depends on the rate of return on the human capital. Differently to physical and financial capital, human capital cannot be transferred from one individual to another. As noticed by (Killingsworth, 1983), since slavery is illegal, stock of human capital such as health and knowledge cannot be disposed of or sold to others.

The founders of the human capital theory viewed the outcomes derived from education, on-the-job training, experience and health as components of human capital, which determine individual's earnings through economic productivity. Human capital is thus defined as an individual's productive ability and is measured in terms of goods and services he/she produces. This definition matches into the framework, where consumption is an ultimate goal of the economic activity and where the value of the individual's human capital is measured as the value

of the goods and services, which he directly or indirectly produces (Thurow, 1970). In recent years researchers, such as Gendron, 2004, broadened the definition of consumption goods by including knowledge. According to this approach, the value of human capital can depreciate or appreciate if the value of goods and services rises or falls.

In line with this approach, David, 2001, gives a comprehensive definition of human capital, which embraces its following "productive" aspects: a) the capacity of interpreting flows of sensory data and structured information required for purposive individual actions and inter-personal transactions among economic agents; b) the capacity for providing a variety of physical labor service-inputs in ordinary production processes; c) the cognitive basis of entrepreneurial market activities; d) the key resource utilized for managing market and non-market production, as well as household consumption activities; e) the creative agency in the generation of new knowledge underlying technological and organizational innovations.

Traditional concept of human capital distinguishes between its two components, specific and general (Becker, 1964). General human capital, such as language and quantitative literacy, is used in all types of jobs, while specific human capital, related to the operation of particular technologies, is applicable only to certain types of employment or sectors of economy. Gendron, 2004 introduces the third component of human capital, which he defines as technical and scientific knowledge. He refers this knowledge to the processing and mastering of specific bodies of organized knowledge and analytical techniques that may be of relevance in production. If considered as assets, all three components of human capital differ in terms of riskiness and profitability. Specific human capital and scientific knowledge are more profitable compared to the general skills since specialized and/or rare skills are costly to develop and yield a higher pay-off. At the same time they are subject to a large number of different economic shocks. In particular, specific skills and knowledge heavily depend on the labor market requirements and can easily become deflated or even unrequested due to new technological developments or changes in the national trade policy.

Though many labor and welfare economists criticize the traditional human capital approach for its limitation to the purely economic assessment, its contribution to the debates about welfare, education, health care and retirement is undeniable. This simplified framework, which tends to explain difference in wages in terms of investment decisions made by individuals at different point in time, was further developed and became increasingly flexible by allowing many variables (such as innate abilities, gender, social status, nativity and family background) to influence

wages. Moreover, if originally in the economic research the only type of output produced by human capital was the economic value, recently other types of services derived from the value and structure of individual's human capital were conceptualized in the economic literature. Such derived services comprise the quality and duration of life, happiness, social inclusion and social activity. Thus, the concept of human capital went far beyond its original definition (by Becker, Mincer and others) and comprises the knowledge, skills, competencies and attributes that are employed in the creation of individual, social and economic well-being (OECD, 2001)

3. Estimating human capital

Measuring human capital according to the human capital theory considers the worker as the unit of analysis and conceptualizes him as an economic entity, which possesses a certain stock of human capital in terms of skills, knowledge, abilities and experience. An economic agent is assumed to assess his past investments into his capital and to be able to analyze derived future stream of earnings. Related empirical questions that one puts in the framework of the human capital approach are 1) what are the determinants of human capital embodied in individuals and 2) which benefits can be gained from human capital. These lead to more technical concerns, i.e. how to measure human capital embodied in an individual and how to measure (present or potential) benefits derived by an individual from possessing a (certain amount and/or type of) human capital. Empirical researchers, willing to quantify human capital, very fast run into difficulties. As noticed by Bowles *et al* (2000), increased schooling is indeed a powerful means of raising individual earnings, but the economic returns to schooling remain something of a black box

3.1. Main approaches

Since human capital cannot be observed, all empirical human capital models are constructed based on various proxies used to measure it. It is thus very important to keep in mind that estimation results derived from these models are determined by the way one defines human capital and proxies its different aspects. Human capital theory sees an individual as a producer and is hence offering different methods to quantify his/her ability to produce goods, services and knowledge. Here we survey different approaches used to estimate the pay-off on investing into human capital in the human capital framework, which mainly captures the determinants of labor

market success and, in particular, individual earnings. We will identify the main assumptions employed by the human theory approach and delineate most relevant measurement issues encountered by the researchers.

Human capital refers to the skills, knowledge and competencies of an individual, which he uses to increase his utility. It is the outcome of many factors, but the most important as well as the most studied of them is formal education and training. In the framework of the human theory approach education is considered an investment aimed at increasing the value of human capital with the objective to obtain higher returns (in terms of market and non-market benefits) in future.

Three main approaches are used in the literature to estimate human capital directly¹: income-based or output-side approach, cost-based or input-side approach and educational stock approach (Stroombergen, 2002, Le, et al, 2003, Gang Liu and Mads Greaker, 2009, Camilo Dagum and Daniel J. Slottje, 2000).

a) **Income-based (output-side) approach**

It defines human capital as a present value of expected returns, i.e. human capital is measured in terms of output which it can potentially generate. Usually this is reduced to estimating potential future earnings. An output-side approach considers human welfare to be dependent on the future streams of benefits which an individual can achieve using his human capital. This approach was firstly conceptualized by Farr (1853), was extensively explored in Jorgenson and Fraumeni (1989 and 1991) and Fraumeni, 2008, who estimated it using the US data, and was lately used in an advanced study by Gang Liu and Mads Greaker, 2009, applying to the Norwegian data. A simplified model of the output-side approach presents capital as a function of earnings (Stroomberge, 2002):

$$HC_o = \sum_{t=p}^n \frac{MB_t + NMB_t}{(1+i)^{t-p}},$$

¹in this study we do not consider indirect methods, which are used to assess human capital on the macro-level by positing that an unexplained part of net national income is attributed to the stream of income from the human capital component.

where HC_o is human capital defined in terms of output it (potentially) generates, MB_t is market benefits, or earnings (often expressed as a difference between actual earnings and an unskilled wage rate), NMB_t is non-market benefits derived from human capital directly or indirectly, i is interest rate, n is total amount of life-time and p is present moment in time.

Output-side approach is the preferred tool for researches who seek to evaluate individual's working power. This method values human capital at market prices and is relying on assumption that labour market to a certain extent accounts for many factors including ability, effort, productivity, and education, as well as the institutional and technological structures of the economy, from the interaction of supply and demand of human capital in the market (Dagum and Slottje, 2000). Another advantage of using this method is that depreciation is already implicitly accounted for and, hence, one does not need to assume its rate arbitrary. The interest to this method revived in the mid-twentieth century, when the availability of micro-data allowed researchers to explore it systematically using cross-sectional data for earnings, employment rates and survival probabilities.

The weak point of output-side approach is that it is based on the assumption that wages reflect productivity. When an individual decides to use his human capital in production, it creates a marginal productivity which determines a market price of individual's human capital, i.e. wage. The assumption that changes in wages reflect changes in productivity can be easily questioned if one thinks about the real labor market, where wages can fluctuate independently from the changes in productivity due to the influence of the market institutions or economic cyclicity. The estimates, produced by the model based on the income-base measures can suffer from the omitted variables bias and should be thus interpreted with caution. Other important assumptions that one should consider when using this approach, are: (1) individuals are assumed to make rational investment and consumption decisions; (2) individual's time preferences are known and can be measured as a rate of return that would make a person indifferent between spending money today and spending the same amount of money in future and (3) the value of the future stream of benefits can be estimated with a probability (i.e. taking into account risk and uncertainty). Another shortcoming of the income-based method is that data on earnings are not widely available to the researcher.

b) Cost-based (input-side) approach

According to it the human capital is seen as a sum of past streams of investments, i.e. an accumulated value of inputs into human capital provided by an individual himself, his family, employer and society. It was originated by Engel (1883) and further developed in the studies of Shultz, 1961; Kendrick, 1976; Eisner, 1985. This approach assesses human capital embodied in an individual by looking at his current stock of skills, knowledge and abilities as a result of a set of past decisions on investing into his/her human capital. More generally, this approach considers a lifelong stream of events that contributed into the formation of the current human capital embodied in an individual. These events comprise several levels of decision-making: individual, family, workplace, national and even global and, hence, researchers who use this method account for three types of inputs: a) those acquired (tuition fees, health expenditure, opportunity cost of forgone earnings, etc) and generated (time and effort spent on learning) by individuals and their families, b) those incurred by employers and c) those generated by national and local authorities.

An example of the model, which measures human capital as the summation of past investments is presented by Stroomberg, 2002:

$$HC_i = \sum_{t=0}^p C_t (1 + i - d)^{p-t}$$

where HC_i is human capital defined as a stream of investments, C_t is investment, i and d are interest and depreciation rates, and p is present.

An important observation to be made here is that rate of return from investing into human capital is increasing at a decreasing rate. A more nuanced way to look at this is to consider two types of skills and abilities: those improving with training and experience and those subject to depreciation (because of ageing or accidental damage).

There are two main advantages connected with using this method: 1) an input-side approach provides an estimate of the resources invested in the education and other dimensions of human capital, which can be very useful for cost-benefit analyses and 2) it is relatively easy to apply empirically due to the availability of data on public and private spending.

At the same time, input-based approach has several limitations (Le, et al, 2003 and Gang Liu and Mads Greaker, 2009). The most cited of them are the following. Firstly, there is no direct relationship between investment and the quality of output. Besides, the value of capital is determined by the demand for it at the first place, and not by the costs incurred for its production. Applied to the human capital, this means that input-based approach will overestimate a human capital of a less gifted or less healthy person, who needs more investment to develop his human capital compared to a better-endowed person. The input-based approach would thus render biased estimated in the cross-sectional and intrtemporal analysis. Second issue arises from the difficulty to discriminate between expenditure on people, which satisfies their preferences as consumers (consumption effect) and those, which increase their economic efficiency (investment effect).. Input-based approach thus heavily relies on the researches explicit assumptions about the nature of spendings that should be regarded as "investment into human capital". Thirdly, human capital might depreciate (Kendrick, 1976) and/or appreciate (Mincer, 1974) over time and till now there are no conventional techniques to assess this issue. Fourthly, this approach does not account for the effect of non-market activities (like non-market family contribution or such by-products of education as enjoyment and self-esteem) in development of individual capabilities.

c) **Educational stock-based approach**

Finally, the educational stock-based approach² measures human capital with reference to such education output indicators (current stock of individual characteristics in the population) as adult literacy rates, school enrolment rates, dropout rates, repetition rates, average years of schooling of the working-age population and test scores (Le et al, 2005, Lui and Greaker, 2009). This method was mainly used for cross-countries analysis (see, for example, Barro and Lee (1996)

²also called the indicators approach in Fraumeni, 2009.

Ederer, et al, 2007; OECD, 2008). The main rationale for this method is that above listed indicators are closely related to investment in education, which is a key element in human capital formation. While it is widely admitted that education is the most important and most easily accessible component of human capital, critics of this approach argue that human capital encompasses more dimensions which need to be taken into account. Another limitation of the education stock-based approach is that it gives only a rough idea of how much human capital a country has and largely emphasizes quantity at the expense of quality of human capital (Le et al 2005).

The fact that each single approach has its limitation inspired some researchers to combine different approaches in order to counterbalance their weaknesses. The most successful attempts are Tao and Stinson (1997) and Dagum and Slottje (2000), both applied to the US data.

Tao and Stinson (1997) integrated cost-based and income-based methods using the following rationale. From the one hand, human capital stock is determined by the stream of past investments, and can be thus measured using the input-side approach, from the other hand, it itself defines the stream of future earnings and can be assessed by the output-side approach. They define an earnings function as:

$$Y_{s,a,e} = w_t h_{s,a,e} \quad ,$$

where Y stands for earnings, w is wage, h is human capital and subscripts t, s, a and e are, correspondingly, time, sex, age and level of education.

Both variables on the right-hand side are not observed in data, which means that one of them needs to be standardized. The authors standardize the human capital variable. They used the time series of the cost of the educational investment for individuals who enter the full time labor force immediately following high school graduation (base entrants). The human capital stock of base entrants is assumed to be equal to the accumulated real expenditures on their general education, to be not influenced by experience and on-the-job training and is estimated using the cost-based method. Wage (human capital rental rate) is defined from the equation, using the human capital stock of base entrants and earnings data. Assuming that the rental wage is constant across cohorts, the human capital stock for other cohorts is derived using corresponding earnings.

Differently from Tao and Stinson (1997), who estimate an average human capital for cohorts, Dagum and Slottje (2000) suggest a combined approach to estimate human capital of individuals.

They used an assumption from the income-based method that the present value of the average earnings in year n of an individual, who is currently at age a , equals the average earnings of an individual who is currently aged $a+n$, adjusted for real income growth. They estimate human capital of an individual aged a as:

$$H_a = \sum_{n=0}^{70-a} \frac{Y_{a+n} S_{a,a+n} (1+g)^n}{(1+i)^n}$$

where Y_{a+n} stands for the total earnings of an individual aged $a+n$, $S_{a,a+n}$ is the probability that an individual aged a will survive other n years, i is the discount rate, g is the economic growth rate. The highest working age is assumed to be 70 years.

This approach should normally solve the problem of the omitted variable bias inherent in the income-based method, but its empirical implementation by Dagum and Slottje (2000) does not contain any measure of ability or hard work

To conclude this, very general and incomplete, review of estimation approaches, we would like to mention, that each of the above described methods has its advantages and weaknesses and should be chosen dependent on the ones research objectives and availability and quality of data.

3.2. Some measurement issues

Common weaknesses, which all above described approaches share are a monetary aggregation of heterogeneous components of human development and a measurement error. According to the classical human capital theory, individual's human capital is determined by human skill and abilities, which he/she uses to contribute to the production through selling them on the labor market for wage. This reasoning requires a strong assumption that individual skills can be transferred into a money equivalent. This issue was recently faced by measuring individual skills and abilities in a common unit of account at a point in time (eg. by constructing composite indicators using alternative ways to weight different components of human capital).

Education is undeniably a central concept of the human capital framework. The human capital approach considers educational and/or training decision as one of the investment choices and,

respectively, individuals level of education as a measure for ones current stock of skills, knowledge and abilities. In doing so, traditional framework where educational is an investment, heavily depends on the researches' assumptions and choices of relevant variables.

Formal education, being an important supply point of knowledge and a place for developing ones abilities, is not the only source of learning: on-the-job training, participation in the social activities and even daily life experience are also important in the formation of the human capital. A complex nature of human capital leads to the impossibility to obtain an aggregate estimate of knowledge inputs. This measurement problem goes beyond simple technical matters and is connected to the highly heterogeneous character of knowledge. If reduced to the educational attainment, analysis fails to say anything about the quality of skills and knowledge obtained due to education. Using aggregate types of educational qualifications, like diplomas or other certificates from the educational authority, and especially differentiating between different types of educational credentials can capture some additional information about the human capital accumulated in the individual.

An important assumption used in measuring outcomes from education is that abilities are automatically translated into a certain level of income on the market. Two most relevant problems connected to this approach are information asymmetry and existence of personal factors (gender, temperament, personality) that may affect the value of individual's human capital. A possible solution to this measurement problem is to address data quality and to use test scores, which have appealing features of a good human capital indicator because they measures educational outcome, cognitive skills, and ensure international comparability (Le et al 2009). National and international assessment of individuals' actual level of knowledge is possible by using, for example data gathered by such OECD projects as Program for International Student Assessment (PISA) and the International Adult Literacy Survey (IALS).

Another strong assumption is the one about individual's rationality: each individual is able to evaluate the costs and benefits of education and bases his/her decision to enter certain type and level of education system on the rational analysis. This strong assumption risks limiting the broader economic analysis of human capital investment decisions to a constricted one of earnings maximization.

Economic benefits from education are defined in the human capital framework as a better performance on the labor market which allows to enjoy higher earnings capacity. Private benefits from education include higher lifetime earnings, reduced unemployment, greater employment

opportunities, improved health and life expectancy. Moreover, more educated individuals enjoy inter-generational benefits that occur to one's children in the form of higher education and improved health.

One important issue, not fully captured by the human capital approach, is that present and future stream of benefits that an individual derives from developing his knowledge and abilities is not exclusively determined on the market. However, this broad stream of benefits is often resistant to measurement and for this reason majority of economists focus their research attention on the impacts of skills and knowledge on earnings and employment.

In doing so, these studies face several dimensions of the returns from human capital investment, which leads to different estimation methods. One important distinction is between the average returns to education (when the average lifetime earnings of groups of individuals with the same educational attainment within groups are compared) and marginal return to education (at which individuals are indifferent between investing and not investing into their education). Another measurement issue emerges from the price (wage) and quantity (employment) dimensions of returns to education. An additional important consideration is connected with controlling for experience as one of the factors influencing individual's labor market performance. Experience, together with education, is considered one of the main sources of human capital that influence productivity and earnings and is highly correlated with age. Given the rapid aging of the European population, failure to control for experience will produce unreliable estimates of changes in the returns to education.

4. Education and human capabilities: a comparison with the human capital view

As discussed in the previous session, according to a human capital perspective, level of education, learning by doing and skills formation (i.e. what is traditionally labelled as “human capital accumulation”) make a person increasingly productive over time, affect positively her own income generation process, increase individual material living conditions and hence contribute to the economic growth of a country. Investment in education and human capital are thus totally legitimate and desirable for every society at any time.

There are, however, some substantial aspects and empirical facts that cannot be fully encompassed or entirely justified from a human capital perspective. From one hand, human capital theory does not seem to be able to provide reasonable explanations of some recurrent empirical facts which characterize labour markets in most affluent societies, such as persistent

gender wage gaps (despite the growing level of education of women), the overeducation phenomenon (high skilled workers with less qualified job positions), the growing lack of opportunities for young educated generations. On the other hand, it is in the daily experience of everybody that education affects our life and personal well-being in many other respects. At the personal level, people can assign value to education independently of, or in addition to, its instrumental function as a vehicle for accessing to better job positions but simply for the sake of knowledge, as it is often the case of literature, music or arts (Robeyns, 2006). At the collective level, a higher and widespread level of education can enforce social cohesion, democracy, reducing poverty and inequality and increasing the social fabric of a community (Nussbaum, 2006).

In this section we will briefly sketch some critical aspects of the human capital theory and offer a short overview of the most recent contributions on the array of roles education can play from a capability perspective and what can we learn from it. This would allow us to derive some methodological and empirical consequences that will be further discussed in session 4.

The human capital theory discussed in the previous section is based on two rather crucial and strong assumptions: i) markets work rationally, perfectly and efficiently and ii) the only element of distinction among people lies in their different amount of human capital. Both assumptions conflicts with the complexity of the real word and find only a partial empirical confirmation. Moreover, as already raised in Section 2, there are some measurement issues that contribute to make empirical evidences sometimes inconclusive or contradictory. First, even if education and economic growth are unquestionably related to each other, nevertheless the direction of this relation and its magnitude is far from being clear (does education lead to economic growth or vice-versa?). Second, it might be that they are associated with each other but driven by a third variable such as innovation or technology (this is the case of what is called a “spurious correlation”). Finally, the relationship between education and economic growth is typically characterized by a temporal lag: investments in children and kids education require a decade or more for producing effects on the growth rate and databases are not always sufficiently long to allow us to see these transformations.

Neither everywhere nor for everybody, a higher investment in human capital directly and automatically implies more chances on the labour market or higher salaries. If this is true, on average, nevertheless labour market of industrialized countries are characterized by systematic educational mismatch. From one hand, the persisting existence of overeducation phenomenon in

OECD countries, where a substantial number of workers have a higher level of education than their job requires, raises some doubt about the capacity of the labour market to allocate people to occupations that are appropriate for their level of skills³. On the other hand, a higher level of education does not automatically enable individuals to find better jobs and improve their economics status. This generally varies across countries as well as within countries across levels of schooling and social groups. The possibility that unemployment rises with educational expansion may occur particularly for those groups which have been traditionally excluded or discriminated from wage employment such as women or rural poor or ethnic minorities in developing countries (Hannum and Buchmann, 2003). Similarly, there is plenty of empirical evidence showing that discrimination and occupational segregation in terms of job opportunities, careers, wage gaps are still pervasive also in affluent societies and particularly for some groups of population such as immigrants, women and youth (European Employment Observatory, 2007).

The scarce attention to human diversities and unequal opportunities is, in fact, a second major drawback in human capital theory. As Elaine Unterhalter (2009) outlines “This framework does not take into account segregated labour markets where people, irrespective of their level of education, are allocated to particular jobs on the grounds of race, gender, or assumptions about class or caste.”

People with an identical amount and quality of education can have different set of opportunities in the labour market and thus the economic returns of education can vary. It has been shown that more schooling offers absolute benefits to disadvantaged groups but it does not seem to be able to reduce social inequalities rapidly except perhaps for gender inequalities in most recent time (Hannum and Buchmann, 2006). Family origins and ethnicity seem to be resistant to educational expansion and social disadvantages can run across generations (Machin, 2009).

To sum up: education, skills and knowledge play an important instrumental role in determining person’s income-generating abilities, particularly in disadvantaged contexts, and thus investments in human capital contribute to enhance economic expansion. However, as Sen (1999) remarks, the benefit of education exceed its role as input of the production process.

³ On this subject, see the collection of contributions in the Buchel, de Grip, Mertens (2003) edited volume. It is estimated the share of overeducated workers in OECD countries ranges between 17% in UK (Daly et al. 2000) and Germany (Daly et al 2000) and over 40% for Italy (see Di Pietro and Cutillo, 2006 and Ordine and Rose, 2009) and United States (see Daly et al 2000). Of course, overeducation might be partially due to unobserved characteristics of individuals such as ability, degree subject and quality of education. Nonetheless its size is rather remarkable in many countries.

To quote Sen, *“The use of the concept of human capital, which concentrates only on one part of the picture (an important part, related to broadening the account of “productive resources”) is certainly an enriching move. But it does need supplementation. This is because human beings are not merely means of production but also the end of the exercise”* (1999, p. 296).

The capability approach sees, in fact, human beings in a broader perspective; it goes beyond the notion of human capital, by acknowledging the instrumental value of education in promoting productivity, economic growth and individual incomes but also the direct relevance that education can have in terms of individual well-being and freedom, as well as for social development.

The accumulation of human capital expands people’s achievable opportunities and functionings and enlarges individual freedom ‘to do and to be’ in other not directly “productivist” spheres. These cover a large variety of individual functionings like being able to communicate and to argue, to know, to participate to community’s life, being able to interact with other people based on mutual respect and all related functionings that constitute the background of human agency, i.e. the ability to pursue one’s life goals.

Education is not only relevant for the direct effects it can produce at individual level but also for its role as public goods and the consequences it can produce at collective level in terms of social development and political participation. As Martha Nussbaum outlines: “nothing could be more crucial to democracy than the education of its citizens. Through primary and secondary education, young citizens form, at a crucial age, habits of mind that will be with them all through their lives” (Nussbaum, JHD 2006). These aspects, that seems to be more obvious for developing countries and fragile and in-progress democracies, are nonetheless crucial also in more mature democratic systems.

A clearer distinction between intrinsic and instrumental role of education, as the capability approach literature suggests (see Drèze and Sen, 2002; Robeyns, 2006; Unterhalter, 2009), allows giving more emphasis of the undeniable value that investments of education have for economic growth as well as for human flourishing and permits to depict individual well-being in a broader and more comprehensive perspective. It also permits a better understanding of real opportunities and constraints people have in different well-being domains including, for instance,

the participation to the labour market as Burchardt (2002) demonstrated with reference to women voluntary non-employment⁴.

Recently, Marion Young (2009a, 2009b) shows that the capability approach can also offer a different and more appropriate perspective for evaluating learning outcomes compared to the standard quantitative and qualitative methods, such as performance-based and relevance-based approaches. The former, based on national and international comparisons of aggregated scores⁵, measures in a rather mechanical and standardized manner the performance outcomes and only for those who are within the formal education systems, neglecting differences in cultural values as well as in resource capacity of different contexts. The latter, focused at community and individual level and based on subjective perspectives, accounts for cultural and values diversity and is able to capture the different impact learning outcomes can have on individual life, with an obvious cost in terms of comparability between groups and populations. Young's proposal is to complement the performance-based and relevance-based approaches with a capability perspective for combining the local perspective within a framework of a plurality of valued learning outcomes through which evaluate the real freedom people have to improve their lives.

In short, there seems to be good reasons to go beyond the notion of human capital and to focus rather on human capabilities. This can allow to preserve the undeniable strengths of the former, which recognizes the instrumental value of education as a productive investment, but integrates it within the broader view offered by the latter, which also recognizes its intrinsic value. The significant amount of contributions offered in this last decade from capability scholars has clearly demonstrated that this change in perspective can prove to be advantageous in many respects. It still remains to understand how conceptually and empirically this integration is possible. In the next sessions we will try to move a first step in this direction, discussing more in details and using a more specific "capability language" how education can find room within this framework. We will refer to the definition of functionings/capabilities suggested by Nussbaum (2000) and Robeyns (2003). Finally, coherently to the overall goal the Workable EU Research project, to whom the current paper would aim to contribute, our attention will be restricted to developed (and particularly, European) countries

⁴ The author shows that in the late 90s nearly three out of four British women who are not currently in work lack employment capability and only one third of these are actively seeking work. See also Burchardt and Le Grand (2002)

⁵ Young refers here to performance-based indicators such as the Education Performance Index (EPI) suggested by or the Education for All Development Index (EDI) formulated by Unesco (Unesco 2004)

4.1 The role of education from a capability perspective: end, means or conversion factor?

In the capability literature is rather common now (see Robeyns 2005, Chiappero-Martinetti, Grasso and Pareglio, 2008; Ruggeri-Laderchi, 2008) to define the well-being generating process in terms of a conversion mechanism transforming the overall endowment of public and private resources and services (means to achieve) into a set of achievements (functionings) . As depicted in the following diagram, an intermediate position between these two elements is occupied by the capability set, that is the set of options people have to choose.

Figure 1 - The well-being process



What a person can achieve with a given amount of means depends on a variety of internal and external conditions which at the end determine the individual capabilities to transform these means into a vector of functionings (our capabilities set in the intermediate part of diagram 1) and, through the choice, into achieved functionings (the right side of diagram 1).

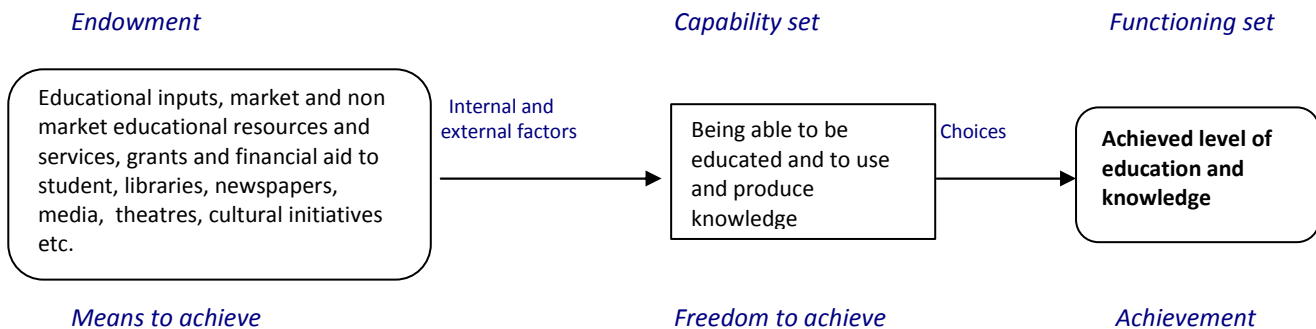
Conversion factors and individual choices are two central components of the capabilities approach. The former depends on personal characteristics, such as age, sex, physical and psychological conditions, abilities and talents, as well as on other factors such as the family context, and social, economic, environmental, cultural, political institutional circumstances. The latter occurs in the shift from the capabilities space (which identifies the extension of well-being in terms of plurality of options available, which an individual is able to choose) to that of achieved functionings: choosing to carry out an action (for example, choosing to acquire a certain level of education, such as a vocational training certificate) while having a plurality of alternatives available, has an intrinsic value for the well-being of individuals which should be taken into account and valued, especially with respect to certain conditions in which the same achievement (namely, the same level of education) is the only option available (for example because family reasons or social conditions preclude any alternative choices).

Within this scheme, education can play a crucial role at least at three different levels as briefly discussed in the following sections.

a) Education and knowledge as ends

Let us start to consider the intrinsic value of education and knowledge which can be defined, according to Robeyns (2003) as “being able to be educated and to use and produce knowledge” (see Robeyns, 2003)⁶.

Figure 2 – Education and knowledge as ends



Educational inputs and resources include financial and human resource invested in formal education (e.g. number of public and private schools available in a given area, teacher/pupils ratio, public expenditure on education as % of GDP or of total government budget by region, in-school facilities, facilities and support for students with special needs), private resources (household income) but also libraries, newspapers, medias, theatres and spaces for public debates and cultural initiatives. The ability to convert this amount of various resources into wellbeing largely depends on internal factors (age, sex, natural abilities and disabilities) as well as on external factors (parents’ level of education, social and cultural norms that can generate discriminating practices or stereotypes) that can affect the conversion rate of means to achieve in effective freedom to achieve.

The set of capabilities represents the real freedom and opportunities an individual has to achieve different competencies, knowledge and a level of education that she/he has reason to value. For instance, to study engineering or arts or to choose a specific vocational training courses. Is

⁶ We refer here to Robeyns’ specification because is sufficient for our illustrative purposes and operationally simpler compared to Nussbaum’s definition of “sense, imagination and thought” that includes education and knowledge but goes well beyond it, including “Being able to use the senses, to imagine, think and reason – and to do these things in a “truly human” way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training. Being able to use imagination and thought in connection with experiencing and producing self-expressing works and events of one’s own choice, religious, literary, musical, and so forth. Being able to use one’s mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech, and freedom of religious exercise. Being able to search for the ultimate meaning of life in one’s own way. Being able to have pleasurable experiences, and to avoid non-necessary pain” (Nussbaum, 2000, 78-79)

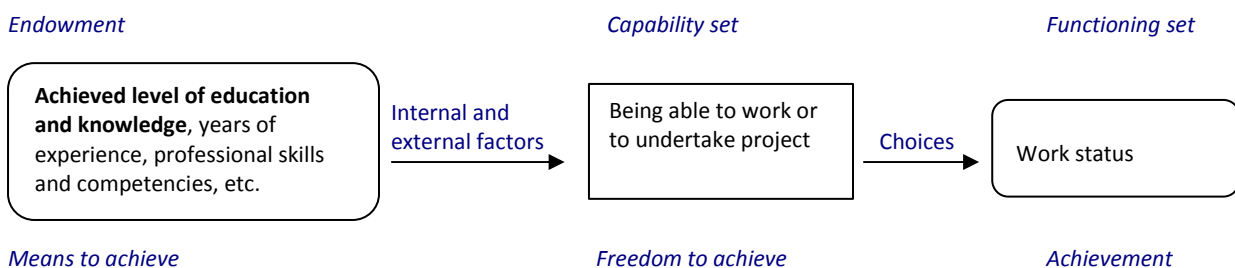
through the exercise of a free choice that individual will realize a given achieved functioning that represents the final step or output of this sort of well-being production function. At individual level this will be measured in terms of years of schooling or the highest level of education achieved while at macro-level variables such as enrolment ratio, the average years of schooling, students' performance (e.g. PISA) or adult functional literacy skills (e.g. IALS) might be considered.

Broadly speaking, while the resources space can be linked to the cost-based (or input-side) approach discussed above (see section 3.1) the achievements space is somehow connected to the educational stock-based approach also considered before.

b) Education as a means: education and work status

Let us now examine the instrumental value of education as a means for achieving well-being in other relevant dimensions and namely in terms of work status thus assuming the standard human capital perspective. Once again, we refer here to it considering Robeyns (2003) definition of "being able to work or to undertake project"⁷.

Figure 3 – Education and knowledge as means



The current observable work status of a person is (or should be) the result of a free choice on the real opportunities set (to be able to work or to undertake project, to be able to choose between full or part time jobs, etc.). This is, in turn, related to the level of education achieved, as well as on professional experience and competency but also to a set of internal and external factors that determine the individual conversion rates, that is the capacity to transform means into ends. Internal factors that should play a relevant role in this example are ability and talents while other aspects such as sex, race or nationality should be neutral in non-discriminating labour markets. However, external social, cultural and economic factors generally determine gender and racial

⁷ This is also including in Nussbaum's list of central capabilities in a more articulated and complex manner. See Nussbaum (2000)

discrimination and segregation conditions on the labour market with a negative effect on the capability set.

From a gender perspective the freedom to achieve, and consequently the observed work status, is generally (and strongly) affected also by the unequal distribution of parental responsibilities and the imbalanced burden of care activities and domestic work within the household. Cultural norms and welfare state services (e.g. child care and elderly care services) directly affect the conversion rates and thus the real opportunities and choices that men and women face with.

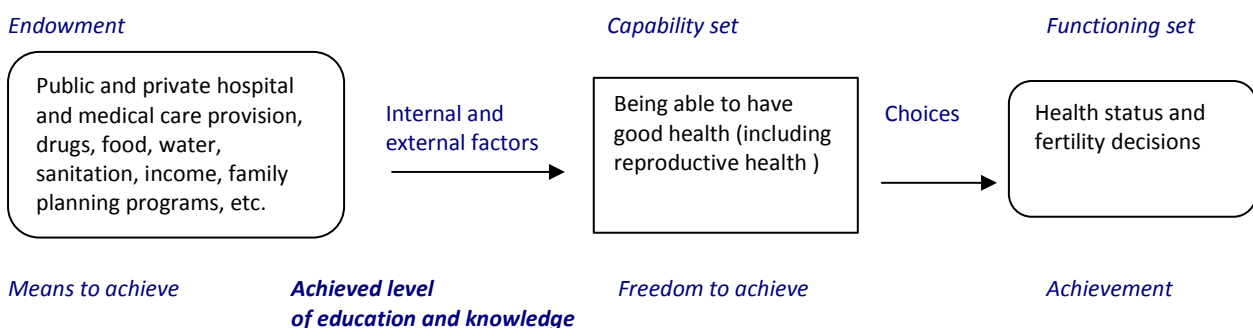
Last but not least, a central role is played by the set of external factors that characterize the labour market (e.g. full time and part-time job supply, rate of unemployment that can encourage or discourage the participation rate, working conditions etc.) as well as the access to the market of credit (e.g. credit market failures).

This instrumental role of education is closer to the human capital theory and methodologically is linked to the income-based (output-side) approach discussed in section 3.1.

c) Education and conversion rates: the link between education and health

Finally, a third and different way to incorporate education and knowledge in the well-being process is to consider its function in the conversion process for achieving well-being in other relevant well-being dimensions. An obvious example here is the role that education and knowledge can have in allowing people to “being able to have good health, including reproductive health” (Nussbaum, 2003).

Figure 4 – Education as a conversion rate



In this third example, macro and micro indicators related to public provision of health care (quantitatively and qualitatively), private medical care services as well as access and availability to drugs, contraceptive methods and family planning programme will be generally considered in the endowment space.

The possibility to make an optimal use of these set of “means to achieve” is systematically and significantly connected to our interpersonal characteristics (age, sex, physical and mental abilities and disabilities, metabolic rates) and external circumstances (epidemic conditions, % of children fully immunized, HIV, malaria or tuberculosis % of cases, as well as – once again – social and cultural norms such as the diffusion of genital mutilation practices, domestic violence and sexual crime against women, the legal protection against sex-based public and private violence).

The ability to convert the available resources, given our internal and external conditions, will determine the real extension of our potentially available choices (e.g. the capability set) in terms of being able to have good health, including reproductive health (as specified by Nussbaum, 1993) or avoiding escapable morbidity and premature mortality (as described by Sen, 1985) or being aware of the risk of drug abuse and unsafe sex and, consequently, in the functioning space the corresponding achievements in these different spheres (e.g. what are the current health status and reproductive/fertility decisions).

There is no need to say that literacy and education can deeply affect all these layers of analysis and thus, indirectly, one’s health achievements. Empirical work has brought out very clearly that education positively affects women's decisions regarding reproductive/sexual health and contraception and their access to hospitals and medical care. It improves their living conditions as well as those of their children and families through better use of food, medicines and sanitation. That is, it positively and substantially affects the conversion process and directly determines the conversion rates. It also plays a central role in the capability space, empowering them and giving them more respect within the family, increasing their agency, i.e. the possibility to choose and act within and outside of the family, and to make decisions according to their own values and aims. This in turn can influence their achievements in terms of health conditions and fertility decisions, reducing fertility rates, child mortality rates, and gender bias in survival (particularly against young girls).

The following table compares and summarizes the two approaches and lists a set of variables, recurrently included in standard household surveys, that can be used as a proxy of education in its different meanings.

Table 1 – Human capital versus human capabilities: a comparison

HUMAN CAPABILITIES			
HUMAN CAPITAL			
Level of analysis	Education as a means	Education as an end	Education and conversion rates (e.g. political and social participation, health, etc.)
Well-being	Education wage premium, higher employability	"Being able to autonomously choose and live a life one has reason to value"	
Capabilities – possibility to achieve	Education wage gap, gender wage gap "being able to work or to undertake work projects"	"being able to be educated and to use and produce knowledge"	"being able to participate effectively in social and political life"
Functionings - achievements	Work status [°] and conditions [^]	a) Education/learning level achieved b) "knowledge"	a) Political participation b) Social relations and participation
Agency=>autonomy	(not considered)	Able to make informed choices, to access to information, to have voice and be aware of her own social, political and civil rights	
Means to achieve	Level of education achieved by subject* and grade**, years of experience, professional skills and competencies, active labor market policies	a) Free access to school, quality indicators of schools, other resources (libraries, computers, etc); students grants, etc. b) newspapers and books read, media, cultural resources, etc.	a) political parties and organizations; access to communication technologies (proxy for access to information) b) social networks; technologies; access to communication technologies (proxy for access to information)
Conversion factors a) individual b) household b) contextual	a) nationality (dummy migrant), age, gender, race, disabilities b) social background (father's occupation, poor/non poor family), c) specific unemployment rates, labour market characteristics, regional dummies (for regional disparities)	a) nationality (dummy migrant), age, gender, race, disabilities b) social background (mother/father education, poor/non poor family) c) enrolment rates; % of	a) age, gender, level of education b) social background (mother/father education, poor/non poor family) c) media, newspaper

[°] temporary or permanent job position; sector (primary, secondary, tertiary, public); [^] overeducation (is your degree a required qualification for your job?) * primary level (compulsory), secondary level (lyceum, technical, professional – accounting, teacher, etc; vocational); tertiary level (science and technology; medicine; social science, humanities); **final score

4.2. The complex and controversial linkages between human capability and human capital

In the previous sections we have shown how education and knowledge can be incorporated within the capability framework giving emphasis to its intrinsic value, its instrumental role or as key ingredient in the individual conversion process of means into achievements . It seems to be interesting now to briefly discuss, recurring to several examples, the complex linkage between human capital and human capabilities in these three different domains.

At this regard let us consider the following cases:

Case 1 – A migrant woman in a developed country, let say Italy, with a high level of formal education but with access to low remunerated and low qualified jobs (i.e. housemaid/cleaner or caregiver) due to mechanisms of segregation or discrimination in the labour market.

Case 2 – A young woman with a poor or scarcely remunerated human capital as a consequence of gender-based intra-household inequalities. It can be the case, for instance, when the real opportunities or freedom in education choices for girls are substantially lower compared to boys within a given family. This gender bias in terms of capabilities and choices will generate, in turn, inequalities in terms of wages and job opportunities (i.e. existing gap in enrolment ratio of girls, different investment in human capital and choice of technical or hard-science studies between boys and girls);

Case 3 – A man with a high level of education and access to high wage/high qualified jobs due to gender discriminations on the job market (that exclude women from competition) as well as to an unequal distribution in time allocation, unpaid work and family responsibilities that allows him to allocate his time and effort to paid work alone.

If we look at education as an intrinsically valuable dimension of individual well-being, cases 1 and 3 might reflect an equal opportunity in terms of freedom to achieve the level of education that they wanted to realize and therefore an equivalent (high) level of achievements. On the contrary, in case 2, gender disparities have generated a poor level of education for the woman.

However, if we focus our attention on education as a means for achieving well-being in other crucial dimensions, such as having the control over one's material environment, participating in the labour market and seeking employment on an equal basis with others, having the social basis of self-respect (e.g. Nussbaum's list of ten central human capabilities) the ranking will be different. We will have a low level of well-being in Cases 1 and 2 and a high level of well-being for Case 3, even if the causes of these capability failures or successes are rather diverse involving

different levels of analysis (personal features, social norms, intra-household inequality in time and opportunity allocation, labour market discrimination).

The possibility to account for these diversities can prove to be helpful from the measurement point of view and not less relevant in terms of policy implications.

5. Conclusion

The main objective of this study has been to set the stage for future research: to scratch its challenges and opportunities, both conceptually and empirically in better understanding the role education plays in ones life achievements. Our message is that focus is ready to move away from estimating the market determinants of and gains from education toward a comprehensive analysis of the different dimensions of ones life, which are both determining ones human capital and are themselves a derived from the specific human capital embodied in individuals. In doing so, we feel very much in favor of combining two approaches, human capital and capabilities, and we consider them to have a big potential in complementing each other both theoretically and empirically. Due to its firm conceptual establishment, human capital approach is probably the most suitable to be taken as a starting point. Human capital theoretical framework can be successfully enriched by the insights from the capabilities approach in order to encompass a vast variety of circumstances, factors and motivations faced by individuals, and bring the theoretical modeling and the empirical analysis closer to the reality.

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Human capital, equity and capability – perhaps basic human capabilities?

Introduction

Training and education are in many ways major dimensions in global economic theory and often only “*valued primary for their economically productive potential*” (Baptiste, 2001, p. 185) - but what kind of outcome are we in fact seeking; *economy for its own sake? Well-being? Or perhaps the good life?* According to the doxa the *good life* is understood as a life the single individual has *reason* to value.

We start this contribution by discussing theories of human capital and thereafter contrast that theoretical framework with the framework of the CA-approach and eventually point to some lacking areas of research.

The Human Capital Theory

Becker's classical work “Human Capital” (Becker 1964), developed the concept of human capital within the framework of a neoclassical economic understanding. The motto was that investments in people's education and training can be considered in the same way as investments in other productive forces as factories, mining, machinery, etc. Investing in human capital would just like investment in physical infrastructure ensure a 'rate of return' and a return that can be calculated. Becker was interested in the value that U.S. universities returned to the community, but he was also able to show that not only education as such was important for economic growth. The same applied to other educational investments such as scientific and technological knowledge. Becker notes that:

The puzzle, therefore, is not the lack of growth, but the fact that the US, Japan and many European countries have had continuing growth in per capita income during the past 100 years or more. Presumably, the answer lies in the expansion of scientific and technical knowledge that raises in the productivity of labor and other inputs in production. The systematic application of scientific knowledge to production of goods has greatly increased the value of education, technical schooling and on-the-job training, as the growth of knowledge has become embodied in people – in scientists, scholars, technicians, managers and other contributors to output (Becker 1964: 23-24)

This short extract shows some of the ideas Becker seemed to be guided by. The assessment of the ways in which investment in education was linked to growth, but also how he distinguished between different types of investments (in schools, higher education and training) that could have varied rates. A similar kind of thinking can be found in the liberal theory of Adam Smith to whom Amartya Sen and the Capability Approach often refer. As Adam Smith argues:

A man educated at the expense of much labour and time to any of those employments which require extraordinary dexterity and skill, may be compared to one of those expensive machines. The work which he learns, it must be expected, over and above the usual wages of common labour, will replace to him the whole expense of his education, with at least the the ordinary profits of an equally valuable capital... The difference between the wages of skilled labour and those of common labour is founded on this principle (Smith, 2007 [1776], p. 84)

Following Becker, Mr. Theodore Schultz worked in identifying how the returns on education can be calculated in countries with different income levels, variation in salaries and different human attitudes towards developing human capital. Schultz argues that education is of great economic value and that economic thinking has had a tendency to ignore training and education's productive returns. Schultz formulates the argument as follows: "It is my contention that economic thinking has neglected two classes of investment that are of critical importance under modern circumstances. They are investment in man and in research, both private and public" (Schultz 1963: 23). Counting Smith as a key member of the early economic thinkers, only investments in research can be acknowledged as overlooked.

Assumptions in human capital theory

What characterizes this way of thinking? First and foremost it is characterized by the fundamental assumption that the labor market works efficiently and effectively and that it almost puts people at the right place in relation to their skills. This means that when schooling and education have produced certain parts of the human capital, youth can be placed in the kind of jobs that match their skill level. It is only by these means that the human machinery can do its purposed job. The above assumption fails to take into account that the opportunities in work life are shared unequally, in particular on the basis of gender. In Denmark we have to do with a fairly segregated labor market - with male dominance, for example males are aggregated mainly in the

building trades and metal industries and females dominate the welfare professions. Therefore the chance equality based upon formal education is unequal distributed. Even though females invest more in their formal education, the pay-off of the “investment” is far less than males. The assumption seems to regard education as an apparatus in which children are sucked into and then spat out at the end as products ready for their lot in work life. This completely ignores the fact that different schools have different learning environments available for different children and that this results in very different results. Some of these studies considered solely on their effectiveness: How many lessons do students have? What are teachers' qualifications? How many complete the final test successfully? This means that the real and crucial conditions are not taken into consideration: neither teachers' social life, learning processes or the cultural dynamics that unfold in a classroom. Inequalities related to class, race, gender or religion are of no interest. Nor are inequalities reproduced from generation to generation. Social division is only of significance to the extent that such disparities create barriers for children and adolescents in relation to preventing the development of human capital, which corresponds to the needs of economic growth. To the extent that human capital researchers and theorists ever could discern differences between men and women, it meant not that they looked more closely at institutional inequalities in relation to race or gender - neither in education nor in employment. Instead, they conclude that more training should be available to the disadvantaged groups so that economic growth could be promoted. For human capital approach there is only one factor of importance, namely to look at the economy as a system that supports growth. Within this framework the training aims to support growth, so that access to education will be increased just to ease the way for the economic growth.

