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Research paper

Disabilities through the Capability Approach lens: Implications for public policies

Handicap au travers de l'approche par les capacités : quelles implications pour les politiques publiques?

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ABSTRACT

This paper explores the contribution of the Capability Approach of Amartya Sen and other authors to policy making in the specific case of disability policy. After reviewing existing models, their translation into action and their limitations in this regard, the paper introduces a new policy framework based on the Capability Approach. In particular, we introduce a new measure of functioning and capabilities. We investigate ways of measuring the gap between functionings, what people are able to do and be, and capabilities – the valuable practical opportunities people have and choose from. The possibility of the elaboration of such a disability indicator opens new perspectives for policy making that are of particular interest to persons with disabilities (who are often excluded from mainstream policy making because their agency is not considered by policy makers).

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R É S U M É

Le présent article explore l'apport de l'approche par les capacités d'Amartya Sen et d'autres auteurs pour effectuer des recommandations de politique publique dans le cas particulier de la politique du handicap. Après avoir passé en revue les modèles existants du handicap au regard de la mise en œuvre de politiques publiques et avoir souligné leurs limites, le présent article propose un nouveau modèle de représentation de l'approche par les capacités, de collecte d'information et d'élaboration des politiques publiques en s'appuyant sur les avantages de l'approche par les capacités. La méthode proposée introduit en particulier une mesure des fonctionnements et des capacités et explore les moyens de mesurer l'écart entre les deux. La possibilité d'élaborer un tel indicateur ouvre de nouveaux horizons de pensée pour les politiques publiques qui s'avère particulièrement intéressante pour les personnes handicapées souvent exclues des politiques de droit commun parce que leur capacité d'action n'est pas prise en considération par les décideurs politiques.

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Introduction

Although Sen's Capability Approach (CA) has recently given much attention to disability studies (Mitra, 2006; Nussbaum, 2006; Terzi, 2005; Trani and Bakhshi, 2008), there is little research into how the CA applies to disability and its consequences in terms of public policy – i.e. looking at improving the circumstances and inclusion of persons with disabilities (Dubois and Trani, 2009). In this paper, we introduce a framework based on the CA that aims to help policy makers formulate policies and bridge the gap between research, data collection, and policy implementation and assessment. The concepts and ideas developed in the present paper were tested during a study which was intended to reform the welfare policy on disability of the Tuscany region in Italy (Biggeri et al., 2011).

Our framework aims to inform welfare policies through agency, which is defined as the effective participatory role of individuals, “who act and bring about change” (Sen, 1999, p. 19). This goes beyond the traditional medical model, as well as the more progressive social model of disability, by putting the emphasis on persons' capabilities, “the freedom to lead the kind of lives they value – and have reason to value” (Sen, 1999, p. 18). Public policies, Sen argues, can enhance these capabilities, and equally, individuals through public debate can influence the course and scope of public policy.

As a result, our framework relies on three distinct principles. First, it recognises individual singularity and considers diversity of persons' aspirations. Secondly, it does not segregate between different vulnerable groups, but instead considers vulnerability as a multidimensional and dynamic phenomenon. Finally, the framework addresses recurrent limitations of welfare policies that constitute impediments to achieving capabilities, various and specific “beings and doings” that individuals themselves value (Sen, 1992, 1999). In fact, the CA allows the dilemma of differences to be overcome in a tangible manner¹ as it takes into consideration the specificity of a situation, as well as a particular individual's agency. It avoids labelling by classifying persons with disabilities based on their impairment only – which leads to a uniform and inadequate provision of services. As Sen states, disabled people may need different types and varying amounts of capability inputs (policies, resources, social norms changes, infrastructures, etc.) to reach the same level of well-being as the non-disabled (Mitra, 2006; Sen, 1999, 2009).

¹ “The dilemma of difference consists in the seemingly unavoidable choice between, on the one hand, identifying children's differences in order to provide for them differentially, with the risk of labelling and dividing, and, on the other hand, accentuating ‘sameness’ and offering common provision, with the risk of not making available what is relevant to, and needed by, individual children” (Terzi, 2005, p. 444).

As a result, public policies based on our framework should expand choices and positive freedoms of persons with disabilities. While the CA seems to show limitations when considering the specific condition of extremely vulnerable groups (such as persons with severe disabilities, particularly individuals with mental illness and intellectual impairments), in order to address severe disability, we shifted the focus from the individual to the household unit, thereby involving direct contributors to the well-being of persons with severe disabilities, such as their caretakers.

In order to promote capabilities of persons with disabilities, public policies affect the factors that allow individuals to convert resources and commodities into capabilities (i.e. those beings and doings that individuals value) (Robeyns, 2005). Those conversion factors can be internal or external (i.e. social and environmental). The “internal” conversion factors, such as personal characteristics (e.g. physical conditions, sex, skills, talents), convert resources (or commodities) into individual functionings. This conversion is also dependent on external conversion factors, social and/or environmental characteristics. Furthermore, as pointed out by Sen, “While exercising, your own choices may be important enough for some types of freedoms, there are a great many other freedoms that depend on the assistance and actions of others and the nature of social arrangements” (Sen, 2007, p. 9). We argue that it is true for persons with disabilities and even more for children or persons with severe disability, for whom caregivers’ assistance is often crucial. Consequently, the capabilities set of these persons is shaped by their conversion factors, as well as by their parents’ or caregivers’ capabilities. In such cases, the “external capabilities” – i.e. capabilities that depend upon another person’s capabilities who accepts to share some conversion factors with them (Foster and Handy, 2008) – play an instrumental role to ensure basic capabilities. These are defined by Sen (1980, 1984, 1992) as being fundamental physical capabilities – being well-nourished, adequately clothed and sheltered, avoiding preventable morbidity – as well as more complex ones, such as participating to the life of the community (Bellanca et al., 2011).

