

How to apply the capability approach to housing policy? : Concepts, theories and challenges

Boram Kimhur

OTB-Research for the Built Environment, Faculty of Architecture and the Built Environment,
Delft University of Technology, P. O. Box 5043, 2600 GA Delft, The Netherlands
b.kim@tudelft.nl

Abstract

This paper investigates to what extent the capability approach can contribute to housing studies and policy development. The capability approach is built on critical reviews on the notions of welfare economics and utilitarianism, in which housing policies have deeply rooted traditionally. It argues that social policy needs to move beyond those notions by focusing on capabilities and functionings of individuals, which are the bases of human flourishing. The approach emphasises that final ends of development should be human flourishing instead of economic growth. What implications for housing studies can we draw from the capability approach? The paper explores this topic and presents a conceptual discussion on how the capability approach can be applied to the studies on housing policy and its evaluative approach. The paper discusses missing perspectives in housing policy studies and preliminarily concludes that a capability-oriented housing policy framework could have an added value. The discussion remains at theoretical level. The paper primarily aims to provide a theoretical foundation for further research on defining specific multi-dimensional capabilities necessary for one's housing process, so that these can be used for evaluating the effects of a housing policy. This clearly is a big challenge, but there is great promise in adopting the methods that are used in other domains such as poverty and human development assessment, health, education, and employment.

Keywords: Housing policy, capability approach, utilitarianism, welfare economics, evaluative approach

Introduction

The capability approach is a normative evaluative approach. It proposes *freedoms* (or capabilities as proxies of the freedoms) as an appropriate evaluative space of well-being and social arrangements. This argument is built on the diagnosis on the flaws in the underlying assumptions of welfare economics. For assessing a state of well-being, standard concentration has been on *opulence* (real income, wealth, and commodities), and *utility* (satisfaction or desire-fulfilment) (Sen 1985). The capability approach criticises these notions in welfare economics and its philosophical foundation of utilitarianism, in which housing policy studies have deeply rooted traditionally. What implications does this provide for housing policy studies, particularly for its evaluative approach that eventually defines what housing policy is desirable? How will this be related to housing policy development and influence on it? The paper will explore these topics.

Over 20 years, the capability approach has been widely recognised and discussed in the field of poverty and development studies, especially in the Global South context. One of the representative applications is the 'human development' policy paradigm that places human flourishing as the 'end' of development instead of economic growth.¹ The United Nations Development Programme (UNDP) annually publishes the Human Development Report since 1990, assessing a country's development

¹ For the concepts, measurement tools and policy perspective of human development, see, for example, Fukuda-Parr & Shiva Kumar 2003, a collection of papers that have shaped the human development approach.

not solely by income dimension (e.g. GDP per capita) but by multi-dimensions of human development, such as gender equality, democracy, human security, and cultural liberty.

The application of the capability approach is, however, not limited to the studies on the Global South. In the late 1990s, some Italian cases studies examined the relationships between of monetary-poor and functionings-poor (e.g. low education, health failure, social exclusion/low-interaction), and compared the functioning-poverty of disaggregated demographic groups (e.g. women, elderly, housewives, blue-collar workers) (Balestrino 1996; Brandolini & D'Alessio 1998; and Chiappero-Martinetti 2000). Since the late 2000s, the discussions on the applicability of the capability approach increasingly appear in social welfare domain regarding the concerns of, for example, overall social welfare, youth unemployment, mental health service, and early childhood interventions (Evans 2016). Although its practicality and compatibility with social welfare agendas are yet controversial (*ibid.*), it is drawing more attention from some governments. In 2004, for example, the German government decided to adopt Amartya Sen's capability approach as a theoretical framework for its official Poverty and Wealth Reports, and Germany's National Action Plans against Poverty and Social Exclusion in an European Union (EU) context (Arndt & Volkert 2011; Volkert 2014). In 2015, the Re-InVEST research project (research for Rebuilding an Inclusive, Value-based Europe of Solidarity and Trust through Social Investments), which was funded by EU Horizon 2020 programme, has adopted the capability approach as a main theoretical framework in order to strengthen the theoretical and the empirical bases of the Social Investment Package in Europe (Re-InVEST 2018).