Erik Jørgen Hansen explains human capital under the heading "third factor", which have an attention on the other side of labor and capital. He refers to the OECD (1964), who raises objections to regard education as a homogeneous input in the economy with simple constant returns (Hansen 2003: 20).

The role of employment and work

In the quest of developing humans' quality of living economy growth is by the human “capitalists” suggested as a theoretical path for a “better” society. However, the conversion of human capital (in the form of education and training) into economic capital can only be done through the machinery of labor production, whether it is creativity – the laboring mind - or more

physical. In some sense human capital in our interpretation only becomes valuable when it is put to work. The logos in the human capital paradigm will then be: as the machinery in the production apparatus the human machinery will only produce profits when at work.

If we turn our attention to the writings of Martha Nussbaum - work and employment is seen as a part of material *control over one's environment* and become a part of her list over the most basic human functional capabilities. Furthermore *"The list is supposed to provide a focus for quality of life assessment"* and in connection to the mentioned element she claims the importance of the possibility of *"entering into meaningful relationships of mutual recognition with other workers"* (Nussbaum, 1999, p. 235). In other words: Making human capital work – through work - could be seen as the *functioning* of a basic capability. Should we then evaluate justice in societies by measuring the achieved capability (functionings) and how well this basic capability is brought to work? This view would be tremendously one-eyed by overlooking that *capability* also is a freedom of choice (Sen, 1987, p. 15) and therefore the single individual should be free to choose not to labor (with all the consequences this would lead to in loss of command over commodities). Perhaps we should recal Paul Lafargue *"The Right To be Lazy"*:

A strange delusion possesses the working classes of the nations where capitalist civilization holds its sway. This delusion drags in its train the individual and social woes which for two centuries have tortured sad humanity. This delusion is the love of work, the furious passion for work, pushed even to the exhaustion of the vital force of the individual and his progeny. Instead of opposing this mental aberration, the priests, the economists and the moralists have cast a sacred halo over work. (Lafargue, 2000 [1883], p. Chapt. 1)

On the other hand in the liberal grounding of the Capability Approach we must also acknowledge that a *"A person may prefer to work with an intense dedication that precludes recreation and play"* because a *"A person who has opportunities for play can always choose a workaholic life: again there is a great difference between that chosen life and a life constrained by insufficient maximum-hour protections"* (Nussbaum, 1999, pp. 237,238). Sen draws attention to this matter (quite strongly) when he states that: *"The loss of freedom in the absence of employment choice and in the tyrannical form of work can itself be a major deprivation"* (Sen, 1999, p. 112). Therefore measuring what individuals achieve doing says nothing about their possible *beings and doings* – as Sen and Nussbaum remind us. Let us say that we in fact measure the freedom to seek employment and come into work - could we then claim that this substantial freedom is better secured through the expansion in the individuals human capital – is the society a more just

society only because the human capital overall is maximized and brought into action? Or must we have some lenses which make us see inequality and differences in opportunities? As can be seen some problems occur when equating growth in human capital with human development. This is particularly the fact when seen as a development of the living standard and not only per capita growth rate.

Means And Ends

Sen is in many ways preoccupied with the question of equality, but argues for having an eye for equality in other spaces than just economics. Furthermore, he advocates that the issue of equality in many ways is a fundamental theme - even among competing ideologies. The difference between them is rather relative to which space the equality is sought and what spaces of inequality are accepted (Sen, 1992, s. 16-26; Sen, 2006 [2004], s. 22-23). To capture this Sen talks about *means* and *ends*.

This is a concept pair, which often leads his argument - borrowed from Aristotle and Immanuel Kant – a concept pair also used by utilitarians. Sen uses this conceptual pair as a recurring, almost circular distinction. It is precisely in this matter that Sen clarifies his position in relation to the individual. The individual's well-being is a goal – an end in itself - and can not be wasted as means for society's overall welfare. This part of the thinking he borrows from Kant (Sen, 1989). The argument for economic prosperity as *means* and not an *end* in itself, however, he retrieves from Aristotle. At the same time the individual's experience of his/her own situation is not a reliable measure because, although the chronically impoverished had to learn to come to terms with their deprivation embossed life and cheerfully take it on themselves, this will never be able to remove their real freedom deprivation. It will always remain a source of disorder (Sen, 2010). It is the individual's real opportunity to create the notion of the good life, what that individual values, which then becomes the end. Compared to the conceptual pair (means and ends) Aristotle expresses that money can not be the object seeking, but merely the means for a different end. In this thinking money is merely means to exchange goods (Alkire, 2003, s. 14; Meikle, 1994). The good life is not created by having the economic prosperity as goal which can be seen as the logic in the human capital theory, though it may be the means to this end. Aristotle writes:

The life of money-making is one undertaken under compulsion, and wealth is evidently not the good we are seeking; for it is merely useful and for the sake of something else. (Aristotle, 1995, p. 1732 (Nicomachean Ethics book I))

Sen makes it very clear that money is by no means an end in itself, but will often be means in relation to the goal - the well-being. As he says:

Indeed, the widely prevalent concentration on the expansion of real income and on economic growth as the characteristics of successful development can be precisely an aspect of the mistake against which Kant had warned... The problem relates to the level at which this aim should be taken as a goal. Is it just an intermediate goal, the importance of which is contingent on what it ultimately contributes to human lives? Or is it the object of the entire exercise? It is in the acceptance – usually implicitly – of the latter view that the ends–means confusion becomes significant – indeed blatant (Sen, 1989, s. 41).

The human development as a raising *quality of life* or *standard of living*, must on the contrary be sought, but in our trace of a concept of the *good life* we encounter the mischievous nature of the term, because:

There are many fundamentally different ways of seeing the quality of living, and quite a few of them have some immediate plausibility. You could be well of, without being well. You could be well, without being able to lead the life you wanted. You could have got the life you wanted, without being happy. You could be happy, without having much freedom. You could have a good deal of freedom, without achieving much (Sen, 2001 [1987], p. 1).

In other words if we choose the good life as the *end* and training and education as means, it is a very playful concept we are trying to catch. The question could be formulated differently as well. If we agree that training and education have a productive potential when chosen by the single individual as a valuable functioning: to which *end* substance do we seek this *human capital* capitalized?

While the human capital approach finds that the value of the economy lies in economic growth, it seems that the Capability Approach finds that economy's value must be assessed from its capacity to offer opportunities for human growth based on the principle that everyone should be able live the life which he has reason to choose and appreciate. In a comparison between the two approaches, Sen (1997) argues that human capital: *"concentrates on the agency of human beings – through skill and knowledge as well as their effort – in augmenting production possibilities"*. In diametrical contrast: *"focuses [a capability approach] on the ability of human beings to lead lives they have reason to value and to enhance the substantive choices they have"*. He stresses, however, that both approaches are connected with each other because: *"both are*

concerned with the role of human beings, and in particular with the actual abilities that they achieve and acquire” (Sen, 1997, p. 159).

Differences, strength and weaknesses in the two approaches

However, the idea of human capabilities a more unfolded concept than human capital because education encourages and promotes aspects of human growth that is broader than the aspects linked exclusively to the increase in productivity or economic growth.

Seen from a Nordic welfare state perspective the constitutional history of our national education system in it self underlines the degree to which training and education are woven together with the economic growth and the overall human development of welfare. In short: The movements in the 19th and 20th century - farmers, smallholders and workers - gave considerable attention to the value of education and training. Peasants and smallholders organized school and gave the rise for an independent school movement from the 1840s to train their own forces. Also in the end of the century the workers’ movements went into this enlightenment project by setting up discussion clubs and shared information related to trade unions and party. In the 20th century public information maintained its essential role in the creation of modern society.

There is a strong tradition of public enlightenment activities, which go far beyond formal educational activities. In this way civic education or class awareness and class organization was essential for community development, including democratization. As mentioned above democracy and education went hand in hand, then later followed by the formal educational system. This development raised speed in the last century. While public education was a good in itself or a collective good, then education from the 1950s onwards was understood as a necessity for economic productivity (Globalization Council 2006).

Even though it is in many ways interrelated Sen gives an example of the difference between human capital and human capability:

If education makes a person more efficient in commodity production, then this is clearly an enhancement of human capital. This can add to the value of production in the economy and also to the income of the person who has been educated. But even with the same level of income, a person may benefit from education, in reading, communicating, arguing, being able to choose in a more informed way, in being taken more seriously by others and so on. The benefits of education thus exceed its role as human capital in commodity production. The broader human capability perspective would record – and value – these additional roles. The two perspectives are thus closely related. There is, however, also a crucial difference between the two approaches – a difference that relates to some extent to the distinction between means and ends. (Sen 1997)

The difference is again searched and revealed by the concept pair - *ends* and *means*. It is crucial to Sen to point out that human capital does not say anything about why economic growth is the key. Therefore the focus has to be reversed and will thus not be on economics but on the expansion of human freedom to live in a way that you want it. In the second turn economic growth can be integrated into the more fundamental understanding that human capability identifies.

It is thus clear that Sen makes human life his main focus and point of departure and not economic growth. This does not imply that human capital-thinking just be thrown into the trashcan. It would be without reason throwing out the baby with the bathwater. Human capital has drawn attention to the importance of how people develop skills and increase their income. Its key weakness is that income and other economic values are not the only important aspects of human development and that it is blind to these other parts. Education has developed much more strict values than just enabling people to contribute to economic growth or to expand their own or their families' purchasing power.

Human development and self-expression goes far beyond economy – e.g. understood as the role of education in promoting freedom. Education can help overcome inequalities and increasing participation in processes that attack injustice. In this reversed way, work can be seen as an important factor in individuals possibility for a flourishing life.

Sen has earlier (1992) identified three distinct ways to how we can link the importance of education together with the growth of valuable capabilities. First, education has an instrumental and social role. For example, literacy causes public debate and dialogue on social and political affairs. Secondly education has an instrumental role in supporting our ability to participate in decision making at home, in the local community and nationally. Thirdly education has an empowerment and distribution role, training can increase the disadvantaged, marginalized and excluded groups' ability to organize themselves politically - without training, these groups do not stand a chinaman's chance in gaining access to power centers and require redistribution. Education has also redistributive effects in the relationship between social groups, families and within families. Overall, education has an interpersonal effect because people are able to use the benefits of having an education to help others as well as themselves. Thereby they can contribute to expand democratic freedoms and the common good of society as a whole.

When one focuses on education as a way to develop skills or capabilities for a "more free and valuable life" (to draw on a phrase from Sens production above) it requires quite often

painstaking analysis of what it is that the education system offers for the most disadvantaged – which is our common task. It is a particular about the school's content and curriculum, on effective organizations and of course on the challenges that young people with special needs meet. Up till now there has not been put enough emphasis on such issues in the literature on Capability Approach. This would represent a worthwhile contribution to the educational field, for instance because it highlights the importance of the ability to make critical reflection about our own lives and the society we live in. In two of his recent writings Sen emphasizes (Sen 2005, 2006) the importance of education, which particularly promotes critical reflection, the ability to discuss public care and give voice to the inclusion of those traditionally excluded.

If we are to make the equation into the relationship between human capital and human capability, it looks broadly like this:

Like everything else, both approaches have their strengths and weaknesses. Human capital approach is too fixated on the economic return and basically this alone. Against this backdrop it offers not much awareness of the existence of valuable content in education, which are not only tools to stimulate economic growth. The PISA surveys can serve as an example. On the other hand the capability approach lacks some of the robustness in human capital, based on hard data that has great influence on political decision making. In contrast this is at the same time a strength of the Capability Approach because it expands training concept to include anything other than work and seeks to develop a broader “life-fitness” through education. It is obvious that the economy, skills and growth are important issues for society, but broader perspectives on education and social justice is certainly the glue that binds society together.

One thing is sure: in the educational systems throughout the member states of the European Union - though as different as they are - skills and knowledge are learned and often presented as key dimension when talking in terms of *human development*.

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Freedom of Choice and rejection – Internal Capabilities and Incapacitations

Wishes are presentiments of the abilities which lie within us,
precursors of what we will be capable of achieving.
(Goethe, Wilhelm Meister's Apprenticeship)

Introduction

Education is inevitably connected with both the development of work skills and human development. Both aspects are inevitably intervened. However the emphasis of the contemporary (European) formation of society are mainly directed towards workfare – accentuating the development of human capital – and therefore the development of human development, emancipation and well-being is to a great extent disregarded even if it has to be seen as a precondition for democracy.

The task the capability approach “promises” to fulfil is to master the societal contradictions between workfare/ social realities and the individual's well-being. Facing the concerns about the future and the well-being of juveniles and young adults within the given society requires not only a substantial analysis of societal and institutional pre-conditions (and patterns of re-production) but also the discernment of both *the individual's understanding* about possible potentials and their sense of well-being.

In a first step we will discuss the capability approach with respect to the notion of different “sets” of capabilities, i.e. the accumulation of alternative functioning choices focusing on the individual's freedom to choose. In a second step we analyze the precondition to “adjust” conversion factors regarding the individual understandings and wishes about its well-being on the one side and the individual's actual possible potentials situated in a given societal frame and thus limited on the other. Here not only the choice to reject (reasonable) choices but also the preconditions embedded in one's individual socio-cultural history is focus of this analysis. Thus preconditions and possibility spaces are discussed in the light of manifest and latent incapacitations. In the last part these theoretical assumptions are bridged to methodological

approaches: we will discuss theme-oriented interviews in combination with narrative interviews in order to reconstruct internal capabilities.

Building up a Capability model for evaluation of counterfactuals

In the following we will be arguing for a counterfactual methodological approach.

the capability approach will demand coming to grips with extensive constitutive plurality in seeing the living standard in the form of being able to achieve various personal conditions – to be able to do this or be that. It will also call for empirical illustrations to make sure that the approach can be sensible and plausible used in practical problems of living standard assessment. (Sen, 2001 [1987], p. 3)

It is in many ways this challenge we are wrestling with. When we are talking about capabilities as an evaluative frame, Sen put his emphasis on the different “sets” of capabilities. These are: *“The totality of all the alternative functioning vectors the person can choose from, given by these contingent circumstances, is Q_i , and that reflects the person’s capabilities, i.e., the various alternative functioning bundles he or she can achieve through choice”* (Sen, 2008 [1984], s. 18). This is the focal point where it becomes empirically problematic, because the different capability sets are not at all congruent to the bundle of chosen *functionings*.

These different and very contingent circumstances must have our utmost attention, because they set the scene for the individual’s freedom to choose. As mentioned in our other paper this is a constitutional part of the capability approach. The very emphasis on choice calls for an attention on freedoms and possibilities rather than the actual *achieved* capabilities (functionings). Bringing light to peoples achieved *beings and doings* do not reveal what they could have chosen if they have had the freedom to do so. Therefore we will argue for a more counterfactual methodological approach. As Sen also advocates more deeply in the following long citation:

This is precisely where the role of counterfactual choice becomes relevant – indeed central. One values living without malaria, desires such a life, and would have chosen it, given the choice. Being able to live as one would value, desire and choose is a contribution to one’s freedom (not just to one’s well-being or agency achievement, though it is also that). The fact that the term ‘freedom’ is used in the expression ‘freedom from malaria’ is not in itself decisive in any way, but the relation of the results to what one would have chosen (and would have had reason to choose) is a matter of direct relevance to freedom – the freedom to choose to live as one would desire. (Sen, 1992, p. 68)

By these means the capability approach has: *“its concern with peoples ability to live the kind of lives they have reason to value”,* and this: *“brings in social influences both in terms of what they value (for example, ‘taking part in the life of the community’) and what influences operate on their values (for example, the relevance of public reasoning in individuals assessment).”* (Sen, 2009, p. 244). Both parts need to be assessable through the chosen method. In other words it is of central interest to know whether the actual lived life is valued and at the same to have a critical conciseness upon the many social conditions that influence choice making (adaptive preferences, dispositions in taste due to habitual circumstances etc.) The space of possible choice individuals have are a fundamental part of the social justice understanding in the approach: *“In the capability-based assessment of justice, individual claims are not to be assessed in terms of the resources or primary goods the persons respectively hold, but by the freedoms they actually enjoy to choose the lives that they have reason to value”* (Sen, 1992, p. 81). Methodologically we have to bridge theory and methodology to meet these demands - as stated by Sen: *“theory has to be combined with the practical need to make do with whatever information we can feasibly obtain for our actual empirical analysis. The Scylla of empirical overambitiousness threatens us as much as the Charybdis of misdirected theory”* (Sen, 1999, p. 32). In our interpretation misdirected theoretical use often happens when the evidence is steered by the easy empirical possibilities – for example, using data already at our disposal. But:

What is even more interesting is the fact that in an overwhelming number of cases, the investigators failed to observe and measure anything which could, with the best will in the world, could be called a capability. They had to make do with particular individual achievements, from which they could try to construct or estimate capabilities. This could, of course be due to lack of imagination and/or analytical flexibility on the part of the investigators. I rather suspect, however, that it also shows that capabilities are often rather elusive things to catch, that it is difficult to measure directly counterfactual part which has to do with what a person might be or do – or might have been or have done. (Ysander, 2002 [1993])

The capability concept would therefore be tremendously qualified by developing a more counterfactual questioning technique with a special attention towards individual choice. In other words: We have to get behind the actual *doings and beings* and uncover what the individual could have chosen and whether the individual actually had a choice and to what degree - not only their happiness or valuation. If we only point our interest at the valuation of achieved

functionings we will be in the danger of overlooking that it sometimes is the case that individuals choose functionings that, seen from a society perspective, endanger the individual's well-being. But even though: *"freedom to choose our lives can make a significant contribution to our well-being"* (Sen, 2009, p. 18) we will have to accept that sometimes: *"one's objectives and priorities could stretch well beyond the narrow limits of one's own personal well-being"* (Sen, 2009, p. 290). This acceptance has empirical and methodological implications that make us want to go beyond seeking insights in only the achieved actuality – *"indeed, sometimes a person may have a very strong reason to have an option precisely for the purpose of rejecting it."* (Sen, 1999, p. 292). This further sharpens the argument for a methodological approach that reveals the possibilities rather than actualities. But is the set of potential functionings all there is to it? Is this enough to evaluate real opportunities? If we turn our focus upon the sociological insights of Pierre Bourdieu we recognize that the lived life make imprints in *habitus* and shapes: *"a 'sense of one's place' which leads one to exclude oneself from the goods, persons, places and so forth from which one is excluded"* (Bourdieu P. , 2007 [1979], p. 471). It is the strength of sociology as well as its political misfortune that it: *"discovers necessity, social constraints, where we would like to see choice and free will."* (Bourdieu P. , 1996 [1989], p. 14). At the same time we will have to be sensitive to the circumstance that: *"Some people, like young children or the mentally disabled might not be able to make complex choices, which should make the evaluation of their well-being in terms of achieved functionings often a sensible thing to do"* (Robeyns, 2005, p. 12).

Below are two empirical examples from an investigation in the field of educating adolescents with special educational and emotional needs– raising their employability and participation in social life. It is meant that the single adolescent has the possibility to influence greatly on his or her specially arranged curriculum, but the overall aim that has to be secured is to "become" adolescents who are capable of an: *"as independent and active participation in adult life as possible and possibly to further education and employment."* (Folketinget, 2007). It should be noted that the individual in relation to Law 564 largely be involved in decisions on education and which institutional arrangement to be chosen.

Case A: A young man of 19 years

Interviewer: *Are you happy about being here [Education at a special need institution]?*

The young man: *Yes very*

Interviewer: *Have you had the opportunity to determine that you should be here [special need institution]?*

The young man: *No - it was my social worker who decided [long pause]*

Interviewer: *How has [the young interrupts and corresponding]*

The young man: *She just told me to be here - that I should be here – it was my opportunity.*

Interviewer: *So you had no other options?*

The young man: *No – but I think it's OK, because they did not really [pause] - my social worker believed that I could learn something here - if I had a regular job, [long pause], she thought that after fourteen days, I would not know what to do*

Case B: A young man of 21 years

Interviewer: How long have you been here?

The young man: It is my fourth semester

Interviewer: So you've been here how many years?

The young man: Two years

Interviewer: Do you like to be here?

The young man: Yes I do [long pause]

Interviewer: Have you had any say in determining that you should be here on the [special institution]?

The young man: Yes

Interviewer: How did you have a say in determining that?

The young man: I've certainly said that I wanted

Interviewer: Yes

The young man: I do not expect that they would send a show over here it would not

Interviewer: Yes

The young man: So it's somehow my own choice

Interviewer: Why here and not somewhere else?

The young man: Because they [social worker and parents] think it is a good thing for me, because here there is both training and learning about what it is to leave home and things like that

The social worker/parents know “what is best” for the young adult and following this knowledge they feel free to decide. This incapacitation is diametrically opposed to what the capability approach stands for. This kind of incapacitation where the power of disposition is taken that obviously off the juvenile’s hands by social agencies like the social worker or parents etc. is what we call *manifest incapacitation* whereas we speak about *latent incapacitations* where the individual itself unconsciously “chooses” to be incapacitated.

Martha Nussbaum stresses that: *“People come into the world with rudimentary abilities to lead a dignified life. These abilities, however, need support from the world, especially the political world, if they are to develop and become effective. First, they need internal cultivation, usually supplied above all by a nation's system of education — together with whatever support people receive from their families and other voluntary institutions. I call the developed form of innate abilities “internal capabilities” (Nussbaum, 2006, s. 11).*

Thus internal capabilities are mediated via societal institutions or socialization. Socialization deals with processes of integration with respect to a given society or a societal political system. The aim of socialization is the development of individuals to become well functioning members of a given socio-political formation. The definition of a well-functioning member varies from a passive obedient citizen to an active political subject within the given norms of the society and hence the embedded political and economical system. Thus we can conclude that institutions and agencies of socialization are never norm and value free and socialization always is an adjustment.

Beside the social environment and agents of socialization which are: the (nuclear) family, social institutions like kindergarten, workplace etc, in our understanding it is crucial to emphasize “school” as one of the major agents of socialization. On the one hand it is crucial for the existence of a society to mediate the given social value and norm system to the future generations to stabilize and maintain the social status quo. On the other hand is a too strict and stiff retention to a society’s norm and value system a hindrance for social progression and important social changes. Especially within democratic societies it is important that the mediation of socio-political norms and values are within a framework that does not limit the free will of the individual member of the society. That means that democratic and “good” social values and norms should be protected and the ones that

have a negative influence on society, i.e. which hinder a “good impact” on the development of society should be transformed or prevented. (cf. Sigel 1970)

Manifest and latent incapacitations

Norm internalization goes on casually and imperceptibly, often without neither teacher nor student being aware that it is taking place. Much of it is not even political in nature but is incidental to other experiences; and precisely because it is incidental, it has a more lasting effect on the acquisition of political values and behavior than does deliberate indoctrination (Sigel 1970: xii f.)

Thus *latent incapacitations* are internalized values and norms corresponding to social capital formations, i.e. class and milieu structures (cf. Bourdieu 2007; 1996) as well as incorporated governmentality structures. (cf. Foucault 2005) To overcome these hindrances and gain consciousness about the possibilities concerning all variations of choices in order to live the life one would like to live it is essential to draw the sphere of the possible into consideration. Starting from Robert Musil’s conclusion in his first volume of his book “*The man without qualities*” that *if there is a sense of reality, there must also be a sense of possibility* we might use his notion as a counterpart confronting *latent incapacitations* whilst operating with Ernst Bloch’s concept of Not-Yet-Consciousness where he tries to extract senses of possibilities deriving from Freud’s concept of unconsciousness and his own concept of day- and forward-dream. The Not-Yet-Consciousness is to understand as the still-hidden notion of the (future) possible in today’s realities. (cf. Bloch 1986)

The Not-Yet-Conscious is admittedly just as much a preconscious as is the unconscious of repressedness and forgottenness. In its way it is even an unconscious which is just as difficult and resistant as that of repressedness. Yet it is by no means subordinated to the manifest consciousness of today, but rather to a future consciousness which is only just beginning to come up. The Not-Yet-Conscious is thus solely the preconscious of what is to come, the psychological birthplace of the New. And it keeps itself preconscious above all because in fact there is within it a content of consciousness which has not yet become wholly manifest, and is still dawning from the future. Possibly even content that is only just objectively emerging in the world; as in all productive states which are giving birth to what has never been there. The forward dream is disposed towards this, and Not-Yet-Conscious, as the mode of consciousness of something coming closer, is charged with it; here the subject scents no musty cellar, but morning air. (Bloch 1986, p. 116)

Following these thoughts our next step is to transfer Musil's *sense of reality* and Bloch's concept of *Not-Yet-Consciousness* into terms of methodology in order to face *manifest* and especially *latent incapacitations* to fulfill the demand of the capability approach to emphasize on choice calling for an attention on freedoms and possibilities rather than the actual achieved capabilities (functionings). (cf. Sen 1992) Therefore we will focus on Henri Lefebvre's concept of *transduction* and Klaus Holzkamp's notion of subjective space of action possibilities, respectable possibility spaces.

Henri Lefebvre refers in the chapter "The lived and the living" in the third Volume of the "Critique of Everyday Life" to the complexity of processes of consciousness. He unfolds a dialectical movement between the "lived" and the "living", i.e. that the "lived" is not just a "dead past" but constitutes still the present. According to Lefebvre the "lived" is always present and thus influences or constitutes the present. There is an inevitable conflict between the 'lived' and the 'living', which make up the life of (individual and social) consciousness. (cf. Lefebvre 1975: 46; 2002: 217) In this context Lefebvre distinguishes between the (methodological) approaches of induction, deduction and transduction. *Induction* as method operates from the particular to the general whereas "to draw its conclusions, *deduction* went from the general to the singular, from affirmation to implication" (Lefebvre 2002: 117). Lefebvre adds to these operations the notion of *transduction*, "which builds a virtual object using information, and which uses the given to arrive at a solution. We can also say that transduction goes from the (given) real to the possible." (Lefebvre 1977 Bd. 2: 131; 2002: 118) Transduction means to analyze social reality to be able to conclude a possible future. (cf. Lefebvre 2002: 118) Or to put it in other words: Transduction can be described as the understanding of the conditions and thus requirements of realization of the individual as well as historical possibilities.

In alignment to social capital formations, i.e. class and milieu structures (cf. Bourdieu 2007; 1996) as well as incorporated governmentality structures (cf. Foucault 2005) – thus resulting in individual *latent incapacitations* – Holzkamp points out that actions carried out by individuals have to be specified on the background of the possibilities and limitations resulting from milieu/class-related life conditions, i.e. to consider the societal context in its totality. He outlines that it is crucial to understand the individual's internalized and inherent *structures of meaning* as infrastructures of the wholly societal *meaning constellation*. (cf. Holzkamp 1986, p. 398) In this context Holzkamp emphasizes the importance of the notion of *condition dispositions*: the real

extension of the individual's disposition about its societal life conditions. (cf. Holzkamp 1986, p. 395) Following the notion of the importance of the disposition of action/or rejection of action it is clear that to broaden the individual's possibility dispositions help to broaden the individual's life quality via condition dispositions and space possibilities. (cf. Holzkamp 1986)

Methodological implications

To gain both data about (societal) external conditions and internal capabilities (cf. Nussbaum 2006) it is inevitable to operate with a methodology originated in quantitative as well as quantitative approaches. When quantitative data bases and document analysis are necessary to get a broad understanding about external conditions it is crucial to use quantitative methodological approaches to decipher more veiled indispensable data in order to understand one individual's underlying manifest and latent structures of possible action. We will concentrate here on qualitative approaches, namely: the narrative interview and the theme-oriented interview.

Narrative Interview and possibility space

The technique of narrative interviews is mainly based on the notion to encourage the interviewee to answer freely and not to confront him with a standardized set of questions and interview setting (cf. Schütze 1983) in order to be able to extract subjective structures of meaning that otherwise would be kept hidden. The advantage of a free interview setting of the narrative interview is to be able to "translate" these subjective structures of meaning and thus manifest and especially latent structures (Mayring 2002: 72), i.e. for example internal capabilities.

In our understanding it is inevitable to adjust the interview setting according to the interviewee and the implications deriving from form and content of the interview. For example it would be unwise to interview a juvenile/young adult in an interview setting that would be comparable to a test or an examination situation when the content of the interview is about bad performance in school and school drop-out. This interview would certainly lead to an unsuccessful outcome. An interview situation due to the content and context of the interview would be characterized through an interview setting that makes the juvenile/young adult open minded and gives him the possibility to decide to a certain degree the interview situation. This free space of agitation – possibility space – not only creates a research situation in which the interviewee is more willing to speak openly but also to use other forms of action to exemplify the interview content and thus

gives the interviewer the opportunity to extend the interview to a (participating) observation. This *methodological possibility space* has been described and successfully used in the context of school architecture, space, body and movement. (cf. Nagbøl/Hansen 2008, see also Nagbøl 2002) This technique corresponds to the deep-hermeneutic culture analysis whilst reconstructing the differences of manifest and latent meaning, i.e. the reconstruction of structures deeply embedded in the individual's structure. (Krüger 2006, p. 215)

Due to this methodological perspective fractions in speech and action/praxis are understood as part of the individual meaning system resulting from processes of socialization. (cf. Lorenzer 1979, p. 136) That is experience-combinations are seen as lived interpretations of processes of socialization, respectably "as products of subjectivity-production" (Lorenzer 1979: 134).

Theme-oriented interview

In the theme-oriented interview the interviewee answers fixed questions as openly as possible – like being in an open speech situation. The questions are already fixed in advance by the interviewer. According to Mayring the problem-constellations have been already analyzed by the interviewer where particular aspects, deriving from this analysis, structure the theme orientation and constitute the interview process. (Mayring 2002, p. 66) To carry out a comparative research it is important to maintain the same particular aspects in all interviews carried out.

The combination of theme-oriented interviews, narrative interviews, deep-hermeneutic culture analysis and a framework of a methodological possibility space that gives the opportunity to extend the research method to an (participating) observation due to the methodological design that enables the researcher to gain comparable data as well as the individual's manifest and latent structures of meaning. Thus it is possible to reconstruct the interviewee's incapacitations in order to gain more knowledge about internal capabilities and to get a better understanding about every individual's universe of choices.

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Roland Atzmüller

Considerations on the relevance of the Capability Approach for the analysis of changing forms of work and skills

1. Introduction

Most attempts to extend the capability approach (CA) to educational issues use the concept of capability to enlarge and widen the remit of education, its goals and contents against narrower concepts such as human capital or employability. There is no doubt that this is a fundamental issue in the debates on reforms of educational systems and educational responses to changing social relations and economic dynamics (Saito 2003: 348; Otto/Ziegler 2006; Otto/Ziegler 2008; Robeyns 2006). Such attempts to widen the remit of education through the application of the CA thus emphasise the significance of education for the development of societies at large, for the expansion of democracy as well as for participation and human flourishing in general (Brighouse/Unterhalter 2010; Walker 2010). Again, it is evident that this is a very important aspect of the debates surrounding the significance of the CA for educational questions as it provides a normative base and evaluative tools. The argument is also distinctly political as it makes strong claims about the common good, the quality of life, wellbeing and social justice (Andresen et al. 2006).

However, the question for me is whether this is already sufficient for applying the CA to the analysis of the role of education, learning, knowledge and skills in different social spheres – in particular in the sphere of production and work. It seems that most of the educational debates regarding the CA, which criticise narrow concepts such as human capital and employability, focus on (re-)establishing the idea that people's competences and skills cannot be solely analysed through the lens of their role for economic production and for success or failure on the labour market (Robeyns 2006). Even more so, the issues raised invite the interpretation that the contents and goals of educational processes must be wider than a narrow focus on economically productive skills and competences (Nußbaum 2006; Nußbaum 2002). This corresponds to considerations within the debates about the CA on the role of public services and other institutions for the social embedding of (capitalist) production. It firmly establishes the significance of education for social development and human flourishing. From my point of view, however, it is necessary to deepen the debate on the questions of how the concept of

capabilities can help to overcome the limitations and contradictions of concepts such as human capital and employability and of the actual or potential significance of capabilities for productive activities – in particular work – in the capitalist economy.

Furthermore, even though Amartya Sen makes clear that capability sets and concepts of the good life do vary from society to society, the understanding of historical change by the CA is less clear. Thus, at least sometimes the CA appears to be ahistorical (Sen 2009) – something which often seems to be true for normative approaches. At times, the CA seems to be a theory of modernisation in which an ever wider development of individual and collective capabilities to promote the achievement of wellbeing and agency as well as wellbeing freedom and agency freedom (Sen 1995) appears as a teleological goal of human development. A teleological interpretation of the CA could mean to understand capabilities as something that people can only acquire once certain resources and conversion factors have been established. Conceptualised as an evaluative tool, the concept of capability certainly has a transgressive and transformative dimension about it – it can be an instrument of social change – as it can help to identify the potentials of individuals and societies within a certain historical conjuncture to further individual and collective freedom, social justice and emancipation.

Thus, viewing the concept of capabilities from a historical perspective we can certainly ask the question – well in line with Sen's reasoning about possible national or even local variants of capabilities (Sen 2001) – of whether there are historically specific capability sets and what causes changes in socially dominant capability sets people can dispose of. Thus, we could ask whether a critical amount of economic, political and social changes can lead to a crisis of overcome capability sets, which in turn may lead to shifting relations of power and dominance within modern societies and undermine the opportunities of people to live the life they have reason to value. Furthermore, we could proceed to ask whether and how new demands and opportunities for individual and collective capabilities emerge which are created and tested in both organised and unorganised search and learning processes. These considerations could help us link debates about the CA with debates on the alleged shift to post-Fordist modes of development and similar accounts of societal changes, such as claims about the emergence of knowledge-based economies, network societies, etc.

It is especially in the context of scientific (and political) debates surrounding the scope, shape and direction of social change that the issue of the significance of the educational system and different educational regimes re-emerges, for two reasons: First, it is obvious that it should be

the task of the educational system to support people in creating and acquiring new capabilities and to change the capability sets citizens have at their disposal. The second reason arises from the perspective of the relationship between change and democracy, which can be strengthened by applying the CA, because a capability point of view – whatever its limitations – forbids people to be just seen as mere objects of change. Much rather, the issue that needs to be adequately grasped is what it takes for people to make their history, albeit under conditions not of their choosing, to paraphrase a famous quote by Karl Marx.

Thus, if the aim is to develop their potential to the subjects of change, the question arises of how to make the ability to bring about social change part of people's capabilities. Thus, in a period of crisis the processes of change cannot be restricted to simply modifying the available capability sets and shifting from capability set 1 to 10 to capability set A to Z. Rather, change itself, i.e. the creation of transformative capabilities poses new challenges to the objectives and contents of educational processes.

In this paper, I will try to exemplify these preliminary considerations on the capability approach and education with regard to recent debates on the changing demands on skills and competences workers face in the shift to an allegedly post-Fordist mode of development, which is said to be defined by a constant drive to innovate and restructure. Thus, the emerging skills demands focus strongly on the workers' ability to learn and adapt their competences. The ability to learn is seen as crucial not only in enabling workers to cope with ever-changing production processes but also in making them active agents in the process of innovation. However, what could be interpreted as a growing significance of workers' capabilities is in reality constrained by its dominant individualist interpretation as a permanent necessity to invest into one's human capital. Faced with deteriorating employment conditions and weakened union rights, the growing importance of workers' ability to learn cannot be simply interpreted as an expansion of freedom and wellbeing but perhaps rather as a symptom for shifting power relations between labour and capital, if we turn around a consideration by Karl W. Deutsch, according to which power means not being forced to learn.

2. Considerations on the limitations of the theory of human capital

In the recent debates and conflicts surrounding economic change and the success or failure of countries or regions, the educational and skill levels of the population have moved centre stage. The level of development of the human factor within production, which in these debates is very often conceptualised as human capital (Becker 1993), is conceived as an endogenous growth factor that can significantly influence – amongst other things – the dynamics of different paths of development of the ‘varieties of capitalism’ (Estevez-Abe et al. 2001; critical Coates 2000) as it decisively shapes international competitiveness and the possibility to embark on low and/or high roads to flexibility.

Critical analyses of these developments are based on the assumption that the question of the population’s skills level has gained in importance in debates on comparative advantage because national states have lost economic powers (Jessop 2002). The quality of human capital thus is one of the key economic factors that national governments can still influence. In particular developed countries hope to avoid cutthroat competition with low-wage countries and a race to the bottom of social and employment standards by investing in education and training. The place-bound character of labour power, which is at a disadvantage compared to a much more mobile (financial) capital if competition is mainly based on cost-cutting strategies, is to be transformed into a comparative advantage by means of investment into the quality and productivity of the available workforce.

The trinity of all third ways – ‘educate, educate, educate’ – thus has far-reaching social implications. It means that the search processes to find and stabilise new modes of social regulation (Jessop 2002; Peck 2001) in different models of capitalism are mainly focussed on conflicts and struggles about the quality of the workforce and the actual educational and skills level of the population. As outlined above, an understanding of the population’s educational level as human capital is of crucial significance not only because of its relevance for economic restructuring but also because of its social and political implications. As the theory of human capital makes a strong point for a link between general economic growth and increased income returns for individuals (Becker 1993), it provides an argument that reconciles an economy based on capitalist production with the aspirations of human beings and acknowledges the human factor of production as it is pointed out in the debates on the CA (Sen 2007; Robeyns 2006).

The theory of human capital, which has been advanced by – amongst others – Gary Becker since the 1960s (Becker 1993), conceptualises the use value of labour power as the competences, knowledge and personality attributes embodied in the ability to perform productive labour. Workers acquire these attributes through education and training as well as socialisation processes and other experiences. Human capital theory conceptualises workers' skills level as the result of (more or less) rational investment and the cost-efficient allocation of resources to education and training processes. Thus, skills can be conceptualised as commodities that can be sold and realised on the market (Marsden 1999).

The human capital approach has been confronted with a range of criticism. Thus, critical examinations of the arguments brought forward by the theory of human capital have from the start tried to dispute the alleged connection between economic growth and the educational and skills levels of the workforce and its apolitical account of economic relations and dynamics, which neglects the fundamental asymmetries of power between employer and employees (for a recent account, see: Wolf 2002; Ribolits 2006; Bowles/Gintis 1975).

Apart from the critique concerning its empirical claims and political consequences, the theory of human capital has also given rise to a range of objections from the normative perspective of the CA (Robeyns 2006). In contrast to a range of critical approaches, contributions from the CA do not (necessarily) dispute the empirical relevance of the claims made by the human capital theory. Rather, CA representatives welcome the theory of human capital as it broadened, for instance, the scope of development discourses 'to include people as central to economic developments' (Robeyns 2006: 72). Sen even argues that the growing importance of the human capital approach helps to improve an understanding of the concept of capabilities (Sen 2007).

Notwithstanding these positive stances towards the theory of human capital, also a range of critical points are raised from within the CA. The most important point of critique argues that the theory of human capital puts a rather one-sided and narrow focus on productivity and economic success (Sen 2007: 348). Thus, other social spheres and dimension of life are excluded from the conceptual scope of the human capital approach as are more intrinsic motivations for learning than expected income and productivity gains (Robeyns 2006: 72). This also means that for the CA productivity gains and economic growth are not the only valuable outcomes of education.

Thus, for the CA the claimed one-sidedness of the human capital approach is closely linked to its 'entirely instrumental' character (Robeyns 2006: 73). Education, skills and knowledge are only

attributed value if they yield adequate economic returns and increase productivity. If this link cannot be established, the human capital approach has no adequate sensorium to appreciate the immaterial or non-economic effects and outcomes of education and learning (Otto/Ziegler 2006: 273). Added to this is the conceptual inability of the theory of human capital to grasp class- or gender-related differences concerning educational behaviour and outcomes (Robeyns 2006). Thus, for Sen the human capital approach is based on an inversion of means and ends as it defines economic growth and prosperity as an end in itself (Sen 2007: 350) while reducing the skills and competences of human beings to mere means.

Against this, the CA attempts to offer a more holistic and comprehensive framework to understand the significance of education in enhancing people's real freedom (Sen 2009). Thus, if boosting the real freedom of human beings to live the life they have reason to value takes centre-stage, economic growth becomes a mere function of the expansion of the opportunities of humans to live a better and freer life, as Sen puts it (Sen 2007: 350). Sen uses this argument to emphasise that economic growth is not the only objective of any form of human development and that the economy is just one among a range of social spheres that contribute to the latter and which have a significance of their own.

Thus, even though the CA offers a range of interesting and valuable objections to the human capital theory, its primary aim is to embed skills and competences that contribute to the production of value into other learning activities, thereby integrating it into the wider concept of capabilities. However, to achieve a capability concept that is capable of improving workers' freedom (agency freedom, achievement freedom) two further problems of the human capital approach need to be discussed.

First, the CA seems to be based on the assumption that the relation between skills and competences that can be seen as human capital and the abilities comprised by the concept of capability are complementary notions, the former being at worst a one-sided and narrow understanding of the potentialities of human beings. However, if we apply a Polanyian lens to the issue of skills and competences in terms of the use value of labour, we can identify an important problem (Offe 1984; Polanyi 1978).

Thus, we can argue that market economies depend on the capacities of employees to perform concrete tasks – i.e. the use-value of their labour power –, for which they need a wide range of abilities and competences which reach beyond a narrow concept of codifiable and technical skills. As 'fictitious commodities', the skills and competences of labour are not produced for the

market, cannot be separated from their bearers and are very often non-codifiable – even though they contribute to the reproduction of market relations. However, under the capitalist relations of production certain skills and competences become human capital whose main aim is to perform productive work for the market. Thus, the ability of employees to produce exchange value becomes most important, contributing to a deepening commodification of labour power. Thus, from a Polanyian perspective, we can ask the question if the subsequent narrowing and one-sided strengthening of certain abilities (the ability to compete, profit orientation, etc.) serves to undermine the development and expansion of individual and collective capabilities that would be necessary to counter the destructive effects of market processes.

Representatives of the CA, such as Amartya Sen or Ingrid Robeyns, seem to hope that by means of a kind of ‘cunning of reason’ a human-capital concept of skills and competences can help to support the CA as they seem to assume that any investment into education even with a human-capital orientation has sufficient spill-over effects to strengthen people’s ability to cope with the demands of other social spheres and to contribute to social flourishing. Martha Nußbaum (Nußbaum 2006), however, makes a strong case for general higher education as the basis of citizenship, which she sees threatened if higher education is limited to skills exclusively geared towards promoting career prospects. The abilities of citizenship include the critical examination of oneself and one’s tradition, the ability to see oneself as a human being bound to all other human beings and the ability of narrative imagination (Nußbaum 2002: 293ff).

Second, by assuming a clear link between economic growth and prosperity on the one hand and the educational level of the population and, in particular, the workforce on the other, representatives of the CA fail to problematise the capitalist relations of production and its effects on the skills and competences of the workforce, who are forced to sell their labour power as a commodity (Offe 1984). Two dimensions have to be highlighted in this context: One concerns the already mentioned fact that human capital – i.e. labour power – cannot be separated from its bearer. Thus, workers are both subject and object of the exchange process at the same time, which is part of the fundamental asymmetry of power between capital and labour (as capital can be separated from its bearers). Thus, the very form of labour power/human capital is a crucial dimension of the capitalist relations of production being relations of dominance.

The other one refers to observations raised by critical studies of the labour process in capitalism (Deutschmann 2002; Thompson/McHugh 2002). These lead to the assumption – based on experiences with historically dominant management strategies such as Taylorism – that the

division of labour between planning and execution – notwithstanding its concrete historical or sectoral form – leads to a long-term degradation of work defined by deskilling and the breaking-up of traditional craft skills, etc. In this understanding, knowledge becomes an objective force through the appropriation of productive knowledge by the modern sciences – which are embodied in new technologies – that confronts the workers and forces them to subordinate to a ‘foreign power’ (Karl Marx). From this perspective, the most advanced development of human capacities as embodied in modern technologies would at the same time lead to a deep degradation and an ever deepening subjection of the abilities and potentialities of human beings, which are reduced to mere appendices of modern machinery under the pervasive requirement to produce exchange value.

3. Recent changes in work and skills

In my opinion, the first considerations along the lines of Polanyian reasoning can be easily reconciled with the CA as they can be linked to arguments concerning the necessity to socially embed human capital in order to ensure that adequate educational institutions are available to reproduce the skills and competences necessary for capitalist production. The same cannot be said about the critical insights of labour-process theory and a one-sided interpretation of what they are aiming at. In particular, the assertion that the expansion of capitalist relations of production would more or less directly lead to a decline in the skills and competences of a majority of the workforce is not easy to reconcile with current social trends such as educational expansion or the recent calls for lifelong learning, etc. The reason for these apparent contradictions can be found in the strong empirical claims made by human-capital theory about the links between education and economic growth. Even though claims regarding a direct link as raised by human-capital theory can be disputed (Wolf 2002), it is evident that the most developed capitalist societies are not subject to educational degradation. Rather, trends towards an expansion of formal education go hand in hand with economic prosperity and growth, which raises the question of whether there might not be other than direct correlations between educational attainment and economic prosperity, such as a connection in terms of the scope of democratic participation at all levels of society (including production), etc. Thus, the argument could be that it is only through an increase in the population’s educational attainment that the institutions required to socially embed capitalist market relations can be implemented.

Another issue that makes the reconciliation of the CA with critical studies of the labour process and its effect on the skills and competences of the workers problematic – at least at first sight – results from an interesting effect of the one-sided reading of the deskilling argument concerning the development of people's abilities under capitalism. Thus, from the perspective of the degradation of work through deskilling skills and knowledge became a rather unproblematic thing for industrial sociology as the only relevant question seemed to be how capital could force the workers to comply with the demands of the production process or how they could be made to consent (for an overview, see: Deutschmann 2002; Thompson/McHugh 2002).

Thus, retracting the (capitalist) division of labour and enhancing workers' skills and competences in order to help them develop their full potentials and make work less alienating and more meaningful became a kind of utopian perspective in critical analyses of the labour process and attempts to humanise the world of work. This, however, meant that with the emergence of so-called 'new production concepts' and 'flexible specialisation' (for a short discussion, see Tomaney 1994), two concepts based on the idea of rehabilitating craft knowledge and a retraction of the capitalist division of labour, and, more recently, with debates surrounding the knowledge society and its associated forms of work (critical Bittlingmayer 2005), fundamental assumptions of the critical theories of work under capitalism came under severe pressure (Moldaschl/Voß 2002; Wolf 2004) as they failed to adequately grasp the ambiguities and contradictions of the emerging forms of work in knowledge-based capitalism (Jessop 2003).