Theories of justice serve as a basis for policy action in the capability informational space. Public policies are therefore designed to provide the social and cultural (sense, perceptions, identities, etc.) basis for capabilities (Nussbaum, 2000, p. 81). This is crucial where impairments are preventable, or where disability is socially constructed (Baylies, 2002). Adopting a CA also changes the focus of policies’ goals and processes: outcomes are evaluated in light of the expansion of the capabilities set, the various combinations of functionings that a person can achieve, and enhancement of people’s freedom. The ultimate goal of public action shifts from a narrow concern about economic growth and other economic indicators to the expansion of human capabilities. The implementation process is crucial, as empowerment and participation are integral to the CA. The majority of policy-oriented research uses the CA to extend the informational base by adding and assessing new dimensions. This is a relevant starting point for the change in policy implementation, but this process must not undermine the application of the CA itself (by not using its full potential). Indeed, as emphasised by Sen, in order to adequately apply the CA, there is a need for public scrutiny and reasoning (Sen, 2004, 2005, 2006, 2009). We share this view, as we think that the process itself is as important as the informational space for defining policies.

If we wish to trigger this considerable shift in policy-making, it is also necessary to radically change the way information is collected, measurements are made, and how data is analysed with regards to disability. There is need for data that goes beyond mere prevalence rates and looks at functionings and participation, agency and values. We argue that instruments can measure effective functionings, potential functionings, valued beings and doings, barriers to choices, as well as available resources. The International Classification of Functioning, Disability and Health (ICF, World Health Organization, 2001) considers disability to be a combination of individual, institutional and societal factors that define the environment within which a person with impairment lives. The CA forms a new space within which context-specific tools can be designed.

The objectives of our paper are to review the current disability models and to propose a new framework for policy implications.

The paper is divided into five sections. In the next (second) section, we review the individual model, the social model and the ICF framework through a CA lens. In the third section, we focus on the ICF, underlining its potential for classification, as well as its limitations concerning policy implications. In the fourth section, we present a new framework for policies more closely based on the CA and discuss

what information needs to be included in surveys designed specifically with CA policy formation in mind. In the final section, the main conclusions of our discussion are reported.

Current disability models are insufficient to inform policy makers

It is well acknowledged in the literature that three relevant models – the individual or medical, the social model and the bio-psychosocial model based on the ICF – lead to different and sometimes contradicting policy implications (Terzi, 2004; Trani and Bakhshi, 2008). Indeed, the conceptual framework underlying the identification of what disability entails and its measurement has implications for the estimation of prevalence, policymaking and research. In this section, we argue that by re-framing or combining the various models presented, the CA can provide a new understanding of disability, which is more in line with policy making requirements. The approach thus defined is comprehensive, encompasses all dimensions of individual well-being and does not limit its view to the impairment or to the disabling condition.

The individual or medical model is based on the view that disability is a divergence from a capacity of conducting current activities considered as a norm. According to this definition, disability is a biological condition inherent to the individual, which reduces her/his quality of life and participation in society in comparison to a “normal” human functioning (Amundson, 2000; Pfeiffer, 2001). In this model, the measurement of prevalence is based on evaluation of the number of persons within a series of categories of impairments, considered as limitations in health condition, across a range of basic functions and structures of the body. Persons with disabilities fall neatly into certain pre-defined categories with clear boundaries – the deaf, the blind – and are considered as deviant from the norm. Prevalence estimates thus defined will be biased. In fact, census or surveys based on self-reporting, combined with questions that can be perceived as stigmatising in a given cultural context, lead to reluctance to answer and underreporting. Research conceived within this perspective of disability will focus on disadvantages of the individual considered as resulting from his/her impairment, and, resulting policies will aim at compensating restriction in some activities, rather than reflecting on existing barriers to full participation of disabled people to society.

The social model is based on a notably distinct paradigm. It does not absolutely reject the idea of health limitation, which is considered as the impairment, but considers a person to be “differently able”. This view, put forward by the disabled peoples’ movement, tends to look at the barriers that exist within the social context and prevent a person from achieving the same level of functioning than a non-disabled person. In this perspective, it is society that needs adaptations in order to include persons with disabilities (Oliver, 1996). The advocates of the social model consider that physical limitations become a disability because society does not accommodate the differences in human functioning. Mainstreaming disability concerns is a progressive and sustainable way of redesigning society in order to include all disabled people. However, the social model has implications with regards to the issue of measuring prevalence, doing research and defining policies. Questions based on this model will not focus only on impairment but will include the identification of barriers within the social environment that create the disabling situation. In this perspective, policy makers have to address restrictions caused by social organisation, promote adaptation by law and further participation by mainstreaming disability concerns and ensure equal rights and opportunities.

Nevertheless, in both models presented above, disability is understood as a state different from a situation considered as being a “normal” state of health. Yet, another approach appears to consider that this normal or “perfect” health situation is an ideal that most people do not experience. In a continuum of health states, each individual presents some types of deficiency in certain dimensions of functioning. The ICF model is based on such an approach (World Health Organization, 2001). Recognising that disability has several dimensions or levels, the ICF is composed of various domains of activities and participation that correspond to the body, the person, and the person-in-society. It looks at disability as a combination of different factors that influence the environment within which persons with disabilities evolve. The ICF system calls for an assessment of two kinds of factors: environmental factors (including the physical and social environments, and the impact of attitudes) and personal factors. This view is based on the assumption that functioning encompasses all body functions, activities and participation. Disability similarly encompasses impairment, activity limitations

and restrictions in participation (World Health Organization, 2001). In this perspective, disability is considered as absence of functioning or dysfunction – in other words, as a lack of functionings. The ICF approach does not take into consideration what Gasper (2002) calls the O-capability (attainable functionings through options and opportunities) or the P-capability (potentialities). Using the ICF to inform policy on disability has limitations in a capability perspective as we discuss in the following section.

The International Classification of Functioning, Disability and Health and the Capability Approach

The ICF is supposed to be a classificatory instrument and has a neutral position in regards to aetiology, allowing researchers to establish causal inference (Welch, 2007; World Health Organization, 2001). We argue here that this tool, although important, does not provide all the information needed for policy making. First, the ICF defines health as a general state of well-being and not simply the absence of disease. But this overshadows the fact that there might be conflict between health and other dimensions of well-being: smoking can be relaxing, for example. Researchers working in difficult situations, such as in conflict-afflicted areas, choose to do so because they believe their work can make a difference to the population, which brings a sense of utility to them, although there is a risk of abduction, violence, etc. What one could consider healthy behaviour might be in these cases an impediment to well-being. Capabilities are many and can all contribute to well-being. Therefore, it might be as important to find out that an individual likes to sing or play an instrument as to know she can walk one hundred meters without interruption.