Its application is expanding not only empirical research but also theory development (Robeyns 2016). Some examples are Nussbaum's theory of justice (2006), Wolff and De-Shalit's theory of disadvantage (2007), and Crocker's development ethics (2008). The mainstream of the capability approach application is yet for overall assessment of poverty and states of affairs. However, a few sub-domains of welfare agendas such as health and education are also increasingly exploring its application in recent decade. Meanwhile, in housing domain, only handful studies are yet observed. They examined the connection between capabilities and housing satisfaction (Coates et al. 2013, 2015, Germany case), slum upgrading programme (Frediani 2007, Brazil case), and changing housing circumstances of homeless people (Nicholls 2010, the UK case). These studies provide an opening for an application of the capability approach, but remain at a trial phase. Rigorous studies both at theoretical and empirical level are unexplored yet in housing studies.

The paper discusses the extent to which the capability approach can be applied to housing studies and thus can contribute to discussions on housing policy direction. The paper has five parts. It first summarises the core concepts of the capability approach. The second part analyses the implications of the capability approach to housing policy studies. It is followed by a conceptual discussion on how the core concepts of the capability approach – functionings and capabilities – can be applied to housing and the implications this might have. The fourth section suggests some possible areas of the capability approach application in housing research. Finally, it concludes by addressing some critiques on the capability approach, and challenges and potentials of its application.

Capability Approach: A Brief Introduction

The discussion in this paper is largely built on the Sen's account. The capability approach was pioneered by Amartya Sen, an economist-philosopher. It has been then further developed and expanded by many scholars in philosophy, humanities and social science, such as Nussbaum (1988, 1992, 2003), Alkire (2002), Robeyns (2003, 2017), Crocker (2008) and Wolff and de-Shalit (2007). Although all thinkers' contributions provide valuable theoretical grounds, the discussion here will mainly refer to the Sen's account. The earliest root of the capability approach is his fundamental questions against the assumptions and notions of welfare economics and utilitarianism in the late 1970s. He then developed it further to the concept of the capability approach (Sen 1980). Meanwhile,

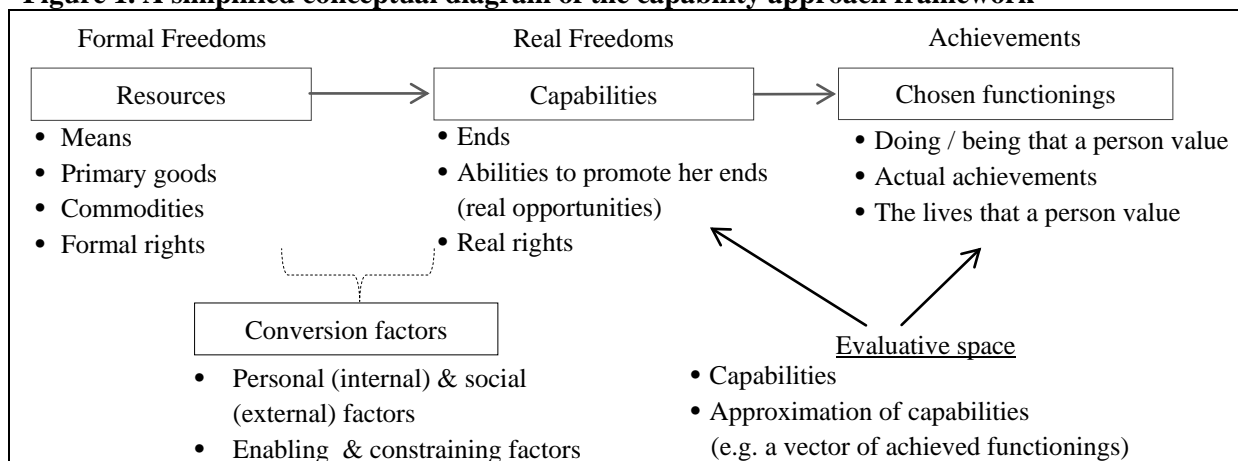
the account of Nussbaum, another leading scholar of the capability approach, is more oriented to a philosophical journey on human rights and moral concerns in humanities. Given that housing policy studies are largely built on welfare economics, I find that Sen’s account is a good starting point – but not necessarily limited to – for opening a discussion in the housing field. Secondly, while Nussbaum argues that a set of universal capabilities necessary for human flourishing can be defined and suggests ten central capabilities (2003, 2011), Sen disputes it by highlighting that the capability set is highly contextual and purpose specific. Nussbaum’s list is providing a good philosophical ground, but I find that there is much to explore about capabilities related to housing, before we promptly define a boundary of the exploration.