It is true that against the background of deskilling approaches it became increasingly difficult to analyse changes in work and the emerging demands for skills and competences thought to bring about a retraction of the division of labour and a rehabilitation of skilled work (Moldaschl/Voß 2002; Wolf 2004). Thus, tendencies such as the introduction of teamwork, the assignation of managerial tasks to the shopfloor, experiments with job enrichment and skills enlargement as well as the introduction of new managerial tools such as quality management, etc. served to overcome the alienating organisation of work under Taylorism (Gorz 2000).

Increasingly the contingency and openness of concrete production processes that undermine full-scale scientific planning require 'subjectifying' work performance and the mobilisation of the employees' 'tacit skills' (Böhle 2002). The narrow focus on functional and technical skills is increasingly complemented by an explicit reliance on competences such as communication, cooperation, problem-solving, creativity and subjectivity.

It is in this context that the debates surrounding the CA can help us create a critical understanding of the changing composition of and demands on the skills and competences of the workforce. The new skills demands of post-Fordist concepts of production are understood to increasingly transcend narrow concepts of functional and technical skills to include a range of abilities which are labelled as key skills, tacit skills, informal skills, innovative and immaterial skills, etc. (Deutschmann 2002).

To understand the significance of these developments, the capability concept can help us because of its insistence on individual freedom to choose the life one has reason to value and on the role of democratic deliberation. Thus, the CA can clearly serve as an evaluative tool against the contradictions, conflicts and polarisations that emerge in so-called post-Fordist knowledge-based forms of capitalism. Even more so, locating the emerging composition of workers' skills and competences within a wider concept of capabilities could help to re-establish new demands for added democratic participation and deliberation in educational processes and in the sphere of production as well as for the freedom and wellbeing of individuals and equal rights.

3.1 The significance of learning

The growing importance of workers' skills and competences results from a kind of self-criticism of management concerning the overcome Taylorist-Fordist strategies of controlling the subjective factor of production and their intention to monopolise knowledge and learning activities in the organisational forms of Fordist firms based on rational-bureaucratic hierarchies. In the shift towards knowledge-based capitalism (Jessop 2003), enterprises are confronted with rapid economic change and restructuring which force them to remain innovative and to keep reorganising quickly in order to succeed in increasingly globalised markets. It is obvious that these dynamics should massively impact on work and employment conditions, forcing employees to quickly adapt to new production processes, to cope with changes and to even support innovation processes at shopfloor level. Thus, in many sectors the overcome Taylorist control of workers' subjectivity and the containment of their skills and competencies has become an inadequate means to organise production.

In this context, learning-oriented management strategies and organisational restructuring claim to have left behind the limitations of Taylorism by fostering employees' creativity and curiosity to ensure they participate in innovation and change processes and organise rationalisation processes under their own direction (Jin/Stough 1998; critical Contu et al. 2003). Against the

passive and somewhat automated concept of the transfer and appropriation of knowledge, which under Taylorism was divided into manageable and easy-to-control pieces, these approaches propose an active, systematic and integral concept of learning, embodied not only in the individual worker but also by the organisation as a whole.

‘Active learning involves systemic institutional arrangements which try to integrate conception with execution at all levels of a firm and synthesize existing knowledge and skills across departmental boundaries and along the value chain of a product and therefore create new knowledge.’ (Jin/Stough 1998: 1261)

In the emerging ‘learning discourse’ (Contu et al. 2003) learning is increasingly conceptualised as a new demand made on workers and linked to the promise to humanise work. Hence, learning is to be conceptualised as follows: It is supposed to be target-oriented and based on the workers’ intrinsic motivation as well as their self-confidence, dignity, curiosity and creativity. Thus, the ability to learn means to actively engage with the material and immaterial determinants of the production process and the ability to safeguard the quality of one’s own work by making it the object of reflection and introspection. In this understanding, learning includes cooperation and active participation in social organisations contributing to the creation of a consensus about rules and procedures (Geißler 1998: 46). Kühnlein and Paul-Kohlhoff point out that these changes lead to organisational attempts to intensify the link between staff development/training and a growing emphasis on informal learning (Kühnlein/Paul-Kohlhoff 2001: 267). Thus, the goal is to connect a company’s entire organisation of work and labour processes (staff, technology, etc.) with the skills development of the employees.

The explicit reliance on non-technical skills and competences and, in particular, the growing importance of the workers’ ability to learn and adapt make the overcome sequencing of education, training and labour-market entry inadequate. This alleged static conception of education and training is said to prevent workers from seizing the opportunities of a constantly evolving and restructuring economy and securing employment opportunities. These circumstances thus result in the call for lifelong learning and further education and training and feed into evolving strategies to restructure education and training systems

3.2 Critical considerations about learning in knowledge-based capitalism and capabilities

After this lengthy discussion of the connections between the transition to post-Fordist knowledge-based capitalism, recent management strategies aimed at overcoming Taylorist forms

of work organisation and the emergence of learning as a central component of a wider understanding of workers' skills and competences, we need to ask the question of how these developments can be interpreted and evaluated from the perspective of the freedom and wellbeing of the employees. From my point of view, this is both an exceedingly interesting and delicate task, given the normative loading of learning and its conceptual framing to which it seems easy to agree from an educationalist perspective – at least at first glance.

However, the question is whether the emerging forms of work and employment actually do enhance workers' opportunities and increase their freedom to achieve valuable outcomes. This quickly reveals the ambiguity of the significance of learning for the organisation of production processes in knowledge-based capitalism as outlined above.

In the context of the debates about the CA we could argue that, on the one hand – given the outlined evocations of workers' learning skills and their abilities of communication, cooperation, creativity and problem solving – in knowledge-based capitalism production relies not only on the workers' narrow technical skills but increasingly also on their capabilities. Thus, the hopes surrounding the debates on the emergence of a so-called knowledge society could claim some grounding in empirical developments concerning work and employment.

On the other hand, though, a range of objections can be put forward against such an optimistic interpretation if recent changes in work and employment are taken into account. Thus, recent developments cast doubt on the social context of the outlined growing demands on workers' capabilities. Thus, changes in the actual organisation of work processes are increasingly defined by growing competitive pressures to perform in most sectors. These developments are accompanied by a deterioration of employment conditions and employment relations, and lead to a growing insecurity and instability of employment contracts ('precarisation') (Castel/Dörre 2009) as well as the dwindling power of trade unions.

Therefore, it should be obvious that the outlined developments concerning the significance of learning are rather ambivalent. On the one hand, they can be interpreted as enhanced opportunities for workers to develop and apply their capabilities. Hence it comes as no surprise that the learning discourse is closely related to the utopian debates on the possible effects of the post-industrial service society or, more recently, the knowledge society. By combining demands for vocational skills with aspects arising from the concept of general education, or 'Bildung' (Andresen et al. 2006), the outlined use of learning asserts that freedom and opportunities for self-realisation emerge more or less naturally from social and economic evolution. Thus, these

discourses claim that people's ability to learn and develop their abilities can be reconciled with the demands of capitalist production. Against the old (Marxist) claim of a degradation of labour in capitalism, workers' abilities to learn are presented as a prerequisite of the latter. It is in this way that the conflict of interests arising from the fundamental power asymmetry between labour and capital can supposedly be transcended.

However, the main basis of judgement for the success of an individual worker's learning activities is not a general concept of wellbeing, achievement and freedom as proposed by the CA but rather the person's labour-market position and attained growth in productivity and profitability. Thus, the discourse of learning is more closely related to the human-capital theory, for which it seems to be an operationalisation as it combines demands on individual behaviour and activities with economic dynamics. Thus, it is necessary to be also critical of optimistic interpretations of the significance of (lifelong) learning presented as a new sovereignty of the workers. First, recent studies into the reproduction of social inequalities based on class (but also gender and ethnic background) show that the educational level is still crucial for a person's assignation to a certain position in the overall class structure. Against any meritocratic interpretation of educational achievement as the result of individual effort, educational attainment is very much dependent on the class position of the parents (Vester 2006; 2001), which considerably narrows the scope for generational mobility. This means that not only the result of educational processes but also the ability to learn is not spread equally among the members of society, thus contributing to a reorganisation of the class structure in the knowledge-based economy.

Furthermore, if it is true that learning has become a defining feature of the organisation of production processes in the knowledge-based economy, the degradation of work, which in Fordism was said to result from the appropriation of workers' knowledge by management, becomes the medium and result of the activities of the employees themselves. Thus, the individualistic conceptualisation of human capital and the competition among employees serves to undermine the development of workers' capabilities⁸.

This contributes to the general trend towards 'precarisation' as the skills and competences workers acquire are made obsolete very easily, which in turn contributes to destabilising their employment career. Thus, to obtain something like a stable work biography under these conditions people are forced to keep updating their skills and competences in order not to lose

⁸ The latter dynamic points to an important problem of the CA, which rests on an individualistic concept of capabilities.

out against their competitors. Through this, the boundaries between not only learning and work but also between work and leisure/non-work become blurred as the requirement to constantly adapt one's labour power through learning and other forms of rationalising everyday life is spread to one's spare time. Baethge talks of an expansion of the zone of precarious education increasingly also reaching segments of high-skilled employees (Baethge 2004). Taken together, these developments not only make it harder to obtain long-term employment relations and stable careers but also lead to an increasing instability and extension of the transition from education and training into employment. This raises the question about the effects of the outlined developments on the possibilities of individuals to form and stabilise a certain identity and to plan an individual biography.

Furthermore, from the perspective of the relations of production it has to be pointed out that the outlined developments introduce a pedagogical aspect into the production process as well as the relations between employers and employees by blurring work and learning (Kühnlein/Paul-Kohlhoff 2001; Dehnbostel 2006). Thus, one can argue that scientific management is transformed into a pedagogical project in which work is at the same time conceptualised as a process of education and formation of the self. If the outlined tendencies in relation to learning really do refer to significant trends in the reorganisation of production processes and are not just ideological concepts proposed by management gurus and human-resource managers, it means that innovation and economic rationalisation as well as the improvement of competitiveness and productivity are translated into a pedagogical issue. Thus, the ability of workers to learn and to adapt their skills and competences to new market requirements and opportunities moves to the core of business restructuring. This changes the form of power and dominance within productive organisation considerably. Furthermore, new demands for an expansion and reorganisation of existing education and training systems emerge.

Taking these objections together, doubts have to be raised whether the demands made on workers to learn and adapt really result in an expansion of their capabilities and contribute to their ability to choose the life they have reason to value. Rather, turning around a consideration by Karl W. Deutsch, according to which power can be defined as not being forced to learn, it can be argued that the importance learning has acquired in recent management discourses and change processes refers to a shift in the power relations between workers and employers. Deutsch also made the point that it is impossible for someone to realise their personality in

dignity if they are forced keep changing through learning, as this makes them an object of processes beyond their reach and reduces them to a means rather than an end. This objection leads us back to the consideration raised by the CA (Sen 2009; Sen 2007) and its insistence on the significance of democracy and participation and on the social relevance of activities which go beyond economic profitability.

4. Perspectives for the dual system

The outlined developments are having a massive impact on the overcome social regulation of the skills and competences of workers in 'Berufe' (a system of occupations accessible through specific (apprenticeship) training, contributing to the crisis of the so-called dual system of VET (Greinert 2007; Kraus 2006) and shattering a historically specific social construction of work and employment which not only guaranteed the productivity of the workforce but offered social integration and long-term income to the lower strata of the working class. Occupational qualifications obtained through the dual system are losing their social status (Clement/Lacher 2006) in the process of business restructuring, forcing workers to adapt to keep their jobs. Job demarcations which defined the boundaries between 'Berufe' are becoming increasingly blurred, contributing to a loss of 'exclusivity' in different occupations. Notwithstanding discourses about the role and importance of learning for individual success, in some sectors workers with completed apprenticeship training are increasingly placed in unskilled jobs to perform simple and monotonous work, as recent studies about tendencies to reintroduce Taylorist organisation strategies show. This, however, does not necessarily contradict the outlined considerations. According to Clement and Lacher (Clement/Lacher 2006), companies adopt such strategies because they not only have the opportunity to choose better trained workers for such positions given the current labour-market situation but also because these workers offer a range of skills that allow them to fulfil complementary tasks such as quality improvement, maintenance, cooperation with other departments, problem solving, etc. (Clement/Lacher 2006). On the one hand, these workers have to cope with monotonous, repetitive work while, on the other, they are expected to be flexible, open-minded and team-oriented. This 'degradation' of work is complemented by the tendency of companies to fill vacancies in higher ranks of the organisation with university graduates, thereby depriving those who trained in the dual system of the chance to advance within the company.

The crisis of the occupational form of labour power leads to growing shortages of available apprenticeship places as companies are less and less willing to train young school leavers (Greinert 2007). However, the ideological significance of the dual system is even strengthened in this context, perpetuating the over-structuration of the educational system in German-speaking countries, which rests on early selection and a strong separation between academically-oriented general education and employment-oriented vocational training for the lower classes.

Within the dual system, there is growing competition among young people, as more and more high-school graduates and university dropouts are opting for apprenticeships to obtain vocational training. As they are seen as good learners they are offered more attractive apprenticeships than those who have (or not even have) completed lower secondary education who are at best offered apprenticeships in sectors with inferior career prospects and low wages. Thus, many of those who trained in the dual system (up to 50%) leave the occupational field in which they were trained. A growing number of young people with low educational attainment are transferred to the Active Labour Market policy system, where a wide range of initiatives and programmes is available, offering incentives for companies who train apprentices themselves. These programmes are at best regarded as complementing the dual system; very often they are even seen as stigmatising as the failure to find an apprenticeship is seen as the result of individual deficits, such as a lack of the ability to learn, non-conformist lifestyles, etc.

However, it is not clear whether more systematic state intervention aimed at stabilising the dual system (such as the so-called 'vocational placement guarantee' in Austria) can help to overcome the problems of many young school leavers to find an adequate apprenticeship and to enter stable employment after completing it. These problems do not simply stem from a diminishing willingness of companies to train but rather from deep-rooted shifts in work and the skills and competences – in particular the ability to learn – increasingly demanded by employers in the knowledge-based economy. Thus, the dual system not only has severe problems securing labour-market entry to those it trains but it is also losing its ability to provide those who complete an apprenticeship with long-term work biographies or a stable identity. The latter also included a meritocratic aspect for the worker who was willing to subordinate to the demands of capitalist production. The ascension of the skilled worker into management was a prospect which not only helped to legitimate hierarchies and improve management on the shopfloor level but also meant an expansion of equality in a certain way. The manager who was promoted from the lower level

was living proof for everyone that hard work and subordination to the demands of Fordist capitalism could be rewarded. As such, it was part of a historical compromise which formed the basis of welfare capitalism (in certain countries based on diversified quality production).

Thus, even though Taylorist work organisation, which dominated in Fordism, was rather alienating as it was based on encompassing managerial control, the limitation of the time and space of work and the social acceptance of the significance of other individual and social needs and aspirations, it set free a process of capability enhancement that was mutually reinforcing. The outlined changes in work, which are defined by a deterioration of employment conditions and associated requirements for new skills – in particular the ability to learn –, have come to shatter a historically specific capability set that lower skilled people could dispose of. Thus, attempts to reintegrate people into the dual system via training guarantees will not be sufficient without taking into account the problem of whether people will be able to form a stable employment biography and an identity enabling them to cope with the social and economic circumstances of post-Fordist societies.

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APPLICATIONS OF THE DEVELOPED THEORETICAL FRAMEWORK

Thierry Berthet

Capability Approach, Policy Analysis and school based guidance policies in France

How is it possible to take individual capabilities in account when about six million single decisions have to be taken by the educational system every year? This paper will deal with this provocative question from the point of view of a political analysis of the school guidance decision. This topic as well as the point of view adopted here is exotic both for policy analysis and the sociology of education. Most of the academic work and official reports on the French guidance system have explored three dimensions: the contribution of guidance to social segregation, the nature of the act of guidance and counseling and finally the organization of service providing. The analysis developed here is slightly different. We will deal here of the school guidance as the result of a political work based on a decision making process. From a theoretical point of view, we will explore how the capability approach can enhance the policy analysis framework by bringing into discussion the questions of freedom to choose and the conditions for an accurate deliberation. This paper is organized in three sections. The first one presents some political science analytical models of the decision making process and argues for the added value of the capability approach. The second advocates for studying the guidance system outcomes as a matter of public action. The last section analyzes the role of deliberation in the guidance decision procedures in France.

POLITICAL ANALYSIS OF THE DECISION MAKING PROCESS AND CAPABILITY APPROACH

Policy analysis is a sub-field of the political science dedicated to the study of policies and their development. It is generally said to be janus faced with a descriptive/analytical side (study of public policies) and a prescriptive one (study for policy makers). Although cleaved between several classical epistemological traditions (rational, institutional, constructivist, elitist, pluralist, etc.), a basic model based on the disaggregation of the policy making process in several phases seems to be transversal (Jones, 1970). This model isolates a series of sequences: identification of the problem, formulation of policy proposals, decision, implementation and evaluation. I will consider here the three first steps under the broad notion of decisional process. By this, I mean the process by which a public problem is defined, the preferences of the stakeholders are shaped, the mode of deliberation decided and finally the way by which a formal decision is taken.

Studying the decisional process is a central point of policy analysis. The same could also be said about the political dimension of the capability approach. The aim to seize the responsibility of public action in the development of individual's capabilities must necessarily consider the way by which the beneficiaries/users are associated to the decision making process as well as the freedom they have to build and express their preferences.

In that sense, the normative dimension of the capability approach fits well with the policy analysis dynamic in a double way. On the one hand, it helps defining clear objectives for policies. On the other, it allows to develop a simple but efficient way of conceptualizing the social problems that eases the necessary dialogue between social scientists and policy makers.

Before digging this connection between policy analysis and capability approach, I will start this theoretical analysis of decision making by reviewing the existing debate between rational choice and new institutionalism theories. I will further this path by mentioning the recent constructivist contribution of Thomas Risse, an international relations specialist, to the theoretical debate on the decision making process.

Rational choice and institutionalist approach to decision making

As acknowledged by March & Olsen in 1998, a strong cleavage opposes the analysis of deliberation in the decision making process. Two epistemological traditions are at stake in this opposition: the rational choice theory and the institutionalist approach each one relying on a specific logic of action. The first one insists on the role played by the estimated consequences of the forthcoming decision by the decision makers. They are presumed to act on the basis of a rationally built calculus of the cost and benefits to be anticipated by a large variety of scenario. The decision will then be taken by choosing the scenario proving the best ratio. The "logic of expected consequences" is dominant here. It relies on the central role played by the systemic anticipations of the actors being individual or collective.

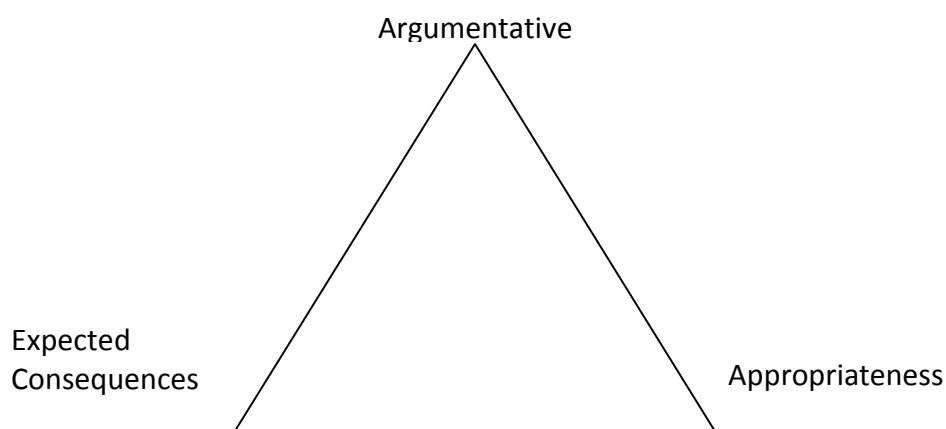
The new-institutionalism approaches are insisting on the role played by rules, norms and cognitive frames (Powell, 2007). Decision makers are here supposed to generally act in conformity with the existing norms. The prevailing "logic of appropriateness" introduces the role of institutions (conceived as a general set of rules) as a dominant frame for the decision maker's behavior (Steinmo, 2001). The role of conformity to institutions in the logic of appropriateness is

an invitation to pay attention to the burden of collective constraints in the decision making process (Clay & Ingram, 2000).

Introducing the deliberation

This opposition has been discussed by Thomas Risse while introducing a third logic in the decision making process analysis (Risse, 2000). Following on Habermas works on communicative action he proposes a constructivist contribution to decision making analysis. This third logic is characterized by the role played by the negotiation between stakeholders. This logic is not substitutive to the logics of appropriateness and consequentialism but brings in an argumentative dimension. The argumentative logic needs one objective and two conditions to develop. The objective is to seek a shared truth by challenging the initial claims of the stakeholders to decision. *« Where argumentative rationality prevails, actors do not seek to maximize or to satisfy their given interests and preferences, but to challenge and justify the validity claims inherent in them—and they are prepared to change their views of the world or even their interests in light of the better argument »* (Risse, 2000, 7). To reach this objective two initial conditions are requested from the stakeholders to the decision making process: the ability to emphasize *« that is to see things through the eyes of one's interaction partner »* and the share of a common lifeworld seen as *« a shared culture, a common system of norms and rules perceived as legitimate, and the social identity of actors being capable of communicating and acting »* (Ibid. 10).

Bringing together these three logics (appropriateness, consequentialism and argumentative) draws a triangle where each of the poles constitutes an ideal type of the decision making process.



The analytical challenge proposed by Risse consists in positioning the observed political transactions with regards to these three types and to show the relative importance of each type. A specific policy mix is to be inferred from the respective equilibrium of the strategic calculus, the conformism to social rules, and the capacity of the actors to deliberate.

But there is also a specific stake in measuring the role of institutional constraints in the argumentative logic. This type of logic supposes that one actor can convince the other one to change his vision of the social problem or that both are able to build together a shared truth different from their initial point of view. And this relies on the hypothesis of a relative equality of the stakeholders to the decision. As Risse puts it « *Finally, actors need to recognize each other as equals and have equal access to discourse, which must also be open to other participants and be public in nature* » (Risse, 2000, 11).

This supposed equality is problematic to estimate and Risse does not give any indication about the way it should be measured. Taking in consideration the coercion undergone by certain actors to the decision process is an essential point although poorly assumed by a model based on this hypothesis of the actor's equality. It seems necessary to introduce the issue of the actor's status to define the effectiveness of truth seeking. Even if based on formal deliberation procedures, one should seek if the decision making process studied really leaves room for the expression of individual preferences. In other words it is necessary to ensure that deliberative resources allow the development of an effective argumentative logic between stakeholders. This point is strongly brought in the debate by the capability approach (Sen, 2000; Bonvin & Farvaque, 2008).

Conversion factors and policy accountability

The capability approach focuses on the ability to transform institutional or organizational resources into an effective capacity of the individuals to express and have their preferences taken in account. Individual's ability to convert preferences in capabilities is one of the key questions raised by Amartya Sen's theory.

As indicated by Sen, it is necessary to ensure that individuals possess the adequate conversion factors to transform resources into capabilities. This responsibility belongs to decision makers but also to policy analysts and evaluators. That's one reason why it is important to introduce the capability approach in policy analysis. In order to seek accountability and analyze the coherence between policy goals and effective benefit for beneficiaries, the policy analysts should have a careful look at the way by which the conversion factors are anticipated or promoted within a

specific program. This is particularly important in the field of social policies where individual's responsibility is growing and their "positive" participation acknowledged as useful to the implementation of these programs. Failing to ensure the ability to convert a resource in actual behavior, is likely to bring on paradoxical injunctions for beneficiaries. If they are deemed to contribute to their own well being by playing an active role in social policies then the policy makers should leave a room for the expression of their preferences. Amartya Sen's theory of capabilities is clear about the central place of the preferences individuals have a reason to value. It is a centerpiece of this framework and should be a clear objective of public action. Otherwise the public policies can be truly paradoxical by providing opportunities and incentives without ensuring an equal and individualized access to them.

Bringing the democratic concern in public policy analysis

One good way to make sure that individual preferences are able to express and be taken in charge during a decision making process is to check if the decisional process leaves an effective room to deliberation. That's why we've started this theoretical discussion by bringing in the debate Thomas Risse's model on the argumentative logic in decision making. Looking at the effectiveness of deliberation during the course of a decision making process introduces the question of democracy in the analysis of public policies. This link is far from being natural in policy analysis. Theoretical discussion of democracy is usually left by policy analysts to other political scientists working in other academic fields such as political philosophy or electoral studies. But reality ignores these academic borders and studying public policies could well be interpreted in terms of democracy benchmarking. The capability approach makes this link and invites to think the efficiency of public policies in democratic terms.

As pointed out by Bonvin and Farvaque (2008, p. 81), there is a complex interaction between inequality of opportunities, asymmetry of power and democratic procedures. According to them, two conditions must be brought together to improve this "capability for voice": the ability of stakeholders to argue and the capacity of the institutions to take into account their points of view. In the following section, we will use both the consequentialist/conformist/argumentative model and the capability approach sensitiveness to democracy to analyze and test the effectiveness of deliberation in school-based guidance processes in France.

THE SCHOOL GUIDANCE SYSTEM IN FRANCE: AN OVERVIEW

The topic of school guidance and career advising brings to the forefront the question of the freedom to choose what seems valuable to a person. Choosing what is generally presented as a crucial choice for living, e.g. a training course and/or a future profession, deserves a serious look at the conditions in which this choice is made and how it is implemented by the educational system. But let's first define the object briefly. By school guidance I mean the procedure institutionalized in secondary education aimed at guiding pupils to choose a course of study or a profession and I intend to emphasize the political dimensions of the decision taken by pupils about their education.

School guidance as a political decision process

Guidance is a political act involving power relations framed by institutions⁹ between individuals and organizations. Guidance and career advice procedures rely on a political work based on influence and authority relations aimed at producing decisions committing individuals and more generally the distribution of social roles. For the person, this act, or we should say this series of acts, have immediate as well as long term consequences on the social positions he/she will be occupying. For the community, it's one important mechanism of production and reproduction of the societal organization which is at stake.

But this isn't enough to make this decision a political act (unless having a broad and finally meaningless definition of politics). A decision constitutes a political act when it deals with a public problem. We consider here public problems as "*All problems perceived as calling for a public debate or the intervention of legitimate public authorities*" (Padioleau, 1982). The guidance choice and decision represents a form of public action as potentially contradictory interests are regulated during the course of a public debate implying civil servants and governmental organizations. It relies on the transformation of some private interests (pupil's choice) into a public problem (guidance and allocation decision). An institutional agenda (Cobb & Elder, 1972) is set up including a problem framing sequences, solutions proposals, arenas and forums as well as institutionalized procedures of decision. Finally, the implementation of this decision is closely

⁹ In the sense given by March & Olsen "*a relatively stable collection of practices and rules defining appropriate behavior for specific groups of actors in specific situations. Such practices and rules are embedded in structures of meaning and schemes of interpretation that explain and legitimize particular identities and the practices and rules associated with them*", [March & Olsen, 1998, p. 948]

linked to the existence of training opportunities offered by the educational system. For all these reasons, the guidance procedure can be analyzed as form of public action justifying to be questioned by the analytical tools given the political science and more specifically by the field of policy analysis.

The French guidance system: focused on the decision

In France, the guidance system is focused on a decision making process. All the moments of advice and guidance organized by the teachers and the guidance counselors are oriented towards raising a choice for the year after. Of course these decision are not of the same importance each years, some levels raising more critical choices than others. Nonetheless, it is all about preparing the end of year's decision on what is coming next. In other words, every single pupil in the secondary education is confronted each year to the difficulty of choosing next year's program. This means that the target of the guidance decisional process is made of the some 5 905 001 pupils of the secondary general and professional education (Education nationale, 2009). The public of this policy is captive inside the educational institution as a large majority of the pupils is submitted to compulsory school attendance. To put it in policy analysis terms, the public policy considered here is constituted of nearly 6 million public problems and just as much of decision to be taken. These decisions are responding to a very large diversity of individual situations. But at the same time, they are made very homogeneous by the standardized procedures institutionalized to raise them.

The institutional actors concerned by these procedures are composed of the head teacher, the teaching team and the career adviser. The head teacher is administratively responsible for the guidance decision. The career advisers have a double mediation role. On the one hand they are counseling the head teacher in the matter of guidance and career advice. On the other hand, they help the pupils individually and collectively to build up their preferences. The teachers also have a double sided mission. First, they give general advices on their schooling to the pupils and their families. Then they have a specific role (especially for the “professeur principal”) of school and career advisement and they are in fact the real decision makers in the guidance procedure. They evaluate the school performance of the pupils and on that basis they formulate during the class council (cf. infra) a proposition of decision which is generally ratified by the head teacher. All of these individual decisions constitute the main outcomes of the guidance public policy. Each of these choices is designed to meet the public problem posed by the need to make a

correspondence between the individual choices of youngsters and the constraints of the education system in terms of available places in the different training courses.

A key institution: The class Council

In France, the guidance decision act is concentrated in a place and a time: the class council. The class council is an institution of the French educational system aimed at providing an arena to this decision making process. This arena has been organized by the legislator (articles R 421-50 and 421-51 of the Code of education). The class council meets every three months. At each of these meetings its components deliberate on the individual situation of every pupil. During the first two councils, the school performance of each youngster is discussed and confronted to his choices for the next year. The third and last council is by far the most dramatic as it is during this one that a decision is taken. This last meeting is a feared institution for the pupils and their parents.

It brings together the head teacher, the teaching team and eventually the career adviser to deliberate about the decision to be raised. The pupil and his family are not present at the class council. They are represented by two delegates of the parents and two of the pupils. It is the theater where the dramaturgy of the decision process takes place.

Nevertheless, the decision can be discussed a last time after the council in an appeal commission. If they disagree with the decision taken by the class council, the pupil and his family have three days after being informed of the decision to refer this matter to the appeal commission. This commission gives a final decision which is notified to the family by the head teacher.

This decision definitely concludes the decision making process in guidance.

WHAT ROLE FOR DELIBERATION IN THE SCHOOL GUIDANCE SYSTEM?

In a very schematic way, the guidance decision rests on a negotiation between an individual demand and a systemic offer. For the pupils, this decision is related to their social/professional objectives and the training paths towards it. It constitutes a demand vis-à-vis the educational system which supposes a process of preference's building and recognition by the school system.

How pupil's preferences are built in the guidance process?

As mentioned before, the question of how the individual preferences are built and recognized collectively is important. It relates to the way by which what a person wishes to value is taken into account by institutions, a central point in the capability approach. In the guidance process studied here, three distinct phases can be isolated. The first is a phase dedicated to information. During this phase, collective information on courses and careers are given both by the teachers and the career advisor. The room for arguing is narrow due to the collective dimension of this step. The effects of the traditional schooling model is obvious with its dominant path to higher education ("la voie royale") and its depreciated tracks to vocational education and professional training for the less performing students. The logic of appropriateness plays a strong role in conditioning the preference building and ambition's lowering.

The second phase is dedicated to counseling. The relationship becomes individualized and the argumentative logic starts to be operating fully. During this phase, the pupils are given more personalized information related to their school performance. This advice is differentiated in intensity according to these performances. For the uncertain or underperforming pupils, this phase is more important and they are usually given a specific attention by career advisors and teachers. It is during this phase that the pupil can best argue for his preferences. He has to speak loud and clear because during the decision phase, he will only be represented. During this second phase of counseling, he has to show what his choices are quite clearly to convince his teachers, because they will be making the decision during the following term without him.

The last stage of this decisional process is the moment when the educational system comes to a decision concerning the pupil's wishes, and this takes place during the last class council of the academic year. Here the deliberation is short and leaves no room for the student's voice. He is only represented by the two class delegates, and so are his parents. The debate on individual cases is fast as about 30 decisions are to be taken in about 2 and a half hour. More problematic is the role played by the children and parents delegates. As pointed out by several studies (Calicchio & Mabilon-Bonfils, 2004, 57; Berthet & alii, 2008b), the delegates have never been able to exert a real representative role. In fact they are only present to inform afterwards the families and pupils of what have been said during the council. The decisional power remains strongly in the hands of the teaching team.

During the class council, the decisions are established in an industrial way where the educational

institution rules the game. We can then clearly raise question about the utility of the deliberation and the efficiency of this mode of regulation.

Does the deliberation produces a shared decision and constitutes an efficient mode of regulation of school and career choices?

Are these guidance decision regulated in an efficient way? From a statistical point of view the answer is positive. The official reports of the ministry of education show that the appeal ratios are very low from 0, 4% to 2, 2% (Education nationale, 2008, 38). The appeal commissions are giving a positive answer to the family claims in 52% to 45% of the cases referred. More interesting is the ratio between disagreements (e.g. when the decision differs from the pupil's choice) and appeals which are quite low (20 to 24%). This ratio shows a high level of decision acceptance and seems to confirm the importance of the appropriateness logic.

From a capability approach, it is also important to have a closer look at the disagreements. In that case, the youngsters have formulated a preference for their studies that have been rejected by the class council. It is an indicator of how the command to be an actor of their own education furthering is taken into account by the educational system. It shows how the invitation to express clear preferences is followed by the institution. A study conducted by the ministry of education has shown a percentage of 26% disagreements which is high if we consider that more than a quarter of pupils preferences are swept aside.

CONCLUSION

This high percentage of disagreements is questioning the effectiveness of the deliberation process and more generally the dominance of the institutional actors on the users of the educational system. In fact, the decision making process rests on a strong asymmetry of power among the stakeholders. Of course there is a public debate and specific arena. But the decision appears largely prepared in advance and imposed to the families and their delegates. Placed in a dominated position, they are facing a strong level of constraint. As a testimony, we can mention these words pronounced by a teacher in Dordogne *"As far as I know it has been a long time since we don't tell a pupil 'do this or that!'. We just say 'you can or you can't' but we do not impose anything to them"*. All the ambiguity of the argumentative logic rests in these words. The institution does not impose anything although telling the users and beneficiaries what they can

or cannot to do! In fact the situation when the stakeholders enjoy an equal legitimacy, comparable resources and a common lifeworld are especially rare. The emphasis is often put on the frames of deliberation: is it public? Is there a fair representation of the stakeholders? Is it driven by efficient rules? But in so doing the risk is to neglect a fundamental issue raised by both the capability approach and the political science: the role played by the institutional constraints on the weakest actors of the decision making process.

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Jean-Michel Bonvin & Maël Dif-Pradalier

Implementing the capability approach in the field of education and welfare

Conceptual insights and practical consequences

The contemporary welfare state is undergoing a threefold transformation towards *activation* of recipients, *individualisation* or contractualisation of benefits, and *territorialisation* of the modes of governance. Briefly said, the very aim of the welfare state tends to evolve from paying cash compensation to restoring the recipients' agency or acting capacity, mainly understood as their working and productive capacity; this in turn requires taking into account their individual characteristics within the scope of social intervention, by contrast with the categorial programmes mobilised in the conventional welfare state (e.g. standardised benefits for all unemployed or disabled people); it also implies a decentralisation of the modes of operation in order to equip local welfare agents with the abilities to design such tailor-made interventions. These changes coincide with a redefinition of the assessment criteria used to determine what intervention of the welfare state is right and fair (with regard to its content or substance) and what procedures ought to be mobilised when designing and implementing social policies. The new normative framework produces very contrasted reactions, ranging from resistance to full endorsement, and it is implemented in quite diverse ways and at different paces according to the countries and categories of population concerned. In order to grasp and assess the scope of these transformations, the conventional analyses of the welfare state, centred on statistical indicators and power-resource theories, are not adequate in our view. The procedural and reflexive turn of social policies cannot be captured by these tools: indicators are too static, and power-resource theories tend to rely on national-level data about political representation in parliaments, which are unable to grasp the increasing impact of local implementing agents within the course of the policy process. As a valid alternative, we suggest to use the capability approach (CA) developed by Amartya Sen, which relies on the distinction of three key dimensions: a) the commodities or resources in possession of a person (goods or services); b) her capability set or the extent to which she is really free to lead the life she has reason to value¹⁰; c) her functionings or the life she actually leads. The choice of a specific rationale (or informational basis of

¹⁰ The capability approach does not entail that everybody is entitled to be fully capable, i.e. to be absolutely free from all constraints and limitations. Quite differently, it calls for the reduction of the inequalities of capabilities, in other terms each and every member of society should have access to a similar capability set or, at least, should have access to the same minimal threshold of capabilities. The objective pursued is not absolute freedom in an ideal society, but elimination of injustices in terms of capabilities (Sen, 2009).

judgement in justice, in Sen's terms) for the welfare state makes a significant difference: Is the main purpose of the welfare state to redistribute cash or other resources (the 1st dimension above)? Is it to impose on the beneficiaries certain behaviours or functionings, e.g. in terms of job search or work ethics (the third one)? Or is it to promote their real freedom of action in all spheres of life (the 2nd dimension, i.e. that of capabilities)?

These questions are of fundamental interest and importance regarding social and activation policies addressing marginalized youth. Yet, the very construction of such a category (what is the age limit between a young and a "no-more-young"?) is immediately and in itself a problem to be tackled: by constructing such a category, are particular needs and problematic situations specific to that age group better tackled or does this construction aim at allowing policy-makers to apply derogative measures and consequently, a derogative status regarding the standard labour contract?

Furthermore, analysing the situation of marginalized youth in the light of the CA is of particular interest given the ambiguous posture of the main theorists of this framework regarding the place of young people and more broadly groups of dependents: whereas enhancing capabilities (i.e. the capability set) is accepted as the main political goal as far as adults are concerned, functionings (i.e. imposing behaviours) seem to be the main objective regarding dependent groups like children and young people.

There are three key steps in implementing this approach. The first one is *normative*: how do all dimensions mentioned above (resources, capabilities, functionings, freedom to choose, informational bases of justice, etc.) connect within the field of education and welfare? How do capabilities in the field of welfare and education relate to functionings and achievement? How should the capability approach be viewed in our research: as a transcendental ideal or as a comparative yardstick? etc. Section 1 strives to tackle this issue by recalling the main elements of the capability approach. The second one is *epistemological*: what resources, factors of conversion, etc. matter in the field of welfare and education? This second step will be achieved with a view to identifying the field of investigation of our empirical study. Four key notions will guide our inquiry, i.e. capability for work, capability for education, capability for work and life, capability for voice. Sections 2 and 3 focus on two of these key notions, namely capability for work and capability for voice, and identify some possible avenues towards capability-friendly labour market policies. The third step is *methodological* and aims at identifying the most appropriate (qualitative or quantitative) methods. This will be tackled at a later stage of our

reflection. Section 4 draws some tentative conclusions. The main aim of the paper is to help pave the way towards the work to be achieved in WP3 and WP4 of WorkAble.

1. The Capability Approach

The capability approach (CA) relies on two key distinctions. First, functionings, i.e. what a person actually is or does, should not be confused with capabilities, i.e. what a person can be or can do. Indeed, two people behaving in the same way are not necessarily endowed with the same capability set as is illustrated by the seminal example of the non-eating person that can be interpreted either as starving or as fasting (e.g. for medical reasons).

Equally, two jobless people do not necessarily face the labour market requisites and demands with the same capability set (one can be facing a transitory period of unemployment, e.g. if she is already graduated and endowed with a large set of capabilities, i.e. a large set of possible vectors of functionings, whereas the other one can cumulate multiple difficulties –social, economic, health, family, education...- and be faced with a much narrower set of capabilities).

In Amartya Sen's perspective, public action should not focus on functionings but on capabilities, which puts the concern for individual freedom of choice at the very centre of social intervention. As a result, the main objective of public action in the field of welfare should not be to put people back to work at all costs (i.e. a functioning), but to enhance their real freedom of choice with regard to the labour market.

Regarding the specific situation of young adults facing multiple difficulties, this implies that public action has to (re-)create the conditions under which they will be able to choose between different valuable functionings. Does this mean that the achievable functionings should be the same for young adults facing multiple problems as for those who do not experience lifecourse difficulties? If so, given the worse-off situation experienced by those faced with difficulties, more means and investments are needed to reach a similar set of capabilities. This has wide-ranging implications on the way to conceive individual responsibility: people cannot be considered as responsible if they have not been equipped with the means of real freedom of choice.

Such a questioning has not yet taken into account the construction of individual preferences which are influenced by a wide range of causes and life situations. Hence, what one has reason to value strongly depends on these previous experiences. This problem refers to the ongoing debate about adaptive preferences, i.e. the situation in which people come to accept and adapt

to a situation or a state, given the difficulties and constraints impeding them to lead, or even envisage to lead, another life.

The second distinction is tightly correlated with the first one. It points to the necessity not to confuse commodities (or resources) and capabilities. Indeed providing resources or commodities – be it cash or in-kind resources – does not amount to enhancing the real freedom of choice and of action of their recipients. To this purpose, the issue of conversion factors needs also to be tackled. If the person is not able to convert his/her resources into real freedom, then capabilities which ought to be the very aim of public action are missed. The classical example of the bike powerfully demonstrates this: if someone owns a bike, but at the same time does not know how to ride it, or is not allowed to (due to socio-cultural, religious, or other contextual parameters) or cannot do it (due to the absence of adequate roads or other infrastructure), then the possession of the bike does not translate into real freedom or capability to move. As a matter of fact, resourcist approaches such as Rawls's or Dworkin's ones are sharply criticised by Sen, who claims that what should be equalised in order to promote development as freedom (Sen, 1982, 1999a) is not only cash or in-kind resources, but a whole configuration comprising resources, and individual and social factors of conversion. Only an intervention on the whole configuration will allow to effectively enhance the recipient's capability set.

Here, we can clearly see that the ambition of the CA is as encompassing as the difficulties it both faces and raises when it comes to orientate and design social policies. Indeed, by aiming at enhancing people's real freedom of choice between valuable options, the CA focuses on the need for social policies to intervene on a wide number of dimensions of one's daily life and to take into account the specificities of each and every personal situation and trajectory (individual circumstances and local situations). In the field of social (re-)integration, how can full commitment to job search and/or to training programmes be expected from one whose basic needs (e.g. housing, food, health, "affective" stability) are not met and who faces a complex and intricate set of difficulties? Special attention to one's previous path and trajectory is thus of determining importance as much as is the design of social policy in a long-term and inclusive perspective.

Thus, on a normative point of view, this emphasizes the attention of the CA not to provide equality (be it of starting conditions or chances from the liberal point of view – that would boil down to formal freedoms – or of living standards and results from the Marxian perspective), but to neutralize the existing inequalities (not only of resources, but also in converting resources and

commodities into capabilities) by equalising access to and use of the conversion factors (whether they are individual, social, institutional or environmental) in order to allow people to exert real freedom of choice between valuable outcomes (functionings). In other words, rather than considering what inequalities can be justified in order to (re-)create equal conditions (e.g. in a Rawlsian perspective), the CA starts by taking into account the obvious existence of inequalities and handicaps, i.e. the unequal distribution of talents and resources among people, and strives to create and implement institutional conditions and means in order to restore individual real freedoms of choice.

The capability approach requires to take into account the consequences of these two distinctions: a) on the ‘empowerment’ side, the adequate redistribution of resources needs to go hand in hand with an intervention on individual and social factors of conversion. In other terms, public action will be enabling or empowering, if and only if the equalisation of resources is completed by a corresponding intervention on both the individual abilities to use these resources and on the social context at large (i.e. the social structures of inequalities, the availability of appropriate social and economic opportunities, the prevailing social norms, as well as any social dimension that may bring about inequalities or discriminations); b) on the ‘freedom to choose’ side, public action should not aim at imposing specific behaviours or functionings on its beneficiaries, but at enhancing their capabilities or real freedom. Thus, acting extensively on resources and factors of conversion and impinging as little as possible on individual freedom of choice, are the two main prerequisites of a capability-friendly public action. By the same token, these requirements are the yardsticks against which public action and its impact are to be assessed. This means that social policies aiming at activating young adults facing multiple difficulties are to be analysed by questioning what matters most between providing resources (resource-based policies), functionings (imposing behaviours by conditioning access to incomes and social benefits on their compliance) or an enlarged set of capabilities (by enhancing the real freedom to choose the functionings one has reason to value)?

To this purpose, two different meanings of ‘real freedom’ are to be taken into account, namely *process freedom* and *opportunity freedom*. On the one hand, the beneficiaries of public action should be able (and allowed) to effectively participate into all stages of public policy-making (i.e. design, implementation and assessment). Indeed, they are not to be reduced to the status of passive beneficiaries, but ought to be, as much as possible, co-authors of the public policies in

which they are involved. This requisite is of great importance regarding the assessment of public policies and of great difficulty in its implementation and operationalisation (it also reveals a quite optimistic conception of democracy perceived as a good in itself). This indeed means that two prerequisites should be met at the same time: on the one hand, people need to be able to talk and to present their arguments convincingly, and on the other hand, institutions need to listen to their opinion and take it effectively into account by adjusting policies according to their views.

On the other hand, public policies are to increase the set of available opportunities for all persons concerned. As a matter of fact, the capability approach implies that every member of society should be in a position to choose between valuable alternatives or opportunities. This clearly contrasts with the call for adaptability (that often prevails in the field of welfare-to-work policies), where people have to respond to the labour market requirements and are not allowed to choose freely their way of life or professional insertion, but are called to adapt their preferences to the existing opportunities in their social environment. In this latter case, people may be required to unilaterally adapt to unfair market conditions or social norms, which contradicts the very idea of reciprocity that is at the core of most contemporary transformations of public action towards more contractualism. Indeed, if contracting equates to compelling the weakest part (the recipient) to adapt to the conditions imposed by the most powerful one (the public agent), then the very notion of contract becomes purely rhetorical. By contrast, the capability approach insists on a different notion of contract requiring that the most powerful part of the contract (i.e. the representative of the public body) acts in favour of the capability enhancement of the weakest part inasmuch as possible.

This perspective may be seen as quite optimistic and difficult to implement, given that the interests pursued, by public or private entities, are always the results of struggles between contradictory and conflicting forces whose means and resources are unequal in that particular competition. The questions are then: what will induce, or compel, policy makers (i.e. those who occupy a dominant position in society and public decision processes) to take effectively into account interests and preoccupations that might be opposite to theirs? And how to implement democratic processes allowing and recognizing real opportunities of being heard to all participants, even those who experience the most important difficulties regarding social and professional integration and thus are very far from any kind of (even formal) political participation?