Secondly, the ICF is based of a scale of reference: its domain-codes require the use of qualifiers, which identify the presence and record the severity of the functioning problem on a five-point scale (no impairment, mild, moderate, severe, and complete). However, to take full advantage of the coding requires a large amount of information to be collected: information about activity or participation in sufficient detail to assign ICF domain codes, information about the use of personal assistance and assistive technology, and assessments of five levels of difficulty in both the current environment and within standardised environment. We argue that health domains in the ICF can be assimilated to achieved functionings, activities that individuals carry out in a standard environment. Similarly, we would argue that domains linked to health in the ICF are opportunities to improve health and can thus be understood as capabilities (O-capabilities). The ICF considers these at the same level, but we argue that from a policy perspective, they are not. Policy makers can take decisions to enlarge the set of O-capabilities of individuals by providing new opportunities. Simply describing activities that individuals can or cannot do is of no relevance to policy making: where should the emphasis be? What are the priorities for public action? Such elements are not provided by the ICF. Furthermore, the ICF maintains a vision of activities largely influenced by a medical view (classifying activities such as digestion, fertility, breathing and so on).

Thirdly, the ICF defines disability in terms of limitations: impairment, activity limitations and restrictions in participation. Disability is thus a lack of functioning or difficulty to do and to be only. There is no consideration for other more positive dimensions that are acknowledged by the CA, such as the possibility provided by the environment to do a specific activity (such as becoming a pilot), the positive right to do so (I am allowed by law to be a pilot), the capacity acquired over time to do this activity (I am learning to become a pilot) and the collective action put forward to allow people to carry out such a given activity (I am supported by a DPO to become a pilot).

Furthermore, there is a missing dimension in the ICF. Beyond the function and structure of the body on one hand, and activities and participation on the other hand, Sen and followers recognise the importance of the individual identity that is grounded in her/his beliefs, values and preferences (Sen, 1999). The ICF completely fails to appreciate this dimension, and the environment is merely considered as a mechanical facilitator or barrier. Through the CA, the individual perceives her/his environment through a capability set.

Another limitation of the ICF framework for policy definition is the fact that capacities are valued in a standard environment (although performances are valued in a real environment), without considering what the person can do when the environment facilitates (for instance by using a device)

or restrains a given activity or functioning. It seems artificial to isolate the individual's ability from the environment in which s/he functions: "The interactive nature of disability makes it difficult, if not impossible, to assess how individuals would fare in the absence of a scheme of social cooperation" (Wasserman, 2001, p. 227). If the capacity of the individual measured as her/his ability to carry out activities without support or device in a standard environment is superior to her/his performance, then the environment creates barriers. In the opposite situation, the environment is considered as a facilitator for the person with reduced functioning. Yet, we argue that considering everyday basic activities in a standard environment without any aid or device is useful only in a medical perspective. In a CA perspective, we argue that it might be more effective to compare the performance of an individual with the performance this individual could have in an "ideal" environment especially designed for this individual where barriers have been removed. This would give some indication about what could be done by policy makers to improve everyday living and expand the capability set for everyone. Rather than considering someone with mobility restriction without a wheelchair in a house full of obstacles, one might consider this person's ability to move using a wheelchair in a barrier-free environment and an adapted house.

The ICF considers personal factors as part of contextual factors, together with environment factors. In the CA, the agency of the individual is defined by values, beliefs and preferences within a given social environment that are consubstantial to the individual and not contextual factors. Personal factors are not included in the ICF because of their sociocultural variability. We argue that environment factors are as variable and subject to sociocultural influence. Taking on board contextual factors means taking into consideration individuals' expectations and considering disability from a different perspective, where potentialities of future well-being are central (Biggeri et al., this issue). What is important for persons with disabilities is not what they have already achieved, but what they potentially could achieve with the removal of barriers and creation of opportunities. The fact that each individual is asked to assess the level of difficulties faced on each dimension helps assess the situation in a comprehensive and holistic manner. This is also due to the fact that some capabilities are intrinsically valuable while others are also instrumentally relevant. The CA covers the full range of the disability experience, shifting the focus away from limited views of simply types of impairments. This perspective looks at the interplay between individual characteristics and social restrictions, and proposes to measure outcomes in terms of the expanding of people's choices and freedoms.

Finally, following Morris (2009), we claim that the ICF does not address a central aspect of human life: individual choice. Measuring the performance of an individual to achieve a given activity without questioning her/his willingness to carry out this activity means ignoring a central individual right: the right to choose one's own existence. This oversight leads to the classification exercise of the ICF: people with the same activity and functioning limitations, able to perform similarly are classified in the same category. The CA, by recognising agency as crucial, gives priority to a classification of individuals according to their choices, beliefs and preferences, beyond considerations of impairment or other elements based on individuals' characteristic such as age, gender, or ethnicity. Needless to say, this view calls for a different framework for conceiving public policies. In other words, the ICF has a central function for classification, which is useful, for example, to reduce the subjectivity of welfare commissions in the process of allocation of benefits. But the ICF is not an adapted framework designed to define policies and initiatives where the individual – whatever her/his level of ability – has a role in terms of agency (i.e. in decision making) where the interactions with the family and society are central for the analysis. The ICF, combining individual and social factors, defines the environment in which the individual lives providing interesting guidelines for data collection and classification. In this matter, the CA includes the ICF framework, but goes beyond in its potential to make policies more relevant and equitable.