Key Concepts

The key concepts of the capability approach are *freedoms, capabilities, and functionings*. In Sen’s term, the concept of *functionings* is ‘the various things a person may value doing or being’. Functionings are ‘beings and doings’, such as being adequately nourished, being free from avoidable disease, being happy, having self-respect, and being able to take part in the life of the community (Sen 1992:39). A person’s *capability* is “the various combinations of functionings (beings and doings) that the person can achieve (ibid.:40).” Thus the capabilities indicate to what extent a person has *real opportunities* or *abilities* to choose valuable options of lives. “A functioning is an achievement, whereas a capability is the ability to achieve (Sen 1987:36).” Having such capabilities implies that she has *freedoms* to achieve valuable functionings as an active agent, and not because she has no other options or is coerced to do so.

The key concepts are defined in a range of Sen’s literature (some representative ones are Sen 1992, 1999) and numerous studies that adopt the capability approach have recited or rephrased the definitions. However, the problem is that the meaning of these terms is not intrinsically captured. It requires several readings to get a sense of meaning within its reasoning texts. Sabina Alkire (2002) elaborates the meaning of *functioning, capabilities* and *freedoms* by comparing their concepts and what the terms usually connote to readers, and by tracking the subtle changes in which Amartya Sen uses them in his literature. It helps readers to form a clearer understanding. However, as Akire emphasises, what has to be focused is the fundamental insight of the capability approach: the goal of societal arrangements including social policies should be “to expand the capabilities that people have to enjoy ‘valuable beings and doings’. They should have access to the positive resources they need in order to have these capabilities. And they should be able to make choices that matter to them (Alkire 2002:2).” The term *capabilities* and ‘opportunity set’ is often interchangeably used, and it often makes the objective of this approach seen as to produce opportunities. The capability approach’s fundamental objective is to create meaningful and fulfilled lives (ibid.:19).

Figure 1. A simplified conceptual diagram of the capability approach framework



Source: author, based on the Sen’s (1999) description on the capability approach

Some Distinctive Features

The capability approach proposes **capabilities as a space for evaluating** or comparing advantages and deprivations of individuals instead of resources and utility. Its rationale behind is closely related to its other key features, such as the notion of conversion factors, acknowledgement of human diversity, and agent-oriented view. **The notion of conversion factors** takes into account that individuals have different abilities to convert means (resources) into valuable opportunities (capabilities) or outcomes (functionings) (Sen 1992:26-28, 36-38). Same amount of foods provided would be converted to different levels of outcomes depending on a person's metabolic rate, deficiency of a specific nutrition or disability (internal factors), or power to take the provided food solely without an influence of, for example, gender inequality within a household (external factors). The concern on conversion factors is precisely the reason why the capability approach proposes the capability as an evaluative space, and focus on the ends (e.g. being able to be well nourished) instead of means (e.g. provided foods). A third core feature is that it takes account of **human diversity**. This perspective is based on the critical diagnosis on the utilitarian approach in public policy that focuses only sum-ranking and maximizing the total amount of welfare. It does not count the heterogeneous conditions of human beings (i.e. different ability to convert resources into welfare), and various preferences and values of human beings (i.e. different choice of a functioning from feasible options). The issue of different ability is particularly critical for evaluating the welfare of marginalised groups who have less efficient converting ability, such as disabled people, women, ethnic minority and migrants. Last but not least, **the agent-oriented view** is a core concept of the capability approach. It recognises individuals as, unlike common perceptions in welfare policies, “an active agent of change rather than passive recipient of dispensed benefits (Sen 1999:xiii).” Therefore, it places the role of the state and society as a supporting role for strengthening and safeguarding human capabilities, rather than one of ready-made delivery. It perceives individuals who are capable to shape their own destiny and help each other if adequate social opportunities are provided (ibid:11, 53).