What matters most in the CA perspective, is the combination of both dimensions of freedom: the enlargement of the set of valuable opportunities needs to be completed by the possibility to voice one's preferences, wishes, expectations, etc. and to make them count in the decision-making process. The issue of processual freedom, i.e. the capacity to act and choose freely and not to simply submit to exogenous injunctions, is crucial in the new modes of governance mobilised in social integration policies (very often inspired by the principles of new public management as advocated e.g. in Osborne and Gaebler 1993). Capability-friendly processes, allowing people to actively participate in and impact on the various policy stages, need to result in the extension of real opportunities or possibilities of action (otherwise participation would boil down to a formal right).

In our view, the achievement of the processual dimension of freedom within public action requires the equal availability of three alternatives (Hirschman, 1970) for each and every beneficiary. This implies that he/she can choose between either *loyalty* to the collective prescriptions or norms, *voice* in order to contest or negotiate the content of such prescriptions without being subject to heavy sanctions, or *exit* so as to be able to escape these collective norms at an affordable cost (e.g. by refusing to take up a badly remunerated job without having to abide by excessive financial penalties imposed by the public agency). The effective availability of these three options features as a necessary condition for the enhancement of the recipient's capability set: indeed, if a job-seeker has no possibility to negotiate the content of the social intervention that is proposed to him/her or to refuse it at an affordable cost, then he/she is constrained to loyalty, which can be interpreted as a form of adaptability. Thus, processual freedom implies the real possibility to choose between valuable alternatives. If such valuable opportunities are not available, then processual freedom remains purely formal. Reconsidering the CA in the light of Hirschman's distinction between exit, *voice* and *loyalty* is of particular interest when it comes to analyse social policies, and especially social policies addressing marginalized youth.

The capability approach also emphasises the important notion of "informational basis of judgement in justice" (IBJJ), i.e. the set of information that will be considered as relevant when assessing a beneficiary. The IBJJ constitutes the yardstick against which people, their behaviours, wishes, beliefs, etc. will be assessed and considered as legitimate or illegitimate. In the CA perspective, the selection of the IBJJ should not be the prerogative of the government, the public

administration and/or of experts. On the contrary, the processual aspect of freedom requires that all persons concerned are allowed to take part in the selection of the IBJJ. All the more so that there are many possible legitimate IBJJs, as well as a variety of principles of justice. In this connection, Sen claims that it is impossible to demonstrate the absolute superiority (i.e. in all circumstances or all social environments and for all people) of one principle of justice, or of one IBJJ, over all others. As he puts it, such issues are “undecidable” *a priori* (Sen, 2002). There is an inescapable plurality in the normative field, and what matters then is that all concerned people are able to participate in the selection of the IBJJ that will then be used to assess the goodness or the legitimacy of recipients and their behaviours. This of course does not imply that the central level of government or public administration should have no say whatsoever when it comes to selecting the IBJJ, but it does certainly entail the abandonment of top-down modes of government striving to impose specific functionings or behaviours on individuals, in favour of more reflexive ways of governance.

This first section has strived to identify the normative implications of the capability approach. The operationalisation of this analytical and normative framework relies on two key concepts, namely capability for work and education and capability for voice. The next two sections are devoted to define these two concepts and hint at some of their practical implications.

2. Capability for work and education

Paraphrasing Sen, capability for work is “the real freedom to choose the job one has reason to value”. It is then implicitly recognised that work may be a disutility in certain cases, i.e. something one has no reason to value. The CA requires that all people be adequately equipped to escape from the constraint of such valueless work, either through the real possibility to refuse such a job (at an affordable cost, i.e. with a valuable alternative, be it a financial compensation or another more valuable job), or through the possibility to negotiate the content of this job and transform it into something one “has reason to value”. Thus, capability for work implies both a) capability not to work if one chooses to (via a valuable *exit* option); and b) capability to participate effectively into the definition of one’s work content, organisation, conditions, modes of remuneration, etc. (i.e. the *voice* option), in other words, the ability to discuss with the management (i.e. to contest its monopoly over) the definition of the means and ends of work. Hence, a precise answer should be given to the following questions:

- Do active labour market policies (ALMPs) in favour of marginalized youth increase the recipient's capabilities vis-à-vis the labour market (in terms of opportunity freedom)? If not, what should be done to promote capability-friendly ALMPs?
- Are all concerned people involved in the design and implementation of such ALMPs (processual freedom)? If not, how could this be enhanced?

Capability for education can be considered, still paraphrasing Sen, as “the real freedom to choose the education or training one has reason to value”. This “freedom to choose” is constrained by institutional obligations. Indeed, although all (developed) countries have adopted educational regimes that compel children to attend school until a certain age (generally until 16), there are big differences between the ways in which education systems face the dual demand of orientation and evaluation in order to legitimize the distribution of socio-professional positions, but also to integrate socially by providing access to a common base of knowledge, skills, values... While German countries differentiate students by the early management of schooling paths, northern European countries maintain a common core till relatively late (not to mention the differential use of repetition, the existence – or not – of optional courses, individualized follow-up, etc.). Furthermore, while Anglo-Saxon and Scandinavian countries focus on the acquisition of students' independence (via personalized curricula), Latin countries insist on the acquisition of knowledge in predefined schooling paths.

These differences between educational systems are coupled with differences in the social perception and valuation of professional courses (rather good in German countries, rather bad in Latin countries), but also differences in the prerogatives left to economic actors in the definition of courses and in the type of relations with the professional world. Beside these differences regarding opportunities, other differences are related to processes : what part do students or pupils play in the management and administration of the daily life of schools and universities? How do educational regimes accommodate the increased diversity of mother tongues and cultural perspectives among students ?

Finally, differences also exist between types of financial resources and educational funding available for students (free schools? loans? scholarships? etc.). Beside the degree of independence of young adults towards their parents and family of origin, the CA points out the decisive role of conversion factors allowing – or not – to translate these resources into

capabilities and hence, the need to consider the whole educational environment and not just the schooling system and its particular organization as determinant in young people's educational success (or failure).

In our view, this involves two main issues: the degree of indeterminacy of the IBJJ selected to define what is a valuable job or education, and the available opportunity set on the labour market or in the educational field.

With regard to the first issue, this implies recognising the plurality of possible IBJJs when trying to define valuable work or education. Material well-being (or capacity to earn an appropriate wage or be adequately compensated for in case of job loss) and self-fulfilment via a job or a training considered as intrinsically valuable (i.e. independently from their instrumental value or from their remuneration) feature among the possible IBJJs to define what is a valuable job or education. In terms of ALMPs for marginalized youth, this distinction between the two IBJJs makes a significant difference. Whereas the level of compensation, i.e. social security benefits, is the main concern in the first instance, the upgrading of the working capacity or productivity becomes the priority in the second case with the ambition to improve all job-seekers' employability and prospects to go back to the labour market as quickly as possible. And this second view, based on a human capital approach, can be interpreted in two main ways: on the one hand emphasis is placed on the enhancement of productivity (i.e. on the instrumental value of education), on the other hand the focus is on the development of the capability set (i.e. both on the intrinsic and instrumental value of education). Thus, a plurality of informational bases is available to define what is a valuable job or a valuable education, and the CA does not privilege one option over the others, quite the contrary. In the capability perspective, work and education need to provide both an adequate security in terms of material well-being, and to open possibilities for individual self-fulfilment. Capability for work and education may encompass a plurality of meanings or IBJJs, but it does require that all these IBJJs relate to valuable opportunities. As a matter of fact, having a job or following a training programme does not necessarily coincide with having an enhanced capability for work or education. Furthermore, the CA is not reduced to issues connected to work or education. It entails a broader view of the agency or "capacity to act" dimension, that combines capability for work and education and capability for life in general (Dean et al., 2005). Indeed, even valuable jobs (or training programmes) may lead to undesired work (or education) intensification, if they prevent leisure or

family activities. Thus, capability for work and education requires that all components of the capability set are adequately taken into account. A ‘valuable job’ or a ‘valuable education’ may endorse a plurality of meanings, and it is essential that young people are allowed to have their say in this respect. In other words, if such issues are settled by the representatives of the public administration in a top-down way, then capability for work and education, defined as the real freedom to choose one’s job or education, is missed. The indeterminacy of the public or official view about what is a valuable job or education is a necessary prerequisite to develop capability for work and education.

On the other hand, the availability of job and training opportunities, as well as their quality, matters. Thus, the enhancement of capability for work and education does not boil down to a restricted view of employability or training policies, but also implies shaping the social environment in order to make it more inclusive. In other words, employability or educational programmes without employment policies do not make sense in a capability perspective. This makes a big difference with mainstream human capital approaches. Indeed, in the prevailing rhetoric of the active welfare state and of the human capital approach, the creation of new opportunities is all too often identified with the enhancement of individual employability, though this objective is pursued in very diverse ways by neo-liberals and by partisans of the so-called Third Way (e.g. Giddens, 1998). The former see in the flexibilisation of labour costs the most efficient way to improve individual employability and promote job creation. The classical reference in this respect is Lindbeck and Snower’s insider/outsider dilemma (1988), which identifies the cause of unemployment in the insufficient differential of incomes between work and unemployment, resulting in dependency traps for unemployed people. This ought to be reformed by making the option of exiting the labour market much less attractive, i.e. by reducing unemployment benefits so as to “make work pay”. By contrast, Third Way defenders see the development of qualifications and competencies as the condition for increasing both employability and employment. Following Layard and Nickell’s conception (1991), they assume that a competitive working-age population will result in a more dynamic and inclusive economy. Despite these differences, the ‘making work pay’ logic is explicitly advanced in both conceptions. Either by lowering labour costs for the potential employer, or by training the jobseeker with a view to increasing his/her market value, the objective remains one and the same: make the unemployed more marketable. In both cases, the welfare state is called to produce attractive

job-seekers that can find their way on the labour market, by furthering the individual adaptation to the requisites of the labour market.

This translates into a focus on supply-side egalitarianism as Streeck (1999) calls it, the aim of which is not to equalise capabilities or real freedoms to choose one's way of living and working, but to improve marketability and ability to compete on the labour market. In such a context, the value of the opportunities created on the labour market is assessed much more against the expectations of the demand-side actors, than against the wishes or desires for self-fulfilment expressed by the job-seekers (i.e. the supply-side actors). In this respect, neo-liberal and third way policies share common views, that are rather distant from the logic of capabilities and its view of work as a utility and a way to realise oneself.

By contrast, in the capability framework, the promotion of employment and education quality is the key political challenge, which lies very far from the 'making work pay' logic endorsed by neo-liberal and third way perspectives alike. It requires acting on both individual and social conversion factors, which entails that employment and education quality needs to be considered as a key objective of public action in the field of labour market policies. Two challenges need to be tackled in this respect: first how to integrate the issue of employment quality in a context of subordination and constraint to produce value, such as the one of the contemporary firm? How to reconcile the intrinsic and instrumental value of education? Such a perspective should as well be considered as a win-win situation as long as bad-quality work produces low commitment and sub-optimal results for both workers and employers.

3. Capability for voice

The concept of "capability for voice" designates the real freedom to voice one's opinions and to make them count within the public policy process. It is in line with the three constitutive dimensions of democracy as defined by Sen (1999b): for him, democracy has a) an *intrinsic* dimension or value, since political freedom and participation are essential parts of human well-being and, as such, are listed among the basic capabilities, b) an *instrumental* value, insofar as individuals may represent and defend their interests more efficiently in a democratic context (in Sen's words, silence is the worst enemy of social justice), and c) most importantly a *constructive* value: since all dimensions of life in society (i.e. social norms and structures, but also individual desires, needs or beliefs, as well as the perception of their feasibility, etc.) are not given once for

all, but permanently constructed and re-constructed in the course of social interactions, democracy is certainly the best way to ensure the fairness of these social constructions. Only real democracy allows all members of society to actively take part in these processes. Such a conception of democracy does not boil down to the aggregative procedures of majority vote and rule, but it requires the setting up of a permanent (deliberative or bargaining) democracy. In the capability approach, the conception of democracy implies the possibility for all to actively participate and impact on the results of the public policy processes. It is therefore in sharp contrast with the usual division of labour between political decision-makers and/or experts on one side, passive beneficiaries on the other one. In our view, this vision of democracy relies on certain prerequisites (Bonvin, 2005, Bonvin and Farvaque, 2008):

- First, people should be endowed with adequate political resources, i.e. the ability to efficiently defend their point of view and make it count (which does not mean that this point of view will fully prevail in the end, but simply that it is duly taken into account when collective decisions are made). This necessitates, on the individual side, the presence of adequate factors of conversion such as argumentative or cognitive capacities (or the availability of appropriate representative bodies able to defend the recipient's point of view in front of the public administration), as well as, on the institutional side, the ability to listen to the beneficiary's interests, wishes, expectations, etc. and not to impose one's point of view. The objectives and outcomes of public action are not predetermined beforehand, but constructed within the course of public action and with the possibility of actively participating given to all persons concerned.

In the case of young adults experiencing difficulties, delays and deficiencies in a large set of domains, acquiring the ability to participate is the first crucial requisite. Given the distance of such a population from most forms of participation, this process requires especially time and a recognized "right to trial and error". Hence, institutions should implement special means in order to promote the participation of young adults (both as individual recipients of the device or service and as a collective actor if it exists) in the definition of problems and appropriate solutions. Moreover, this means also paying special attention to specific situations regarding migrants and ethnic minorities experiencing/facing (more) inequality and discrimination (disadvantages in terms of language proficiency, socio-cultural integration...), especially when it comes to educational achievement and labour market integration.

- Second, the recognition and acceptance of a multiplicity of possible legitimate IBJs is also a prerequisite for promoting democracy. According to Sen, the issue of justice, as well as that of the selection of the IBJ, are fundamentally undecidable, and the participation of all actors is required to settle them: indeed, not only the content of public action, but also the criteria of decision-making are to be determined with the collaboration of all concerned actors. In Sen's terms, all decisions should be subjected to public reasoning (Sen, 2004) in order to promote genuine reflexivity between all public and private actors involved (i.e. not only the public administration and its experts, but also teachers, firms, etc. and young people themselves). This implies that the issue of defining valuable functionings and of promoting equal access to them is not to be settled by experts or policy-makers or technocrats, but to be decided in situation with all concerned actors.

In practice, the effectiveness of such a capability for voice depends on the respective weight, position and access to both information and decision-making processes of all actors involved: public authorities (state, region, county, municipality), school and university administrations, teachers, firms, trade-unions, experts and young people. This means struggles and power relations for imposing legitimate definitions or IBJ between groups with unequal resources and abilities.

- Third, capability for voice does not coincide with the obligation or duty to deliberate and actively participate in the public policy process. On the contrary, and in line with the capability approach, it is to be envisaged as the real freedom to participate in public affairs. Hence, it does not equate with an athletic conception of democracy (Cohen, 1993), which would require all actors to permanently take part in public policy processes. If such was the case, a new elitist conception would emerge, with new divisions or discriminations, no more between social classes (i.e. based on income differentials), but along differences in the abilities to deliberate and participate in public affairs. To avoid this pitfall, capability for voice implies that people are allowed not to participate in public action at an affordable cost (i.e. they have the possibility to exit democratic deliberation and debate without excessive penalties). In Sen's words, such an exit option is promoted via measures of passive empowerment, which guarantee all members of society (be they active deliberators or not) the access to adequate resources and individual and social factors of conversion.

The problem here is to guarantee rights and access to resources and factors of conversion to people who are very far from any kind of participation and who cannot count on representatives able to defend their interests within the decision-making processes and arenas (interests that can be different and even opposite to those of people who have dominant positions in these processes). The question is then why should “institutions” decide to promote and implement measures of passive empowerment? And how can “institutions” be induced or compelled to take such measures?

These three conditions define a normative framework for the assessment of employment and educational policies, that is articulated around the following interrogations: To what extent are the concerned actors able to impact on the content and modes of implementation of public action in the fields of welfare and education? To what degree are the institutional representatives ready to listen to the recipients’ points of view and let them count in the decision-making process? Do the public agents in charge of implementing contemporary employment and educational policies promote a plurality of IBJJs with respect to capability for work and education or, on the contrary, do they try to impose their own preferred IBJJ? What happens with the beneficiaries who are unable or unwilling to actively participate in the definition and implementation of public action, i.e. what degree of passive empowerment do they nevertheless enjoy?

These issues have to be tackled in a context strongly shaped by the emergence of new modes of governance coinciding with a significant transformation of the part played by central government and administration in the policy process. In most cases, this does not equate with a retreat of the central state, but with the design of new patterns of public action along the so-called New Public Management (NPM) principles (Pollitt and Bouckaert, 2000). In this perspective, the state retains a key role in the course of public action, since it is responsible for monitoring implementation and checking efficiency via the use of new managerial techniques such as performance indicators, benchmarking practices, budget envelopes, and the like (in the French case, P. Bezès refers to this new role and figure of the State as the “strategist State Model”, 2005). This raises many problems in terms of capability for voice, especially when the directives elicited by the central level compel local actors into specific modes of intervention, and prevent the design and implementation of tailor-made and innovative programmes at a situated level. In such cases,

NPM guidelines do feature as a refinement of the old technocratic logic rather than as a new pattern of situated public action. Many empirical studies have shown the presence of a significant gap between NPM discourses (encouraging individual and local initiatives) and actual practices at local level: whereas NPM rhetoric carries with it the promise of more autonomy for local actors, their actual margin of manoeuvre is limited by their subordination to performance targets and by their budgetary dependency (local public employment or education services not abiding by the fixed targets risk losing part of their allocated budget), all the more so when the reforms of the public modes of governance are driven by the concern to limit social expenses and save public money, as it is often the case (Giauque, 2004).

The growing tendency to introduce performance targets in order to guide and control the action of public employment and education services often acts as a powerful obstacle impeding, to a significant extent, local agents' capability for voice. Indeed, centrally designed objectives tend to impose modes of intervention and behaviours that will not necessary translate into better service delivery, insofar as they encourage "making a good showing on the record as an end-in-itself" (Blau, 1963, quoted in Wright, 2001: 247). When such objectives are internalised by all actors involved in employment and education policies (recipients and civil officers alike), these performance targets shape wishes, expectations, etc., into adaptive preferences. In such cases, the objective of adaptability prevails over the enhancement of capabilities. Even if local actors do their best to help the neediest, performance targets established at the national level are often self-defeating instruments, since they actually prevent the achievement of the very objective of active labour market policies (and educational programmes), that is, quick and long-lasting, valuable professional integration. The everyday work of the local welfare or educational officer is thus locked within the difficulty of making his/her quantitative mission consistent with his/her real work.

As empirical evidence illustrates, such NPM approaches are often in line with classical top-down procedures: the main change consists in arousing local agents' responsibility and motivation in order to reach the centrally designed targets. As such, they do not fulfil the promises of the new patterns of situated public action. And, just like all top-down processes, they often produce local resistance to the central directives (for instance by cheating on the indicators) or meaningless ritual compliance. Indeed, these new modes of governance tend to reproduce the same disconnection between central directives and actual local practices that can be observed in all authoritarian frameworks such as the Weberian bureaucratic iron cage or the Taylorian firm. By

contrast, the capability approach requires the setting up of genuinely reflexive modes of governance, allowing all stakeholders to have their say and make it count within the decision-making process. As demonstrated in the previous section, the indeterminacy of the IJBJ of active labour market policies is a prerequisite for allowing all local actors to effectively take part in the public policy process. Besides, such active participation should not be conceived of as a duty, but as an opportunity offered to the beneficiaries, so that exit and voice options are made equally available to them. Indeed, restrictive systems of sanctions and penalties imposed on non-compliant beneficiaries do not contribute to a full enhancement of their capability for work and education or real freedom to choose their job or training programme. By contrast, the enjoyment of a set of unconditional and unquestionable rights (in line with the notion of ‘passive empowerment’) appears as a condition of capability-friendly policies in the fields of welfare and education.

4. Conclusion

The normative framework provided by the capability approach, and by the two key notions of “capability for work and education” and “capability for voice”, allows to tackle crucial political issues with regard to the current transformations of social policies, and particularly those addressing young adults facing multiple difficulties. By contrast, more conventional frameworks of public policy analysis miss the point in many respects: they can certainly assess the efficiency of social integration policies in terms of employment rate or of re-insertion rate, but have very little to say with regard to issues such as employment quality, self-fulfilment, real freedom to choose one’s job or education, active citizenship, etc. As such, they are not, in our view, adequate tools to assess the contemporary evolutions of social integration and educational policies and their impact on the individual capabilities of their recipients.

The capability approach enjoys comparative advantages with respect to each of the three main transformations of social policies. In this perspective, activation policies can be questioned not only in their efficiency (i.e. how many people get back to the labour market), but also in their substantial content and legitimacy: what is meant by “activation”? is it necessarily connected with a job on the primary labour market? Or does it encompass a wider notion of human activity or “agency”? Under what conditions does work or education contribute to human flourishing? Do social interventions encompass the whole configuration of individual and social conversion factors? Or do they insist only on individual parameters, thus exacerbating individual

responsibility without creating the conditions for such responsible behaviour? What is the main objective of public action: redistributing resources (as in the Fordist welfare state), activating people by imposing on them a specific functioning, or developing their capabilities? Etc. All these interrogations point to crucial issues for welfare and educational policies. The moves towards contractualised individualisation and territorialisation also raise many questions. These trends imply new modes of governance in the direction of more margin of manoeuvre for local agents and more respectful relationships with recipients and beneficiaries. Is it only rhetoric or does it translate into reality? Are the objectives and tools of public action determined with the active participation of all persons involved? Or are they imposed by external actors, be they experts, policy-makers or high ranking officials? Etc. Again, these are key issues in the contemporary context: indeed, does it really make sense to raise the employment or qualification rates if this does not translate in a corresponding enhancement of the capability sets? In contrast with most conventional approaches, the CA allows to tackle these crucial problems. As such, it opens a new and most needed research agenda to both investigate and assess current developments in the fields of welfare and education, and it suggests new avenues for policy-making, that aim not only at increasing efficiency or balancing public budgets, but primarily at enhancing the capabilities or real freedom to choose of its beneficiaries.

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Hans-Uwe Otto & Holger Ziegler

Evaluating the role of welfare institutions in enhancing capabilities

Current strategies of welfare services in Europe are characterised by transformations towards an activation of their clients and an individualisation of welfare provisions. Individualisation indicates that services are to be ‘tailor-made’ with respect to the problems and characteristics of their clients. This does not mean however that the autonomy, individuality and personality of the clients are given more attention. Rather it means that welfare services move away from delivering categorical programmes with (more or less) standardised benefits for instance for all unemployed people. In this context there is a tendency to classify the needs of clients in terms of statistical actuarial diagnoses. These diagnoses are a fundament for developing differentiated services which are ‘tailor-made’ in so far that they are developed to effectively tackling the problems of clustered risk groups in order to be most effective and efficient in achieving pre-defined aims or performance indicators (cf. van Berkel/ Valkenburg 2007)

Activation is embedded in this frame. It strives for restoring or enhancing client’s agency or acting capacity which is most often interpreted in terms of their productivity and other aspects of responsible behaviour which includes the acceptance of responsibility for one self and the willingness to fulfil what is regarded as common obligations of citizenship. Typically this is tantamount to enabling clients to actively pursue welfare ends. These ends most often reflect the overarching quest to overcome client’s dependency from welfare benefits. In this respect activating agency involves compulsion in particular with respect to a so called underclass whose members allegedly lack motivation for such agency. In some respects the current debates on agency are connected with approaches that make the ‘the poor’ responsible for their poverty and accuse welfare benefits to encourage passive behaviours.

The problem thus may be that the responsibility for ones live inappropriately lies on the individuals. At least there are some hints that a straightforward assumption of agency meshes well with criticising the way in which collective provision ‘disempowers’ individuals. In this line some commentators have suggested to concentrate on social policy measures which are not an “income-replacing compensation for industrial market failures” but rather “a societal investment, mobilising the developmental capabilities of citizens to achieve self-reliance under post-industrial

conditions” (Hemerijck 2006). Thus, not surprisingly, the new activating state is sometimes presented as freeing individual agency from the burdens of a crushing bureaucratic welfare state. These ideas may also be reflected in some interpretations of the capabilities approach. The capabilities approach seems to allow elaborating a sound conception of social justice while at the same time eclipsing unjust structures and unequal distributions of resources. In particular Anthony Giddens (2002: 39) has suggested that the capabilities approach builds an appropriate ethical fundament of the ‘third way’ as it “provides a solid philosophical grounding for meritocratic policies and one that dovetails well with the emphasis of the new social democracy upon investing in education and skills”. Also, for instance in Germany, conservative and neo-liberal intellectuals straightforwardly use the vocabularies of the capabilities approach – in particular the notion of “Verwirklichungschancen” which is the German expression of capabilities – to legitimise what they call ‘neo-social policies’. Neo-social policies are largely tantamount to anti-welfarism (cf. Pfeiffer 2010) in particular towards an alleged ‘underclass’ which is described in moral rather than in structural terms.

Of course there are sound arguments suggesting that is a misinterpretation of the Capabilites Approach. Nevertheless it is important to make clear what individualisation and agency means in the context of a capabilities perspective. Most importantly this means to develop a relational perspective which is able to relate the space of individual needs and powers with the social and institutional space of opportunities and constraints and evaluate the relation of these spaces with respect to their contribution to human flourishing.

This indicates that the resources, commodities, services and infrastructures that are in the possession of a person are to be evaluated as well as the real freedoms of the person to conduct her life in a manner she has reason to value. Eventually also the quality of life she actually lives has to be taken into account when aspects of social life are assessed from a capabilities perspective.

As welfare institutions frame the life of (vulnerable) people a capability perspective in evaluating this frame has to assess the dimensions outlined below:

The dimension of resources:

Are the infrastructures effectively accessible? What are the pre-conditions for clients to use them? Do the supplies reflect the needs of the clients? Do clients have to adapt to the supplies?

Do they have effective exit options, or are the services, programmes and provisions, offers that clients can not refuse?

The probability to achieve functionings:

With respect to the functionings of the clients an evaluation of welfare institutions comes close to traditional impact research. Thereby it is important to operationalise the defined ends in terms of sufficiently founded functionings. The functionings Anand and van Hees (2006) suggest are for instance “happiness, sense of achievement, health, intellectual stimulation, social relation, environment, and personal projects”. Analysing youth welfare services Hans-Uwe Otto and his colleagues have suggested and operationalised functionings in terms of health, accommodation and life world, bodily integrity, education, emotions, reasoning and reflection, affiliation, living together, creativity play and recreation and social and political participation and control of ones environment (Albus et al. 2010). The selection of these functionings large follows the suggestion of Martha Nussbaum (2006).

The dimension of capabilities or real freedoms:

There is a conceptual difference between analysing whether institutions are able to ‘produce’ valuable fuctionings or whether they are enhancing the capabilities sets of their clients. Following the CA, the proper aim of welfare institutions might not be to change the actual beings and doings of its clients, but rather to expand the scopes and scales of their capabilities set respectively their “substantive freedoms” (Sen 1999). Thus it might be misleading when welfare institutions are evaluated with respect to their effectiveness in forcing people into particular predefined aims. Rather the question is whether they contribute to expand the set of possible actions and states its clients are genuinely free to do and achieve in pursuit of the goals and values they have reason to value. Welfare institutions should be *effective* in expanding these freedoms. But then effectiveness might not be defined in terms of changing the particular doings and beings of welfare clients, but rather in terms of enhancing their freedoms and agency – that is, what is within their own control. Capturing this task implies a major challenge to evaluation research. Whereas the actual beings and doings are more or less directly measurable, the freedoms and agency of welfare clients to live a life they have reason to value are rather latent, unobservable, and interdependent. As Sen (1999: 53) writes that agency is “people’s ability to act

on behalf of goals that matter to them” and that the “freedom to achieve well-being is closer to the notion of advantage than well-being itself” (Sen 1985: 3). Thus to capture the freedom dimension is the major challenge. In terms of philosophy of science a fundament for the ascription of actions as free is that they are not situated in what Sellars (1956/1997) used to call the “logical space of nature” but the “normative space of reasons” i.e. a space of justifying and being able to justify what one says and eventually also what ones want and does.

In so far the capability perspective is rather value-oriented than investment-oriented (as for instance the human capital perspective).

Of course there are useful scales that come close to agency and freedom. Examples of such scales are the autonomy and self-determination scales from Ryan and Deci which promise to measure the propensity towards self-organisation and self-regulation. In particular the self-determination theory provides tools to grasp persons (perceived) ‘locus of causality’ (cf. Ryan/Connell 1989, Ryan/Deci 2000, 2001). Ryan and Deci classify the causality orientations of persons in a tree folded way:

Autonomy	People experience choice with respect to the regulation of their behaviour and feel to act on basis of interests and self-endorsed values.
Control	People experience events as controlling and feel that they have to act according to external influences:
Impersonal	People feel that they can not act intentionally and can not affect outcomes.

Yet measuring a person’s perceived autonomy and ‘locus of control’ alone might still be insufficient. As capabilities are powers and freedoms it seems to be appropriate to conceptualise them as mechanisms that indicate change. From this perspective central questions in assessing capabilities are “what activates the causal powers that are able to produce change” (Otto et al. 2009: 476) and to what degree is it the freedom and choice of clients to activate or not to activate these powers?

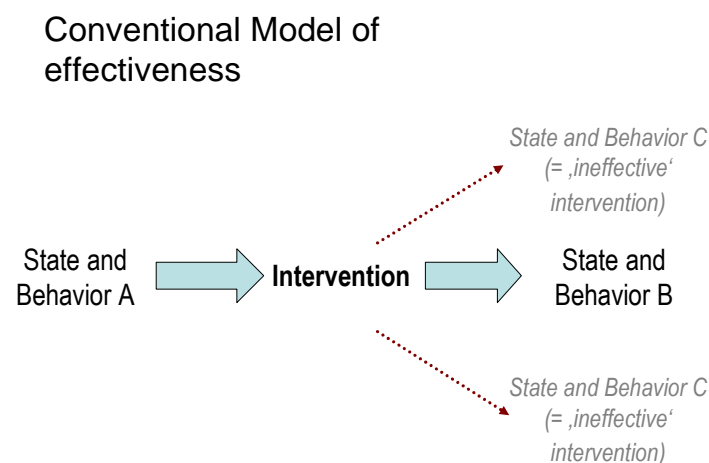
The challenge that lies ahead of a welfare service research and evaluation from a capabilities perspective might therefore be to identify the mechanisms that indicate such forms of change. This implies a kind of research that reaches beyond identifying statistical covariations,

correlations, and effect sizes in order to deliver explanatory knowledge about generative mechanisms that are responsible for such statistical relationships and to analyse this mechanism with respect to freedom, choice and control.

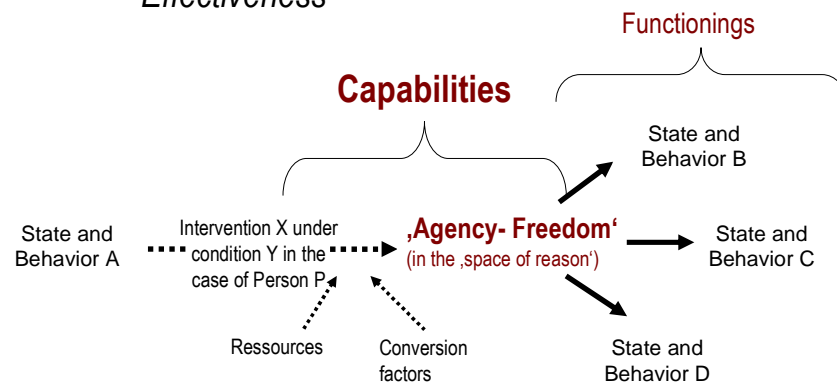
In this respect what Jean-Michel Bonvin (2009, Bonvin/Farvaque 2006) calls 'capability for voice' is an inherent feature of evaluating services from a capabilities perspective.

This is not only the case with respect of instrumental aspects. For instance effectiveness research in Social Work provides sound evidence that the degree of participation and involvement in decision making is one of the most important factors in explaining the effectiveness of interventions. Yet, capability for voice is also an inherently important dimension when evaluating welfare services from a capabilities perspective.

The possible difference of the basic models of a traditional and a capabilities based impact evaluation is illustrated below.



A CA Model of Assessing Effectiveness



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Colin Lindsay

The capabilities approach as a framework for assessing activation policies for young people: reflections from the UK

Abstract

Bonvin & Farvaque (2007) have provided a useful framework for deploying the capabilities approach in discussions of individualised models of activation policy. For Bonvin & Farvaque, a ‘capability-friendly’ form of public action to activate the unemployed would typically involve: a discursive process to inform policy from the bottom-up; a long-term perspective, based on promoting individuals’ freedom to choose the work and learning that they value; and an acknowledgement of both individual *and collective* responsibilities to act to promote capabilities for work and learning. Bonvin & Farvaque suggest that such a capability-friendly approach can be contrasted with a model of ‘Work First’ activation, which is informed by the concept of ‘employability’, and which is increasingly favoured in many EU states (and especially the UK). This article further develops Bonvin & Farvaque’s comparison of alternative models of activation based on capabilities and employability (this time also drawing a distinction between ‘Work First’ and ‘Human Capital Development’ approaches within employability policy debates). It then deploys these frameworks in order to evaluate the extent to which recent reforms to UK activation policy can be seen as capability friendly. The article’s deeper purpose is to raise questions around how the capabilities approach can be operationalised to inform research on young people’s experiences of activation, especially in welfare states like the UK where policy is more typically understood with reference to the concept of employability.

Introduction

The capabilities approach, as first developed by Amartya Sen (1982, 1993, 1999), has emerged as a key concept in assessing progress in social justice as a goal for international development policy. More recently, there have been attempts to apply the capabilities approach to public policy debates in the UK, for example on addressing inequalities faced by disabled people and other potentially disadvantaged groups (Burchardt, 2004; Burchardt & Vizard, 2007) and promoting wellbeing through education (Walker & Unterhalter, 2007). An even more recent literature has sought to deploy capabilities in discussions of active labour market policies (hereafter ‘activation’) that seek to help unemployed people to find work (Bonvin, 2008; Green & Orton, 2009). This latest extension of the reach of the concept of capabilities is particularly intriguing, not least because analyses of activation policy (especially in liberal welfare states such as the UK) have more often been framed with reference to the concept of ‘employability’. Indeed, a recurring theme in the literature has focused on the extent to which activation strategies can be best characterised as pursuing a ‘Work First’ approach to employability (based on compelling the unemployed to find any job as quickly as possible) or a ‘Human Capital Development’ (HCD) approach that focuses more on long-term skills and personal development (Peck & Theodore, 2001; Worth, 2005; Bruttel & Sol, 2006; Lindsay, 2010).

To what extent can the capabilities approach help to frame a critical assessment of activation policies for young people in the UK? Does the capabilities approach add value to discussions of activation by posing questions that are not addressed by different Work First and HCD models of employability? This article seeks to contribute to these debates by building upon existing frameworks that have been used to first compare ideal-typical capabilities-oriented and employability-focused approaches to activation (Bonvin & Farvaque, 2007), and second identify differences between Work First and HCD models within the employability paradigm (Lindsay et al., 2007). The article therefore seeks to consider if and how the capabilities approach can be operationalised to critically assess and challenge activation strategies, especially in welfare states like the UK, where policy is more typically understood with reference to the concept of employability.

Following this introduction, part two briefly reviews the capabilities approach and its deployment in discussions of activation policy. Part three first discusses Bonvin & Farvaque's (2007) framework for distinguishing capability-friendly and employability-focused models of activation, and second unpacks the employability paradigm with reference to Work First and HCD models discussed by Lindsay et al. (2007). Part four seeks to locate UK activation strategies within these different models as a means of reflecting on whether recent policy can be seen as promoting capabilities. Part five presents conclusions as to 'what's needed' if the UK is to arrive at a more capability-friendly approach.

The capabilities approach and activation

The key elements of Sen's (1982, 1993, 1999) capabilities approach need not be rehearsed in detail here, given the extensive literature that already exists. Suffice to say that, for Sen, welfare states need to replace utility with capability as the object of value (Burchardt, 2004). Human wellbeing should be defined by what people are able to do (functionings such as being healthy or being able to the life of the community); and the extent to which people are free to achieve such functionings (capabilities) – that is, their “ability to do valuable acts or reach valuable states of being” (Sen, 1993, p. 30). “A person's advantage in terms of opportunities is judged to be lower than that of another if she has less capability – less real opportunity – to achieve those things that she has reason to value” (Sen, 2009, p. 231).

Accordingly, for the capabilities approach, wellbeing should be assessed with reference to what people are free to be or do; for example, being able to work, to care, and to participate in the life of the community. Capabilities represent the potential to achieve valued functionings, governed by (for example) having access to skills development opportunities, working in an environment where individuals have the opportunity to make constructive contributions and engage in social interactions, and the extent to which people of your class, gender and race are permitted to participate in work and learning (Walker & Unterhalter, 2007). “Evaluating capabilities rather than resources or outcomes shifts the axis of analysis to establishing and evaluating the conditions that enable individuals to take decisions based on what they have reason to value” (Walker & Unterhalter, 2007, p. 3).

As noted above, these ideas have gained influence across a range of policy agendas, based on the view that the general approach “offers a broad normative framework to conceptualise and evaluate individual wellbeing and social arrangements in any particular context” (Walker & Unterhalter, 2007, p. 3). Yet an immediate concern in seeking to apply the capabilities approach to discussions of activation in the UK and elsewhere is that it is not a concept that has generally informed the debate or ministers’ decision-making in this specific policy arena. While there is a growing interest in the potential for capabilities to provide an alternative to the utilitarian basis of standard welfare economics (which in turn informs the activation paradigm in EU welfare states) (Burchardt, 2004), “these debates often take place outside the rooms where policy decisions are made” (Carpenter et al., 2007, p. 178). Additionally, given the power asymmetries that define the relationship between the individual and the state under the dominant employability-focused activation paradigm, it can sometimes be difficult to see where capabilities ‘fits’. As Deprez and Butler (2007, p. 223) argue, when reflecting on welfare reform and access to learning opportunities for female benefit recipients in the US, “the difficulty of operationalising the capability approach in the United States, apart from securing support from elected officials... is that the ability to secure higher education is, for the most part, out of the hands of poor women”.

Nevertheless, the capabilities approach has begun to influence elements of the UK policy agenda that touch on employability and activation. For example, the government-commissioned Equalities Review of 2007 produced an analysis of equality gaps across ten capabilities, including ‘the knowledge, understanding and skill to participate in society’, ‘living standards for independence and security’, ‘engaging in productive/valued activities’, ‘enjoying individual, family and social life’ and a ‘sense of voice and participation in decision-making’ (Cabinet Office, 2007). And the capabilities approach clearly has insights to bring to the employability and unemployment agenda that provides the main focus for this article. From a capabilities perspective, it is important to see unemployment in terms of impacts on wellbeing and quality of life as well as just economic penalties for the individual and a mis-aligned labour market. Stiglitz, Sen & Fitoussi (2009) note that even after controlling for loss of income, unemployed people report ‘lower life evaluations’ and negative effects in terms of stress and anxiety. A capabilities perspective also reminds us that the freedom to pursue work that one has reason to value is what counts. While “paid work matters for quality of life partly because it provides identity to

people and opportunities to socialise with others” (Stiglitz, Sen & Fitoussi, 2009, p. 49), it is suggested that wellbeing is defined by the quality of that work, the ability of the individual to cope with family and domestic responsibilities, opportunities for leisure and the adequacy of housing arrangements.

Furthermore, while UK policy makers have remained committed to a model of activation informed by principle of Work First and the drive to raise individuals’ employability (DWP, 2007), the rhetoric of recent reforms has emphasised a ‘triple devolution’ of decision-making, *apparently* designed to empower local communities, local activation/learning service providers, and (finally and crucially) the individual (Green and Orton, 2009). Government has also suggested that the inclusion of local stakeholders in the delivery of activation (combined with increasingly intensive personalised case management) has brought “unprecedented levels of individual choice into the system” (DWP, 2006, p. 74). These *apparent* overlaps between UK policy makers’ approach to activation and a capabilities approach that prioritises individual choice and a local form of ‘situated public action’ (Bonvin & Farvaque, 2007) raise the prospect that by applying capabilities to an analysis of activation we can provide understand the extent to which current measures are truly ‘capability-friendly’ or remain rooted in a Work First model of employability.

Comparing capability-friendly and employability-focused models of activation

In general terms, applying capabilities to the field of activation policy would mean evaluating activation against a measure of the extent to which it has enhanced the capabilities of beneficiaries, by allowing them to engage in work that they have reason to value (Bonvin and Orton, 2009). The ‘informational basis’ on which to judge policy is clearly a quite different standard than the job entry statistics (at micro or delivery level) or increased employment rates (at macro-economic level) that appear to be most valued by UK policy makers.

Bonvin and Farvaque (2007) have provided a useful framework for deploying the capabilities approach in discussions of individualised models of activation policy. They argue that a capability-friendly approach to activation can be distinguished from employability-focused approaches in terms of objectives (with a capabilities approach prioritising valued functionings and choice rather than increasing the employment rate); how responsibility is defined (with employability largely focusing on individual responsibilities compared to a more collective capabilities approach); and the role of local stakeholders (which submit to central government

priorities under employability models, but represent autonomous local action under a capabilities approach).

For Bonvin and Farvaque, a ‘capability-friendly’ form of public action to activate the unemployed would typically involve: a discursive process to inform policy from the ‘bottom-up’; a long-term perspective, based on promoting individuals’ freedom to choose the work and learning that they value; and an acknowledgement of both individual *and collective* responsibilities to act to promote capabilities for work and learning.

Bottom up local action

Bonvin (2008) distinguishes between models of governance in activation that are: *hierarchical*, with strong central state leadership, centralised budgeting and decision-making, and little recognition of local knowledge; *marketised*, with the central state setting targets and objectives, but devolving delivery to contracted providers and allowing some room for manoeuvre within the discipline of standardised models of intervention; and *capability-friendly*, based on a partnership between central government and local stakeholders, characterised by less hierarchical management and less highly structured, agreed objectives, a participative approach to defining the aims and indicators for public action and considerable autonomy and room for manoeuvre for local actors.

Policies informed by a capabilities approach should therefore reflect a capability for voice among end users and local stakeholders, traversing traditional distinctions between funders, expert delivery agencies and passive service recipients and embracing a plurality of views (Bonvin, 2009). If current UK policy is to be judged as capability-friendly, it would need to provide for genuine local action that empowered job seekers and stakeholders to have a voice in the development and delivery of activation; allow ‘room for manoeuvre’ for local stakeholders; and address the full range of environmental conversion factors, including local labour market conditions (Green and Orton, 2009).

For Bonvin and Farvaque (2007) key evaluation questions would therefore centre on issues such as “Are local actors able to affect the content and mode of implementation of policies?”; “Do institutional stakeholders reflect on end users’ views and include them in decision-making?”; and

“To what extent do end users and other local stakeholders (and communities) have a capacity for voice and the ability to participate in decisions?”

Individuals’ capability sets need to be developed and facilitated through ‘situated public action’ in the form of a network of local actors facilitating freedom of expression (Bonvin and Farvaque, 2006). Job seekers themselves need to participate in rule and norm setting as active contributors in activation. Centralised, top-down models of governance cannot achieve this. Accordingly, the first of the criteria set out by Bonvin and Farvaque (local action informing policy from the bottom up) is closely linked to their second (promoting individuals’ freedom to choose work and learning that they value). Activation programmes defined by top-down performance indicators limit the room for manoeuvre of local stakeholders to respond to beneficiaries’ needs (Bonvin and Orton, 2009)

Freedom of choice and empowerment

Within the context of the capabilities approach, the capability for work can be defined in terms of the freedom to choose work that one has reason to value. Given that some paid jobs may not deliver work that one has reason to value, people need to be able to escape negative work by withdrawing from the labour market (facilitated by the benefits system); and/or by transforming their work, through progression or participation in forming job design and content, forms of work organisation and working conditions (Bonvin and Farvaque, 2006).

The idea of agency is crucial to the capabilities approach, because of its underlying assumption that people should be active participants in their own learning and personal development (and in the life of their community), rather than passive spectators or recipients of services. From Sen’s perspective, it is important to acknowledge the role of agency freedom as well as wellbeing freedom – focusing on wellbeing as an outcome measure alone misses the value to the individual of having the freedom to do what is in his/her view in line with ‘the good’ (Sen, 1985). To be active in shaping and reflecting on one’s own life is essential to individual freedom and positive social change. “Agency here is taken to mean that each person is a dignified and responsible human being who shapes her or his own life in the light of goals that matter, rather than simply being shaped or instructed how to think” (Walker & Unterhalter, 2007, p. 5).

Accordingly, service users needed to be empowered through the provision of sufficient resources (such as unemployment benefits) but also have access to appropriate conversion factors so that these resources can be converted into enhanced capacity to do work that they have reason to value. As Bonvin and Orton (2009) note conversion factors are likely to take in both individual characteristics (such as skills and knowledge) and the socio-economic context (for example, a legal framework that combats discrimination, and crucially a labour market context that offers valuable work opportunities). So, key issues for consideration may include: Are sufficient unemployment benefits (resources) made available to beneficiaries? What time limits and conditions are applied? Do activation interventions addressed the individual conversion factors that can help people to improve their likelihood to find a valuable job? Are there sufficient and decent quality opportunities in the labour market? (Bonvin and Orton, 2009).

A capabilities approach can be seen as a “holistic and humanistic approach in which all needs and aspirations are addressed, rather than simply focusing on getting people into employment at all costs” (Carpenter et al., 2007, p. 170). Accordingly, “people cannot be considered responsible if they have not been equipped with the means to exercise such freedom of choice” (Bonvin, 2009, p. 56). A capability-friendly approach needs to focus on capabilities not functionings, with “concern for individual freedom of choice at the very centre of social intervention... As a result the main objective of public action in the field of welfare should not be to put people back into work at all costs (i.e. a functioning) but to enhance their real freedom of choice with regard to the labour market” (Bonvin, 2009, p. 56). People should be able to choose between opportunities rather than find themselves being ‘adapted’ to existing low-quality jobs, as is often the focus for employability policies. “In the capabilities perspective work needs to provide adequate security in terms of material wellbeing and to open up possibilities for individual self-fulfilment. This implies that imposing a badly paid or poorly attractive job... on a job seeker cannot qualify as enhancing her capability set” (Bonvin, 2009, p. 51).