To summarize, the CA offers a general theoretical framework for disability studies that encompasses the social model (Burchardt, 2004; Mitra, 2006; Terzi, 2005; Qizilbash, 2006). The CA places the definition of disabilities within the wider spectrum of human development, shifting the focus from the specificities of the disabling situation to looking at establishing equality in terms of possibilities and choices. In this, the CA is linked to a theory of justice (Sen, 2006, 2009; Nussbaum, 2006). Fig. 1 summarise the different characteristics of the various models and the associated applications.

a

	<i>Medical model</i>	<i>Social model</i>	<i>ICF/WHO</i>	<i>UN-convention</i>	<i>Capability Approach</i>
Individual Impairment	X	X	X	X	X
Society Structure		X	X	X	X
Interaction between individual and society			X	X	X
Concept of functioning			X	X	X
Collective dimension of disability		X As a barrier		X As a barrier Attitudinal/ environmental Barriers	X Barrier or Enabler Community/ Social resources, beliefs and practices IMPACT
Possibilities/ Opportunities					X Capability set (choices) and potential capabilities
Decision-Making					X Agency Person main actor in the process

b

	<i>Medical model</i>	<i>Social model</i>	<i>ICF/WHO</i>	<i>UN-convention</i>	<i>Capability Approach</i>
Theoretical application	X	X	X	X	X
Assessment for welfare/benefits	X		X		
Cross-country comparability			X		X
Lobbying/ civic society/DPOs		X		X	X
Framework for defining social policy		X		X	X
Data collection	X		X		X
Assessing impact	X		X		X

Fig. 1. a: concepts included in disability models; b: main applications.

A Capability Approach framework for a comprehensive understanding of policy

In this section, we present a general framework for policy design that aims at promoting equality in the space of capability. This implies addressing the issue of disability – considered as a deprivation of capability – by offering more opportunities for persons with disabilities through new social arrangements. In a perspective of social justice, this new policy framework aims at fighting exclusion of persons with disabilities and allows them to become full participants in society (Buchanan, 2000).

This framework explores the CA paradigm by discussing its relevance to a given community. By doing this, as reported by Biggeri and Libanora (Biggeri and Libanora, 2011), we aim to contribute

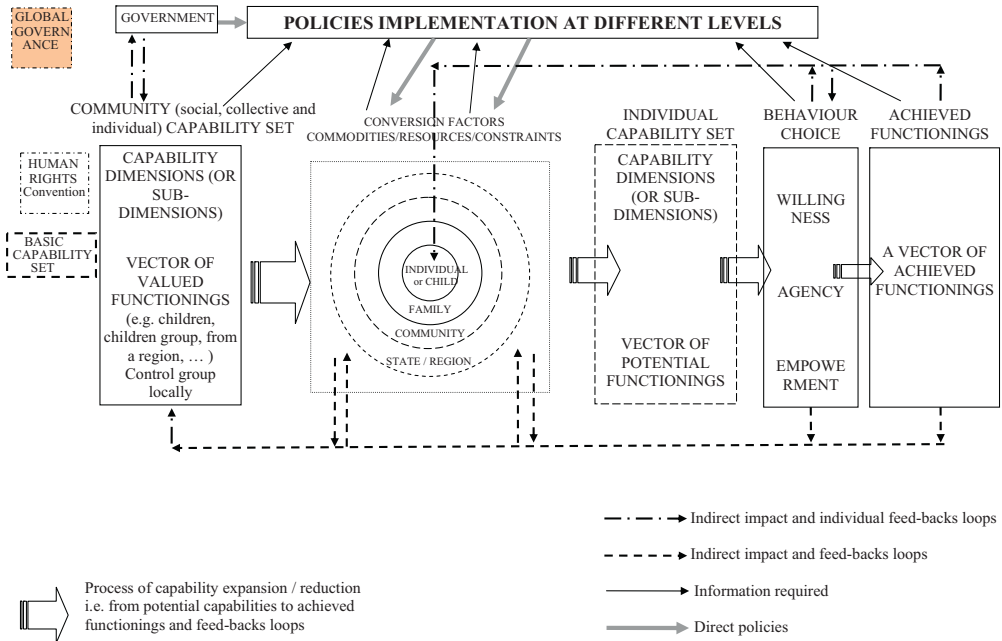


Fig. 2. Capability Approach framework.

to the list versus non-list of capabilities debate². The framework that we present expands on the diagram presented by Robeyns (2003, 2005). However, we argue that this updated framework has been elaborated to analyse issues related to persons with disabilities, but can be considered as an appropriate tool for policy formulation in a more general context, although this goes beyond the scope of the present paper. Fig. 2 reports a description of this new framework for policies formulation.

The process is reported in the diagram as follows. Let us consider a comprehensive set of valued functionings, determined by a given community, which form the capability set of this community (left of the diagram). These are all potentially valued functionings that should be open to all the members of the given community – in order to promote equality of capabilities – that will be considered for analysis and policies implementation; we call it the community capability set. The community capability set is composed of individual, collective and social (or external) capabilities. Collective capabilities are the capabilities of given groups within the community (trade union, NGO, community based organisations, associations, self help groups, membership organisations of the poor, etc.) or the community as a whole, as it results from the collective agency/action of these various groups. As argued by Ibrahim (2006), the collective capabilities are defined by two major characteristics. First, they result of “a process of collective action” (Ibrahim, 2006, p. 398). Secondly, they benefit to all the individuals of the community who participated to the collective action, and not to merely to a single individual. The social capabilities are the supplementary individual capabilities resulting from social interaction between individuals (social agency). They do not result from collective action but depend on the sharing of capabilities of one individual with other individuals who will acquire similar capabilities as a result (Foster and Handy, 2008). A simple example given by Foster and Handy (2008) is the one of a mother who knows about hygiene and teaches her children good health practices.

² This debate is one of the most currently discussed regarding the operationalisation of the capability approach. Sen argues that the identification of valued doings and beings is a matter of public debate in a given community and always stood against the definition of a list of universal capabilities. Yet he recognises the importance of basic capabilities in every context. Conversely, Nussbaum (2000) defined a list of “ten central capabilities” considered as universal and compulsory for well-being.

The community capability is therefore the aggregation/combination of the various individual capability sets, the collective capability set of the community and the social capability set (Dubois and Trani, 2009). Two difficulties arise immediately here. The first pertains to how the community capability can emerge from the combination of several individual capabilities. This aggregation problem has not yet been adequately addressed (Anand, 2007; Dubois and Trani, 2009; Sandler and Arce, 2007). A second difficulty is that the community capability set might be ignored by part of the considered community, bringing inequity and injustice as a result of conflict situations (Bellanca et al., this issue).