Implications to Housing Studies

The capability approach is an evaluative approach. Its core argument is that the appropriate evaluative space of well-being is *freedoms* (or *capabilities*), and is neither “utilities (as claimed by welfarists), nor [...] primary goods (as demanded by Rawls) (Sen 1999:74).” In other words, the primary objective of public policy for well-being should be neither the increase of individuals' satisfaction and desire-fulfilment nor the increased resources such as opulence sources, commodities and basic goods. For a clarification, the concept of ‘well-being’ here is defined in terms of a person's achievement (i.e. how ‘well’ is his or her ‘being?’), and ‘advantage’ as the real opportunities that the person has (Sen 1985: 3). The concept of well-being in the capability approach is a state of having access to particular valued functionings. It is close to the concept of quality of life, or “well-living” as a more active term (Gasper 2007), or “states of affairs” as Sabina Alkire usually uses in her literature. This paper uses this concept of well-being. It is different from the hedonic-oriented or desire-fulfilment-oriented conception amongst the well-being theory types defined by Parfit (1987:493), and from subjective well-being of which the conception is in the hedonic stream (Gasper 2007), which have satisfaction-oriented conceptions, and are common in various disciplines of economics, psychology, social epidemiology and public policy studies (Clapham et al. 2017). The proposal of Sen is based on the diagnosis on the flaws of informational bases of well-being evaluation that were used by conventional economics, Rawlsian justice, libertarianism, and utilitarianism – opulence, primary goods, liberty, and utility respectively. His diagnosis on the flaws of the other evaluative approaches and his reasoning for proposing the capability approach raise various questions to the norms in housing policies.

The major evaluative spaces of housing policy or project outcome have largely been material resources, monetary resources and satisfaction. The main informational bases include the number of dwellings supplied, the ratio of public rental housing stocks, housing quality (e.g. physical conditions of dwellings such as floor areas, utilities, and structural durability), government expenditure on housing sector for a cost-benefit analysis, and housing expenditure-to-income ratio (e.g. indicators used in Haffner et al. 2012, comparing public performance in housing sector in 28 countries). These material and monetary conditions are often used as key indicators for assessing the effect of housing on well-being (e.g. Boelhouwer 2010, a national report on well-being in the Netherlands). Another core evaluative space is 'satisfaction'. Increasing research attempts to analyse the effect of housing on subjective well-being by examining the relationship between a person's satisfactions and housing physical characteristics, or housing tenure types (Clapham et al. 2017). The assumption on the correlations of the possessions of goods, individuals' satisfaction or preferences, and well-being has also served as a rationale for promoting homeownership-oriented housing policies in many Western countries. According to these policies, people have an instinctive 'desire to own' and this desire fulfilment should be a leading factor, and thus the government should promote homeownership (Saunders 1990). Housing affordability is another key space of evaluation. It may have a certain linkage to a person's capabilities, in a sense that it allows her or him to have more freedom to utilise the rest income and savings for other functionings or capability enhancement. However, it is yet limited to monetary dimension (i.e. resources) and its validity to understand the housing problems of the poor and vulnerable groups is in debate depending on its measurement methods.

Problems of the Resource-focused Evaluative Approach

The capability approach criticises that resources such as income, wealth, commodities and basic goods have been misplaced as ends of economic and social policies, while they are only a means of human flourishing and well-being. By re-orienting the attention to human-beings, the capability approach places the enhancement of a person's *freedoms* (or *capabilities*) or valued *functionings* as end goals. Some people may argue that housing is a core and self-evident capability that allows a person to expand other capabilities such as education and health. Some examples include the Housing First approach for the homeless (Tsemberis 1999, 2010; Gulcur et al. 2003), placing housing as a cornerstone of welfare state (Malpass 2008), and supporting the growth of homeownership as a part of asset-based welfare strategy (ibid.; Sherraden 1991, 2003; Regan & Paxton 2001). As they argued, adequate housing can contribute to an individual's economic opportunities in life, physical and mental well-being, personal safety, a sense of worth and economic status. In these approaches, however, the role of housing appear to be rather a resource that a person may or can utilise for her capability expansion, depending on her circumstances, rather than a capability itself. For instance, Nicholls (2010) conducted a qualitative longitudinal study on 28 people who were recently homeless and examined the role of housing in their development of the Nussbaum's central capabilities. The study concluded that many people were still lacking the central capabilities while there were clear improvements of their material circumstance.