Acknowledging individual and collective responsibilities

As we have seen above, Bonvin and Farvaque (2007) argue that active labour market policies must be understood in terms of their interaction with conversion factors that provide the social, economic, environmental and political context for progression in learning and the labour market.

For example, in a deprived area where there are few jobs and poor training infrastructures job seekers will not enjoy the same opportunities as those in better off communities – “the availability of job opportunities, as well as their quality, matters” (Bonvin, 2009, p. 61).

In empowering individuals’ capacity for independent action in learning and work (and so enhancing their capabilities) policy needs to address both the resources available to individuals (for example, by ensuring that they have adequate benefits) and the conversion factors (ranging from individual factors like skill levels to opportunities for socio-economic mobility, the legal and policy context, and crucially the accessibility and quality of job and learning opportunities) that will decide if they are able to convert those resources into a capacity for action (Bonvin and Orton, 2009).

Accordingly, the focus is not merely on the individual’s responsibility to upskill and adapt him/herself to existing labour markets and opportunities. Rather, there is a collective responsibility to ensure that all have access to appropriate resources and conversion factors – crucially for the context of activation this means that there is a collective responsibility to deliver sufficient and appropriate job opportunities; to allow a degree of choice for the individual in pursuing the work that they value (and/or sufficient voice to adapt and transform work that is not seen as valuable); and to ensure that individuals can balance work with other capabilities (for example, for caring) (Dean et al., 2005). So “the enhancement of the capability for work does not boil down to a restricted view of employment or social integration policies (aiming at improving job seekers’ employability) but also implies shaping the social environment in order to make it more inclusive” (Bonvin, 2009, p. 61) – “the capability logic allows the development of a conception of employability as a collective responsibility” (Zimmermann, 2006, p. 473). And it is again important to note that ensuring collective action to secure that there is demand for decent, valuable employment (demand-side employment policies) is seen as as important to capabilities as are employability programmes that address individual conversion factors like skills. “Employability programmes without employment policies do not make sense in the capability perspective” (Bonvin, 2009, p. 56).

Work First and Human Capital Development in UK activation

At first sight, the UK model of activation appears to take little from the capabilities approach. The direction of change in UK activation over the past two to three decades has been characterised as reflecting a shift from Keynesian welfare state norms towards free market labour market policy and the establishment of workfarist approaches to activation (Carpenter and Speeden, 2007). The key elements of post-Keynesian economic policy – the drive for growth through flexible labour markets, wage competition and adaptable workers – have arguably straitjacketed UK social policy (Carpenter and Speeden, 2007). This has led to labour market strategies that prioritise the creation of low-paid jobs and Work First activation to integrate marginalised groups.

Indeed, the Labour government elected in 1997 described its employability and labour market policy as a 'Work First approach to moving people from welfare into work' (DWP, 2003, p. 3). For Ministers, establishing 'a Work First service for all people of working age' (HM Treasury, 2001, p. 32) was central to early reforms such as the introduction of programmes like the New Deals; while the need 'to reinforce the Work First principle' (DWP, 2007, p. 82) has more recently informed increasingly aggressive activation soon after job seekers' make a claim for benefit. Lindsay et al (2007) suggest that the precise definition of Work First is unclear from policy documents, but that there was and remains an obvious emphasis on job seekers, wherever possible, moving quickly towards any kind of work. As Peck and Theodore (2000) argue the roots of UK policy makers' Work First thinking are somewhat different to the superficially similar workfare ideology in the US. In the US, workfare polemicists are strongly attached to the idea that a dependency culture among the poor explains persistent unemployment and disadvantage (Murray, 1990; Mead, 2001). Such thinking still leads to its believers advocating Work First policies. For example, Mead (2001) sets up a false dichotomy between Work First activation and a sort of aimless (and probably apocryphal) 'education for education's sake' in order to justify punitive workfare measures. Yet while there are echoes of these arguments in the UK debate, here Work First employability strategies are more clearly rooted in supply-side labour economics, and especially an analysis of long-term unemployment that leads to a belief in "Work First over training first" as a means of improving labour market outcomes (Layard, 2004, p. 5). "As a result policies seek to address the problem of unemployment at the level of the individual; personal

failings rather than a lack of labour market opportunities tend to be used by way of explanation; and Work First programmes have become, in many cases, the new orthodoxy in labour market policy” (Lindsay and Serrano Pascual, 2009, p. 952).

Whatever their roots, international reviews have noted a number of common features of Work First employability programmes. Such programmes are short-term and often focus on improving the individual’s motivation and generic skills (Daguerre, 2007). They tend to restrict access to vocational training and human capital development, so that “a Work First approach means that workers are allowed to access intensive services such as training only after they prove they cannot find a job without additional skills” (European Foundation, 2004, p. 9). Work First measures often operate alongside strong levels of compulsion and conditionality in access to benefits (Daguerre, 2008) so that “Work First uses sanctions as a main component in its approach, rather than trust” (Sol and Hoogtanders, 2005, p. 147). And crucially, Work First focuses on “immediate labour market entry” (Mitchell et al., 2007, p. 294), with job search itself often a key activity (if not the only activity) in these programmes (Bruttel and Sol, 2006). Finally, as Bellamy and Rake (2005, p. 27) note, Work First programmes “have targeted participation in employment above and beyond access to quality employment”. “A Work First strategy... encourages recipients to take any job, even a low-wage entry-level job” (Handler, 2006, pp. 119-120) because “the aim is not to establish a long-term career goal but to reinforce the belief that any job is a first career step, no matter how precarious this employment might be” (Sol and Hoogtanders, 2005, p. 147). Work First programmes also tend to offer little by way of engagement with the “geographically uneven labour market in which people are searching for work” (Grant, 2009, p. 331).

Sol and Hoogtanders (2005), Lindsay et al. (2007) and others distinguish between Work First and HCD approaches. They argue that HCD approaches are distinguished by the rationale that job seekers will often require substantial support (potentially over a prolonged period) in order to improve their long-term employability (with the implication that this will require substantial investments in the education, skills and health of individuals). The aim is to facilitate the development of skills and attributes that will equip people to find and retain suitable jobs, and advance through in-work progression routes (Peck and Theodore, 2001). Its targets are less concerned with ‘quick wins’ (i.e. immediate placement of clients into any type of job) and more focused on sustainable transitions to work and progression through education, training or work

experience. Its intervention model requires that standard employability services (and, if necessary, long-term education and training) are integrated with a range of other holistic services addressing the full range of barriers to work faced by job seekers (Bruttel and Sol, 2006). This in turn requires professionals, such as ‘Personal Advisers’ (PAs) or case managers, capable of working with clients in a holistic way to improve their employability (Lødemel and Trickey, 2001). In connecting with both the individual and the labour market, HCD approaches focus on high quality, sustainable outcomes, prioritising measures to promote continuous skills development and in-work progression. Work First approaches generally discourage entry into long-term learning for HCD as a route out of welfare dependency (Deprez and Butler, 2007).

Worth (2005) and Lindsay et al (2007) have suggested that the UK policy agenda since 1997 has retained hybrid elements of both approaches. Carpenter and Speeden’s (2007, p. 140) review of Labour’s activation policies concurs that “although they share features of European human capital approaches, they increasingly emphasise a US style Work First strategy”. The strengthening of Personal Adviser provision under the New Deal and its successor Flexible New Deal has been seen as a positive move (Green and Hasluck, 2009). More generally, the inclusion of a wider range of providers and arguably an element of choice in the sort of activities open to job seekers may have resulted in a more “client-centred experience” for some (Finn, 2003, p. 721). The roll-out of Pathways to Work, while extending compulsory activity to those claiming incapacity benefits, has allowed for the development of innovative, voluntary health interventions and new forms of partnership-working with the NHS (DWP, 2008). And area-based policies such as City Strategy Pathfinders have sought to tailor employability provision to reflect the needs of disadvantaged communities and depressed labour markets (Green and Orton, 2009).

However, these inconsistent and halting attempts to incorporate a more holistic, human capital-oriented model of employability provision have been contradicted by a recent increasing focus on contracting-out and Work First activation. A reliance on work-focused interviews and structured job search activities has been reinforced by ‘payment-by-results’ contracting that feeds into the prioritisation of ‘quick wins’ – i.e. promoting entry into paid employment for those closest to the labour market. Processes of ‘creaming and parking’ (targeting the easiest to help rather than those with substantial barriers) have arguably followed (Van Berkel and Borghi, 2008). Meanwhile, the intensive, flexible and (if necessary) long-term interventions required by

people facing severe health, personal or social problems have not fully materialised (Dean, 2003). Vocational skills development activities remain under-developed, and indeed in some cases prohibited by ‘availability for work’ rules that job seekers are required to comply with (Smith et al, 2008). For Lindsay et al. (2007, p. 558) “there has been limited progress towards the kind of well-resourced, vocational training that is arguably the cornerstone of any genuinely human capital-oriented labour market strategy”.

Nor have these “schizophrenic attempts to combine Work First and human capital approaches” (Lindsay, 2009, p. 182) been able to produce a model of provision that effectively engages with employers or provides adequate in-work progression routes for those gaining entry-level employment. Job seekers are expected to find their way into sectors that may be unfamiliar and that sometimes offer few opportunities for development and progression into better paid work (Lindsay and McQuaid, 2004; Warhurst and Nickson, 2007; Ray et al, 2009). Meanwhile, many employers “see themselves as the passive recipients of appropriate candidates for job vacancies” (Lindsay and Serrano Pascual, 2009, p. 954) – it has proved difficult to persuade them that they have a role to play in providing decent opportunities and support for those entering work after a period of unemployment (Danson and Gilmore, 2009).

It is understandable that for Peck and Theodore (2000a, p. 132) little can be achieved by Work First “in terms of the alleviation of poverty, skill shortages or structural unemployment. Work First programmes are pitched in such a way that... interventions are far too brief and modest in scope to allow participants an opportunity to move into stable, high-quality jobs”. Given these failings, it is unsurprising that the “modest and contradictory results” (Lindsay and Serrano Pascual, 2009, p. 952) that have been common to Work First programmes across the EU have similarly defined the outcomes achieved for job seekers in the UK.

Worth (2005) and Lindsay et al (2007) argue for the need for a shift towards longer term HCD-oriented approaches within UK employability policy; and the focus of the policy debate in the UK is on whether and how “improvements can be made along human capital and Work First Plus lines” (Carpenter et al., 2007, p. 161). However, it is important to acknowledge the limitations of even HCD models for labour market integration, and how thinking about capabilities may be able to move the debate on. “In the field of employability, human capital is exclusively focused on what a person is able to do” in terms of skill sets to be deployed for profit in the labour market,

rather than what opportunities they have (Zimmermann, 2006, p. 473). The objective is not to reduce the queue of people waiting for a job, but to let some of them move forward in this queue, by better adapting them to opportunities (Bonvin and Moachon, 2009). But action on the demand-side (to create and adapt job opportunities that people have reason to value) does not appear to form part of HCD approaches.

To conclude, HCD policies can produce a more efficiently functioning labour market without necessarily impacting on individuals' freedoms, capacity for choice or wellbeing. For Sen (1999, p. 295-6): "The use of the concept of 'human capital', which concentrates on only one part of the picture (an important part, relayed to broadening the account of 'productive resources', is certainly an enriching move. But it does need supplementation. This is because human beings are not merely means of production, but also the end of the exercise". Delivering skills training may well improve a person's functioning in the economy, but... skills and knowledge that may be exploited in the labour market are not the same things as capabilities (Dean et al., 2005).

Figure 1 below seeks to bring together these discussions of Work First and HCD approaches to employability, and to identify how these differ with each other and a capabilities approach to activation. We can see that a capabilities approach challenges the consensus around employability on a number of grounds. It is based on the **objectives** of empowering people to choose work that they have reason to value (and to reject or actively transform non-valued work) rather than a Work First objective of fitting people to any job, or an HCD approach that seeks to adapt individuals to improve their longer term skills profile and position in the labour market. As a result, a capabilities approach would require a different **informational basis** (and different targets by which to judge success), implying a shift away from simplistic job entry or skills attainment targets (or even increasing employment rates as a macro-level target), and towards more long-term, holistic measures of progression in work and learning, wellbeing and satisfaction.

Whereas employability-based approaches to activation have limited engagement with the scale, range and nature of employment opportunities, and institutional barriers that may prevent people from achieving work that they have reason to value, these **socio-economic conversion factors** would be at the core of a capabilities approach. And finally, a capabilities approach would imply an entirely different type of relationship between the state, individuals and communities.

Whereas Work First assumes a **relationship with the individual** based on compulsory activity imposed from the top-down (and HCD approaches, while emphasising quality and choice in services, still see the individual as a passive consumer), capabilities approaches would demand active participation from service users in shaping provision and the outcomes that it is meant to deliver in terms of opportunities to achieve work of value. Similarly, employability-focused models generally assume a top-down approach to service delivery and a limited **role of local action** in shaping the governance and content of provision. In contrast, a capabilities approach demands a clear role for local actors and individuals in shaping the objectives, informational basis and content of provision within a discursive space. Local autonomy and room for manoeuvre for local partners to shape the design and delivery of services would be key to such an approach.

Figure 1 Work First and Human Capital Development approaches to employability versus capabilities approaches

	Work First approaches	HCD approaches	Capabilities approaches
<i>Objectives</i>	Entry into employment; improved short-term employability towards immediate employment	Long-term employability through improved education, skills, health, and personal development	Capability to choose work and life opportunities with reason to value
<i>Informational basis/targets</i>	Job entry statistics at micro-level; employment rates at macro-level	Sustainable job entries at a range of skill levels with progression routes once in work; productivity and employment rates at macro-level	Trajectories in learning and the labour market; progression/ integration at work; wellbeing and satisfaction; life/work balance
<i>Engagement with socio-economic conversion factors</i>	Adapts job seekers into immediately available opportunities in labour market; limited engagement with role of labour market inequalities in shaping opportunities	Up-skills job seeker to expand range of opportunities in labour market; encourages and supports progression in workplace; limited engagement with role of labour market inequalities	Engages with social and economic context in shaping opportunities (including spatial/ labour market dynamics); factors limiting integration; social stratification/ challenging embedded inequalities
<i>Relationship with the individual</i>	Passive receiver – use of sanctions and/or financial top-ups to promote job entry and compel activity	Passive receiver, some added choice – encourages participation by promoting access to better quality work/learning opportunities	Active participant with voice in shaping the design/delivery of interventions; capacity to escape work that is not valued by shaping experiences or choosing alternatives
<i>Governance/ role of local action</i>	Local actors as executive agencies delivering centrally defined objectives; Clear divisions between funder, deliverer and receiver of services; centralised control through state institutions or contractual requirement, with limited autonomy and voice for local stakeholders; top-down decision-making rather than shared responsibility through partnership-working		Local actors and individuals able to shape objectives/informational basis in discursive space; autonomy and room for manoeuvre in design and delivery; partnership-working

Sources: adapted from Lindsay et al. (2007); Bonvin and Favarque (2007)

UK policy and conclusions

As noted above, while UK policy makers remain committed to a model of activation informed by principle of Work First and the drive to raise individuals' employability (DWP, 2007), the rhetoric of recent reforms has emphasised a 'triple devolution' of decision-making, *apparently* designed to empower local communities, local activation/learning service providers, and (finally and crucially) the individual (Green and Orton, 2009). The previous UK Government's recession-era establishment of a 'Young Person's Guarantee' of a work placement or learning programme has similarly been presented as promoting choice and opportunity for unemployed young people.

Green and Orton (2009) explore the extent to which the City Strategy Pathfinder programme offers scope for situated public action in terms of valuing the input of local actors and providing for empowerment and voice among individuals and communities. They note that, compared with some national UK programmes, City Strategy Pathfinders were allowed some freedom from central government control and a degree of local flexibility through additional funding for 'enabling measures'. However, opportunities for voice among local stakeholders were limited and inconsistent; for individuals the only aim of public action is to find paid work, not necessarily work that is valued or that they have opportunities for development within; and central government support for enabling measures was both necessary and rare – most local programmes followed a top-down national model.

Situated public action in line with a capabilities approach would mean that the management and delivery of activation would be located within established networks of negotiation and decision-making among local communities and stakeholder groups, as opposed to more hierarchical forms of governance based on command and control practices and state authority (Green and Orton, 2009). Green and Orton (2009) question if the shift towards localisation of activation strategies in the UK has actually produced enhanced opportunities for expression in terms of work capability and improved potential for voice among programme participants. Even targeted local initiatives (like the City Strategy Pathfinders discussed by Green and Orton (2009)) remain largely centrally controlled, dependent on

central government for funding, and driven by an analysis (or informational basis) defined by central government. Requests for additional flexibilities (known as ‘enabling measures’) have mostly been rejected by central government. And in terms of relationships with the individual, the aim remains to move people into existing opportunities (with any kind of work seen as positive) rather than on enhancing the choices open to the individual to engage in work (and other aspects of life) of value.

In conclusion, the UK model of activation is far from being ‘capability-friendly’. Nor is the capabilities approach prominent in analyses and debates around the UK model. Rather, much of the debate focuses on the extent to which UK activation policy focuses on Work First or HCD approaches to employability, and if/how these can be combined. Nevertheless, placing a capability-friendly model of activation alongside these serves a useful purpose in providing a new framework to critically assess and challenge existing approaches. The capabilities approach reminds us of the severe limitations of current UK policy, its assumptions, governance and content. The UK model of activation is too focused on a Work First approach to improving employability, rather than promoting individuals’ capabilities to choose the work that they have reason to value. Thinking about activation from a capabilities perspective also helps to expose the weaknesses in a UK model that does little to engage with the external, socio-economic conversion factors (from labour market demand, to the quality of work to employment relations norms) that limit opportunities to achieve good work. And crucially, a capabilities perspective also exposes the UK approach to activation as essentially centralised and top-down, denying individuals and communities the voice and autonomy to make choices and shape futures. The UK model of activation falls well short of a capability-friendly approach, but thinking about capabilities can help us to constructively critique and challenge the limitations of current policy in the UK.

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A social theory for the capability approach: conversion factors, capabilities and education

Abstract

The paper claims the chance to tackle the Capability Approach from a sociological point of view. In particular, it will consider the CA in the context of sociology of public action: while Sen insists on the social embeddedness of individual agency, the approach does show some controversial points in this direction. To address this purpose, we will develop some views regarding the links between individual capabilities and what can be referred to as “the institutional dimension of capabilities”. Aiming at studying this link, particular attention will be paid to the construction of an analytical grid that will help the analysis of the so-called educational situated action, and to the role of conversion factors. Although Sen never proposed any conceptualization or specification of the conversion factors, they indeed play a relevant role in the achievement of capabilities as they are related to both people and contexts. They can thus be considered as significant in building up a sociological toolbox that will sustain the CA and to better develop a useful framework to analyse the educational situated action.

As Sen emphasizes, education is a dimension that specifically encourages critical reflection, the ability to debate, public reasoning and the inclusion of traditionally excluded voices: it is a relevant human development dimension. In this context, such analysis is particularly relevant in order to deal with our research issues and fields.

1. Introduction

The paper claims the chance to tackle the Capability Approach from a sociological point of view. While Sen insists on the social embeddedness of individual agency, the approach does show some controversial points and weaknesses in this direction. To address this purpose, we will develop some views regarding the links between individual capabilities, conversion factors and what we refer to as the institutional dimension of capabilities. The aim of our

work is to develop some conceptual tools to allow us to analyse what can be called a “situated educational action” i.e. a local action in the education field that promotes the pupils’ capabilities to develop their rights, freedoms and chances to have access to the functionings and the life they have reason to value.

In doing this, we will follow the path here drawn:

- Firstly, we will focus on how Sen develops the social dimension of capabilities in his approach.
- Secondly, we will focus on conversion factors and the institutional dimension of capabilities, i.e. those conceptual tools that can be useful to analyse the social dimension of capabilities from a sociological perspective;
- Finally, we will try to develop the practical concept of “situated educational action”.

2. The Capability Approach social dimension

As we know, Sen differentiates between capabilities and abilities: in its perspective, “ability” is an individual characteristic while “capability” is a capacity that society gives (or refuses) to people. So, according to Sen “the societies and the communities to which we belong offer very different opportunities as to what we can or cannot do” (Sen 1992: 21) and the “social arrangements may be decisively important in securing and expanding the freedom of the individual. Individual freedoms are influenced, on one side by the social safeguarding of liberties, tolerance, and the possibility of exchange and transaction. They are also influenced, on the other side, by substantive public support in the provision of those facilities (such as basic health care or essential education) that are crucial for the formation and use of human capabilities (Sen 1999: 42). Therefore, institutions and public policies play a crucial role in promoting and sustaining individual capabilities due to the fact that people “live and operate in a world of institutions. Our opportunities and prospects depend crucially on what institutions exist and how they function. Not only do institutions contribute to our freedoms their roles can be sensibly evaluated in the light of their contributions to our freedom” (Sen 1999: 142).

According to Sen, individual capabilities are crucially grounded on “economic opportunities, political liberties, social power, and enabling conditions of good health, basic education, and

the encouragement and cultivations of initiatives” and on the institutional dimension that make these conditions possible: “capabilities are also influenced by the exercise of peoples freedoms, through the liberty to participate in social choice and in the making of public decisions that impel the progress of these opportunities” (Sen 1999: 5).

The existence of public initiatives that create “social opportunities” bears a crucial relevance in both economic and social development: “in the past of rich countries of today we can see quite remarkable history of public action, dealing respectively with education, healthcare, land reforms and so on. The wide sharing of these social opportunities made it possible for the bulk of the people to participate directly in the process of economic expansion” (Sen 1999: 143).

In the capability approach there is a conceptual shift from the focal variable of the distribution of individual income to the issue of capacitation deficit. This “(...) points directly to the case for greater emphasis on direct public provisioning of such facilities as health services and educational programs” (Sen 1999: 133-134).

In particular, there is a focus on the relevance of public goods and their relevance to reach some freedoms and chances, that are impossible to achieve differently: “some of the most important contributors to human capability may be hard to sell exclusively to one person at a time. This is especially so when we consider the so-called public goods, which people consume together rather than separately” (Sen 1999: 132). The reduction of inequalities through public policies aiming at providing people with what they want, “can be seen as an enhancement of people’s real freedom” (Sen 1992: 66)

Nonetheless, in the Capability Approach the public distribution of primary goods (or resources) is a fundamental dimension in understanding the role of public policies: they are crucial not in the promotion of freedoms but in making more accessible the means to freedom for everyone (Sen 1992: 89).

Moreover, Sen recognizes the relevance of public policies in social development and in the promotion of people capabilities. As he said: “The state and the society have extensive roles in strengthening and safeguarding human capabilities. This is a supporting role rather than one of ready-made delivery”(Sen 1992: 53). The expansion of individual freedoms is both an important aim for development. So, according to Sen liberties have two roles: on the one

hand a “constitutive role” that pertains to the relevance of substantial freedoms as purposes to reach collectively (i.e. those elementary capabilities like being able to avoid deprivations such as starvation, undernourishment, escapable morbidity and premature mortality, as well as the freedoms that are associated with being literate and numerate, enjoying political participation and uncensored speech and so on); and they have on the other hand an instrumental role, i.e. they are means to develop substantial freedoms. Thus, the instrumental freedoms directly enhance people’s capabilities and they can reciprocally integrate and reinforce.

In particular, in the instrumental freedoms there are “social opportunities” and “protective security” that highlight the importance of public policies in promoting individual capabilities:

- Social opportunities refer to the arrangements that society makes for education, healthcare and so on, which influence the individual’s substantive freedom to live better. “These facilities are important not only for conducting private lives (...) but also for more effective participation in economic and political activities”;
- protective security is needed to provide a social safety net and it “includes fixed institutional arrangements such as unemployment benefits and statutory income supplements to the indigent as well as ad hoc arrangements such as famine relief or emergency public employment to generate income for the destitute” (Sen 1999: 39-40).

3. The social dimension of choice and its critiques

As we have just analysed, according to Sen’s perspective, the process of choice incorporates a social dimension. Peter Evans (2002) developed very clear remarks about it. As he points out, the importance of the capabilities approach is connected not only to the redefinition of the bases of economic development but also to “Sen’s lifelong efforts to theorize the possibility and necessity of “social choice” (Evans 2002: 55). While Sen claims the inadequateness of the utilitarian approach, he not only supports the need of reconsidering people’s freedom to choose the life they value - and have reasons to value - but also argues the necessity of the involvement of citizenry in the public discussion that debates and decides the priorities.

Moreover, as Evans points out “gaining the freedom to do the things that we have reason to value is rarely something we can accomplish as individuals. For those already sufficiently privileged to enjoy a full range of capabilities, collective action may seem superfluous to capability, but for the less privileged attaining development as freedom requires collective action. Organized collectives – as unions, political parties, village councils, women's groups, etc. – are fundamental to "people's capabilities to choose the lives they have reason to value" (Evans 2002: 57). Evans focuses on the Kerala case, one of Sen's favourites, in order to show the central role of collective action and mobilization in developing public debate and deliberation and the expansion of freedom that derives from them.

Yet, despite Sen's account of the social – and collective - dimension, from a sociological point of view there are some persuasive critics about this part of his work. The most relevant come from some of his followers and highlight the scarce attention paid to the processual and interactive dimension of agency.

Following Zimmermann (2006: 470), Sen – like the pragmatists – “emphasizes the role of values and environment as well as habits and multiple preferences in the shaping of action”. Besides “without falling into the trap of individualization, the capability approach insists on social diversity as a core issue of any theory of justice (Zimmermann 2006: 472)”. But there are also two weaknesses: the first involves the concept of freedom. “Sen's approach relies on a substantive, essentialist understanding of freedom. Given the ethical dimension of his project, he considers freedom as a value. From this point of view, it may be coherent and sufficient to consider individuals as human beings and to distinguish them according to generic variables. But problems arise with the introduction of the concept of agency that requires a different conceptualization of freedom giving room to interactions” (Zimmermann 2006: 476-477). Furthermore, the concept of agency demands that we deal with interactions. “If one understands meaning as arising in the process of interaction between people and social interaction as a process that forms human conduct, then freedom [...] has to be empirically anchored in the structuring, but changing, interactions between persons” (Zimmerman (2006: 477). But Sen's concept of agency remains sociologically unspecified and weak because he does not consider the required skills and social supports that are necessary to make decisions. “Even if he refers to the person's situation, corporeity and sociality, these

dimensions remain abstract postulates in his plea against the mainstream models of rational action” (Zimmermann 2006: 474).

These critiques raise relevant issues and problems regarding the sociological operationalization of the capability approach. Therefore, to sum up, “freedom should not be considered as a state, but as a process of interactions and power relations. Rather than manifesting itself as a given and stabilized condition, it occurs through permanent doing. As a consequence, the capability issue is not only a matter of enjoying freedom of choice and being able to convert it into effective achievements, it also raises the question of the production of capabilities and their changing set over time” (Zimmermann 2006: 477-478).

According to these critiques, others scholars claim that the social structure of agency in the CA is blurred. Following Dean (2009: 267): “The approach obscures or neglects the constitutive nature of human interdependency”. Dean’s critiques are quite severe: “in the space of capabilities the individual is one step removed; she is objectively distanced from the relations of power within which her identity and her life chances must be constituted. Within the space of capabilities there are three major issues, which the individual cannot readily see and which are seldom clearly discussed. First and in any event, human beings cannot be free from their dependency upon other human beings. Second and third, under capitalist social relations of production, individuals can be free neither from hegemonic controls over their participation in the public realm, nor from the direct or indirect consequences of the exploitation of human labour” (Dean 2009: 267).

4. Why is the social dimension of CA relevant?

As we have claimed, the social dimension of capabilities and agency is relevant to making the most of Sen’s approach.

This dimension is an important part of the concept of capability. As Carlo Donolo points out (2008), this concept, which is grounded on individual and positive freedoms, “underlines a person’s social dimension, because only a socialised person can be considered as a person, and she is a person only because of her socialisation”.

Moreover, the relationship between individual and collective is another main feature of the CA. In this sense, a person is capable with regard to:

- the system of opportunities that is socially available, i.e. the chance and opportunities that the social environment offers to the person;
- the network of institutions and capacitating contexts people belong to. In this direction people are capable if they belong to a capacitating context because individual capabilities depend on collective capacitating belonging.

In fact, these arguments are present in Sen's thoughts, especially against utilitarianism, but most of them are implicit and fragmented.

From this point of view, investigating the social dimension of capabilities allows the development of the analytical path drawn by Sen himself. In particular, it helps us to better understand how:

1. Capability is connected to substantial or positive freedom. Here, we come to the classic distinction between negative freedom and positive freedom (Berlin 1969). The former is defined by the absence of external constraints and limitations, while the latter involves the possibility of actually doing and attaining something. From the CA perspective, positive freedoms involve the social context that makes possible, impinges or promotes their development.
2. Capabilities are connected to the voice (capability for voice), namely "the ability to express one's opinions and thoughts and to make them count in the course of public discussion" (Bonvin and Thelen 2003). That implies capabilities are constructed, expressed, transformed thanks to collective debate and discussion.
3. Capabilities imply power issues and they request democracy. Capabilities, in this perspective, are equivalent to powers of choice. Salais (2008) stressed the relationship between capabilities and powers of choice calling upon an example Sen had made. The example involves two different ways of living in an environment freed from the risk of an epidemic. One is to give individuals the freedom of choosing whether to stay or to leave, based on their preferences. The other is to create public politics that eliminate the risk of an epidemic. Therefore, individuals have the power to live in a safe environment.
4. The context in which the choice happens implies not only the constraints limiting the freedom of choice and voice but also the opportunities that support it (as evidenced in the epidemic case).

5. The actors can redefine the context. This is a delicate issue that sticks to the actors' effective powers to transform the context instituted by the action. In this sense, it is the chance to concentrate on the conditions that allow or impede an effective participation of people in choices referring to their wellbeing.

4. A sociological approach to tackle the CA social dimension

Thus, as we considered at the beginning of our paper, Sen's approach refers to some kind of social dimension that we would like to deepen further.

In order to have a sociological perspective on Sen's social dimension, we will focus on Conversion Factors, i.e. those factors that promote or impede the conversion from formal rights and freedoms to effective rights and freedoms, and on the institutional dimension of capabilities, i.e. the social and collective dimension of capabilities.

If our aim is to analyse the educational situated action and the decision making processes that shape it, we have to bear in mind that policies are the arena where public institutions, norms and regulations act, where visions of the world and référentiels take shape, where grammars of justification find expression and where criteria of justice are instituted and applied. In this sense they display a normative density. Thus, if we want to analyze policies, we need tools that allow us to consider both the normative, and the rational and purposive components of action jointly, and to recognize their reciprocal determinations.

The difference between these two kinds of integration is that conversion factors are part of Sen's approach so we would like to emphasize his thoughts in order to develop the analysis of the social dimension. Instead, it is different for the institutional dimension of capabilities: Sen does not fully develop that, and we have to recall a different concept in order to build up our analytical framework. So we will try to have two different levels of integration.

4.1 The conversion factors

Conversion factors are those elements and features that intervene in the chance of accessing functionings, in converting resources and goods in the opportunity to promoting

one's own aims (Sen 1999: 87). In his essay "Development as freedom" (1999) Sen examined the problems of conversion considering the fact that variations can involve extremely varied factors: on the one hand, they can derive from simple physical differences. On the other hand, they can involve very complicated social themes, especially when the acquisitions are influenced by intricate relationships and interactions within the groups.

Sen identifies five causes of variation of the relationship between effective resources and incomes and the advantages to gain (in terms of well-being and freedom):

1. Personal heterogeneities. Human beings have very different physical and character features that make their needs different;
2. Environmental diversities. Variations of environmental conditions can influence the quality of life that a person reaches with a given level of income
3. Variations in social climate. Income and personal resources in quality of life can also be influenced by social conditions, including the public school system. The problems of epidemiology and contamination by example are connected to factors that are both environmental and social;
4. Differences in relational perspectives. The requirements imposed by behaviour modals existing in the fruition of merchandise can vary from community to community depending on conventions and customs;
5. Distribution within the family. The earned income of one or more members of a family are shared by all of the family, whether they are earning or not. Therefore, a family is the base unit for the analyses of income, primarily taking into account how it is used (Sen 1999: pp.74-6).

Sen claims: "The personal and social characteristics of different persons, which can differ greatly, can lead to substantial interpersonal variation in the conversion of resources and primary goods into achievements. For exactly the same reasons, interpersonal differences in these personal and social characteristics can make the conversion of resources and primary goods into the freedom to achieve similarly variable" (Sen 1992: 38).

What we consider as relevant is that conversion factors problematize the link between commodities and functionings and thus they focus on the issue of choice in the frame of interpersonal differences.

According to Bonvin and Farvaque (2004) who analysed their role in the access to social rights, one of the main points of interest of the CA is precisely the focus it places on conversion factors: in fact, the essence of the CA is to be found in the intermediary step of the process, or, the one through which the conversion factors transform freedom and formal rights into freedom and real rights, which means ability. In that light, the importance of primary goods is evaluated in terms of the ability of a person to convert them into functionings. The knowledge and ability to make reasoned choices can, in fact, be slowed down by inadequate personal environmental and social conversion factors, i.e. social conditioning or social discipline (Bonvin, Farvaque 2004: 10). Therefore, different dimensions exist that become crucial in explaining the conversion of primary goods into functionings, and they are ability of a person, or the true freedom a person has to reach the life he has motive to want to lead, both in terms of being as well as doing (Bonvin and Thelen 2003: p. 2; Bonvin and Farvaque 2007: 46).

Therefore, a multitude of factors may influence the conversion of goods and services in wellbeing; we can divide them, following the indications of Bonvin and (2007: 52), into three groups:

- Personal characteristics: health, sex or character are factors that influence the ability of a person to reach wellbeing;
- Social characteristics, such as social norms and conventions or any kind of discrimination based on gender or ethnicity;
- Environmental characteristics, which include infrastructures and public institutions that contribute to the conversion of goods into wellbeing.

Moreover, they play a relevant role because they have to tackle with People and Contexts simultaneously. As Sen claims: “The respective roles of personal heterogeneities, environmental diversities, variations in social climate, differences in relational perspectives and distributions within the family have to receive the serious attention they deserve for the making of public policy” (Sen 1999: 109). In this respect they have a central role because they structure and build up the relationship that we find between institutions and individuals, between social dimension and the individual one.

4.2 *The institutional dimension of capabilities*

Our second step is toward putting together a toolbox that will help us in analysing the institutional dimension of capabilities. Our aim is to point out the institutional aspects of the process of capacitation and in doing so we would develop not their individual aspect but how institutions and contexts can create or destroy capacitation. In order to develop this toolbox, we will refer to some concepts to help us structure the dimensions of analysis.

In particular, we will use:

- The concept of “combined capabilities”, by Martha Nussbaum
- The concept of “capacity to aspire” by Arjun Appadurai
- Robert Castel approach to “social/collective supports”
- The sociology of public action, and in particular the concepts of situated and capability state.

The first concept that we need to analyse the institutional dimension of capabilities can be found in Martha Nussbaum’s (2000; 2003) philosophical framework about the combination of capabilities. According to Nussbaum, we have a combination of capabilities (and their promotion) when internal capabilities (of the person) combine in a suitable way with external capabilities (i.e. those capabilities that originate in organizations, institutions, exogenous agents).

So, in order to reach a capacitating approach, we need a combination of both the aspects of agency: on the one hand the individual one, and on the other the social agency, as a prerequisite to developing people’s capabilities. In this direction, we can claim that the less a person has capabilities, the more there should be a collective intervention and the chance to ground on external capabilities.

As Nussbaum claims, “citizens have to receive the necessary institutional, educational and material support so that they may become able to realise themselves in each given existential area through the exercising of their practical reason [...]; politics has to analyse the situation of each given individual and ask, for each particular case, what are the necessary conditions for the full personal realisation in the various existential areas”, and furthermore, “politics should not wait to see who is left in the margins of development, who

is not able to realise themselves without institutionalised support to then go to their aid. Its aim has to be that of creating a comprehensive help system or a system that is suitable for bringing about the possibility of the full realisation of each member of society” (Nussbaum 2003: 147).

The second step in our toolbox is towards the cultural dimension of capability, because talking about its social dimension also means accounting for its cultural dimension: Appadurai introduced the concept of capacity to aspire in order to stress this aspect.

The capacity to aspire is the capacity that provides a normative horizon within which more concrete capabilities can be given meaning, substance and sustainability. It is a cultural capacity and it concerns the chance to “have a more complex experience of the relation between a wide range of ends and means, [...] to explore and harvest diverse experiences of exploration and trial, because of their many opportunities to link material goods and immediate opportunities to more general and generic possibilities and options” (Appadurai 2004: 61). It is the capacity to look into the future, a navigational capacity “to use the map of social norms and to explore the future, and to share this knowledge with one another”. According to Appadurai, culture itself does not coincide, as we might usually believe, with an orientation towards the past, nor does it exclusively identify memory and traditions. Culture is, above all, a dialogue between aspirations and sedimented traditions, between orientation to the future and memory of the past (Appadurai 2004).

Moreover, he refers to concept as “empowerment” and well-being promotion, and recognizes a specific relevance to Sen’s Capability Approach. But he insists, and this is the main point of our argument, on the normative and cognitive dimensions of the capacity to aspire: in this sense it is a cultural capacity, because it incorporates social norms, values and codes for mutual recognition.

Another reference that will build up our analytical framework is the concept of collective and social supports by Robert Castel (Castel and Haroche 2000; Castel 2003). Castel claims that in the construction of individuality during the modern age, the social state (that derives from the compromises between capital and work) invented a new type of ownership, the “social ownership”, that represent the social and collective supports that aim at building up the non-owners (as private owners) identity and rights:

The development of individuality in the modern society has been possible due to the existence of collective and social supports as rules, regulations, organizations and social protections. “Individuals are not people who fall from the heavens with their skills, initiatives, autonomy, etc. To develop individuals depend on the place they hold in society. To be able to conduct themselves positively as an individual, they need to have support, which are in large part social supports”. In this sense, collective supports allow the ability to plan the future through the governing of the present

The last reference recalls the sociology of public action, and in particular the notion of situated State elaborated by Salais and Storper (1997). In their perspective, institutions are conceived as interactions, processes and devices in action and it highlights their capacitating or non-capacitating effects. So, institutions cannot determine people’s behaviours but they are constraints and opportunities grounded on the existence of rules, roles and on the actors’ capacity to coordinate: this is the reason they are called “conventions”. These conventions are based on reciprocal expectation so that I behave in a way that presumes a particular behaviour by other people. In particular, in this perspective, there is an institution grounded on the same system of expectations, but is different from other institutions because its conventions define the common good for society. It is the State (Storper and Salais: 207). Thus, the state includes a normative message: it has to deal with the desirable outputs of every action. But outputs depend on people’s choices, on how they anticipate and learn the conceivable responses: the chosen action will affect the resources and the effectiveness of the state intervention (Farvaque and Raveaud 2004).

Storper and Salais propose three idealtypical conventions of the state. Their interpretation of common good is an intermediation between individuals and the state:

- The absent state assures negative rights and protects the common good that derive from an “opportunity structure that maximises everybody’s chances to pursue their own goals” (Storper and Salais 1997: 211), i.e. the market. The role of the state is to protect the common good against external intervention and forms of collective action.
- The external state has the monopoly of the definition of common good and it does not create contexts and spaces for the public debate; the state has a paternalistic orientation and provides to guarantee protective rights for its citizens.

- In the situated State (the only state that includes the concept of common good) the common good is not predefined by the state but is a situation in which actors have the autonomy to develop their frames of action and the State promotes people's autonomy and coordination to collective actions.

Nicolas Farvaque and Gilles Raveaud (2004) have attempted to set out the typology of Storper and Salais, proposing distinguishing state action along two lines: on one hand, the level at which the action acts, according to whether it involves the structures of coordination or within the structures of coordination; on the other hand, on the definition of common good, which can be the fruit of a collective decision or the result of achieved egoistic objectives.

	The common good is collectively defined	The common good is the result of the pursuit of selfish goals
Action of the state within the co-ordination (Common good evolves with the situation)	SITUATED STATES	
	CAPABILITY STATE Agent: person whose capability is to be enhanced	INCENTIVE-GIVING STATE Agent: homo oeconomicus
Action of the state on the structure of the co-ordination (Common good does not evolve: a priori defined by the state)	EXTERNAL STATE Agent: passive response to state action	DEREGULATING (<i>ABSENT</i>) STATE Agent: homo oeconomicus

Tab. 1 The four conventions of the state (Farvaque and Raveaud 2002: p 11)

In this manner the state is divided into two further typologies, considering the eventuality that the state, while acting on a local basis, can use typical market mechanisms: in this case we could talk about state incentives (or demercification (Dean et al. 2005)); instead, in the case of the common good being defined collectively and state action developed within the structure of coordination, we could talk about a state of ability, with reference to Sen's work.

To sum up the toolbox in order to highlight the two ideal-types of assets, we have built up an analytical grid that may be useful in the analysis of the educational situated action:

	Capacitating assets	In-capacitating assets
Combination of capabilities	There is a combination of internal and external capabilities	No combination of internal and external capabilities
Capacity to aspire	Orientation toward future and desires	Orientation toward past
Social/common supports	Present	Absent
Public action	Capability state	Incent-giving, External or Deregulating state

Tab 2. The educational situated action

We aim at developing our empirical research especially in these dimensions and on the role of conversion factors in order to understand which kind of transition paths are developed in the education field. Our aim is to focus on the impact on pupils that the educational policies have at a national and local level and to observe and analyze the factors that hinder or facilitate the conversion of resources into capabilities, in particular those capabilities manifested in the expression and recognition of the pupil's voice. Through the investigation of those dimensions, we will focus on the institutional dimension of capabilities, i.e. those assets that make the conversion from formal rights and freedoms to capabilities.

In choosing this level of analysis, our intention is to give precedence to issues centred on the institutional dimension. We can see that the conditions permitting the development of the pupils' capabilities for learning (i.e. the freedom to choose the educational path one has reasons to value and to make it count) refer to the institutional architecture of inter-organizational networks and of modes of governance, through which their voice can go upright and be generalized. Nevertheless, our aim is to take into account the individual level also as the one in which the capabilities can be acted upon and enhanced. In this way, we propose to use the entire grid to contribute to the formulation of questions and hypotheses on the relation between individual capabilities at the micro level and their institutional dimension capabilities at the macro level.

5. Conclusions

In conclusion, we can claim that the analytical framework we set out about the conversion factors and the institutional dimension of capabilities highlights the social and interactive structure of freedom of choice. From this perspective, freedom is constituted of social practices that need learning in order to be practiced; and consequently, people need a socialising process in order to be considered “capable” in the sense of being free to choose the functionings they have reasons to value. In this sense it is possible to consider the capabilities as grounded on the capabilities for learning because they imply changes in people’s cognitive frame and references.

Moreover, this means that there is no capable person without a capacitating context that promotes one’s capability for learning and it is only in an analytical perspective like the one we set down that it is possible to investigate educational systems as educational situated actions. Even because, as Sen claims: “Since participation requires knowledge and basic educational skills, denying the opportunity of schooling to any group is immediately contrary to the basic conditions of participatory freedom” (Sen 1999: 32-33).

Therefore, in order to investigate how and to what extent the resources and public good translate into “real freedom” to choose and act on one’s own life, our approach privileges the analysis of the cognitive and normative changes and shifts as they are expressed on the one hand in the institutional devices and on the other in the practice of individual freedoms. In this sense, we consider the capabilities as being linked to their institutional dimension, i.e. as those freedoms that can be developed when and to the extent that people are recognized as holders of rights regarding the interventions that concern them: not only the right of access (“social rights”), but also the (political) right to debate and decide, thus participating in the process of building and changing norms.

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MEASUREMENT

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Human capital and human capabilities: towards an empirical integration

1. Introduction

All measurement techniques used in the classical human capital framework share common weaknesses: a monetary aggregation of heterogeneous components of human development and a measurement error. This paper is addressing the former weakness by extending the classical evaluative framework to integrate the elements of capabilities approach.

According to the classical human capital theory, individual's human capital is determined by skills and abilities, which s/he uses to contribute to production and which can be sold on the labor market for wage. This reasoning requires a strong assumption that each individual capability can be measured in the money equivalent. As noticed by many researchers, it can be problematic to aggregate and measure human capital components embodied in individuals because the vector of person's capabilities comprises many intrinsic characteristics, which need to be measured and priced before they can be aggregated. A derived concern is related to attaching a price to non-market skills and abilities, which, undoubtedly contribute to the individual and social well-being alongside with the skills, quoted at the labor market.

These measurement issues were recently faced by the proponents of the capabilities approach, who measured individual well-being, as well as skills and abilities used to achieve it, in a common unit of account at a point in time. This paper develops the ideas presented in Chiappero-Martinetti & Sabadash (2010) by bringing the discussion into empirical dimension. The study undertakes the first step towards an ambitious objective to integrate human capital and capabilities approaches in one empirically testable model. It presents a few speculations, which allow making preliminary hypothesis about empirical comparability and complementarity of human capital theory and capabilities approach.

2. Measurement issues: can capabilities approach complement the classical human capital theory?

2.1 Education as a measure of human capital => education as an end

Education is undeniably a central concept of the human capital framework. The human capital approach considers educational and/or training decision as one of the investment choices and, respectively, individuals level of education as a measure for ones current stock of skills, knowledge and abilities. In doing so, traditional framework, where educational is an investment, heavily depends on the researches' assumptions and choices of relevant variables.

Human capital and knowledge are often thought of as joint-products, but conceptually, they are distinct and in the ideal would be separately measured (Stroombergen (2002)). Nonetheless, for the sake of simplicity, many studies focus exclusively on knowledge measured by educational attainment. Educational attainment, measured in numbers of schooling years is a commonly used proxy for the stock of human capital. The advantages of using years of education in human capital studies are obvious: first, using "quantity" of schooling as a proxy for human capital has sound theoretical grounds (Le et al (2009)) and second, most countries keep extensive school records (Keeley (2007)).

However, if reduced to the educational attainment measured in the number of schooling years, analysis fails to say anything about the quality of skills and knowledge obtained due to education. The same amount of years in one educational institution may value more than in another. Besides, costs and efforts employed to obtain a certain type of qualification can differ across regions and countries, as well as across individuals. Moreover, using years of schooling as a measure of human capital stock incorrectly assumes that one year of schooling always raises human capital by an equal amount (Le et al (2009)). This assumption contradicts one of the main postulates of the human capital theory about the diminishing rate of return to schooling.