In fact, inequalities and exploitation of the most deprived within a considered community often lead to endurance and resignation (Sen, 1984). As a result of adaptive preferences, bonded child labourers working in carpet weaving may value the opportunity to work as vital, but this work is done to the detriment of other fundamental opportunities, such as going to school. We therefore know that adaptation to one's environment is a strong limitation to a reliable representation of one's well-being (Teschl and Comim, 2005). To subsume the complete potential community capability set, it might be necessary to include a representative sample of the population in order to be able to identify all functionings sets. To identify adaptive preferences, it might be necessary to interview a control group of individuals placed in a different situation (e.g. non-disabled people in a study on disability). This comprehensive community capability set could constitute a reference for individuating the areas for public intervention. Nevertheless, in agreement with Sen, we consider that basic capabilities (and the corresponding human rights) should systematically be included within this community potential capability set as they constitute the minimum requirement for well-being (Sen, 1999, 2005). Identification of socially relevant capabilities can be done by exploring the aspirations of the majority in a community. But argument of fairness justifies that a person with disabilities is given access to the same set of capabilities than other citizens by removing barriers and promoting inclusion through extra provision of resources.

At the right side of the diagram, there is the individual set of achieved functionings. Following Robeyns (2003), at the centre of this diagram, we describe the "conversion factors", which determine a reduction or an expansion in the individual capability set (i.e. individual potential functionings). In the terminology of the CA, there are factors, which influence how a person can "convert" capability inputs into capabilities. These conversion factors can be social (social norms, religious norms, sexism, racism, etc.), personal factors (disabilities, skills, gender, age, etc.) or environmental factors (living in a dangerous area, existence of a transportation system and a communication structure, schools or health services). They all contribute to the realisation of aspirations by creating the conditions for the exercise of freedom of choice of beings and doings of individuals and communities. They provide practical opportunities for individuals to reach what they want to achieve. And "disability occurs when an individual is deprived of practical opportunities as a result of an impairment" (Mitra, 2006, p. 241). But the potential disability becomes an actual disability if the person with impairment cannot achieve functionings she values. Therefore, presence or absence of resources in the environment is one of the fundamental factors that produce disability when it is defined as a capability deprivation.

The conversion factors intervene at four levels: at the individual level (age, sex, talent, impairment), at the family level (income, shelter, food ration, support, costs and expenditure), at community level (social capital, traditional rules, solidarity, social participation) and at regional or national levels (public goods investment, legal framework, rights and obligations such as tax, military service). Conversion factors can be resources or constraints. For instance, a national public policy of universal education is more often a resource than a constraint for most children. Similarly, a cooperative organisation at the village level for agriculture production can be a resource if it is run by the people, in the interest of the people. In a family where parents are looking after their children and their well-being, notably not sending them to work but to school, constitutes a resource. Family support is also observed for employment seeking support, access to food, shelter, cultural or sport activities. For a working individual, in some cultural contexts, family can constitute a constraint when several dependents rely on the single income of one member.

Conversion factors are also material factors such as assets, infrastructures, commodities, income and services that can facilitate or impede the benefit of a given capability within an individual capability set. They can also be immaterial factors such as individual abilities or social norms, identities,

beliefs, etc. Both material and immaterial factors are present at the four different levels described above. All these factors contribute to the determination of the individual capability set. Considering a given capability set, the individual makes certain choices; this freedom of choices constitutes his/her agency. Effective choices constitute the achieved functionings' vector (Sen, 1999). Instrumental functionings have an impact on the means to achieve doings and beings that a given individual or the whole community value. Achieved functionings of individuals have an influence on the capability set of the community as a whole (i.e. as a "collectivity" acting as a group, whatever its boundaries, including in theory at the level of the state), and on the social interactions within this community. The achieved functionings are the outcome of an ongoing process that either expands, or reduces the capability set of the community composed of individual, collective and social capabilities. The possibility of expansion or reduction of the capability set relies on the cooperative or conflicting relationship within the community or in its relationship with other communities. Finally, the understanding of the whole process in a given social, cultural and economical environment enables us to identify the constraints that are detrimental to the capability set. In the case of a negative process, basic capabilities should be considered as a referential to redirect the process. In this case, principles of good governance, social justice and essential rights could constitute central guidelines for public action. We argue that implementing policies to expand capabilities can focus on the means to achieve what people value. The policies to enhance means or instruments are represented by arrows in Fig. 2 and should intervene at the level where the problems are identified (individual, household, or community level). For children with learning disabilities or mental illnesses, the family (or the caretaker) can play a central role in shaping the well-being of the child.

The entire process described is dynamic and involves individual, collective or political will, agency and empowerment and moves (following the arrows in Fig. 2) from the community capabilities, where the individual potential capabilities are found, to the capability set (i.e. opportunities/capacities) and to the individual achieved functionings vector. The process includes feedback loops at individual and non-individual levels.

With regards to the implementation of policy at national or regional levels, we therefore underline that attempts to make the CA operational, using the existing information from existing surveys, are often unsatisfactory. Using the CA through traditional survey data information helps to expand the informational space for policy design but it does not allow the full use of the approach's potential for policy planning; different types of information are necessary for this. This implies that data collection has to be based on the CA framework from the onset and needs to include values and requirements expressed by the community members.

Thus, operationalising the CA requires other information, along with identification of resources and constraints, the measurement of the level of availability of commodities, as well as of achieved functionings: measurement of valued capabilities, agency and choice of individuals and communities. In this perspective, Table 1 presents a matrix based on a disaggregation of information that has to be collected. As a consequence, instruments of a survey looking at capabilities have to be tailored to fit a given social, cultural and economic situation.