From the capability approach perspective, "well-having" should be distinguished from "well-living", if Gasper's terms (2007) are borrowed. Again, the focus should be placed at the capabilities that are generated with resources, and the resources should not be an exclusive focus of assessing how well people are doing and being. This is because individuals have different levels of abilities to convert resources into their capability expansions or valued functionings. Relevant personal and social circumstances influences the conversion of primary goods to the real enjoy of the primary goods. Having the same bundle of resources may not bring equal achievement and their use is not always fair as believed. The important concern should be "what the person succeeds in *doing* with the commodities and [their] characteristics at her or his command" in assessing the well-being of a person (Sen 1985:6). The capability approach emphasises that human flourishing should be the final ends of development instead of economic growth. However, it does not claim that economic growth, material resources, and monetary issues are not important and should be placed away. It critically questions about the final ends at which the social policy and welfare discussion conventionally aim. It reveals

some misleading informational bases in evaluating well-being, and suggests what should be the ends of economic and social policy.

In housing policy discussions, there has been an exclusive focus on housing (a resource) itself rather than on what it generates. In addition, there has been an assumption of a direct correlation between housing possession or housing quality (characteristics of housing) and a person's well-being, without considering different abilities of converting resources to capabilities (real opportunities) and functionings. This can mislead our understandings of housing policy outcomes and of the extent that policies meet the people's need. This analysis naturally raises the question if the end goal of housing policies has been appropriate for expanding human flourishing and real human development.

Problems of the Utility-focused Evaluative Approach

Adding to the resource-focused judgements of housing outcome evaluation, surveys on housing preferences and housing satisfaction have been a major evaluative approach of housing policy outcomes. The capability approach points out that the utility-focused judgments on states of affairs pay no direct attention to non-utility concerns such as meaningful and fulfilled lives, and violation of rights and duties (Sen 1999:59). In the utility-oriented judgments, happy slaves will be categorised as those in well-being (ibid.). The meaning of well-being has been reduced to "well-feeling" counting pleasure. Its focus has further been reduced to utility, as a scalar of unitary pleasure, and by economist, it has been reduced even further to being well-off financially or materially, or "well-having" (Gasper 2007). The assessment of well-being based on individual's feeling and responses to questionnaires has limitations in distinguishing adaptive attitude and mental conditioning. For instance, homeowners are commonly perceived to have high life satisfaction and good mental well-being. However, in a review of different empirical research on the effect of homeownership on subjective well-being (i.e. mental well-being), Clapham and his colleagues (2017) conclude that the effect is dependent on the owner's circumstances (i.e. financial security in their analysis). The issue of adaptive attitude is more significant when it comes to the well-being of deprived people. The people who are persistently deprived can be unfairly assessed as they are in well-being. They tend to limit or adjust their desires and expectations to what is seemingly feasible for them, and focus on the sheer necessity of their survival, and thus "the mental metric of pleasure or desire is just too malleable to be a firm guide to deprivation and disadvantage (Sen 1999:63)."

An Example of Gaps in Resource and Utility-focused Evaluation

Let's assume that there is a housing policy that successfully produced its target number of housing units. The newly built houses have good physical conditions in terms of floor areas, windows, utilities, gardens and balconies. It also has green areas nearby. The purchase and rent prices are affordable. A high per cent of residents are reporting that they are satisfied with their house. This project will be counted as a good housing policy outcome that contributes to the residents' well-being. However, if a wife in a household cannot have a joint tenure title over a house even if she also invested in the house together with husband, and thus she is in an insecure position against her husband, it will be difficult to say she is in well-being. She may have to be dependent on her husband for her pension, or has to be obedient to her husband in order to secure a place to stay even if she does not want. She has lower level of freedoms to pursue the lives she values. Or, if the newly built houses are too far from the places of income generation opportunities, and thus if a youth has to commute 3-4 hours every day, he may have much fewer chances than others for investing his free time for skill development, resulting in lower opportunities of getting a better or secure job. In this case, the housing policy actually reduces his capabilities to achieve well-being. If a household is renting a housing unit but there is no proper system for securing tenants' right, the household may be in an insecure position against the landlord. That person may be forced to accept any unfair conditions from the landlord, and endure violations on his dignity. The total number of households that has benefited from this project is high, but the majority of benefactors might be those who can easily mobilise funds for a house, either through formal mortgages or informal borrowings. If there is such inequality in the access to the

finance and the newly built housing units, it is difficult to say it was a successful project simply by referring to the total number of units and benefited households.