Using aggregate types of educational qualifications, like diplomas or other certificates from the educational authority, and especially differentiating between different types of educational credentials (for example, ranking according to the major disciplines or reputation of the educational authority) can capture some additional information about the

human capital accumulated in the individual. Type of educational specialization or the prestige of a credential may be informative about the content of accumulated human capital as well as in determining the value of one's education (both as a stock of past investments and as an estimated future stream of benefits). This observation becomes more important in the view of the existing market imperfections such as labor market segmentation and non-competing groups. An important shortcoming of this approach is yet the fact that individuals with the same completed degree could have spent a different number of years in education. Brunello et al (2000) point out two possible reasons for this: one reason is a repetition by students who failed part of exams, and another reason (especially relevant among college students) is that enrolment can continue even after the prescribed duration of the course. In this context, international comparison of educational attainment, based on a strong assumption that the knowledge taught at each level of education is similar among countries (OECD (2009)), can provide seriously biased estimates of the human capital.

A possible solution offered by the human capital theory to tackle this measurement problem, especially relevant in the cross-countries comparison, is to address data quality and to use test scores, which have appealing features of a good human capital indicator because they measure educational outcome, cognitive skills, and ensure international comparability (Le et al (2009)). Barro and Lee (2001) introduce more quality measures into the standard human capital assessment by including international test scores of high school students and of adults in their empirical study based on the New Zealand data. National and international assessment of individuals' actual level of knowledge is possible by using, for example data gathered by such OECD projects as Program for International Student Assessment (PISA), which since 2000 provides comparable information on the level of reading literacy, mathematical and scientific competencies and problem solving, and the International Adult Literacy Survey (IALS), which fielded in 1994 the world's first large-scale, comparative assessment of adult literacy (firstly by nine countries – Canada, France, Germany, Ireland, the Netherlands, Poland, Sweden, Switzerland and the United States – and later by a larger number of participating countries and national communities).

Yet, human capital cannot be simply reduced to the highest level of educational attainment. Formal education, being an important supply point of knowledge and a place for developing one's abilities, is not the only source of learning: on-the-job training, participation in the

social activities and even daily life experience are also important in the human capital formation. According to Saussaio (2006), human capital nature is multi-faceted, which leads to the impossibility to obtain an aggregate estimate of knowledge inputs. This measurement problem is derived not only from the technical matters, but also from the character of knowledge itself, which is highly heterogeneous with its value being not intrinsic but dependant on its relationship to the user.

No discussion on measuring human capital can omit the influence of families on the individual's knowledge, skills, health, values and habits. Parents affect not only educational attainment, but also marital status and stability, propensities to smoke and to get to work on time, and many other characteristics, which are related to the individual performance on the labor market. Family influence is expected to transform into a very close relation between the earnings, education, and occupations of parents and children. Empirics show that the relation proves to be strong only when speaking about educational attainment, while it appears to be considerably weaker in terms of earnings (Becker, CEE).

Apart from those issues in measuring education, which are widely recognized in the human capital theory and the most relevant of which we presented above, there additionally exist few important considerations, which do not enter in the classical human capital framework. Individual educational achievements are not only determined by the availability of personal, family and social resources, but also by the individual's ability to access and employ these resources, which are not equal for everybody. For example, a gifted female child in a society with strong gender discrimination will not be able to fully develop her abilities even in presence of a good and affordable school in the neighbourhood.

This consideration is captured by the capabilities approach, according to which current observable level of education, skills and abilities is influenced by the free choice one makes from the real opportunity set. Capability to acquire a certain type of education, from one side, is determined by the individual's innate abilities, health, gender, family background and financial situation. From the other side, the real opportunity set of educational choices is also influenced by the external socio-economic conditions and environment like, for example, availability of educational units in the neighbourhood, access to the credit market and current labor market preferences for certain type of skills. And finally, these two sets of resources are linked together differently for different individuals.

The level of utilization of all available factors (i.e. their conversion into certain outcomes) is shaped by the set of capabilities (i.e. options people are able to choose). Individual choices link the capabilities space to the vector of outcomes (or functionings). One can argue that majority of these factors is well recognized and even measured by the classical human capital theory. However, human capital theoretical and empirical research is mainly concentrated on the transformation of achieved education into observed labor market outcomes. Questions of equality of opportunities in developing one's skills and abilities using all available resource is tackled only marginally (with the only exception, probably, being a gender gap in earnings).

Moreover, what is disregarded by conventional approaches is that education is not always considered as an instrument leading to the higher employment outcomes, but is also an outcome *per se* (see Chiappero-Martinetti & Sabadash (2010)). Being an important resource for business and science in accumulating the intellectual capital and busting technological progress, education is also an intrinsic generator of individual comfort, which cannot be captured in monetary equivalent. A derived issue is that certain level of education can be considered a non-profitable and even useless in terms of productivity (both for the society and for an individual), but be anyway bringing a satisfaction in terms of nourishing and enriching ones internal world, enhancing self-esteem and esteem for others. These outcomes can be transferred into a social harmony through, for example, reducing or preventing risky behaviour. Shall we ignore such by-products of learning and restrict the analysis to the narrow, utilitarian view on education? This study advocates a position that intrinsically valued dimension of individual well-being, which education brings, depends on ones aspirations and should not be neglected in theoretical and empirical analysis.

2.2 Gains from education as a measure of personal well-being => education as a mean

In this paper we concentrate on the benefits from developing a certain level of human capital, measured in the classical framework by education, from the perspective of an individual.¹¹ Economic benefits from education are defined in the human capital theory as a

¹¹ An alternative would be to consider returns to education from the perspective of the society, which would demand to shift our attention from the individual human capital to the social human capital.

better performance on the labor market which allows enjoying higher earnings capacity. Level and content of skills, knowledge and abilities developed through education determine many aspects of person's economic and social wellbeing. Private benefits from education include higher lifetime earnings, reduced unemployment, greater employment opportunities, improved health and life expectancy (Haveman and Wolfe (1984), Boudarbat et al (2010)). Mincer (1991) distinguished three main advantages that more educated workers enjoy on the labor market compared to less educated ones: 1) higher wages, 2) greater upward income and occupation mobility and 3) greater employment stability. Moreover, more educated individuals enjoy inter-generational benefits that occur to one's children in the form of higher education and improved health.

An important assumption used in the human capital theory, is that certain stock of knowledge, skills and abilities can be associated with some economic value. According to Keeley (2007), this would typically involve determining the level of individual's skills, competencies and qualifications and seeing how much they are earning. This approach goes hand in hand with two strong hypotheses.

The first one is that abilities are automatically translated into a certain level of income on the market. Two most relevant problems connected to this statement are information asymmetry and existence of personal factors (gender, temperament, personality) that may affect the worth of individual's human capital.

Second important assumption is that each individual is able to evaluate costs and benefits of education and bases his/her decision to enter certain type and level of education system on the rational analysis. Thus, it is supposed that each person, before taking a decision of investing into additional education, is analyzing the adjusted returns and takes into account the opportunity monetary and non-monetary cost (such as cost of foregone leisure, earnings and working experience) connected to this decision. Besides, he/she is thought to be able to measure returns on investment by relating the type of diploma to specific wage and non-wage benefits. As noticed by Thurow (1970), if individuals are always assumed to maximize utility rather than some pecuniary magnitude, no one can ever make an irrational consumption decision, or an irrational human investment decision. This strong assumption

risks limiting the broader economic analysis of human capital investment decisions to a constricted one of earnings maximization.

Due to the multi-facial nature of human capital, present and future stream of benefits that an individual derives from developing his knowledge and abilities is not exclusively determined on the market. Although most research focuses on market returns, in reality individual derives a more comprehensive stream of utility from acquired capabilities and knowledge (Stroombergen 2002). As claimed by Grossman (1999), if knowledge and traits acquired through education influence decisions made at work, they are just as likely to influence decisions made with regard to cigarette smoking, the types of food to eat, the type of contraceptive technique to use, and the portion of income to save.

Non-market returns from schooling are not a new topic in the economic literature (see Michael (1982), Haveman and Wolfe (1984), (2002) and Wolfe and Zovekas (1995)). Describing non-market outcomes derived from education, Wolf and Haveman (2002), distinguish between several types of effects. *Intrafamily effect* of education is derived from the relation between ones educational level and the earning capacity of a spouse, cognitive development and educational level of children and family nutrition and health level (Berhman and Wolfe, 1987, McCrary and Royer, 2006). *Own effect* relates to a better health and life expectancy, derived from the occupational choice, location choice and better skills and knowledge on nutrition and health. Besides, education appears to be positively related to the quality of choices about consumption and savings (Carroll and Summers (1991), Lawrence (1991), Clark et al (2006)), marriage (Boulier and Rosenzweig (1984), Lafortune (2007)) amount and well-being of children and type of employment. This occurs due to information gains (since schooling promotes more efficient decisions) and is achieved through the ability to accomplish better matches and reduction of search-time.

Though the focus of this paper is on outcomes from the prospective of an individual, we can't but mention that individual non-market benefits that one derives from education is associated with additional spillover effect over social groups and can promote democratic values. Thus, higher education is positively associated with the amount of time and financial resources one is willing to invest in charity, political and social activeness. Moreover, more schooling means less risky behavior (drugs, alcohol, and criminal activity) and less state welfare transfers.

An important observation is that marketable benefits, derived from higher education, in terms of higher wages and greater employment stability often do not serve as a goal in itself, but rather enlarge the range of human choices. Better educated people, being able to achieve greater earnings stability, enjoy a higher health level, greater community involvement and better present and future life-vision and prospects. In the light of this consideration, it is straightforward to conclude that measuring education-derived outcomes by only monetaristic variables would leave a substantial part of benefits behind analysis. On the other hand, this broad stream of benefits is often resistant to measurement and for this reason is often left beyond analysis by the human capital theory.

Majority of labor economics studies focus their research attention on the impacts of measurable skills and knowledge -- derived from education, experience and personal characteristics -- on earnings and employment. While we believe this approach to suffer from serious limitations, we however consider that human capital framework made considerable achievements in developing refined estimation techniques. These studies face several dimensions of the returns from human capital investment that lead to different estimation methods, which are briefly presented below.

An important distinction is made between the average and marginal return to education (Boudarbat et al (2010), Card (1995), Brunello et al (2000) and others). The *average return* to education corresponds to an approach known in the econometric literature as the average treatment effect on the treated. It compares the average lifetime earnings of groups of individuals with the same educational attainment within groups. In the most studied case, when average earnings of college graduates are weighing against the ones of high school graduates, it compares the average outcome for those who received the treatment (i.e. college education) and those who did not receive the treatment. *Marginal return* to education becomes important in light of efficiency considerations, i.e. when deciding whether to invest an extra unit of wealth or time, and, hence, comparing marginal benefits and marginal costs of such investments (Boudarbat et al (2010), Dearden et al (2004), Brunello et al (2000)). A standard approach used in economic literature to analyze the individual's decision to invest into education is to assume that a person rationally compares his expected benefits against costs from undertaking an additional unit of education. An optimal investment in human capital (for example, optimal number of years of schooling) is

reached when marginal costs equal marginal benefits (Card (1995), Brunello et al (2000)). Marginal return to education is such at which individuals are indifferent between investing and not investing into their education, and is measured as the derivative of log earnings with respect to an additional year of schooling (Card and Lemieux, (2001)). Policy-makers are often concerned about an effect of certain policy instruments (for example, a tuition subsidy, which reduces the marginal cost of education) on the individuals decision to make an educational investment.

Another measurement issue emerges from the price and quantity dimensions of returns to education. The *price dimension* is addressed when comparing the wage rates of individuals who possess different level of human capital. The most commonly used measure of earnings in empirical studies is weekly wage and salary earnings of full-time workers. Market can signal an increased demand for a higher level of human capital in terms of more sophisticated skills by assigning a higher wage rate -- as a measure of the greater earnings opportunities available per unit of time -- to those individuals who possess such skills. Market wage differential does not depend on an individual's choice, but is determined by the market forces (Bourdarbat et al (2010)). Alternatively, the *quantity dimension* assesses the different amount of work performed by individuals with different level of education. Higher levels of educational attainment typically lead to higher employment rates (OECD (2009)), because those with higher levels of education have made a larger investment in their own human capital and they need to recoup their investment. The quantity dimension of returns to education partly depends on the employment opportunities available on the market and is partly determined by the individual's decision to be employed at the current employment conditions. Most empirical studies focus on estimating the price dimension of returns to human capital.

An additional important consideration is connected with controlling for *experience* as one of the factors influencing individual's labor market performance. Experience, together with education, is considered one of the main sources of human capital that influence productivity and earnings and is highly correlated with age. Importance of experience was emphasized by Mincer (1974) who conjectured that earnings depend on years of education and a quadratic function of labor market experience. This formulation implied that the wage differential between workers of the same age but with different levels of education

increases linearly with age. Later studies developed more flexible functions for experience, for example, Murphy and Welch (1990) estimated wage differentials as $\log(wage) = \beta S + g(S - A - 5)$, where S is education, A is age and g is concave and increasing.

An important implication of the concavity of the earnings-experience profile is that since earnings grow faster in the early stage of career than in later years, young workers who just enter labor market after obtaining a college degree do not usually earn much more than high school graduates of the same age. This is explained by the rapid growth of the high school graduates' earning in the first years of their working experience (i.e. during the years when college students from the same cohort were still in education). However, due to the steeper earnings-experience profiles of more educated workers, the education wage differential between increases in the later years.

Another observation derived from the concavity of the earnings-experience profiles is that in an aging population, returns to education that are not adjusted for experience will appear to grow even if actual returns for a given individual with a given level of experience remain unchanged (Bourdard (2010)). Given the rapid aging of the European population, failure to control for experience will produce unreliable estimates of changes in the returns to education. Another reason to include labor market experience into estimation equations is the rising educational attainment over time (spurred by the skill-biased technological change and globalization), which results in the situation when older, and more experienced, workers are generally less well educated than younger (and less experienced) workers. This means that while simply comparing the earnings of the higher educated workers to the lower educated ones will understate the true returns to education if not controlling for experience differences.

Experience is usually calculated as age minus years of schooling minus 5 or 6 (the usual age of entering primary school). Although experience is more informative in understanding earnings, many studies estimate age instead due to the difficulty to measure actual or potential working experience correctly. This can lead to important differences in results between estimation methods that additionally control for experience and those that control for age (Bourdard et al (2006) and (2010), Card and Lemieux (2001)).

2.3 Multidimensionality in measuring human capital

As mentioned in Chiappero-Martinetti (2000), the main characteristics of capabilities approach in assessing the multidimensionality of individuals' well-being is not simply a way to enlarge the evaluative well-being to variables other than income, but it is a radically different way to conceive the meaning of well-being. This study, however, focuses exclusively on improving the evaluative capacity of the traditional approach to estimate gains derived from human capital by extending the range of variables beyond the "economistic" dimensions and moving towards the "non-economistic" aspects of personal well-being. Moreover, attention is restricted to the dimensions of well-being, which are closely connected (and in part are derived from) the employment success.

A straightforward extension of the human capital estimation approach is an introduction of the multidimensional indices of one's satisfaction with his actual life position. In doing so, the theoretical literature seems to be rather self-established, mostly thanks to the works of Sen (1985) and Nussbaum (2000), who critically review the deficiencies of a monetaristic focus on income as the main indicator of well-being. An applied economist, willing to operationalize this approach, however, encounters a crucial problem of capturing a multidimensional well-being by a one single index. Different ways to construct indices by assigning weights to different well-being dimensions have been offered so far. Decancq and Lupo (2008) present an in-depth survey of main methods proposed in the literature to set the weights for constructing multidimensional well-being indices. Having considered these approaches to be very useful and informative in assessing the whole complex of impact education has on one's life, it have been chosen to assess different types of outcomes separately in this study (keeping though in mind the possibility to use indexing in further research).

As was already mentioned earlier, this paper is focused on the objective to estimate human capital embodied in individuals with relation to their transfer from schooling to working. In other words, this study concentrates on the dimension of well-being derived from the individual's performance on the labor market. One of the rationales behind this restriction is that performance on the labor market is basically the only dimension studied by the classical human capital framework, which captures it either by earnings or employment. While remaining within the same dimension of individual success but extending the evaluative

base using the capabilities approach, which enables to capture the quantitative characteristics of one's satisfaction from performance on the labor market, this paper is aimed to show whether both approaches are comparable. In doing so, it suggests to face the conventional theory limitations by enlarging measuring to non-marketable benefits derived from employment success and check whether an extended estimation gains appear to provide additional information compared to the pure human capital approach. This empirical exercise will be the first step to a more challenging ambition of accessing the full spectre of well-being dimensions (which lies beyond the scope of this paper).

3. A simple estimation equation

Human capital plays a twofold role in one's life. From the one hand it is a result of a lifelong stream of events that contribute into its formation. From the other hand, human capital is a mean to achieve certain life outcomes, which indicate individual's level of well-being. In this perspective, capabilities approach allows to fully capture different aspects of both formation and exploitation of the human capital, as shown below.

Human capital formation. Individual's human capital can be measured as a current stock of skills, knowledge, abilities and physical and psychical characteristics accumulated as a result of several levels of decision-making: individual, family, workplace and even national. Capabilities approach adds in allowing to: a) measure stock of accumulated human capital using not only the highest level of education obtained, but also variables, which capture health status, abilities and behavioural type; and b) measure a stream of events that contribute to the human capital formation using a complex of variables like family background (education, employment, health, ethnicity, financial and social status of parents), accommodation and neighbourhood where a person grew up, school type, free-time activities and health habits.

Human capital exploitation. An available stock of individual's human capital is used to achieve certain life outcomes, which comprise not only classical human capital dimension (i.e. employment and financial situation) but also other important aspects, such as attitude and life position. The latter can be captured by such variables as views on marriage, children, employment, politics, law, religion, etc. Besides, it is possible to include here the individual's

activities beyond employment, i.e. those which indicates his way and level of self-realization: free-time, family relations, social activeness. This paper restricts attention to the gains derived from the one's employment success, defined by economic and non-economic benefits.

It can be argued that the most part of the accumulation of the human capital stock falls to the younger age and the transmission of the human capital into marketable and non-marketable benefits occurs mostly in the second half of one's life. This division is very intuitive and idiosyncratic. Moreover, the two processes can overlap each other: from the one hand, acquisition of skills and abilities can persist throughout whole life, from the other hand, individuals can derive benefits (especially not marketable) from their human capital already in the young age.

The vast human capital literature extensively exploited the causal effect of education on earnings. The original Mincer equation, which estimates the effect of schooling on earnings, was further developed by allowing to account for the effect of abilities, family background, education policy, gender and ethnicity (see Angrist and Krueger (1991), (1992), Card and Krueger (1993) and many others). In the light of the classical human capital approach, the employment benefits derived by an individual from his human capital are measured by his/her earnings and are influenced by education achievements, abilities and a set of personal characteristics (sex, gender, family situation and background). In this paper I do not present the most recent theoretical and econometric advances achieved by the human capital theory in modelling the causal effect of education in the presence of heterogeneous returns to schooling. Instead, I suggest a simple estimation of the effect of education and a vector of idiosyncratic characteristics on actual earnings with the objective to compare its results with the findings, derived from the extended framework, which incorporates the elements of the capabilities approach. The latter is presented bellow.

Individual's well-being P can be described as a sum of marketable and non-marketable benefits, MB and NB :

$$P_i = MB_i + NB_i \quad (1)$$

It is assumed that marketable benefits can be measured by earnings, Y_{it} , and depend on the rental price of human capital, r_i , and on its available individual stock measured. It is further assumed that only a part of the total stock of human capital can be rented on the labor market and vector M_i^* captures this part. Vector M_i^* is of dimension m . Thus, marketable benefits, extensively exploited in the human capital studies, are derived from the instrumental value of education and are calculated as following:

$$MB_i = Y_i = r_i * M_i' \quad (2)$$

Rental price of human capital is the actual wage that individual i is earning in period t ; M_i^* is unobserved and can be proxied by a set of personal and professional characteristics that can be sold on the labor market.

Non-marketable benefits can be seen as a function of the total stock of human capital, X_i^* ; vector X_i^* is of dimension x and $x > m$:

$$NB_i = f(X_i') \quad (3)$$

In the narrow context of education, non-marketable benefits can be seen as an *intrinsically valued* dimension of well-being and a set of *conversion factors*, which allow to realize one's life aspirations by achieving outputs unrelated to the labor market. Thus, the intrinsic value of education can be seen, for example, in abilities to have a rich cultural life, enjoy literature and art masterpieces, as well as making a better use of food, medical care and recreation resources in achieving a healthier life-style. Moreover, intrinsic value of education goes far beyond the deeper enjoyment of higher cultural and health development, but can be transferred to one's children and other family members, i.e. have an intergenerational and social spill over effect. If we think about the link between education and process of conversion of one's human capital into other relevant well-being dimensions, higher educated individuals are often the more active and disciplined citizens, showing an intensively participate in the social and political life and thus promoting the delivery of human, cultural and democratic values to the wider circles of society. In the light of the above consideration, the vector of non-marketable benefits NB_{it} can be further disaggregated into two components, corresponding to the outcomes derived from education as an intrinsic value and as a conversion factor.

$$NB_i = \beta_1 X_i^{IntrV} + \beta_2 X_i^{ConvF} \quad (4)$$

After plugging (2) and (4) into (1) we get:

$$P_i = r_i * M_i' + f(X_i') = \alpha Y_i + \beta_1 X_i^{IntrV} + \beta_2 X_i^{ConvF}, \quad (5)$$

which is a total outcome that an individual actually obtains from using marketable and non-marketable components of his human capital.

In the present estimation exercise equation (5) reflects all outcomes derived by an individual from his employment position. The first term on the right-hand side captures benefits obtained from renting a part of human capital X_i^s on the labor market. It can also take in a sum of all other, non-monetary benefits which one obtains on the labor market due to the whole stock of actually possessed human capital. This later part encompasses both tangible and intangible benefits. Tangible benefits can be in form of, for example, company car, meal vouchers and pension plan. Intangible benefits include respect, satisfaction from professional and career achievements, flexible work hours, possibility to meet interesting people, participate to social and political activities, etc. Intangible benefits can contribute to the intrinsically valued outcomes derived from education by allowing to enjoy a stress-free and healthy life style.

The objective of this paper is to estimate different sets of outcomes, derived from the actual stock of human capital encompassed in an individual. There is a clear possibility for a bigger research ambition by extending the model further and integrating the mechanism of conversion of a set of personal capabilities into educational achievements using a set of available options. Empirically, this can be performed by applying the input-side approach, which allows estimating the contribution of events, decisions and circumstances in one's life (on the individual, family and societal level) on the human capital formation:

$$X_i' = Z'\beta \quad (6)$$

using such variables as family background (education, employment, health, ethnicity, financial situation of parents), accommodation and neighbourhood where a person grew up, school type, free-time activities and many others as proxies of vector Z^s

In the future work it is planned to combine equations (5) and (6) in a model, which would allow to capture the relationship between the factors that determine the individual's human

capital from the one side, and the relation between the human capital and individual's well-being from the other.

4. Data and implementation

4.1 Data

Due to a very broad range of dimensions of individual's life conditions and outcomes, considered in connection to one's educational level, choice of an appropriate data is crucial for this study. For this reason the 1970 British Cohort Study (BCS70) was selected. This dataset intensively monitors life developments of cohort members from the moment of birth till the age of 34.

The BCS70, which started when information was collected about the births and families of over 17,000 babies born in England, Scotland, Wales and Northern Ireland during one week in April 1970. Since the birth survey, there have been six other major data collection exercises in order to monitor their health, education, social and economic circumstances. These were carried out in 1975 (age of 5), 1980 (age of 10), 1986 (age of 16), 1996 (age of 26), 2000 (age of 30) and 2004 (age of 34).

The data allow scrutinizing all aspects of health, education and social development of cohort members as they passed through childhood and adolescence, and open wide horizons for empirical analysis. Considering the objectives of this study, the attention was concentrated on the latter sweeps, which collect information about cohort member's transitions into adult life, including leaving full-time education, entering the labour market, setting up independent homes, forming partnerships and becoming parents. More particularly, there were mainly used the latest available rounds of data collection for BCS70, which took place in 2004/2005 when BCS70 cohort members were 34/35 years old¹².

The main general objective of the BCS70 survey was to update the key events and circumstance change that had happened to cohort members and their families since the last interview. The interview covered the following issues: housing, relationship, children, family income and wealth, employment, life-long learning, health and health behaviour. The survey

¹² A more recent follow-up took place in 2008 in a form of a 25 minutes telephone survey, but the data will be put available only in the next months.

covers 13 107 individuals. The main aim of the most recent sweeps was to explore the factors central to the formation and maintenance of adult identity in each of the following domains:

- lifelong learning
- relationships, parenting and housing
- employment and income
- health and health behaviour
- citizenship and values.

As already mentioned, the BCS70 data constitutes an very rich source of information. When examining the relationship between different outcomes derived from ones education and employment and from a set of endogenous variables, one can allow for a large array of personal characteristics (see Appendix), some of which would be unobserved in most of conventional data sets. The richness of the data gives certain credibility to the estimation results because it allows controlling for many factors that usually remain omitted.

For the scope of the employment-related wellbeing analysis this paper draws on the following endogenous variables: weekly wages of employed and self-employed workers, the self-assessment of their actual financial situation and the level of satisfaction from their current job. The outcome variables are separately regressed on a set of endogenous individual characteristics: gender, family situation, number of children, ethnicity, level of education and abilities

In order to control for the effect of education on employment-related outcomes, all workers were divided into five education groups: those with no qualification, high school diploma, some college, exactly college degree and the higher qualification. Workers with *no qualification* (education group 1) are those who finished their education at the age of 16 and obtained only primary and secondary education (mandatory in the UK) certified by the Certificate of Secondary Education. Those with the General Certificate of Education (GCE, a secondary level academic qualification) of ordinary level (O-level) are grouped as workers with *some high school education* (education group 2). The group of *high school education* (education group 3) consists of workers whose highest qualification is certified by the GCE of advanced level (A-level) and workers with nursing and technical qualifications lower then diploma of higher education. *College degree group* (education group 4) consists of workers

with a first degree/university diploma or certificates granted by colleges of further education or by professional institutions of degree standard, including workers with nursing or other para-medical qualification and teaching qualifications. Group of workers with a *higher degree qualification* (education group 5) is composed of workers with a higher degree (PhD, MSc) and teachers with Postgraduate Certificate of Education.

Family situation is captured by a dummy variable, which discriminates between single respondents and those who are married or cohabit with a partner. In order to control for ethnicity, observations were sorted into following six ethnic groups: British, Irish, Caribbean, Africans, Asians and others.

Measurement of abilities was attained from the Adult Basic Skills Assessments Survey, which measured the cohort member's basic skills (literacy and numeracy) in a 40 minutes interview time on average. Assessment of BCS70 cohort members' functional literacy and numeracy skills was performed by combined two methods of questioning: open-response literacy and numeracy questions (paper-based) and multiple-choice questions (computer-based). Literacy core curriculum covered six main aspects of reading and writing: 1) reading comprehension, 2) grammar and punctuation, 3) vocabulary, word recognition, phonics, 4) writing composition, 5) grammar and punctuation, 6) spelling and handwriting. Seven aspects of number skill from the numeracy curriculum were assessed by the following seven items: 1) basic money, 2) whole numbers and time, 3) measures and proportion, 4) weights and scales, 5) length and scaling, 6) charts and data and 7) money calculations. Each cohort members was allocated to one of three groups according to his literacy and numeric skills (separately).

Figure 1 portrays a relation between the average weekly wages and the educational level. Weekly wages are on average higher for male workers compared to the female ones; for female workers wages are increasing with the level of education monotonically, while for the male workers there is a downward shift at the highest educational level. If we look at the distribution of opinions about the actual personal financial situation presented in Table 1, we see that almost 80% of the population in the sample (5.977 persons out of 7.567) have a positive self-assessment and are either living comfortably or doing all right. Positive assessment is also a more typical outcome for the persons with the college education or higher, though the relation to the educational level is not linear.

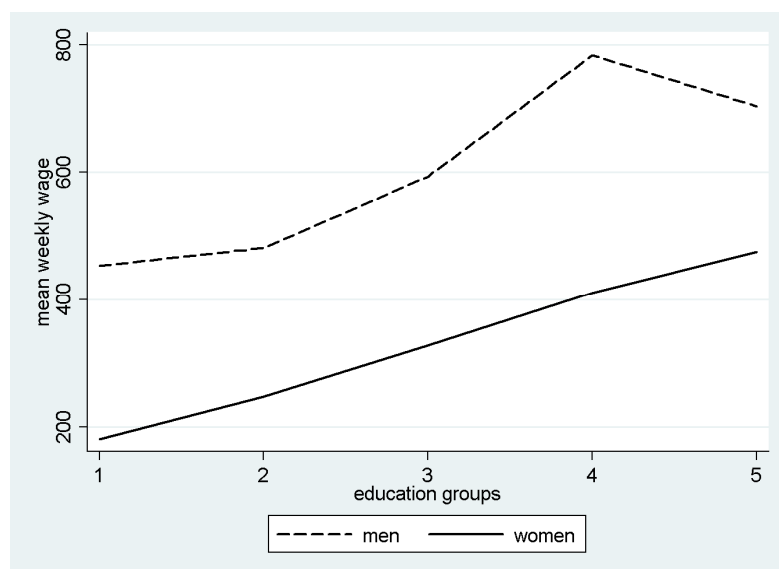


Figure 1. Average weekly wages by educational group, pounds.

personal assessment of financial situation	educational group					Total
	1	2	3	4	5	
1) Living comfortably						
Number of observations	487	901	274	1,046	291	2,999
%	16.24	30.04	9.14	34.88	9.70	100.00
2) Doing all right						
Number of observations	691	1,039	283	785	180	2,978
%	23.20	34.89	9.50	26.36	6.04	100.00
3) Just about getting by						
Number of observations	398	439	137	283	51	1,308
%	30.43	33.56	10.47	21.64	3.90	100.00
4) Finding it quite difficult						
Number of observations	68	75	20	42	7	212
%	32.08	35.38	9.43	19.81	3.30	100.00
5) Finding it very difficult						
Number of observations	20	21	5	17	1	64
%	31.25	32.81	7.81	26.56	1.56	100.00
Total						
Number of observations	1,664	2,475	719	2,173	530	7,561
%	22.01	32.73	9.51	28.74	7.01	100.00

Note: the results for the most representative group per each level of education is market in bold.

Table 1: Satisfaction from the actual financial situation

4.1 Implementation

First, the effect of education and of a vector of idiosyncratic characteristics (gender, family situation, number of children, ethnicity, level of education and abilities) on actual earnings of employed and self-employed workers is estimated using the human capital approach and OLS estimation technique:

$$\log Y_i = a_0 + a_1 Educ_i + a_2 Ability_i + a_3 Gender_i + a_4 Family_i + a_5 Children_i + a_6 Ethnicity_i + e_i, \quad (7)$$

Then, it is tested whether the same set of exogenous variables have a similar effect on the individual's employment well-being, which captures both monetary and non-monetary benefits from one's employment situation (variable P_i from equation 5). The proxy for individual's employment well-being can be measured by a composite index, which captures a set of welfare dimensions derived from one's employment. Different approaches suggest different ways to construct a multidimensional well-being index: using equal weights scheme, frequency-based weights, most favourable weights, multivariate statistical weights, regression based weights and normative weights. For this study, however, it was decided not to use multidimensional indices and measure the employment well-being by a single variable, which captures individual's satisfaction from his/her current employment. The logistic regression was employed to perform this estimation. For the sake of simplicity, this empirical exercise is restricted to a one point in time: I estimate the whole stock of human capital accumulated by individuals at the age of 34/35 and the employment benefits derived from possessing this stock.

In order to describe their *satisfaction from the actual employment position*, individuals were asked to characterise their current job using one of the five answers, ranging from "very satisfied" to "very dissatisfied". It is assumed that this assessment captures not only one's feelings about his/her earnings, but also the degree of agreement with the present level of other benefits derived from employment (security, professional development, enjoyment, etc.).

Moreover, the effect of exogenous regressors on the *one's personal assessment of his/her financial situation* is tested. The possible answers, which the outcome variable was constructed from, are: "living comfortably", "doing all right", "just about getting by", "finding it quite difficult", and "finding it very difficult". It can be argued, that this variable can be

influenced by individuals possessions derived from the sources different from employment (parents, spouse, etc), but in this paper it is assumed that at the age of 34 employment situation can be considered the main factor influencing one's evaluation of his/her satisfaction from the financial situation in majority of cases.

Since the ones satisfaction from the employment outcome is measured by a polytomous response variable, a multinomial logit model is used to estimate the influence of a set of regressors on the outcome variables. In both cases a polytomous response variable has an ordered structure, which allows using an ordered logit model.

In an ordered model, the response P_i of an individual unit is restricted to one of n ordered values. For example, ones feelings about current job can be characterized by one of five possible answers. The cumulative logit model assumes that the ordinal nature of the observed response is due to methodological limitations in collecting the data that result in lumping together values of an otherwise continuous response variable (McKelvey and Zavoina (1975)). Suppose P_i takes values $p_{i1}, p_{i2}, \dots, p_{in}$ on some scale, where $p_{i1} < p_{i2} < \dots < p_{in}$. It is assumed that the observable variable is a categorized version of a continuous latent variable L such that

$$P_i = p_{ij} \Leftrightarrow \alpha_{ij-1} < L_i \leq \alpha_{ij}, j = 1, \dots, n \quad (8)$$

where $-\infty = \alpha_{i0} < \alpha_{i1} < \dots < \alpha_{in} = \infty$. It is further assumed that the latent variable L_i is determined by the explanatory variable vector V in the linear form $L = -\beta'V + \varepsilon$, where β is a vector of regression coefficients and ε is a random variable with a distribution function F . It follows that

$$\Pr\{P_i \leq p_i | V\} = F(\alpha_0 + \beta'V) \quad (9)$$

5. Results

Table 2 show point estimates from regression equation (7). As can be seen from table entries, there is a positive and statistically significant correlation between the level of education and earnings both for the whole sample and for the British ethnic group. Other ethnic groups do not reveal a strong effect of education on earnings (except the Irish ethnic sub-sample for the highest educational degree), but these results can barely be conclusive

due to the small number of observations. Higher numeracy and literacy abilities proved to matter for the earnings success with the former providing a higher and statistically more significant impact compared to the later.

Females are persistently discriminated in terms of earnings throughout all specifications with British workers showing the highest gender-related earnings loss rate. Intuitively, one would expect other ethnic groups to show more pronounced gender discrimination. It is however necessary to remember that estimation results are subject to the sample selection bias, which is expected to considerably influence estimates (biasing them downward) for the ethnic minorities, which are generally characterised by the low female employment. Living with a partner results in a 14% wage gain, while having children produce a negative impact on earnings.

	<i>british</i>	<i>irish</i>	<i>caribbean</i>	<i>asian</i>	<i>all</i>
<i>female</i>	-0.656*** (0.0185)	-0.539*** (0.116)	-0.644 (0.478)	-0.624*** (0.118)	-0.653*** (0.0180)
<i>living with a partner</i>	0.144*** (0.0241)	0.228* (0.134)	-0.132 (0.693)	0.0636 (0.145)	0.140*** (0.0233)
<i>children</i>	-0.112*** (0.00846)	-0.0940* (0.0521)	-0.0597 (0.228)	-0.0251 (0.0366)	-0.105*** (0.00809)
<i>numeracy assessment group 2</i>	0.120*** (0.0229)	0.151 (0.127)	0.0793 (0.528)	0.203 (0.135)	0.119*** (0.0223)
<i>numeracy assessment group 3</i>	0.149*** (0.0258)	0.255* (0.150)	-0.139 (0.787)	0.177 (0.168)	0.148*** (0.0251)
<i>literacy assessment group 2</i>	0.0600 (0.0399)	-0.0779 (0.245)	0.175 (0.738)	0.304 (0.229)	0.0614 (0.0386)
<i>literacy assessment group 3</i>	0.110*** (0.0395)	-0.0973 (0.243)	0.454 (0.724)	0.406* (0.216)	0.113*** (0.0382)
<i>education group 2</i>	0.114*** (0.0254)	0.280* (0.164)	0.247 (0.603)	-0.159 (0.195)	0.115*** (0.0248)
<i>education group 3</i>	0.234*** (0.0363)	-0.0799 (0.217)	-0.410 (0.997)	0.281 (0.241)	0.231*** (0.0354)
<i>education group 4</i>	0.418*** (0.0281)	0.272 (0.166)	0.303 (0.512)	0.0739 (0.182)	0.413*** (0.0272)
<i>education group 5</i>	0.530*** (0.0417)	0.605*** (0.224)	0.619 (1.447)	0.179 (0.221)	0.532*** (0.0403)
<i>Constant</i>	5.841*** (0.0451)	5.844*** (0.285)	5.464*** (0.893)	5.641*** (0.284)	5.822*** (0.0439)
<i>Observations</i>	7187	193	40	134	7561
<i>R²</i>	0.241	0.205	0.123	0.305	0.238

Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 2: Effect of education and personal characteristics on earnings (OLS).

Using an ordered logit technique allows to associate the choice of the degree of one's employment satisfaction and financial situation assessment with personal characteristics and life circumstances, including education, abilities, gender, family situation and ethnicity. Moreover, by including log weekly wage into a regression equation we can have an idea on the importance of earnings for the ones employment wellbeing and personal appraisal of the current financial situation.

In order to check for how much do earnings matter for the one's happiness at work and the way one think about his/her financial wellbeing, Table 3 presents the results from the ordered logit regressions of two variables, namely "whether satisfied with current job" and "personal assessment of financial situation", on the log weekly wage. While earnings play an important role on the work-related dimension of wellbeing, a big part of information is "hidden" in the constant term, suggesting that other factors are enforcing the effect of wages. Moreover, these factors appear to influence the outcome variable differently in a number of cases: for those who are dissatisfied with their job, as well as for those who characterise their financial situation as "just about getting by" or "very satisfied".

In fact, after checking for a number of additional factors, including personal characteristics, educational achievements and family situation (Table 4), we see that earnings alone do not explain the probability of choosing one outcome category over others. Thus, for example, females seem to be more satisfied with their jobs and less with their financial situation than males, while people with higher abilities are on average more critical about their employment and financial position.

1) Job satisfaction	<i>very dissatisfied</i> (answer category 1)	<i>Dissatisfied</i> (answer category 2)	<i>somewhat satisfied</i> (answer category 4)	<i>very satisfied</i> (answer category 5)
<i>Log wage</i>	-0.115 (0.0816)	0.169*** (0.0644)	0.171*** (0.0429)	0.138*** (0.0427)
<i>Constant</i>	-1.025** (0.457)	-1.479*** (0.370)	0.317 (0.245)	0.483** (0.243)
2) Financial situation	<i>finding it very difficult</i> (answer category 1)	<i>finding it quite difficult</i> (answer category 2)	<i>just about getting by</i> (answer category 3)	<i>living comfortably</i> (answer category 5)
<i>Log wage</i>	-0.231* (0.138)	-0.298*** (0.0741)	-0.333*** (0.0380)	0.537*** (0.0360)
<i>Constant</i>	-2.561*** (0.763)	-1.000** (0.408)	1.011*** (0.211)	-3.099*** (0.210)
<i>Observations</i>	7561	7561	7561	7561

Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Note: the comparison group for regression 1 is “neither satisfied nor dissatisfied” (answer category 3), for regression 2 – “doing it all right” (answer category 4).

Table 3. Effect of earnings on job satisfaction and personal assessment of financial situation (logit)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1) Job satisfaction				2) Financial situation			
	<i>very dissatisfied</i> (cat 1)	<i>Dissatisfied</i> (cat 2)	<i>somewhat satisfied</i> (cat 4)	<i>very satisfied</i> (cat 5)	<i>finding it very difficult</i> (cat 1)	<i>finding it quite difficult</i> (cat 2)	<i>just about getting by</i> (cat 3)	<i>living comfortably</i> (cat 5)
<i>Log wage</i>	-0.0373 (0.0948)	0.140* (0.0720)	0.173*** (0.0481)	0.300*** (0.0499)	-0.324** (0.147)	-0.347*** (0.0835)	-0.348*** (0.0441)	0.495*** (0.0415)
<i>female</i>	0.550*** (0.189)	0.322** (0.127)	0.432*** (0.0886)	0.770*** (0.0894)	-0.576** (0.285)	-0.418*** (0.160)	-0.258*** (0.0760)	0.227*** (0.0603)
<i>living with a partner</i>	-0.169 (0.220)	0.0609 (0.148)	0.180* (0.103)	0.181* (0.104)	-1.103*** (0.306)	-0.839*** (0.177)	-0.546*** (0.0870)	0.520*** (0.0747)
<i>children</i>	0.0341 (0.0855)	-0.0944* (0.0569)	-0.0366 (0.0389)	0.0782** (0.0390)	0.131 (0.123)	0.123* (0.0700)	0.0949*** (0.0334)	-0.171*** (0.0269)
<i>numeracy assessment group 2</i>	0.0989 (0.211)	0.201 (0.143)	0.165* (0.0980)	0.102 (0.0977)	-0.0488 (0.322)	0.0556 (0.174)	-0.172** (0.0833)	-0.00257 (0.0679)
<i>numeracy assessment group 3</i>	-0.126 (0.256)	0.235 (0.163)	0.300*** (0.113)	0.102 (0.113)	0.181 (0.360)	-0.0175 (0.212)	-0.123 (0.0975)	0.173** (0.0760)
<i>literacy assessment group 2</i>	-0.243 (0.362)	-0.0190 (0.260)	-0.184 (0.172)	-0.309* (0.169)	-0.332 (0.488)	0.189 (0.291)	-0.244* (0.135)	-0.329*** (0.122)
<i>literacy assessment group 3</i>	-0.167 (0.356)	-0.161 (0.259)	-0.227 (0.171)	-0.324* (0.168)	-0.215 (0.483)	-0.112 (0.296)	-0.142 (0.134)	-0.202* (0.121)
<i>education</i>	0.103 (0.0767)	0.168*** (0.0503)	0.164*** (0.0352)	0.0756** (0.0356)	-0.0995 (0.116)	-0.112* (0.0660)	-0.0659** (0.0304)	0.0983*** (0.0235)
<i>Constant</i>	-1.767*** (0.680)	-1.678*** (0.502)	-0.264 (0.335)	-1.107*** (0.344)	-1.001 (0.989)	-0.0806 (0.578)	1.733*** (0.297)	-2.960*** (0.278)
<i>Observations</i>	7561	7561	7561	7561	7561	7561	7561	7561

Standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Note: the comparison group for regression 1 is “neither satisfied nor dissatisfied” (answer category 3), for regression 2 – “doing it all right” (answer category 4).

Table 4. Effect of earnings and idiosyncratic characteristics on job satisfaction and personal assessment of financial situation (logit)

In attachment the regression results from Table 4 are presented graphically: predicted probabilities of choosing different answer categories are plotted against earnings separately for groups with different idiosyncratic characteristics (gender and abilities) and with different family situation. For graph construction only those individuals who earn no more than 1 000 pounds per week were considered (a group of individuals whose earnings are higher corresponds to 4.6% of the whole sample and could be thus considered as outliers).

Figures in attachment provide information on how education and personal characteristics are associated with the choice of the answer for evaluating job satisfaction and personal financial well-being. As was explained before, a linear relationship between the transformed outcome variable and a set of exogenous predictor variables is assumed. All figures show that the probability of choosing the positive and highly positive evaluative answer is growing with education, though the relationship is ambiguous if one looks at the neutral and negative answer. Moreover, the results for job satisfaction are ambiguous when checking for different types of heterogeneity between individuals and indicate the possibility of outcomes different from earnings, which strongly influence ones happiness from his/her employment position.

6. Conclusion

The mechanism of personal employment path *has been intensively studied through* various models in the human capital framework. Nonetheless I believe that a deeper insight, which allows a thorough inquiry into the multifaceted space of the outcomes other than income and employment, will consent to shed light on the personal well-being and social functioning using a broader perspective.

Higher investment into human capital, and more specifically – higher level of education and experience, do not always directly lead to better chances in finding employment or to higher wages. Moreover, as have been shown in the present empirical exercise, level of education can provide an impact on the job satisfaction, which is completely different from the impact of earnings. Besides, personal characteristics (such as gender and ethnicity) and personal life circumstances and life choices (such as family status and family composition) can go a substantial way in explaining both earnings and one's subjective assessment of employment-

derived outcomes. These considerations lead to an intuitive conclusion of the necessity to study a broader impact that education can have on one's life choices. Even leaving aside the question of endogeneity of educational choices and achievements, one discovers a broad and complex stream of outcomes derived from the level of schooling.

An important result of the present empirical study is the evidence that the conventional human capital theory approach needs to be enriched by enlarging the measuring base to non-marketable benefits derived from employment success. Extended estimation framework provides plenty of additional information compared to the pure human capital approach. This information needs to be carefully assessed and used on the next stage of research with an ambitious objective to create a testable model, which reflects the quantitative and qualitative aspects of the individuals' capabilities to shape their personal well-being in its full spectre of dimensions.