We can illustrate this with an example. Let us consider a disabled person who is a wheelchair user in a major town of a developed country. This person will be able to move around town using public transportation made available by the municipality, the region or the state. Because of her/his disability, she/he will need accessibility devices in trains or buses. These adapted devices are not necessary for non-wheelchair users. The adapted pavements in the town, as well as the ramps in buses and trains, are regional/state-level conversion factors that facilitate the mobility of the individual with disabilities. Disability is an individual conversion factor which makes it harder for a disabled person to "convert" a bundle of resources into the capability of being mobile: even if she/he has the same income as an able-bodied person, she/he will not be able to travel with public transport as long as there are no ramps in the buses. If we consider a context such as rural Afghanistan, wheelchairs are generally not available (apart from people living close to main towns), and no public transportation system or paved roads exist. In this environment, disability and absence of adaptation of the environment make mobility highly problematic. Community and family support will probably relieve some of the obstacles, as they might try to build a wheelchair using local material or send someone to the closest major town where wheelchairs might be available. Finally, members of the family will help the person to move

Table 1
 Re-framing the disability models through the Capability Approach for policy implementation – the data information matrix.

Capabilities informational space				Individual conversion factors		Household/family level conversion factors		Community Level		State/Regional level		
Examples of dimensions/capabilities and functionings	Achieved functionings	Capabilities relevance for the group	Agency	Choices	Means (commodities, resources, technology)	Personal Impediment	Means (commodities, resources, technology)	Family Impediment	Means (commodities, resources, technology)	Community Impediment	Means (commodities, resources, technology)	State/Regional Impediment
1) Life and physical health	Are you now enjoying...?/ score ^b	Is... Important to have for you?/score ^a	Are you able to change your...?/ score ^c	Are you willing to have...?/0/1	Do you have enough money to buy drugs?/0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1**
2) Love and care	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1**
3) Mental well-being	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1**
4) Bodily integrity and safety	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1**
5) Social relations	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
6) Participation/information	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
7) Education	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
7a Learning to know	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
7b Learning to be	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
7c Learning to live together	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
7d Learning to do	Score ^b	Score ^a	Score ^c	0/1	Do you have books to learn at school? 0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
8) Freedom from economic and non-economic exploitation	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
9) Shelter and environment	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
10) Leisure activities	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1**
11) Respect	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
12) Religion and identity	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
13) Time autonomy and undertake projects	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
14) Mobility	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
Others dimensions	Score ^b	Score ^a	Score ^c	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1

Note that for relevant dimensions it is fundamental to detail them in sub-dimensions. Note: “Internal” factors, such as personal characteristics (e.g. physical conditions, sex, skills, talents, intelligence, sensitivity, interaction attitude), convert resources (or commodities) into individual functionings. The conversion is also related to “external” factors such as social characteristics (e.g. public policies, institutions, legal rules, traditions, social norms, discriminating practices, gender roles, societal hierarchies, power relations, public goods) and environmental endowments (e.g. infrastructure, country, public infrastructure, climate, pollution).

0/1 refers to a yes/no answer.

^a Score is given on a scale of measurement of importance of each capability dimension for the respondent.

^b Score is given on a scale of measurement of achievement functionings for each capability dimension for the respondent.

^c Score is given on a scale of measurement of the level of agency to change the achievement functionings for each capability dimension for the respondent.

around to meet every day's needs. Indeed, family support is a conversion factor very often considered as a resource.

Yet, cultural beliefs may entail social exclusion for persons with disabilities, leading to low self-esteem and isolation. In this case, it becomes difficult for persons with disabilities to “convert” bundles of resources into capabilities, and to find viable and acceptable coping strategies. In these cases, a full range of information is needed since policies will have to be implemented at all levels: at the individual level to help deal with the impairment to pursue valued functioning, at the family level to provide support to ensure the family and/or caretaker can be a resource and at the social/national level by offering adapted services, an adapted environment and sensitising the general population in order to change mentalities.

This framework for policy design also has implications for measurement of individual well-being and capability set. First, measurement should not be based on a dichotomised evaluation of disability (Eide and Loeb, 2006). Secondly, measurement should include values and aspirations of individuals. Thirdly, comparison should be made between functionings and aspirations of individuals, and not between functionings and a standardised norm of functioning. The questions set should encompass the main dimensions of well-being defined in a participatory process by all stakeholders involved in the research. Within research, including the study carried out for the Tuscany region (see this special issue), we have identified the following major dimensions of well-being: psychological and physical well-being, emotional attachments, self-care, autonomy and choice, physical integrity, communication, social and political participation, education and knowledge, work, mobility, physical activities and sport, residence, respect, and freedom of religion.

On the basis of these dimensions, we can build semi-structured survey tools where two types of questions are asked:

- questions aiming at identifying to what extent each of the above dimensions is significant for a person's well-being;
- questions aiming at identifying to what extent these dimensions are effective (i.e. constitute achieved functionings for the respondent).

We use a five-point rating scale (0 not at all; 1 a little; 2 enough/average; 3 a lot; 4 completely) to determine respondents' choices on each dimension. The first set of questions is used to define a threshold for evaluation of functionings of each individual on each dimension: “According to you, is it important that any person should be able to do any of the following?” The second set of questions aims at identifying each individual's difficulties in each dimension within her/his usual environment: “According to you, in everyday life, are you able to do any of the following?” (See examples in Table 2). The questionnaire is pilot-tested and validated in various cultural contexts. The respondent is also asked if any aspect of well-being has been omitted.

The data analysis makes it possible to measure the gap between an individual's performance and her/his ideal performance. Fig. 3 shows an illustration of the gaps between functionings and capabilities, doings and beings the individual values. The area defined by the red line represents the space of functionings. The area defined by the blue line represents the ideal space of capabilities for a given individual or a given community.

Public policies have to put stronger emphasis on the ways and means to reduce these gaps. Such survey tools enable us to better identify dimensions of well-being where the major gaps persist between functionings and capabilities. Policy makers can intervene at the level of a single dimension of well-being to extend the capability set of all members of the society by removing barriers to activities that people value. They also have the opportunity to look globally at all dimensions. Information provided by the survey will help policy makers to identify priorities of intervention.

We argue that when carrying out such a study, we will not find a perfect overlap between impairment and disability. In other words, two individuals with similar difficulties might not declare similar limitations of their capability set. Consequently, they will need different types of support (see Barbuto et al., 2011).

Once this is achieved, it might be possible to elaborate a capability score by measuring the gap between one's performance in terms of functionings and the ideal capability set as defined by the

Table 2

Two sets of questions to measure dimensions of well-being.