The capability approach still recognises the role of resources and mental satisfaction in improving human's well-being. But focusing merely on them can easily mislead, as shown above. Converting factors, non-material and non-utility aspects, heterogeneousness of human-beings, false satisfaction, and distribution issue need to deeply be concerned in housing policy and its evaluative approach.

Applying the Capability Approach to Housing Studies: Functionings and Capabilities Relevant to Housing

This section holds a conceptual discussion on how the key concepts of 'functionings' and 'capabilities' can be applied in housing studies. It leads to the fundamental question on how 'housing' should be perceived in a policy discussions, and its position in the capability approach framework – i.e. whether housing should be perceived as a functioning, capability, or resource. The position of housing may be shifting between them, depending on the context and specific purpose of the application of the capability approach. While the paper keeps this issue open, this section suggests a need for exploring terms (or phrases) other than 'housing' for functionings in the housing policy discourse, and a more narrative description of housing-relevant-capabilities by breaking down necessary abilities and opportunities for individuals to achieve a housing-relevant-functioning – for instance, well-residing – instead of limiting to the perception of housing as a single-unit and self-evident capability.

Functionings relevant to housing

The first step necessary for applying the capability approach would be to define functionings and capabilities (as proxies of freedoms) relevant to housing. The starting question is whether we can place *housing* as a functioning or capability, or a resource. *Functionings* in the capability approach is defined as 'being or doing' of a person. The literal meaning of *housing* in the English language has two sides of meanings as noun and verb: it is a material object, and also the sum of activities to provide housing (a material object) by people themselves and others (Ruonavaara 2017). Even if the aspect of housing as verb is taken into account, however, the end goal of the housing activities still remain as a material aspect of housing. Peter King's statement precisely captures this aspect: "Housing policy [...] is the concern for the production, consumption, management and maintenance of a stock of dwellings (2009:42)". This aspect of housing policy is more distinctive in East Asian countries. In their housing policy papers, the terms for *housing* mean *house* in English, which is a resource or commodity to be supplied. In the field of housing policy, of which relevant disciplines include housing studies, economy, law and planning, as well as amongst policy-makers and planning practitioners, *housing* is largely discussed as a type of commodity or basic goods to provide. Naturally, the final end goal of housing policies have largely been concerned with the supply of (adequate and affordable) housing (as a commodity or basic good), rather than expanding a person's *capabilities* or 'valued being or doing' (*functionings*) that a person can achieve by utilising a resource *housing* (the paper marks it as housing_(R)).

The concerns how to define housing-relevant-functioning and to select housing-relevant-capabilities are critical. They explicitly say what a policy should aim at with housing_(R). It might be possible to place housing as a functioning by exclusively emphasising its meaning as verb – being housed or being housing oneself. However, in many countries, the term *housing* often connotes a stock of houses, housing units, or dwellings. To let a policy focus more on outcome – state of being or doing – rather than means, and to explicitly differentiate what functionings and capabilities a policy should aim at through various means including housing_(R), we may need other terms, like King (1996; 2009) suggests the term of dwelling (as a verb) for example. The housing-related-functioning can be expressed as, – only as some examples for a discussion in this paper – residing, dwelling, or being

sheltered, in the form of being or doing, which a person can achieve with housing_(R). To add values to the functionings, well-, adequate-, or dignified- can be added, for instance. The problem of conceptualising a housing-relevant-functionings raises a further question of how the values, such as “well-“ or “adequate-“, can be defined.

The question of how housing-relevant-functionings can be defined may require substantive discussion within various disciplines. It is naturally linked to the discussion what the meaning of housing is, which has been one of key questions for a long time in various disciplines. Housing is seen: as a mechanism employed in policy-oriented studies and planning discipline; or as a socio-cultural process of social construction in social sciences, sociology and anthropology; or as an experience of individuals that is a personal expression and reflection of the self in the discipline of cultural studies, psychology, philosophy and architecture (Hatuka & Bar 2017). This paper leaves the further discussion to the future, and temporarily uses a term “well-residing” in the following discussion in order to distinguish the concept of housing-relevant-functioning from housing_(R).