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Attachment

1. Data Appendix

a) computer-assisted personal interview:	b) computer-assisted self-completion interview
Housing	Political attitudes
Partnerships -- current and former	Family life
Births and other pregnancies	Drinking
Periods of lone parenthood	General skills
Children and the wider family	Psychological well-being
Family income	Experience of crime
Employment status/employment history	Basic skills (literacy and numeracy) questions in multiple choice format
Academic education	Basic skills (literacy and numeracy) questions in an open-response format
Vocational training	Reading/writing exercises
Access to and use of computers	Short written task
Basic skills	
General health	
Diet and exercise	
Height and weight	
Family activities, social participation, social support	

Table A1. BCS70 Follow-up 2004-2005

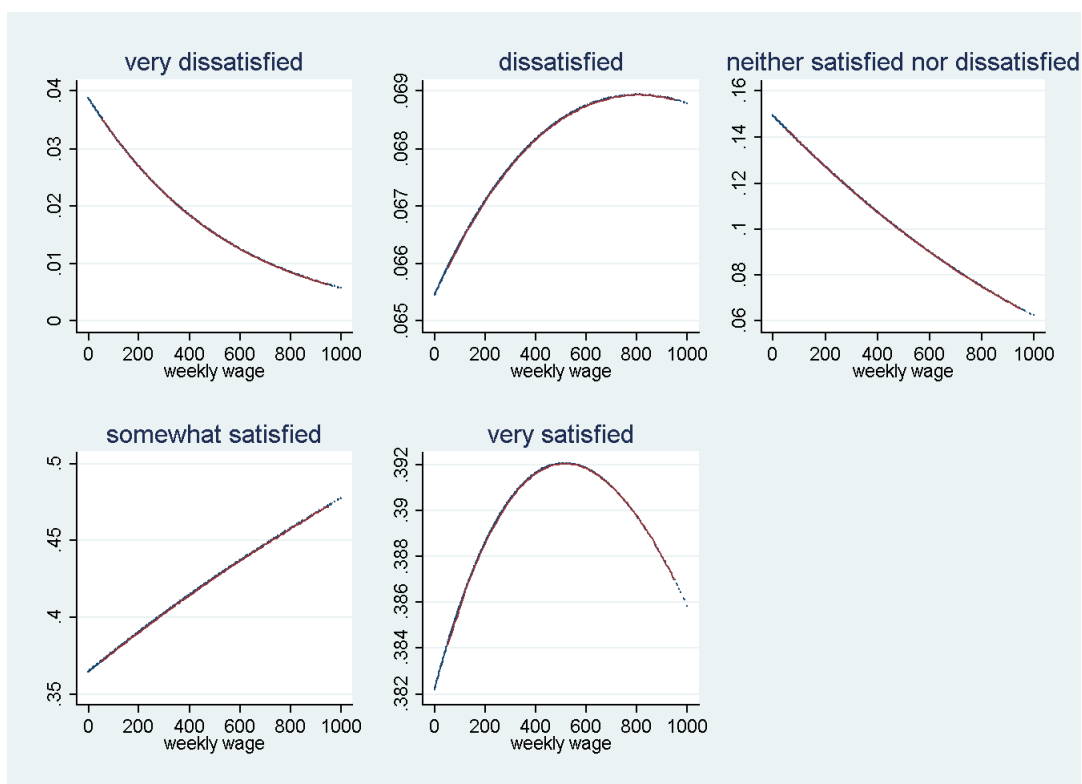
Variable	observations	mean	std. dev.	min	max
1) living comfortably					
female	2999	0.4581527	0.4983288	0	1
living with a partner	2999	0.8012671	0.3991131	0	1
children	2999	2.868.956	1.188322	1	9
numeracy assessment	2999	3.890.297	1.064452	1	5
literacy assessment	2999	4.596.199	0.7264186	1	5
education level (all groups)	2999	2.917.639	1.296408	1	5
education group 1	2999	0.1623875	0.3688674	0	1
education group 2	2999	0.3004335	0.458523	0	1
education group 3	2999	0.0913638	0.2881738	0	1
education group 4	2999	0.3487829	0.4766646	0	1
education group 5	2999	0.0970323	0.2960512	0	1
2) doing all right					
female	2978	0.4795165	0.4996641	0	1
living with a partner	2978	0.7595702	0.4274163	0	1
children	2978	03.080.927	1.243255	1	10
numeracy assessment	2978	3.705.507	1.075068	1	5
literacy assessment	2978	4.522.834	0.7397144	1	5
education level (all groups)	2978	2.571.525	1.264654	1	5
education group 1	2978	0.2320349	0.4222021	0	1
education group 2	2978	0.3488919	0.4766997	0	1
education group 3	2978	0.0950302	0.2933059	0	1
education group 4	2978	0.2635997	0.4406587	0	1
education group 5	2978	0.0604433	0.2383463	0	1

Table A2. Summary statistics

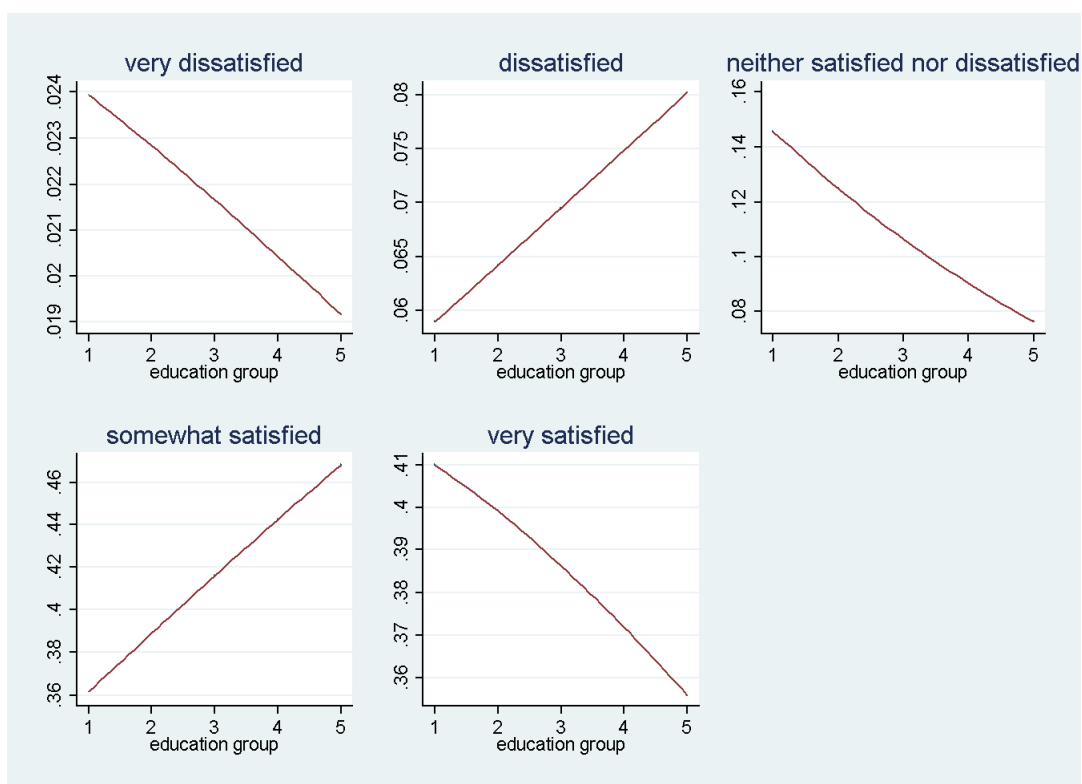
Variable	observations	mean	std. dev.	min	max
3) just about getting by					
female	1308	0.4847095	0.4999573	0	1
living with a partner	1308	0.6811927	0.4661924	0	1
children	1308	3.163.609	1.328571	1	7
numeracy assessment	1308	3.516.055	1.156024	1	5
literacy assessment	1308	4.431.193	0.8828933	1	5
education level (all groups)	1308	2.350.153	1.226346	1	5
education group 1	1308	0.3042813	0.4602784	0	1
education group 2	1308	0.3356269	0.4723898	0	1
education group 3	1308	0.1047401	0.3063353	0	1
education group 4	1308	0.2163609	0.4119206	0	1
education group 5	1308	0.0389908	0.1936471	0	1
4) finding it quite difficult					
female	212	0.4339623	0.4967929	0	1
living with a partner	212	0.6273585	0.4846522	0	1
children	212	3.146.226	1.431645	1	8
numeracy assessment	212	3.570.755	1.101353	1	5
literacy assessment	212	4.386.792	0.8269255	1	5
education level (all groups)	212	2.268.868	1.199673	1	5
education group 1	212	0.3207547	0.4678714	0	1
education group 2	212	0.3537736	0.4792717	0	1
education group 3	212	0.0943396	0.2929925	0	1
education group 4	212	0.1981132	0.3995213	0	1
education group 5	212	0.0330189	0.1791087	0	1
5) finding it very difficult					
female	64	0.390625	0.4917474	0	1
living with a partner	64	0.5625	0.5	0	1
children	64	3.046875	1.49528	1	8
numeracy assessment	64	3.65625	1.157704	1	5
literacy assessment	64	4.40.625	0.9875213	1	5
education level (all groups)	64	2.34375	1.22434	1	5
education group 1	64	0.3125	0.4671766	0	1
education group 2	64	0.328125	0.4732424	0	1
education group 3	64	0.078125	0.2704897	0	1
education group 4	64	0.265625	0.4451569	0	1
education group 5	64	0.015625	0.125	0	1

Table A2. Summary statistics (continue)

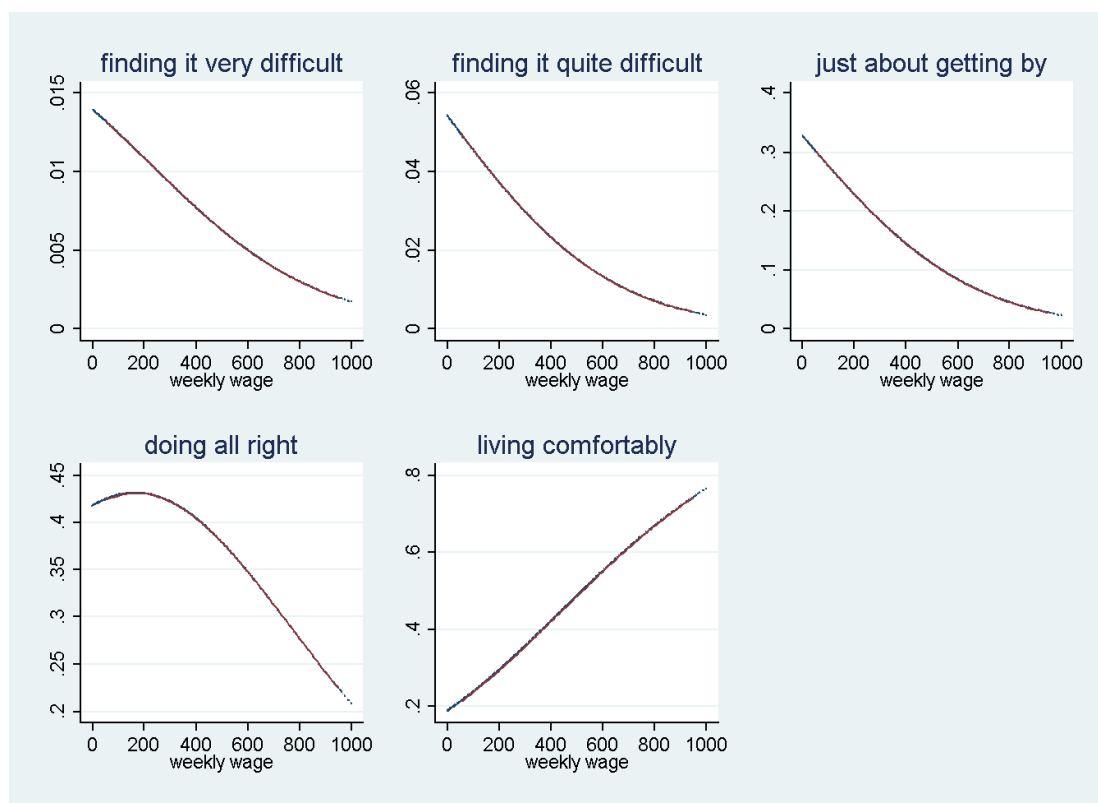
2. Graphs



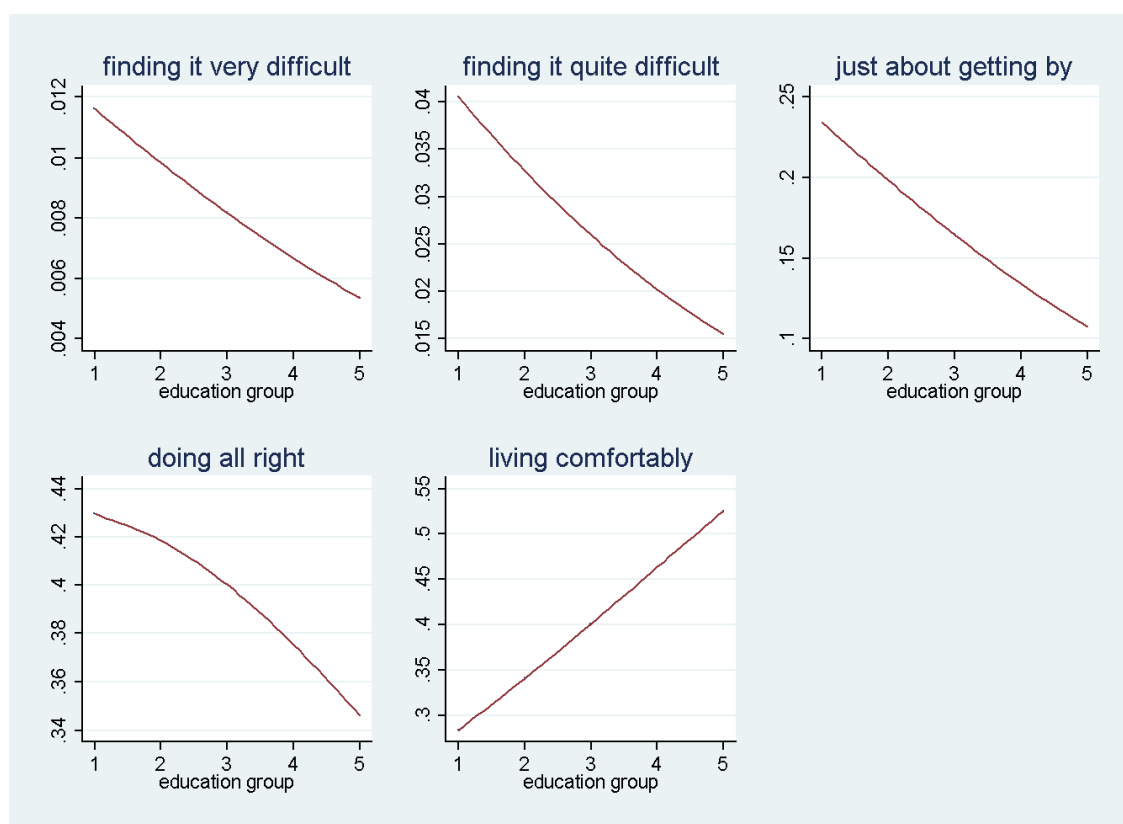
Graph A1. Job satisfaction: only earnings



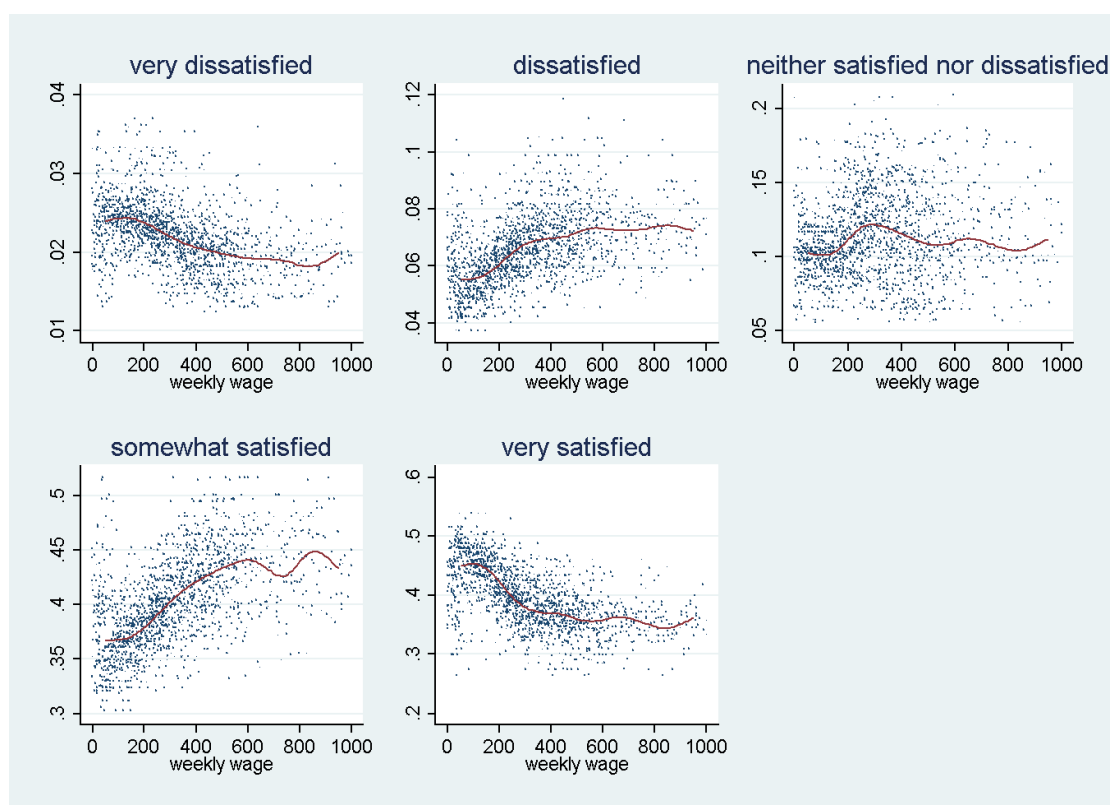
Graph A2. Job satisfaction: only education



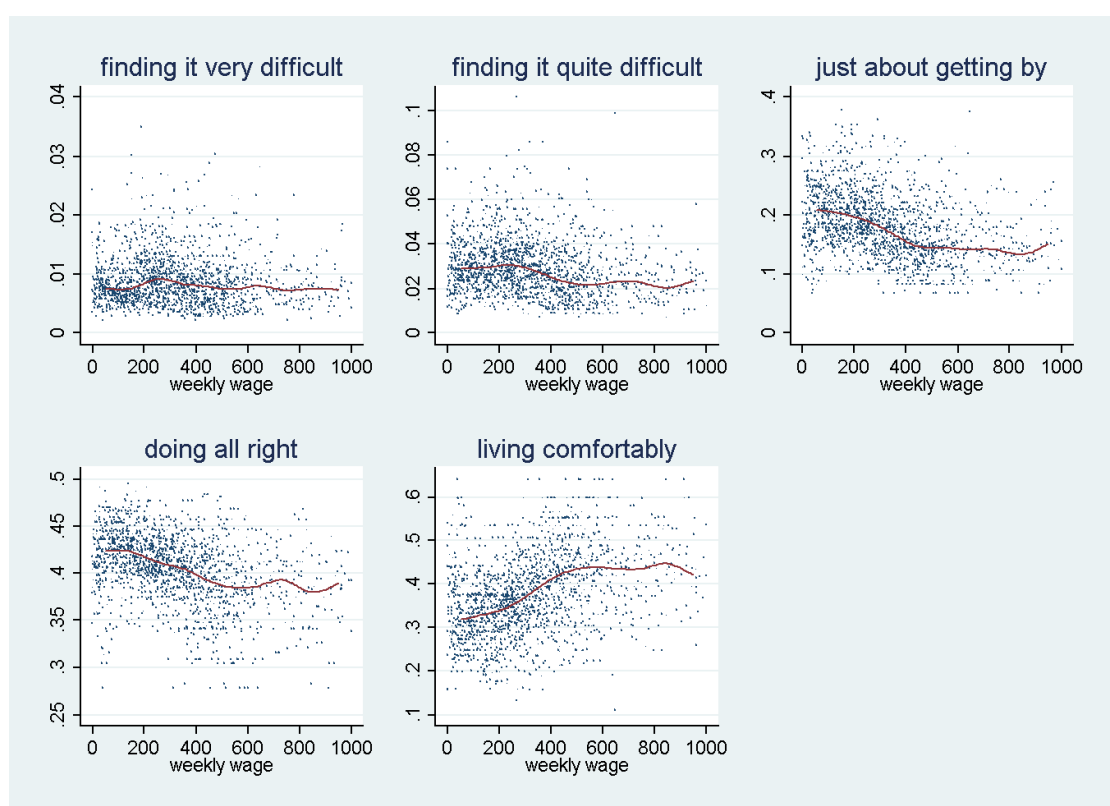
Graph A3. Financial situation: only earnings



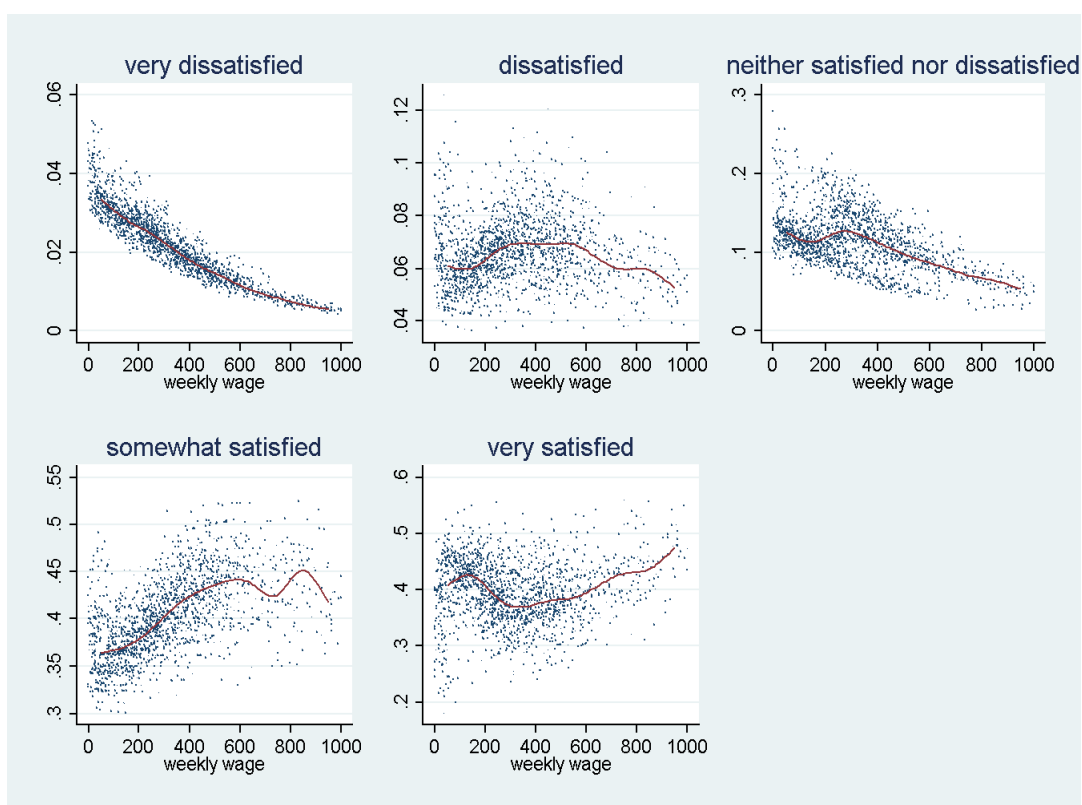
Graph A4. Financial situation: only education



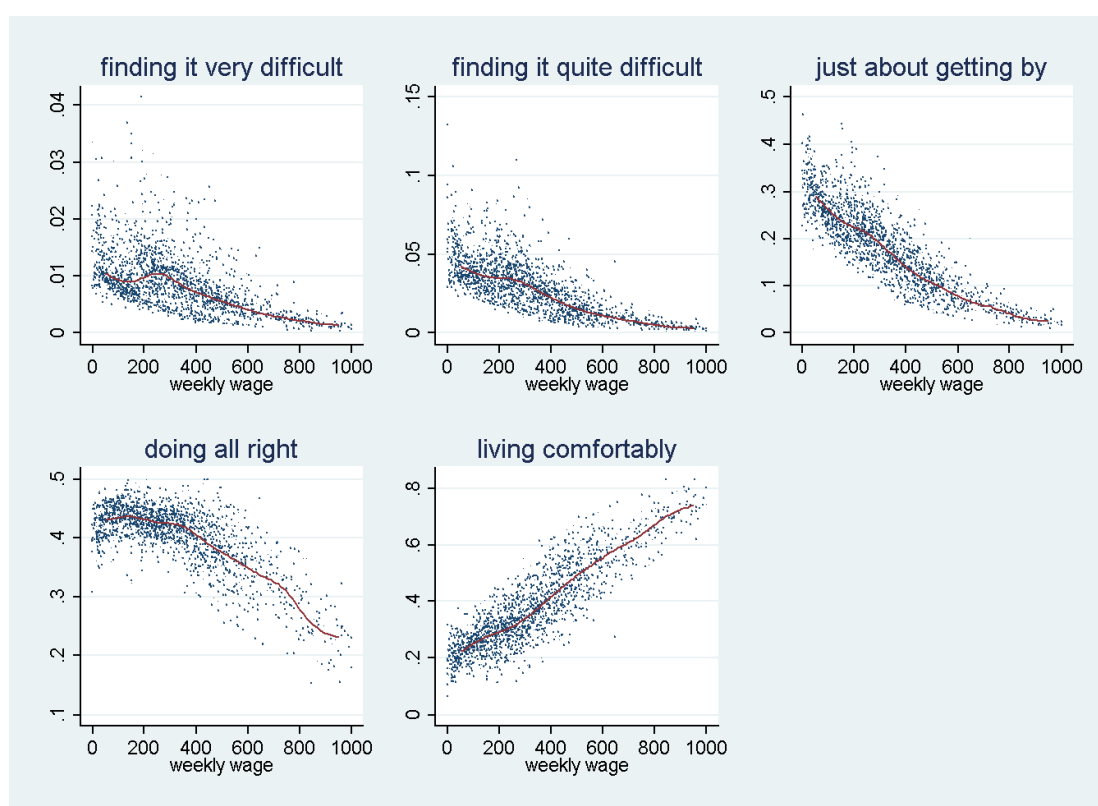
Graph A5. Job satisfaction: gender, family compositions, children, abilities, education



Graph A6. Financial situation: gender, family compositions, children, abilities, education



Graph A7. Job satisfaction: all factors



Graph A8. Financial situation: all factors

Björn Halleröd & Mattias Strandh

Measuring Capabilities – Possibilities and Obstacles

Introduction

The Capability Approach (CA) represents an important theoretical tool, facilitating our understanding of poverty, wellbeing and standard of living. It provides theoretical and conceptual clarity, but, it also leave us with a series of challenging empirical issues. At the theoretical level CA disentangles resources, functionings, and, most important, capabilities from each other but leave us with the problem of finding valid empirical indicators of these three aspects. In addition it is clearly stated that capabilities are used to convert resources into functionings that people have reason to value, which raise the question: whose reasons and can we trust peoples preferences?

There is a rich literature when it comes to measurement and analysis of resources, in particular economic resources and human capital. There is a likewise rich literature when it comes to functionings, i.e., welfare outcomes. Often these analyses are combined and most often is access to resources used as a predictor of functionings such as health, employment, school achievements, etc. A major strength of the CA is that it introduces an element of agency in this relationship; individuals need to be able to act and to do so consciously in order to convert resources into functionings. This means two things. First, the amount of resources needed to achieve a given function will vary between individuals depending on the capability to convert resources into functionings. Second, we should focus on capabilities, not functionings – what people actually do is a matter of choice and, hence, dependent on their preferences, i.e., what they have reason to value.

Old wine in new bottles?

Even though the distinction between capabilities and functions is at the centre of the CA most empirical studies ends up being fairly conventional. Several studies are treating the macro level as the capability level. Political intervention can be used to enhance peoples'

capabilities and, of course, also constrain capabilities. In this case the CA is helping us to direct the search light on the importance of legislation, service provisions, educational policies etc. But, is that something new? Is it not what comparative welfare state research has done for decades without paying any particular attention to the CA?

The power resource model developed by Walter Korpi (Korpi and Palme 2004, 1998, Korpi 1978) is based on the assumption that institutional arrangements are crucial to understand differences between countries when it comes to distribution of resources and peoples' real ability to take command over their own lives. What is more, Korpi is not only providing an understanding of politics and that politics matters, but also how and why it matters. An important feature of the power resource model is that politics mirrors conflicting interests. Hence, different policy solutions mirrors different interests and, in a wider meaning, preferences. The focus of attention is the distribution of resources and equality in outcomes, not capabilities per se. These outcomes are assumed to reflect the ability among different classes to mobilize resources in order to have an impact on politics. In a way one can say that preferences are given by class position, i.e., class interest.

This view is supported by the growing body of literature on attitudes and values that clearly show that most attitudes that relates to distribution of resources have a clear class pattern (Svallfors 2002, Svallfors 2005, Svallfors 2006). But, preferences and attitudes nevertheless vary substantially between and within different countries. What we see is that given institutions and a societal organization are related to given sets of attitudes, values and preferences and there is a basically endless feedback process between the two. That is, preferences are not stable or in any way given, they are fluctuating, adaptive and possibly deceptive. Hence, in relations to distribution of resources and functionings we know that institutions and politics matters, we know that preferences matters, and there is a long standing, advanced, and, as it seems, ever growing research activities around these matters. So, what is the contribution of the CA? Below, we will argue that the potential lies in the inclusion of individual preferences when evaluating welfare outcomes, i.e., functionings.

Existing CA studies that use an individualistic micro approach that is closer to the central assumptions guiding the CA tend, we will argue, to skip the part that relates to capabilities and preferences and concentrate on functionings in a broad sense. Again, this is an

interesting field that is in need of both conceptual and empirical development but is it new and do we need the CA?

The traditional standard of living or level of living standard approach developed by, among others, Johansson (1970), Allardt (1975) and others focus on peoples command over resources. The basic idea is that people have resources of different kinds allocated in different arenas (education, labour market, health, social integration etc). These resources are comparably, at least compared to capabilities, easy to observe. Level of Living Condition surveys was a tool invented to measure resources in different arenas and to analyze the connection between them. Today we see at least part of that tradition implemented at a European level via the EU-SILC. In this tradition the prescriptive or normative aspect is related to a basically objective (as opposite to subjective) and normative definition of valuable resources. It was further assumed that access to resources gives individual freedom, what people are doing with that freedom was, at least in idealistic world, seen as no bodies business. The main political goal, seen from this approach, is to minimize the effect that lack of resources within one arena has on another arena. For example, lack health resources should not be allowed to cause poverty, hinder people to maintain social interaction etc. What this basically means is that politics and distribution of resources among other things should ameliorate the effect that lack of resources in arena X has on the capability maintain a functioning in arena Y. As it seems, this way of understanding welfare is very close to the CA approach but older and backed by a long empirical research tradition.

In CA literature, and often in other contexts as well, resources are framed as outcomes or functionings. It is also functionings, not primarily capabilities that are analyzed. The problem here is that they are looked upon as something that the individual has reason to value, as the outcomes of realized capabilities. There is a rational choice bias here that is hard to get rid of (Gaspar 2007). From the arena perspective, we do not have to make any assumptions about what people have reason to value, we only have to care about that they have resources in arena A that can be transformed to resources in arena B.....N. The point is that these kinds of transformations can be examined as empirical facts. What constitute valuable resources is basically decided by 1) universally agreed positive outcomes (health, good education, etc) and 2) political process. The CA introduces a critical and important factor in this equation and that is “reason to value”. This aspect opens up for analyses that in theory

will reveal both the scoop of real options that individuals are facing, which in turn is a basic measurement of individual freedom. It also opens up for critical analysis of the degree to which a certain political and institutional setting is forcing people to abstain from functionings that they have reason to value and, at the same, time force them to maintain functionings that they have reason not to value.

The crux is that this is a complicated analytical and theoretical task, which is something that we will discuss below.

Some thoughts on individual level preferences within the CA

The capability approach is by definition dynamic in the sense that the consequences of resources and capabilities are forward-looking, where capabilities and capability sets are related to choice and control in relation to preferences and functions. This dynamic character is reinforced when the functions in themselves can be thought to feed back in the loop and become resources and create capabilities in their own right. In the capability loop preferences become an important although contentious issue, which might both be a key strength and a weakness of the approach. It is for instance very hard to think about freedom and choice outside the idea of preferences, which makes the evaluation of capabilities and functions very much an issue of dealing with preferences. At the same time preferences can be thought of and questioned through the prisms of adaptive preferences as well as preference change. This makes it important for us to reflect and possibly have a strategy for dealing with the role of preferences from within the framework of the CA.

Taking preferences and how they relate to functions seriously within the framework of the CA is an interesting issue. This not least as the critique of desire fulfillment as a measure of welfare is at the heart of the approach (Bagolin, Porsse and Comim 2004). This critique very much centers on the problem of adaptive preferences, where circumstances and scope also affects preferences. This leads to a situation where preferences will be biased and thus not really useful for evaluating the quality of life the individuals experience. Sen discusses a number of such circumstances which might create adaptive preferences. These relate to how individuals might deal with adverse situations by adjusting (or in some cases maintaining) preferences. Individuals' preferences might for instance be affected by lack of

perception, be the result of habituation, simply reflect what is practically feasible (Sen 1999, Sen 1985, Nussbaum 2000).

This is a fundamental critique of preference theory. We could here use Catherine Hakim's work, as an example. Hakim uses preference theory to explain the shape of female labour market participation, where assumptions in line with theories about the individualization process (see for instance Beck 2000, Beck et. al. 1994) are used to argue for the demise in the role of structural variables and increasing role of women's own preferences. The prevalence of part time work among women here reflects a substantial proportion of women's own preferences about working hours and a concern to find jobs which enable them to reconcile work and family life. She argues that the preferences of women must be seen as heterogeneous and that part timers thus in most cases lack a commitment to employment and give priority to family and home making (Hakim 1996, Hakim 2000, Hakim 2004). Hakim is of course correct on where female part-timers expressed preferences lie. It is clearly the case that most female part-timers and even more part time mothers say that they prefer to have a part-time rather than a full-time job (see for instance Thair and Risdon 1999, Strandh and Boje 2003). The critique of her assumptions have instead focused on the lack of analysis of how preferences are formed in heavily gendered normative contexts, and where preferences also have to adapt to circumstances where full time work and family responsibility cannot be reconciled. Constraints and possibilities that for instance include availability of child care, long hour culture and the division of housework (see for instance Scheibl 1999, McRae 2003). A corresponding observation is made by Halleröd (2006) who show that individuals that have been exposed to long term economic hardship are more likely than others to define lack of consumption as a consequence of choice, not economic constraints. These observations show that a preference based analysis of quality of life most likely are biased, and conservative in the sense that we would not have to work towards changing the conditions relating to work and family and we can also draw the conclusion that poverty is not a problem as long as the poor endure their poverty. The problem, in relation to poverty, is of course that adaptive preferences make people accept poverty.

The adaptive preference critique of preferences is very effective, and makes a strong argument for focusing on the evaluative space of capabilities rather than using desire fulfillment in order to measure quality of life. The problem is however that disregarding

preferences altogether when applying a capability framework would not seem to be all that attractive either. This firstly because what people think and want is of importance. No matter if preferences are “real” or adaptive they are important for the individuals and could in line with Nussbaum be argued to represent a constitutive value. Secondly any analysis of capabilities that does not deal with preferences might be somewhat limited as the scope of individuals would be relatively hard to discern unless we take preferences into account. Analyses that do not reflect upon preferences (adaptive and other) would risk becoming relatively flat and become pure analyses of functions, i.e., rather traditional analyses of objective welfare outcomes. Preferences might here be a capability or a constraint in their own right. Even adaptation could in some cases be argued to be a positive process that helps people lead better lives (Elster 1983, Bagolin, Porsse and Comim 2004, Teschl and Comim 2005). The existence, formation and impact of preferences thus become a possible instrument for the analysis of capabilities if we can measure them, or at least deal with them, in a reliable way.

Concluding that preferences in all forms are of interest when dealing with capabilities thus leaves us with the issue of methodological strategies of how to measure and evaluate them. This is something that might seem to be even more complicated when we think further about what adaptive preferences imply. Accepting that preferences are related to circumstance we also accept that preferences can change. This might imply preference change in the form of a reflexive process. Such a process would for instance be the case of reevaluating preferences once one has achieved the desired functioning. Preferences that previously might have been adaptive (although they of course are real in the sense that they are experienced) are here changed in light of experience. If preferences are highly related to circumstances they also change as circumstances change. This could be the case in at least two ways. The simplest way would be in the form that an individual’s circumstances changed, new opportunities for instance opened up, and the individuals preferences would adapt to the new opportunities. Preference change could here be viewed as a necessary for the capabilities in question, where capabilities are hard to imagine without a supportive preference structure.

The second way we can think of circumstance related preference change is to think of it as done within a larger framework of preferences over the life course. Having one preference

at one point in time and another preference at a second point in time does not have to mean that there is a dissonance between them. They could instead be interconnected and a part of a larger idea, or preference, of how the life course should be organized and what functions are desirable at what points in it. This can be exemplified by looking at the example we previously used with female working times and family responsibilities. Even if we disregard the issue of adaptive preferences, and accept the empirical fact that mothers work part time because they prioritize family responsibility, it is questionable to conclude that the individual's preferences are satisfied. In the short term this of course the case, but it is by no means certain that this is the case adopting a life course perspective. While family and children can be prioritized during one part of the life course, it is quite possible that paid work can be prioritized at a later point in the life course. The individual woman's preference might be tied to an idea of a preferred life course where she works full time before having children, part time when the children are small and full time once the children are older. That this is the case have been strongly supported in research, where female (but not male) preferences for working hours have been shown to vary substantially over the life course (van Wanrooy 2005).

Preference change in all its forms do represent a substantial problem for analysis of welfare or quality of life that are based on preference satisfaction and subjective wellbeing (Voorhoeve). This not least if preferences, and preferences satisfaction, at t1 is related to choices that create constraints for preference satisfaction at t2. They might then actually be related to reduced satisfaction and quality of life in the long term perspective. There is good reason to believe that this might be the case in relation to our example of women and part time working (and for that matter young peoples' view on educational and occupational choices). Studies have shown there to be long term scarring effects related to the labour market choices made by women in relation to family formation, although the effects varied substantially depending on institutional context (Russel, Halpin, Strandh and Ziefle 2006). The preference based choices (adaptive or otherwise) women make in order to facilitate family responsibility with working life might be related to desire fulfillment at t1 and constraints of desire fulfillment at t2.

Preference change, like adaptive preferences, thus represents a critical problem for the evaluation of quality of life through the prism of preference satisfaction or subjective well

being. This we would like to argue is however not a reason to disregard preferences from analysis made from the perspective of the capability approach. The capability approach is forward looking and dynamic in its nature. The relationship between resources, capabilities and functions here forces us to think about time both in a theoretical and empirical sense. At the same time the framework is dynamic, for instance in the sense that functions in turn can become capabilities, something that allows the analysis of complex processes involving feedback loops. Given these qualities the framework actually would seem relatively well suited for integrating preferences, and analyzing the role they have for shaping capabilities and functions in the short and long term. The key to being able to do so is however that we both will have to be able to empirically link preferences, capabilities and outcomes, and that we have a strategy for dealing with the adaptive nature of preferences and preference change.

Thinking about satisfying these requirements three key components of such a strategy will be central. The first two components would seem to be fairly straight forward and in our view central to any analysis dealing with capabilities. There is firstly a need for comparative analysis. Without comparison there is no possibility to see if preferences are related to circumstances and if preferences are related to the same functions under different circumstances. This comparison could be on the institutional level. In the form of our example with women and part time work above, the comparison of preferences and functions within different institutional context allows us to see that both preferences and outcomes differ between countries. We can through this relate preferences and outcomes of preferences to different identifiable constraining or enabling factors on the contextual level. It could however just as well be made on the individual level, where initial circumstances and characteristics are used to measure capability differences, or as a combination of individual level and contextual level factors. These analyses would however be very unsatisfactory unless we could make them longitudinal. Only introducing time as a factor and allowing for preference change, changes of circumstances and changes of outcomes lets us deal with adaptation, its reasons and consequences.

Combining the comparative and longitudinal approach would thus let us get closer to preferences and preference formation. This will greatly help us integrating preferences into an analysis of capabilities, something that hopefully would make the analysis of the

relationship between resources, capabilities (as well as transformation factors between them) and functions fuller. The precondition of doing any of this is however that there exists information about preferences in datasets that fulfill these requirements. Although there exists a lot of data that investigate peoples preferences almost all of this is related to cross-sectional data and would not help us. There is however a number of data sources that for specific areas have longitudinal traits. Projects have identified large batteries of questions measuring capabilities in relation to health in for instance the BHPS (see Anand, Hunter and Smith 2005), some of which might be useful in relation to preferences. The area which appear to offer the best opportunities is however labour market participation where EU-SILC, household panels and labour force surveys offers a great deal of information on both preferences and functions in relation to several issues.

Looking at our example of female part time work these panels usually provide us with longitudinal information not only on working hours, and preferences for working hours, but also stated reasons for preferences and perceived reasons for dissonance between preferences and function. Using these datasets properly would provide us with essential information about preferences that really would let us integrate it into a capability analysis of the issue. The questions that could be worked with include individual level and contextual level analysis of at least 1) how preferences are linked to circumstances, 2) how preferences are related to functions, 3) how dissonance between preferences and functions is understood by those affected, 4) expressed reasons for preferences 5) how dissonance at t1 is related to functions at t2, 6) how dissonance at t1 is related to preferences at t2, 7) how preferences change in relation to changed circumstances, 8) how changed preferences are related to changed functions, 9) how maintained preferences are related to maintained or changed reasons for preferences (how are for instance changed circumstances related to reasons for maintained preferences), 10) how new dissonance is understood by those affected.

Applying such a methodological approach to capability analysis would help expand the dynamics of capability analysis. The capability approach does have truly dynamic theoretical features, something that can be seen for instance in the multidimensional analysis of capabilities, functions and how they relate to subjective satisfaction. By actually analyzing preferences over time and in relation to functions and capabilities we would however

substantially expand our understanding of the basis of capabilities, and how these change in interaction with outcomes, and what role human reflexivity and adaptation has for shaping capabilities.

A couple of thoughts on path dependency

We have previously discussed path dependency and capabilities from the perspective of preferences and preference satisfaction. Our conclusion mainly ended on a positive note, where we pointed towards some possibilities to constructively deal with these issues from the perspective of the capability approach. Path dependency is however an issue of larger interest to our project than its relationship with preferences. In the wider literature the concept is popular for understanding everything from consumer behavior to the development of firms and organizations (Teece, Pisano and Shuen 1997) to why institutional regime configurations do not converge (Hall and Soskice 2001). A substantial proportion of this literature does use the concept of capabilities. Looking at the dynamic nature of the capability approach the reasons for this are quite clear. Feedback loops between functions and capabilities over time create a framework susceptible for discussing phenomenon in terms of path dependency. The interrelationship between capabilities and functions here affects the scope of choices which over time creates trajectories that can be path dependent.

Integrating and working with the dynamics of path dependency does appear very attractive, and to some extent necessary, for a capability based analysis of welfare. Without an understanding of how the choices we make impact our future capabilities life course trajectories and the welfare of individuals become hard to understand. It is thus necessary for us to try to understand how history affects (enables or constrains) future choices. An issue that have to be kept in mind is however to refrain from deterministic interpretations of individual trajectories. Masrani and McKiernan (2009) for instance point towards the tendency to over interpret the importance of history when evaluating the strategies and capabilities companies develop. We would like to argue that this most probably is the case also when analyzing individual level trajectories. As researchers we will generally be looking at snapshots of individual lives, making conclusions about their capabilities and trajectories from a small piece of the life course. This could result in nearsightedness where we do not

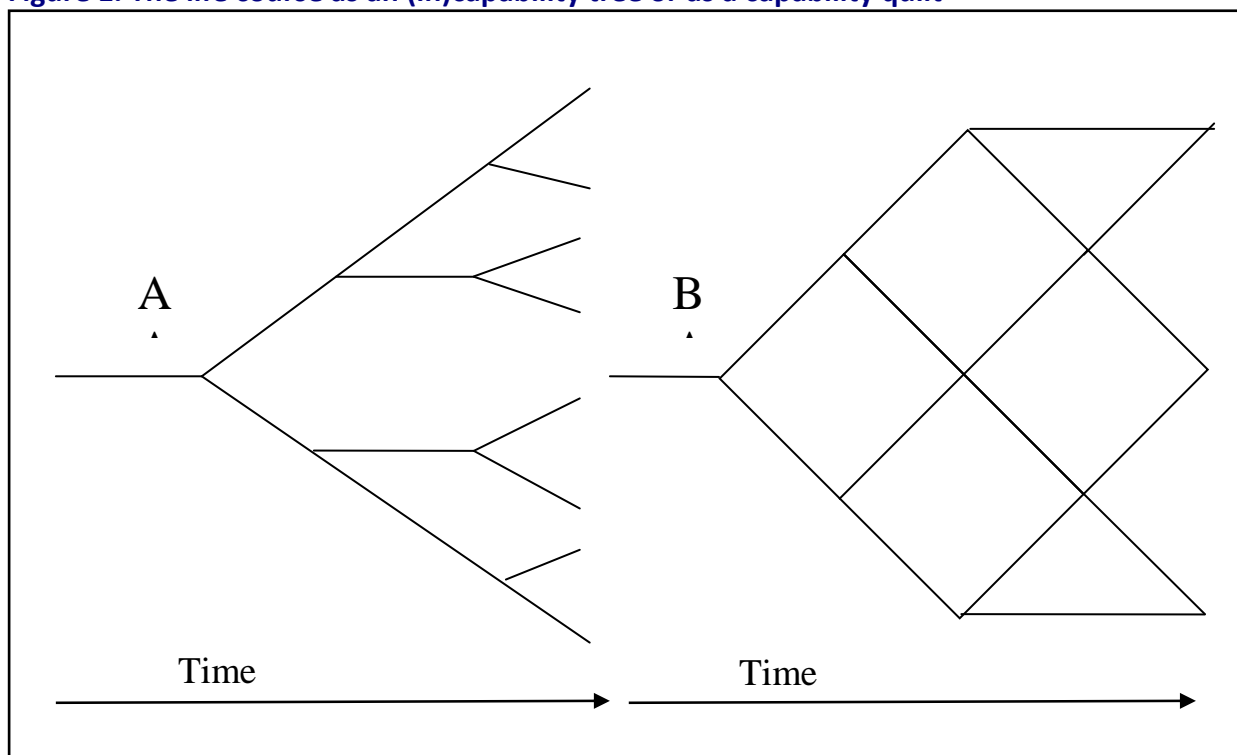
see all the options that actually are available to our individuals if we only followed them closer and/or over time. We would thus have a systematic tendency to underestimate the capabilities and choices that individuals have, making our analysis more about constraints than capabilities.