According to you, is it important that any person is able to do any of the following? (first part)

According to you, in everyday life, are you able to do any of the following? (second part)

1. To live a long and healthy (physically and mentally) life
2. To love and to be loved
3. To enjoy family relationship
4. To enjoy sexual life
5. To take care of other people
6. To take care of oneself
7. To take care of the house
8. To decide in autonomy about everyday activities
9. To decide in autonomy about one's own future
10. To be protected from any type of violence
11. To communicate and be informed
12. To participate in social life (to have friends, interact with friends and strangers)
13. To participate in political life
14. To study, to be trained, use and produce knowledge
15. To work
16. To move around freely
17. To have hobbies
18. To live in a place s/he likes (and choose where and with whom to live)
19. To enjoy respect
20. To enjoy financial autonomy
21. To enjoy freedom of religion including the choice to follow precepts and practices

individual her/himself. The score values vary from 0 (complete restriction on all dimensions) to 1 (no restriction on any dimension). One can equate various individuals' capability scores to an indicator of inequality in a given society. Similarly, researchers can compare capability scores in different contexts. Such a method avoids the trap of establishing a predefinition of disability that is based on impairment measures linked to everyday activity limitation or body dysfunction, but considers disability as a lack of capability for any individual on a continuum.

Nevertheless, there is a limitation to this framework that needs to be addressed: what if persons with disabilities' choices are "socially conditioned and [...] severely deformed, even after providing

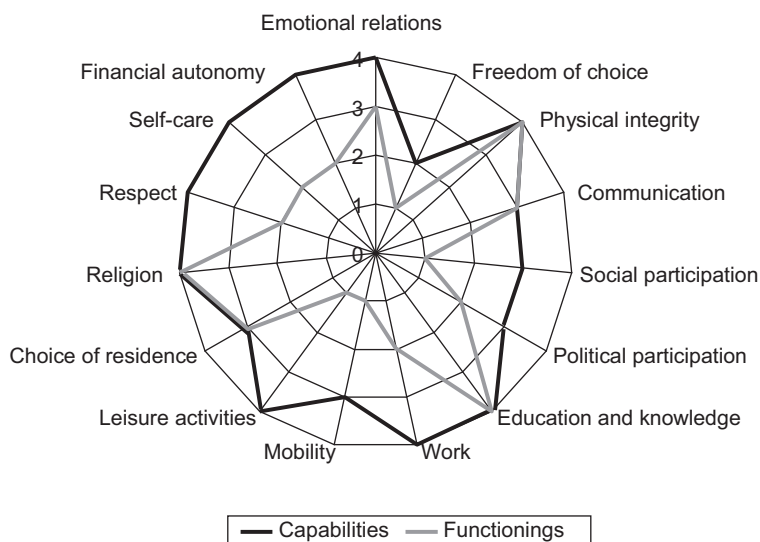


Fig. 3. Gap between functionings and capabilities.

adequate information concerning the wrongness of the choices” (Deneulin, 2008, p. 118). The democratic debate suggested by Sen might not be enough of a solution to overcome “mental conditioning”. There are global powers that leave little choice to communities apart from changing to a different way of life: the expansion of consumerism worldwide – with a craze for the same shopping centres (malls), TV programmes (reality television) and goods (e.g. Coca Cola) as the West – gives an example of the capacity of global economic forces to shape individual’s freedom of choice. We argue here that collective capabilities, already introduced earlier in this paper, might contribute to attenuate the negative effect on individual agency of averse forces. Negation of persons with disabilities rights to live the life they value, or at least to have the same opportunities as other citizens, can be fought through collective action, particularly of organisations of persons with disabilities as argued in the last paper of this special issue (Lang et al., 2011). Ultimately, it might belong to them to make them heard by the policymakers and the rest of society.

Conclusion

In this paper, we have argued that the CA constitutes a normative framework in order to better understand and consequently to formulate policies for people with disability. Theoretically, the CA framework helps to overcome some of the limits and reduce the potential of contrasting results of the disability models. The CA shifts the focus from the specificities of the disabling situation to look at establishing equality in terms of possibilities and choices. This in turn helps to assess the well-being situation in a more comprehensive manner. The framework can be used as an operational tool to identify important dimensions of well-being, and look at constraints that limit expansion of well-being, as well as resources that are available within the community to expand these. Policy makers are then equipped with the needed knowledge to implement policies to remove existing hurdles.

With regards to the implementation of policy at the national or regional levels, we also stress the fact that any attempts to operationalise the CA using pre-existing information from standard surveys is most often not sufficient. Although using the CA to analyse traditional survey data helps to enlarge the informational space for policy – which is a considerable achievement – it is not sufficient to fully exploit the potential of the CA for policy planning. This ambitious goal requires different types of information, including that pertaining to the system of values expressed by the people of the community itself and information regarding individual agency. Once this has been achieved, it is even possible to construct a capability score that measures the gap between the potential capability set as reported in interviews by respondents and the observed functionings. A major intricacy remains the expression of individual freedom that can be manipulated or oppressed by various powerful interests. Giving a voice to the oppressed and the most vulnerable and taking into account their needs to ensure their participation and to fight systemic inequalities (Fraser, 1997) are essential goals without which the CA loses ground.

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References

- Amundson, R. (2000). Against normal function. *Studies in History and Philosophy of Biological and Biomedical Sciences*, 31, 33–53.
- Anand, P. B. (2007). Capability, sustainability, and collective action: an examination of a river water dispute. *Journal of Human Development*, 8(1), 109–132.
- Barbuto R., Biggeri M., Griffò G. Rethinking policies for persons with disabilities through the capability approach: the case of the Tuscany region. ALTER, European Journal of Disability Research, 5(3), doi:10.1016/j.alter.2011.05.007.
- Baylies, C. (2002). Disability and the notion of human development: questions of rights and capabilities. *Disability and Society*, 17(7), 725–739.
- Bellanca N., Biggeri M. and Marchetta F. An extension of the capability approach: Towards a theory of Dis-capability. ALTER, European Journal of Disability Issues, 5(3), doi:10.1016/j.alter.2011.05.001.
- Biggeri, M., & Libanora, R. (2011). From valuing to evaluating: tools and procedures to operationalise the Capability Approach. In M. Biggeri, J. Ballet, & Comim. Flavio (Eds.), *Chap. 4, Children and the Capability Approach*. London: Palgrave MacMillan.
- Biggeri M., Bellanca N., Bonfanti S. and Tanzj L. (2011). Rethinking policies for persons with disabilities through the capability approach: the case of the Tuscany region. ALTER, European Journal of Disability Issues, 5(3), doi:10.1016/j.alter.2011.05.002.

- Buchanan, A. (2000). Genetic intervention and the morality of inclusion. In A. Buchanan, D. W. Brock, N. Daniels, & D. Wikler (Eds.), *From chance to choice: genetics and justice*. Cambridge: Cambridge University Press, pp. 258–303
- Burchardt, T. (2004). Capabilities and disability: the capabilities framework and the social model of disability. *Disability and Society*, 19(7), 735–751.
- Deneulin, S. (2008). Beyond individual freedom and agency: structures of living together in the Capability Approach. In F. Comim, M. Qizilbash, & S. Alkire (Eds.), *The Capability Approach. Concepts, measures and applications*. Cambridge: Cambridge University Press, pp. 105–124.
- Dubois, J. L., & Trani, J. F. (2009). Enlarging the capability paradigm to address the complexity of disability. *ALTER-European Journal of Disability Research*, 3(3), 2–28.
- Eide, A. H., & Loeb, M. E. (2006). Reflections on disability data and statistics in developing countries. In B. Albert (Ed.), *In or out of the mainstream? Lessons from research on disability and development cooperation*. Leeds: University of Leeds, The Disability Press.
- Foster, J.E., Handy, C. (2008). External capabilities. OPHI working paper series.
- Fraser, N. (1997). *Justice interruptus: critical reflections on the "postsocialist" condition*. London: Routledge.
- Gasper, D. (2002). Is Sen's Capability Approach an adequate basis for considering human development? *Review of Political Economy*, 14(4), 435–461.
- Ibrahim, S. (2006). From individual to collective capabilities: the Capability Approach as a conceptual framework for self-help. *Journal of Human Development*, 7(3), 397–416.
- Lang R. Kett M., Groce N., Trani J.F. Implementing the United Nations Convention on the rights of persons with disabilities: principles, implications, practice and limitations. *ALTER, European Journal of Disability Research*, 5(3), doi:10.1016/j.alter.2011.02.004.
- Mitra, S. (2006). The Capability Approach and disability. *Journal of Disability Policy Studies*, 16(4), 236–247.
- Morris, C. (2009). Measuring participation in childhood disability: how does the Capability Approach improve our understanding? *Developmental Medicine and Child Neurology*, 51, 92–94.
- Nussbaum, M. (2000). *Women and human development: the capabilities approach*. Cambridge: Cambridge University Press.
- Nussbaum, M. (2006). *Frontiers of justice: disability, nationality, species membership*. The Belknap press.
- Oliver, M. (1996). *Understanding disability: from theory to practice*. Basingstoke, UK: Macmillan.
- Pfeiffer, D. (2001). The conceptualization of disability: Vol. 2. In B. M. Altman, & S. Barnartt (Eds.), *Exploring theories and expanding methodologies: research in social science and disability*. Oxford: Elsevier, pp 29–5
- Qizilbash, M. (2006). Disability and human development. Paper prepared for the 2006 International HDCA Conference, Groningen, 29 August–1 September.
- Robeyns, I. (2003). *The Capability Approach: an interdisciplinary introduction*. Amsterdam: University of Amsterdam.
- Robeyns, I. (2005). The Capability Approach: a theoretical survey. *Journal of Human Development*, 6(1), 93–114.
- Sandler, T., & Arce, D. (2007). New face of public assistance: public goods and changing ethics. *Journal of International Development*, 19, 527–544.
- Sen, A. (1980). Equality of what? In S. McMurrin (Ed.), *Tanner lectures on human values. Vol. 1*. Cambridge: Cambridge University Press.
- Sen, A. K. (1984). *Resources, values and development*. Oxford: Basil Blackwell.
- Sen, A. (1992). *Inequality re-examined*. Oxford: Clarendon Press.
- Sen, A. (1999). *Development as freedom*. Oxford: Oxford University Press.
- Sen, A. K. (2004). Capabilities, lists, and public reason: continuing the conversation. *Feminist Economics*, 10, 77–80.
- Sen, A. K. (2005). Human rights and capabilities. *Journal of Human Development*, 6(2), 151–166.
- Sen, A. K. (2006). What do we want from a theory of justice? *The Journal of Philosophy*, CIII(5), 215–238.
- Sen, A. K. (2007). Children and human rights. *Indian Journal of Human Development*, Vol. 2(1).
- Sen, A. K. (2009). *The idea of justice*. London: Penguin, Allen Lane.
- Terzi, L. (2004). The social model of disability: a philosophical critique. *Journal of Applied Philosophy*, 21(2), 141–157.
- Terzi, L. (2005). Beyond the dilemma of difference: the Capability Approach to disability and special educational needs. *Journal of Philosophy of Education*, 39(3), 443–459.
- Teschl, M., & Comim, F. (2005). Adaptive preferences and capabilities: some preliminary conceptual explorations. *Review of Social Economy*, 63(2), 229–247.
- Trani, J.-F., & Bakhshi, P. (2008). Challenges for assessing disability prevalence: the case of Afghanistan. *ALTER, European Journal of Disability Research*, 2(1), 44–64.
- Wasserman, D. (2001). Philosophical issues in the definition and social response to disability. In G. L. Albrecht, K. Seelman, & M. Bury (Eds.), *Handbook of disability studies*. London: Sage.
- Welch, S. P. (2007). Applications of a Capability Approach to disability and the international classification of functioning, disability and health (ICF) in social work practice. *Journal Of Social Work In Disability & Rehabilitation*, 6(1–2), 217–232.
- World Health Organization. (2001). *International classification of functioning, disability and health*. Geneva: WHO.