The best way to deal with this problem in relation to path dependency is probably to remain true to the agency core of the capability approach, making sure that we honor the potential of humans under all conditions and not become analytically sloppy. There are however also a couple of methodological approaches that might be useful to employ when dealing with the dynamics of path dependency. The first is of course to increase our understanding and get very close to our individual. By applying a systematic qualitative approach we could get very close to our subject and understand the choices that individual actually experience themselves as having (which would represent the real choices) and how these are understood coming about. This would provide us with important clues to the dynamics of path dependency, although the remaining snapshot character of the encounter (although intense and over some time) and subjective (and perhaps adaptive) nature of the information would remain problems.

The second methodological approach would be to make sure that our quantitative analysis is long term. That we when looking at path dependency dynamics not only look at a snapshot but on longer term trajectories and on the life courses. The reason for this is of course that we would allow individuals to have the opportunity for making not just one choice, but many, making it possible to see the degree to which the original choices actually creates a long term path dependency. This would ideally mean that we would have access to data where we could follow individuals over extended periods of the life course, where experiences and treatments could be allowed to have their long term effect. There are a number of data sources, at least in the Nordic countries, that would allow us to do so. It would however not rule out the use of shorter panels where different individuals could be used to create proxy life courses. The analysis would in both cases aim to map trajectories (real or inferred) that would provide information on the extent that choices made affect, or not, capabilities and functions in the long term. This long term trajectory perspective might be important from the perspective of capabilities as it forces us to allow for the possibility that there over time might be several routes to the same functionings.

In many ways such an approach is fairly similar to time geography (Hägerstrand 1970, Hägerstrand 1982) which is an approach that could be said to deal extensively with analysis of path dependency. Time geography investigates individual trajectories over time and space. The central tenet is the fairly obvious conclusion that an individual cannot be in two places at the same time, which makes it interesting to look at what makes some choices possible and others not and how choices made in turn make new choices possible or impossible (Åquist 1992). If you for example have the choice of going for a walk in the woods or going to the cinema you know that watching a film will prevent you from taking a walk later in the evening (because of the distance), but it will enable you to go to the ice cream parlor which is next to the cinema. Our analysis will (like the case is with time geography) of course be much more difficult given the multidimensional nature and dynamic nature of our study object. The basic issues could however be fairly similar. When looking at young people at risk we are interested in how the circumstances and choices made shape future capabilities. What future doors open and close through the possible initial choices, and are there many path ways towards the same functions later on in time.

Figure 1. The life course as an (in)capability tree or as a capability quilt



How could we then work within such a framework? The evaluation of capabilities and path dependency becomes a question of comparing pathways over time, between individuals within the same context and between individuals in different contexts. This could be exemplified as done in the very much schematic figure 1. Here the effects of the feedback function on the life course trajectories of two very different cases (A and B) are compared. The lines in the figure represent the possible life course trajectories and a split in the line represents a choice between two incompatible functions. Looking at case A we can see that we can imagine a situation where every choice made restricts every further choice. The first choice made, for example, will per definition exclude for the future all choices in the top half or the bottom half of the figure. Case A describes a situation of extreme path dependency, something that could be described as an (in)capability tree. Strong path dependency does however not have to be the case. Even in a situation where an individual has to choose between two functions that are mutually exclusive, this might mean that they are only mutually exclusive at the same point in time (or at this particular point in time). Case B could be said to describe something that could be labeled a capability quilt. The original choice between incompatible functions does not exclude the non chosen function at a later point in time. There are in case B many routes to the same place.

If we use figure 1 to make a more concrete example we could imagine that case A and case B represent young women living in two very different institutional and labour market contexts. At the first point in time they face the same choice between having children or continuing with a labour market career. The choice is in both cases a choice between two functions that for the moment are incompatible. The difference between the cases is that the initial choice has very different ramifications for future choices. Choosing to have children in case A creates a path dependency where the initial choice makes a return to the initial labour market career path impossible once the children are not small any longer. Instead the next choice becomes a choice between continuing to stay at home or marginally reentering the labour market. In case B the initial choice to have children does not in the same way limit capabilities, and it is here at the second cross roads possible to return to the initial labour market career. The differences between case A and case B is in many ways an issue that is dealt with extensively in the standard comparative welfare literature. This analysis is however often focused on "longitudinal snapshots" where for instance reemployment rates

are directly related to enabling or constraining institutions. This often means relatively little discussion of agency, alternative choices, alternative routes and how different choices bound together to form capabilities. This kind of analysis also offers a link back to a more institutional analysis, for example comparing different educational system and to what degree specific choices leads to 'dead ends' or if there always is a way back.

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Exploring quantitative methods to tackle working lives from a CA

Introduction

Introduced by Amartya Sen, the Capability Approach allows for an alternative way to assess individual situations and social arrangements according to a specific informational Base of Judgement in Justice (IBJJ), i.e. the real freedom people have to do the things they have reasons to value. But, operationalizing the CA is the most important challenge that lies ahead for this approach. This paper is motivated by interest in the quantitative approach to capabilities measurement. On the base of quantitative methods, there are a number of issues to be resolved, which need to be developed if the framework is to be fully applicable as a framework for measuring working lives. This paper is an attempt to tackle some of them.

First, operationalizing the CA is not a simple exercise, since the CA is underspecified. The CA is a framework of thought, a normative tool, but it is not a fully specified theory that gives us complete answers to our normative questions (Robeyns, 2003). Hence, it entails some additional specifications to be made such as the selection of relevant capabilities and the weight of the relevant capabilities. The former issue requires a specific attention as *“economists have not reached consensus on the dimensions that matter, nor even on how they might decide what matters”* (Grusky and Kanbur, 2006).

Second, there are several problems that arise in the attempt of operationalising the capability approach such as the way to tackle the multidimensional-context-dependent counterfactual of information to be needed (Comim, 2001). Among others, Sudgen (1993), Yandser (1993), Srinivasan (1994) and Roemer (1996) have debated this issue. So, the CA is not straightforward to convert in practical terms. Even if the approach makes sense, its operational content is challenged. Where and how data on capabilities can be found? In most cases, the statistical surveys conducted within individuals gather some data on

situation which occurred rather than on situations that would have occurred or might occurred. Hence, the problem of capability observability and the distinction between capabilities and functioning appears. Adopting the capability framework implies thinking about the various processes by which empirical data are produced, as far as most of the existing datasets have not been collected with the aim of measuring neither functioning nor capabilities. This implies to ask ourselves questions about the way to highlight some information to be used, the necessary deconstruction and reconstruction process of statistical data and categories and the way to deal about the collected information, to assess their relevance degree for a capability application.

Third, the CA is not nor a mathematical algorithm that prescribes how to measure quality of life, development, poverty, or capability for work, etc. Hence, it entails some additional specifications to be made. It supposes also to deal with the way to analyse data with a knowledge purpose such as how different capabilities should be aggregated in an overall assessment, etc. From a quantitative angle, the methodologies used to measure (the) capabilities are various. They can turn to the factor analysis, the principal component analysis, but also the fuzzy set theory or multidimensional indices, and even structural equations, but also equivalent income measures, or the efficiency analysis, and beyond.

Fourth, the dynamic analysis, the study of processes as well as the understanding of phenomenon in time have become leitmotivs in social sciences. In connection with these preoccupations, longitudinal survey and quantitative analysis methods have developed and play an increasing part in the research area. But the capability approach does not give precise guidelines on how time should be taking into account even if some authors argue that the assessment of capabilities should be dynamic. It seems important to investigate how to extent the informational base towards concerns with time and temporal aspect of working lives.

Fifth, the CA has only recently become of increasing interest in analytical and empirical studies of issues related to employment, work, training or learning while it has been used in a wide scope of domains, most significantly in development studies, welfare economics in

order to assess a variety of aims, such as poverty, or inequality assessment, quality of life measurement, etc.

This paper is an attempt to present and discuss some of these challenges and the common issues to overcome. More precisely, this presentation aims to look more closely the terms of the debate, the issues at stake and the current practices and methods. It aims at opening the black box of this research and providing as well discussing some reflexions about the *modus operandi* related to the investigation of working lives on the base of quantitative methods. This reflection will be situated within the literature that aims to advance this underdeveloped framework and will propose some reflections of its own.

The paper is structured as follows. Before turning to a consideration of the challenges for operationalizing the CA and the potential of different approaches to analysis, the aim of the first section is to present the conceptual apparatus of the capability framework in order to make more explicit resources, conversion factor and functioning concepts. Attention is also given to the distinction between the concepts of “positive” *versus* “negative” freedom and of ‘process’ *versus* ‘opportunity’ aspect of freedom. Section two addresses some of the most frequently raised questions and criticisms made on the capability approaches. It tries to clarify the set of challenges to be resolved if the framework has to be duly applicable. Section three present the current diversity of techniques and methods that have been developed according to the issue at stake. We’ll here argue that there is a lot to be gained by linking various kind of data, especially when the focus is on social or environmental conversion factors. Section four surveys the main kind of applications in a dynamic way.

1. The conceptual apparatus of the CA

The eponymous idea of capabilities is the core concept of the capability approach (CA). The starting point of this approach goes back to discussions in liberal political philosophy which have offered a wide menu of answer to the key issue: “equality of what? What metric egalitarians should use to establish the extent to which their ideal is realized in a given society? (Cohen 1993). What aspects of a person’s condition should count in a fundamental way? In his Tanner Lecture of 1979, Sen argued in favour of focusing on the capability to function, that is, what a person can do or can be. So in a capability approach, the

informational basis of judgement should be capabilities. From that time, the CA has become *“a broad normative framework for the evaluation and assessment of individual well being and social arrangements, the design of politicises, and proposals about social change in society”* (Robeyns, 2005) and other scholars have developed it further in recent years. Sen’s CA is basically a normative framework for assessing alternative policies or states of affairs. According to the CA, social arrangements should primarily be evaluated according to the extent of real freedom that people have to achieve the plural functioning (beings and doings) they value (Alkire, 2007). This amounts to dealing with this specific information base of judgement in justice.

Capabilities can be thought of as a step between resources and functioning’s which cannot directly be observed (as illustrated in the diagram in Figure 1).

Functioning’s

Functionings are actual achievements of a person: they stand for what he or she is or does. They have to be distinguished from capabilities, representing the potential functionings of a person, i.e. what she could be or do. According to Sen (1993:31), *“the capability of a person reflects the alternative combinations of functionings the person can achieve, and from which he or she can choose one collection”*. The distinction between the realised on the one hand and the effectively possible on the other hand could also be described as referring to the difference between achievements and freedoms. Capabilities as combinations of beings and doings that a person can achieve reflect the real set of options a person has, thus her freedom of choice.

Resources

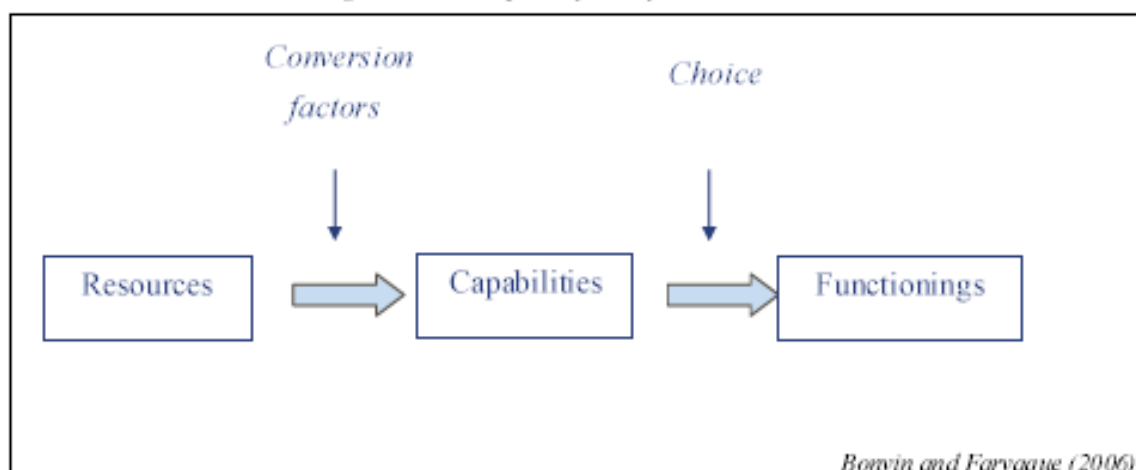
Resources are entitlements and commodities available to individuals, be they produced or not on the market, exchangeable or not against money. So, the capability approach also rejects normative evaluations based exclusively on commodities, income, or material resources. As Robeyns (2005) notes: *“Resources are only the means to enhance people’s well being and advantage whereas the concern should be with what matters intrinsically, namely capabilities”*. Indeed, given equal resources, when faced with the same contingencies people do not have the same ability to overcome them (Salais and Villeneuve, 2005). They do not

have the same power to convert the means at their disposal into real freedom. There are factors which influence how well a person can convert resources into capabilities. The emphasis on capabilities does not disagree with the important contribution that resources can make to people's working lives. Indeed, inequalities in resources can be significant causes of inequalities in capabilities and therefore also need to be studied. A complete analysis of working lives should not only map the lack of in functioning and capabilities, but also analyze which inequalities in resources cause impact working lives and inequalities in capabilities and functioning's.

Conversion factors

Nevertheless, the very important advance of the CA lies in its stress on conversion factors, i.e. on the proper conditions allowing translating formal rights and formal freedoms into real rights and real freedoms. The extent to which a person can generate capabilities from resources and entitlements depends on *"the factors that determine how smoothly this conversion can be made"* (Robeyns, 2007). After Robeyns (2003), one can acknowledge that there are different conversion factors that influence the capability set. What people are effectively able to do and to be depends on three kinds of conversion factors: personal, social and environmental. For example, assessing employees' capabilities cannot be achieved independently of the context, which means social conversion factors, and so it requires in-situ contextualised judgements. As recalled by Bonvin and Thelen (2003), *"this concept of 'situatedness' is at the very centre of the capability approach"*. If individual needs are to be duly taken into account, then the prominent role of specific conversion factors ought not to be restricted to certain variables like gender, company size or sector. Furthermore, the dynamics of conversion factors must be understood in most cases as an interplay of different factors or of different kinds of factors: an individual's joblessness due to discrimination against the colour of his skin is actually due to both an individual and a social factor, neither of whose would have rendered the detrimental outcome on its own. With regard to the sphere of working lives, the role of the conversion factors is crucial since they may either enhance or impede capability for voice, capability for work (including learning and training), work-life balance.

Hence, part of the difference in attainable functioning's is due to conversion factors. An individual right to training, as it has been implemented in France by the law of 2004, does not tell us what the person will be able to do with this right. For example, in France, employees have the right to a personal training program (DIF). While employees make the initial request for training, they must obtain the company's agreement. The final choice of training program is reached by mutual consent. So the ability to convert the Individual Right to Training (DIF) into a real right is dependent on different conversion factors. Among the environmental conversion factors, companies' policies play an important role as they are in charge of implementing institutionally drafted rights. Hence, the information provided in the company about this right, the procedures for collecting and discussing employees' training wishes, the existence and role played by staff representatives, the existence of a company agreement concerning training at least in part, the company's level of training expenditure are environmental conversion factors that must be duly taken into account (Sigot and Vero 2009). Furthermore, personal conversion factors, such as ability to use informal levers, especially when there are no structuring tools accessible to everyone within companies, do impact the functioning one person can draw from a given a formal right. Such social conversion factors as child care organization, and specially women's place in child care, play a crucial role for women, especially when DIF training take place outside working hours. Similarly the formal right to voluntary paternal or maternal leave is mediated not only by the constraints (possible reprisals) imposed by companies to fathers or mothers wanting to take a leave, but also by economic factors (economic necessity, if the leave comes with an allowance which is not wage equivalent) or cultural and social factors (men do not take it as care work is socially assigned to mothers).

Figure 1: The Capability Analytical Framework

This distinction leads us to emphasize the conception of individual responsibility in a capability approach. A person could not be considered responsible for individual outcomes if he or she lacks any real freedom to achieve valuable functionings. For example, as Bonvin and Farvaque (2005) recalled, responsibility of unemployed people in matters of employability or getting back to work could not be advocated if real freedom for work is not given.

Negative and positive freedoms

To understand the stakes associated with freedom, one needs to distinguish negative and positive freedom. As underlined by Berlin (1969), negative freedom is the absence of obstacles, barriers or constraints whereas positive freedom is the possibility to act in such a way as to take control of one's life and realize one's fundamental purposes. While negative freedom is usually attributed to individual agents, positive freedom is sometimes attributed to collectives, or to individuals considered primarily as members of given collectives. This is due to the possibility of need for collective support, e.g. in the form of resources, in establishing positive freedoms. Hence, the way freedom is interpreted and defined can have important political implications. Current reforms are marked by the "negative" conception of freedom, and there are few cases of positive freedom (Corteel and Zimmermann, 2007). According to Sen, however, exercising individual responsibility requires positive freedom to act. Therefore, even if it takes an individual's point of view, the capability approach should not be misinterpreted as a concept allowing to hold the individual responsible for its

achievement unless real freedom of choice was given, both concerning the existence of valuable options and the individual's ability to actual select either one of them.

Process and opportunities: both aspects of real freedom

This twofold condition illustrates the two aspects of freedom, as recalled by Bonvin and Farvaque (2005): the opportunity and the process aspects. The opportunity aspect deals with the ability to achieve valued functionings (empowerment) while. The process aspect deals with the ability to be agent that is to affect the processes at work in their own lives or as general rules (freedom of choice). According to Sen, the concept of capabilities is more suited for elaborating the aspect of freedom that deals with opportunities: *"While the idea of capability has considerable merit in the assessment of the opportunity aspect of freedom, it cannot possibly deal adequately with the process aspect of freedom, since capabilities are characteristics of individual advantage, and they fall short of telling us about the fairness or equity of the processes involved, or about the freedom of citizens to invoke and utilise procedures that are equitable"* (Sen 2005: 155 f.). However, Sen clearly argues that both the opportunity and the process aspect of freedom require consideration.

2. A set of challenges to be resolved

Operationalizing Sen's capability approach is one of the most important challenges that lies ahead of this endeavour. Although some empirical work provides a framework for assessing resources and capabilities, there is no "one-size-fits all" method that could be applied. It's causing, in a kind of way, some scepticism as highlighted by Robeyns (2000). For example, Rawls (1999), while accepting that the idea of capabilities is important, is inclined to think that it's *"an unworkable idea"* for a liberal conception of justice, while Roemer (1996) has criticised the capability approach for being not sufficiently specified. However, there are common issues to overcome, considering that freedom of choice is a key priority. This session looks more closely at the terms of the debate, the issues at stake and the current practices and methods. One of the priorities of the session is highlighting how quantitative methods can improve the empirical approach to Sen's theoretical formulations.

2.1 Which capabilities count? What are the relative weights of capabilities?

The CA is not a fully specified theory that gives us complete answers concerning its operationalisation (Robeyns, 2003). Operationalizing the CA is not a simple exercise, since the CA is underspecified. Hence, it entails some additional specifications to be made such as the selection of relevant capabilities and the weight of the relevant capabilities. The former issue requires a specific attention as “*economists have not reached consensus on the dimensions that matter, nor even on how they might decide what matters*” (Grusky and Kanbur, 2006).

How to select the relevant capabilities?

A. Sen gives some examples of capabilities which count like to be “*being adequately nourished, being in good health, avoiding escapable morbidity and premature mortality, etc., to more complex achievements such as being happy, having self-respect, taking part in the life of the community, and so on*” (Sen 1992, p.39). Nevertheless, he doesn’t commit to a particular list of capabilities.

While Amartya Sen introduced the capability approach in the 1980s, other scholars have developed it further in recent years. The most well known is the work of Martha Nussbaum. Sen’s and Nussbaum’s approaches are very closely related. However Nussbaum and Sen also differ on a number of issues. For example, Nussbaum argued (as other economists too) that we need to know how to select the relevant capabilities and develops a general list of ‘central capabilities’ that should be incorporated in all discussions.

From Sen’s viewpoint, the selection of capabilities is not the task of the theorist. The selection of capabilities has to be undertaken by the democratic process. Furthermore, as Robeyns (2005) recall, we cannot make one final list of capabilities, as these lists are used for different purposes, and each purpose might need its own list. Moreover, we use lists of capabilities in different social, cultural and geographical settings, which will also influence the selection. Finally Sen stressed that public discussion and reasoning can lead to a better understanding of the value and role of specific capabilities.

In a recent paper, Alkire (2008) reviewed how in practice the researchers engage with the selection of relevant dimensions. This selection draws implicitly on five selection methods. It

can be seen that the first method of selection is based on existing data or conventions, with or without making explicit the base of their choice, mostly because of convenience or a convention that is viewed as authoritative, or because these are the only data available in the field invested. In contrast with this view, some authors select dimensions on implicit or explicit dimensions about what people value. The validity of these hypotheses may be based either on convention or social or psychological theory, philosophy, religion, etc. Thirdly, the emphasis may be on “public consensus” that gives a degree of legitimacy. This approach is to make use of such lists like the universal human rights, the Millennium Development Goals (MDGs) which are the most broadly supported development goals the world has ever agreed upon. Following the ongoing Deliberative Participatory Processes is a fourth way to deal with the selection of dimensions. In such a case, the selection relies on the basis of ongoing purposive participatory exercises that periodically elicit the values and perspectives of stakeholders. Finally, the last starting point for selecting dimensions relies on empirical evidences on people’s values, mainly via surveys.

Having established how researchers in practice select dimensions in the context of their work, it is appropriate to turn to a consideration which capability count when assessing how young people are able to function as citizen in the labour market. Recent work dealing with the relation ship between labour market, employment and welfare states, especially in previous European programmes (Eurocap and Capright) emphasised the following capabilities.

- Capability for work : the real freedom to choose the work one has reason to value (Bonvin Farvaque, 2006)
- Capability for voice: ability to express one’s opinion and thoughts and make them count in public discussions (Bonvin and Thelen, 2003)
- Capability for learning (training): the real freedom to choose the training one has reason to value
- Capability for work-life balance: the real freedom to choose the work-life balance one has reason to value.

And some others more specific to young people : capability for financial autonomy, residential autonomy, etc.

How to select the relative weights of capabilities?

In addition, conflicts can arise when deciding on weights on various dimensions. The weights determine the extent to which functioning's can contribute to the description of a multidimensional phenomena and various weight structures reflect different views (Brandolini et d'Alessio, 1998). The issue at stake is then to decide whether one should weight capabilities and if such is the case how?

Alternative ways of implementing weights have been tried. Four different methodologies can be suggested. The first route is to treat all attributes equally. This can be used when there is no consensus view or in case of lack of information. It then results from an “agnostic” behaviour. The measures developed by the UNDP, particularly the Human Development Index, can be seen as an operationalisation of such a suggestion: the three functioning's having received an equal weighting. A second route is to “*let the data speak for themselves*” by using either frequency based techniques or multivariate techniques. With a frequency-based weighting, the weighted are computed as some functions of relative frequencies of the functioning's. In this perspective, several authors seem to agree that the lowest the proportion of people with a certain deprivation, the highest the weights assigned to that deprivation must be. This criteria may however be developed according various ways. Most often, the weight is a function of the frequency of a functioning (Cerioli and Zani, 1994, etc.). But alternative ways of implementing weights approach have been tried, considering that if one introduces too many correlated dimensions of a functioning, the dimensions could be correlated and the functioning might be over weighted vis-à-vis other functioning's. Another procedure is then to assess the weight according to the frequency of a vector of functioning (Vero, 2006). An alternative procedure is to use the results of multivariate techniques such as factor analysis, principal components or cluster analysis. A third route is to base the weights on the outcomes of surveys which asks individual's whether they value or not a functioning. Finally, a fourth route could be the result of a democratic process.

2.2 How to highlight relevant information from individual surveys?

Second, there are several problems that arise in the attempt of operationalising the capability approach such as the way to tackle the multidimensional-context-dependent

counterfactual of information to be needed (Comim, 2001). Among others, Sudgen (1993), Yandser (1993), Srinivasan (1994) and Roemer (1996) have debated this issue. So, the CA is not straightforward to convert in practical terms. Even if the approach makes sense, its operational content is challenged. Where and how data on capabilities can be found? In most cases, the statistical surveys conducted within individuals gather some data on situation which occurred rather than on situations that would have occurred or might occurred. Hence, the problem of capability observability and the distinction between capabilities and functioning appears. We'll review here some problems that emerge in the attempt to highlight from individual surveys, relevant information on capabilities.

Avoiding adaptive preferences

The first problem emerges in the attempt to measure capabilities from individual subjective assessment. Asking people about their own assessment would be an easy way to account for freedom of being and doing. Various questions in survey questionnaires asked people about their own perception. Two examples are given below

- “Do you have some unsatisfied training needs” ? (DIFES, Céreq, France)
- “Do you have the ability to make ends meet?” (SILC Eurostat)

However, there is a close correspondence between the way people judge their situation and their expectations which is influenced by their experience, social reference groups, etc. The problem of adaptive preferences points to the insight that people tend to adapt to circumstances which may be “objectively” unfavourable, because people’s desires and preferences respond to their beliefs about norms and about their own opportunities. People tend to adapt to circumstances which may be ‘objectively’ unfavourable. Hence, someone who has never known anything other than material deprivation may not be dissatisfied with his or her circumstances. Understanding, eliminating or minimizing subjectivity of judgement is then at the core of the CA

To eliminate or to minimize subjectivity of judgement related to choice matters is at the core of the CA. The problem of adaptive preferences is one of the main concerns of the capability CA. As put forward by Sen (1985) and Nussbaum (2000), individual subjective views provide

an inadequate informational space with regard to capability assessment. Whenever individuals become accustomed or conform to unfavourable circumstances that distort their preferences, their subjective views are considered unreliable as an information basis for normative assessment. With regard to this problem, Sen argues for assessing specific situations in order to identify the role played by social, environmental and personal conversion factors. Some quantitative applications taking into account process and opportunity aspect of freedom attempt to look at the transposition in and by companies of institutionally drafted rights in order to tackle conversion factors and resources offered by companies to their employees (Lambert and al. 2008, Sigot and Vero 2009). The empirical approach relies on a linked employer employee survey. Alkire (2005) clarifies various empirical instruments to explore how each might contribute to improved freedom measures.

Tackling counterfactual information

The second order of problems concerns the non observable characteristic of capabilities - since what someone could have done but is not doing is always a counterfactual. The evaluation of capabilities requires assessing the possible alternative to the actual achievement. In most cases, statistical surveys collect data on facts really (actually) occurred rather than on facts that could happen or could have happened. Although this practice might reflect a neoclassical bias – if rational people choose the best, no importance must be given to alternative not chosen – the problem is that the reliability of information collected about hypothetical choices (“Can you have a job,”) is typically much lower than that about actual choices (“Do you have a job?”). Statisticians involved in questionnaire design use to say that “If you ask a hypothetical question you’ll get a hypothetical answer”. The problem has to deal with (adaptive preferences but also) to the vagueness of hypothetical alternatives. In asking a person whether she has a job, one only needs to define what is meant by “having a job”, with little reference or not to external circumstances; on the contrary, in asking whether she can have a job, one must qualify the “can “ by fixing the boundaries of the hypothetical world she has to consider. This means for example, specifying whether the possibility of having a job is limited to “here and now” or includes to another town within certain time spell.

But Sen acknowledges that the capability set is not directly observable and argues that it is important to know what data in principle would be useful even though we may not be able to get them. From a pragmatic point of view, Sen (1999) also proposes three alternative practical approaches: (1) the direct approach which consists in directly examining vectors of capabilities or functionings (2) the supplementary approach, which consists in supplementing traditional comparisons on resources by incorporating capability considerations, thus broadening the informational basis, (3) the indirect approach which consists in calculating resources adjusted by capabilities, like adjusting income by equivalence scales (cf. Comim, 2001). As the choice of approach depends on the purpose of the examination and the available data, the direct approach is still the most accessible application of the capability approach. Still, a variety of uses are conceivable, concerning the scope of elements looked at, the comprehensiveness of their hierarchical ordering and also the decision between focussing rather on capabilities or functionings. The latter alternatives can be integrated via the frequently used concept of “refined functionings”, taking note both of the actual outcome and of the available alternatives in the context of decision (Sen (1987:36-37). Schokkaert and Van Ootegem (1990), in a study on data for Belgium, try to capture the notion of freedom to choose, by the inclusion of refined functionings. The notion of refined functionings, with regard to developing countries, does not however appear to have been explored.

From functioning to refined functioning

As the choice of approach often depends on available data, **the direct approach is still the most accessible application of the capability approach**. To this respect, Sen (1987:36-37) proposed the concept of ‘refined functioning’, being functionings which take note of the available alternatives. Hence, an information renamed “refined functioning” is about a particular achievement that has the particularity to indicate a sphere of freedom. For instance, “to work part-time” is a functioning, while “to work part-time by choice” or “by constraint” is a refined functioning. Data are sometimes able to make this distinction, and thus to inform on people’s extent of freedom to a certain extent. The capability of a person could then partly be reflected in her refined functionings-level. The idea of refined functionings will help in some cases, but not necessarily in all. The concept of “refined functionings”, takes note both of the actual functioning and of the available alternatives in the context of decision (Sen (1987:36-37)). This notion of refined functionings takes note of the alternatives available with regard to each functioning. Nevertheless, refined functioning are a delicate concept for at least three reasons.

Firstly, because, when dealing with refined functioning, we didn’t tackle the process aspect of opportunity. The analysis is rather limited to the opportunity aspect of freedom. Indeed, among CA-inspired studies based on refined functionings (and more generally in all studies), most of contributions have emphasised the opportunity aspect of freedom. But less frequently papers take into account the combined of process and opportunity freedom.

Furthermore, as underlined by Bonvin and Farvaque (2007), this opportunity aspect mainly leads on negative freedom, i.e. in terms of constraints vis-à-vis opportunities, i.e. in terms of « unfreedoms » or « uncapability » instead of positive freedom: the real freedom to choose the way of life that a persons value. Opportunities often focus on constraints, un-freedoms, penalties that people might face rather than on the scope of real freedoms (Bonvin and Farvaque, 2007). What matters from a capability approach is overall what people can do instead of what people can not do. Lambert and Vero (2007), Vero (2002), Farvaque (2008) among others uses the concept of refined functionings as a way to empirically identify capabilities. Both addresses the context of decision in order to infer what the “conditions of choice” were and to assess whether the final achievements are the result of a ‘free choice’ or the result of any kind of constriction. For example Lambert and Vero analyses from an

individual survey on training different situations according to training: (1) Untrained (63 %), (2), Trained by course (24 %), (3) Trained by seminar (5 %), (4) Trained by the continuing vocational training at the workplace (6 %), (5) Trained by self-training (2 %). These functionings are refined according to individual subjective assessments on constraints imposed by employer. Such kind of studies based on refined functionings rather stressed on *unfreedoms* or *uncapabilities* than genuine *freedoms* and *capabilities*. This fact, that the CA more easily boils down to an analysis of deprivations, constraints and lacks of freedom, is common to all the empirical attempts to operationalise Sen's approach, based on refined functioning, with regard to inclusion into work or training programs (Schokkaert et Van Ootegem, 1990 ; Le Clainche, 1994)

Thirdly, a source of complexity, when dealing with people's choices on training matters or on the labour market, is that these choices depend on other people's choices and strategies as well – in particular the companies policies. To this respect it should be introduced another level of analysis and to work for example on linked employer-employee surveys. Indeed, the way to refine functioning is questionable where empirically assessed with individual data. A frequent way of taking such freedom of choice into account may be to analyse questions in surveys that ask individuals whether a shortfall in or lack of a particular functioning is perceived by them as a privation or enquire if they had any alternatives. In a study conducted in Belgium by Schokkaert and Van Ootegem (1990) information for 46 'refined functioning's' was obtained using such a questionnaire. Using this kind of methodologies based on the assessment of a situation on individual's subjective assessment would again pose the problem of adaptive preferences and in all cases is too much individualistic.

So, note that the CA is not easy to convert in practical terms. Nevertheless, I would like to put the stress on the fact that when we want to know if a person, which faces to a situation, has some choice, some freedom, the issue at stake is not to ask if the person has choice or the freedom but rather to understand how the choice is made or has been made. Hence, we may want to reach a more objective assessment and to take into account additional information from the other actors shaping this choice.

Since capability sets may therefore include freedom that are to some extent depending on the choices of other people or the politics of company, it might be better to focus on the

company level, as providing conversion factor, in order to capture what people have been able to realize from their capability sets. Hence, we may want to reach a more objective assessment of conversion factors. When we want to know if a person, which faces to a situation, has some choice, some freedom, the issue at stake is not to ask if the person if he has choice or the freedom but rather to understand how the choice is made or has been made. The main problem is that quite all the quantitative applications are using existing datasets which have not been collected with the aim of measuring functioning neither capabilities.

2.3 From functionings to capability :The need of appropriate data

Third, adopting the capability framework implies thinking about the various processes by which empirical data are produced, as far as most of the existing datasets have not been collected with the aim of measuring neither functioning nor capabilities. This implies to ask ourselves questions about the way to highlight some information to be used, the necessary deconstruction and reconstruction process of statistical data and categories and the way to deal about the collected information, to assess their relevance degree for a capability application.

The capability approach has influenced research in many different areas, and it has received significant reflection in both theoretical and empirical research. However, one may underline, as Zimmermann (2007) pointed out, that “the capability approach does not provide a theory of society or a method of inquiry” (2006: 469). Quantitative researches are in general framed using individual surveys. Labour market outcomes or training outcomes are the result of interaction between employers and employees. Understanding these interactions is very important in a capability perspective. For example, HRM, training policies which occur at the firm level, also affects workers in those firms. However that understanding has been limited, because most studies to date have used either data collected from employers or data collected from workers. Because this data sources contain information from only side, neither is really capable to deal with capability that incorporate both the supply of and the demand for labour or training. For example, the understanding of capability for training depends on the availability of appropriate linked worker-firm data.

But some authors attempts to get information through linked data. They suggest that if one is interested in grasping the different dimensions of capabilities, including conversion factors a multi-level analysis based on linked data may be powerful (Sigot, Vero 2009, Lambert et al. 2008). Analysing the capability for training of employees, Lambert and al. (1998) develop an empirical design along three levels:

- An institutional level, which enables us to identify individuals' rights in terms of training as they have been defined by public policies or interprofessional or multisector agreements. For this level, as well as for the others, the focus is on the opportunities offered to people in terms of training, but also on deliberative areas devoted to the setting up of opportunities provided to employees and/or their representatives;
- At the company level, the stress is put on the transposition, in and by companies, of institutionally drafted rights.
- The biographical level considered as the capability implementation level. By analysing the professional and biographical pathways of employees and namely professional transitions, the issue at stake is to shed light on the sets of choice and the possible functioning that they identify, together with the meaning that they give to their own actions and professional and biographical pathways.

The overall objective is to address the issue of the relationship between company policies in matters of vocational training and employees' aspirations for training through the lens of the capability approach and to emphasis on conversion factors enhanced by firms. This issue is of particular interest in France which placed the emphasis on the construction of a 'training company' with the 1971 law and renovated the conditions of access to training to "enable all employees to be active players in their training" with the 2004 law. In this context, the paper first identifies capability friendly companies in training matters, considering two conditions that are to be fulfilled: guarantee employees valuable opportunities of training (empowerment) and ensure them to take part actively to vocational training matters (freedom of choice). Second, it focuses on training aspirations of employees and evaluates them against company policies, professional pathway, training experiences, socio-professional group and individual determinants. Both issues will be tackled through the

French linked employer-employee survey DIFES113, which enables the responses of employees and human resource management in companies to be analysed. This approach helps opening up the blind spots of surveys on training, which traditionally examines one of the parts. From a mixed ascending hierarchical clustering of companies policies, the paper highlight a diversity of configurations and identify 10% of them as capability-friendly. This employer-employee linking enables us to go beyond the strict framework of company declarations and see how companies contribute or not to the development of employees' capabilities for continuing vocational training. It also provides a powerful indicator for the environment in which employees develop. It gives access to the way in which employees can use company policies. Combining these two perspectives highlights a diversity of company configurations, providing a more or less capability-friendly framework. From bivariate probit models, the results reveal that employee's aspirations in terms of vocational training are above all influenced by company policies. These results reveal a phenomenon of adaptive preferences and confirm that employee's aspiration for training involves a company responsibility.

This raises questions about the most effective ways of implementing surveys to provide detailed accounts of the context in which the individuals are. Linking administrative records and surveys that were initially collected as stand-alone data sources might also be of great importance for capability measurement. These data can be used to reduce respondent burden and thus enriching existing data.

3. A framework for classifying quantitative methods

The variety of approaches outlined in this section reinforces the point that there is no single quantitative method, but rather a multitude of different ways in which researchers can engage with the CA. Despite the growing interest in operationalizing the CA within social sciences, there is as yet no single quantitative approach that can provide the . A number of researchers have suggested ways in which operationalize the approach. However, there is no standard approach or list of procedures that is generally recognised as representing the CA. On the contrary, there is a *“state of near anarchy in the field”*. The current diversity of

¹³ Dispositif d'Information sur la Formation Employeur-Salarié 1

approaches can, in part, be traced to the variety of statistical tools. But it can also be traced to the different features that are seen as being of primary importance by researchers. This section is an attempt to provide a presentation of the techniques and methods that have been developed for the analysis of quantitative materials. In order to make sense of the multitude of different techniques and approaches that can be included under the umbrella of “quantitative analysis” of the CA, it is helpful to apply a classification or typology according to the issue at stake. In addition, this can help to elucidate some of the methodological and epistemological differences that lie at the root the various techniques described. To this respect, we propose a classification which is based on the way the question is situated. Depending on the nature of the question, various methodologies are available

3.1 A focus on individual conversion factors

First researchers may be interested by the measurement of individual conversion factors. Assessing the extend to which individual (or sub-groups) are able to convert their resources into valuable functioning may be developed through various methods. It could be either by estimating conversion rates through a functioning function production (after a clustering of the population on individual characteristics) (Chiappero-Martinetti and al. 2007, 2008i), or by using the frontier Analysis (Deutsch and Silber), for example. The frontier analysis is used to analyse the efficiency with which individual are able to transform resources into functionings and analyse the impact of some individual variables on functionings. The methodology is often based on the use of the concept of distance function that has appeared in the literature on duality in production and consumption and has been widely applied in efficiency analysis.

3.2 A focus on social or environmental factors

Second, researchers may be more interested by social or environmental context, i.e. the way in which may be influence the capability set. The issue at stake is to assess the appropriate social and environmental conditions in order to develop the real freedom to choose the life one has reason to value. A first route is to work on linked data collected (or not) as stand-alone data sources and/or to develop multilevel analysis. Perhaps the most research avenue might be given by the contribution of multilevel models, which has not been yet been at the

core of the reflection in the literature on capability, as far as we know,. Using contextual factors beyond individual factors, contextual analysis allows a more accurate identification of conversion factors, which could be useful when planning education, training or employment policies. The aim of the multilevel analysis is to investigate research questions involving groups and individuals nested within them. For example, in educational research, data is often considered as pupils nested within classrooms nested within school. Multilevel models are particularly suitable to analyse contextual data because they take into account their hierarchical structure. Their particular interest is to disentangle individual level and between group variability.

3.3 A focus on the functioning or “refined functioning” set

In contrast to the two first type of issue which focus on conversion factors, the interest may lie in characterisation of the functioning or refined functioning set. To what extend capabilities or functioning are achieved is the main issue at stake. In such kind of application, a fundamental issue concerns the way to deal with the multiple dimensions to tackle. A broad classification of possible strategies is given, where the main distinctions relate whether the functioning or capabilities are investigated singly or comprehensively, and whether multidimensionality is aggregated into synthetic indicators.

In the supplementary strategy, no attempt is made to reduce complexity and functionings are examined one by one. The goal is to identify and measure presumed variables that inform on individual capabilities. The attention is also on the cross-correlation of the items. The advantage of this method relies on its simplicity, but the drawback is the lack of synthesis and therefore the difficulty of drawing a unified picture.

The goal of the comprehensive non aggregative strategies is to enhance comparison on the base of the entire vector of functionings. There are various ways to deal with the problem: Vector dominance (Gaertner 1993), Sequential Dominance (Atkinson and Bourguignon, 1982), Multivariate Technique (Kandall 1975, Sharma 1996, Lambert and Vero, 2007), etc.

The goal of the aggregative strategy is to construct one or more synthetic indicators. The indicators are often expressed in binary terms (having or not a functioning) It can also be

based on the fuzzy set approach, which enables to assume that functioningd or cpabilities are attained with a certain intensity degree (Chiappero-Martinetti 2006, Vero 2006, etc.). The fuzzy set theory was introduced by Zadeh (1965) to deal with vague predicates like “tall” or “poor”. The crucial idea of the Fuzzy set theory, unlike classical set theories, is that an element can have a degree of membership between 0 and 1 (don’t have the capability for work / have the capability for work) in a given fuzzy set. It was mainly developed in Poverty studies within a multidimensional framework in order to go beyond the traditionally monetary indictors (and the poverty line) that are considered inadequate and arbitrary.

4. Extending the informational base toward time and temporal aspect of working lives

According to Salais and Villeneuve (2005), in the field of working life *“the central theme of a capability approach is the construction of a framework of active security to cope with work transformation and economic uncertainty”*. As the capability approach is less attached to specific resources than to what people can do with them and as one and the same functioning can be achieved in different ways, *“the capability approach is compatible with a specific understanding of the notion of security that is not attached to the job anymore but to the individual trajectory”* (Cortee, 2005).

Nevertheless, the most part, literature on the CA has been limited to information spaces that are static. The primary focus is upon capability measurement within a static framework and broader issues on the dynamic of capabilities get a brief look-in, mobility almost none. But sustainable developments like working lives are in fact dynamic and would be probably best understood in an evolutionary perspective.

4.1 The time dimension in the capability literature

Several papers address a question which has not been at the core of the reflection in the literature on capability: how to handle time? Recently Comim (2003) tried to go beyond the simple acknowledgement of importance of time and investigated “the implications of expanding even further the informational space forward by the CA towards concerns with time and temporal aspects to the CA”. He argued that becoming”, in addition to “being” and

“doing”, is a key category of analysis and that this addition to the capability informational space is consistent with its emphasis on processes and the role of valuation activities.

Other authors address the time dimension explicitly with the objective of arriving at a renewed basis of judgement in the measurement of poverty and social exclusion. The main idea is to analyse whether the lack capability in certain dimension occurs for a number of periods in time (Comim and al. 2008). If relevant information is available across time, one would then be able to judge whether a person’s failure to achieve a minimally adequate level of capability in some dimension is just temporary or chronic. Papadopoulos and Tsakloglou (2008) echo the same idea when they develop an approach to the measurement of social exclusion using the CA. If deprivation in certain dimensions occurs for a number of periods in time, it constitutes social exclusion.

Another concern with time cumulative effects is the issue of path dependency according to people’s own histories and evolution, and specifically adaptive preferences. Using panel data from the British Household Panel Survey, Burchard (2003) studies subjective assessments of financial well-being at time t for individuals with a given income level, controlling for the income trajectory of the individual over the previous 1-9 years. The paper concludes that there is evidence of a process of subjective adaptation to material deprivation and that therefore subjective assessments of well-being are an inappropriate basis for judgements of inequality or social justice

More generally, one may address the time dimension related to personal and collective conversion factors that play a fundamental role in Sen’s capability approach. Literature has highlighted what could be called cross-sectional variety amongst individuals and society and to the evolution of interpersonal differences over time in transforming resources into functionings (Comim, 2003). Other research analyses the scope of choice at time t in relation with the professional life course, considered as a functioning, using individual longitudinal survey data (Farvaque 2006; Vero 2002; Vero 2006) but the study of processes in time were not at the core of the analysis. It seems also central to go beyond this acknowledgment and explore the way to expand the informational space put forward by the CA towards concerns with time and temporal aspects.

4.2 Toward a brief panorama of dynamic methods used to tackle longitudinal processes

In the past decades, the dynamic analysis, the study of processes as well as the understanding of phenomenon in time have received an increased interest. How can capability assessment lean from this literature? We'll here introduce dynamic methodologies that are commonly used in social sciences to grasp the influence of time. Longitudinal data have a fundamental characteristic: an information set through time. Such kind of data enables us to examine the studied phenomena which are in evolution. The data, on which focus, have also the characteristic of being individual data (that is to say not times series which are located at a macro level). There are several types of longitudinal data: first, retrospective data, where individuals describe past events, second prospective data (or panel data) where people give information to date, be people asked on a regular time or not, and third data from administrative records. The advantage of these data is to reflect the variability of a phenomenon according to individuals and time. Thus, from these data, it is possible to define the whole of observed phenomena that occur in time period, given the term of trajectory.

To sum up, two kinds of quantitative methods can be distinguished: econometric modelling and clustering, which can be used for different purpose as recalled by Grelet (2002). "Each of both approaches doesn't take place at the same time, and above all doesn't have the same goal... On the one hand, the econometric approach focuses on an aspect of the trajectory (wage, the number of jobs, the occurrence of an event, a transition, etc.). The main interest is to model the relationship between a variable of interest (a quantity, a probability, a risk, etc.) and some variables considered as explanatory variables. The typological approach aims at providing a first step to shape the trajectory itself in its entirety and without any reference to explanatory variables. Its purpose is "to reveal hidden structures in all individuals", to improve the understanding of the variety of pathways, and to understand the complexity by providing a summary. Whether classes or factors, one would lead to instrumental variables.

The study of links between the summary of the pathway so built and the explanatory variables appear later.

Hence, the main question is to know which element is to be favoured: a single event or more, the influence of time or not.? Of course, it is advantageous to be able to combine all these elements in order to provide a more relevant investigation, but it becomes also more complex. We can cite a few simple issues that the econometric methods can easily handle: the presence of an event or not, the duration of an event, the transition from one situation to another. Also, other questions can be solved by clustering trajectories: the succession of all events, the succession of all events, taking into account the time spent in each of them, etc. As the first examples are treated by various techniques such as models with qualitative dependent variable, event history models, the latter refers to transition models (econometric model) but also to data analysis techniques for characterizing a trajectory (the development of calculation of distance between individuals and then using methods to cluster). Three specific methods have emerged as particularly important from the literature based on quantitative analysis of longitudinal data. The first one –event history models- is a reference point in the biographic analysis. The second one -the panel data model- is used to tackle individual events in a dynamic approach (the main goal is to capture individual heterogeneity). Finally, in the last one– clustering of trajectories-, where no longer assumption of independence of events will be assumed. On the contrary, a global dependence framework of all events with the characteristics is assumed.

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