Capabilities relevant to housing

The capability approach claims that the *primary* evaluative space should be *capabilities* (or *freedoms*), but it is radically vague and open when it comes to defining a capability set. Defining or rather selecting a set of capabilities relevant to housing is a more complicated issue. In the capability approach literature, one of the central debates has been ‘which capabilities are relevant’. This topic is also the most critical difference between Amartya Sen and Martha Nussbaum, the two leading scholars of the capabilities approach. Sen argues that a list of capabilities should be its purpose and context specific, and needs to be developed by involving democratic process and public reasoning. Nussbaum argues, on the contrary, that well-defined universal list of capabilities can be developed, and proposes ten central human capabilities: (i) life; (ii) bodily health; (iii) bodily integrity; (iv) senses, imagination and thought; (v) emotions; (vi) practical reason; (vii) affiliation; (viii) other species; (ix) play; and (x) control over one’s environment (Nussbaum 2011: 33-34).² There are debates not only at theoretical level, and but also on the issue of empirical applications of the ideal theories. It includes various concerns on methods of the capability selection in practice, feasibility of implementation, and data availability (Robeyns 2006). On the other hand, however, Sabina Alkire (2007) notes that it is a complex problem but the methods are unexpectedly straightforward. She lists five methods that are used by most researchers, either alone or in combination. The methods are: to draw from existing data, selecting capability dimensions from data what is available; to assume implicitly or explicitly what people do value or should value based on the informed guesses of the researcher; to use public consensus such as universal human rights at international level or values agreed at national or local levels; to conduct deliberative participatory process; and to use empirical evidence regarding people’s values.

The general complexity and challenges of capability selection are applied also to the question of which capabilities are relevant to housing-related-functionings – such as well-residing in a way that a person values. In addition, housing has a complicated nature. Being adequately sheltered can be a capability of human flourishing particularly from the housing right perspective, but it can also cause an adverse impact on other capabilities of a person depending on how and where a person is sheltered. Housing can expand a person’s capabilities but also constrain them depending on the circumstances. Also, in order to achieve a vector of housing-relevant functionings like well-residing, a person or household needs multiple resources and capabilities such as financial resource, tenure security, citizenship, formal job for accessing a housing loan, gender equality, access to basic infrastructure, and decent traveling time to income generation places.

The capabilities relevant to a functioning of well-residing can be various depending on the purpose of the application and the context applied. Some examples are illustrated in Table 1. The term “ability”

² Refer to the Appendix in this paper for the detail descriptions on the ten central capabilities.

may interchangeably be used with “opportunity”. The fundamental question of housing-relevant-capabilities would be what conditions, abilities, opportunities or capacities a person needs for expanding her freedoms to choose a housing-relevant-functioning that she may value (e.g. well-residing that she values). Obviously, different groups, such as slum dwellers without tenure title, low-income migrants, and informal labourers need a different range of capabilities. Or, depending on the purpose of utilising housing_(R), such as securing pension of elderlies, the required capability set can be different. The threshold line of capabilities – a similar concept to the poverty line – can also be different depending on the groups and purposes.

Table 1. Some examples of housing-relevant-capabilities

-
- Ability to secure a safe shelter
 - Ability to live in healthy living environment
 - Ability to live in a proper distance to income generation opportunities
 - Ability of proactively being part of the community
 - Having gender equality in achieving a tenure title;
 - Having adequate and associated rights of tenants and ability to enjoy the rights
 - Ability to have an adequate amount of income after housing cost is deducted
 - Ability to make an informed decision in one’s housing process
 - Having capacity of utilising the information on housing options and policies
 - Ability to be part of the decision-making process in housing (re)development
-

* Note: this is only a list of examples and not a comprehensive list

Selecting the capabilities relevant to housing will require another discussion space, and may open up substantial debates and research. This paper limits itself to providing an entry with some examples. The important aspect to emphasise here is that non-opulence and non-utility concerns should be taken into account in the evaluative space of housing policy. In addition, multi-dimensional capabilities that a person needs to achieve a housing-relevant-functioning needs to be considered. The current informational bases, such as the evaluation of the physical quality of housing, housing satisfaction, and housing affordability can still be valid informational bases but not sufficient enough to indicate if a policy has produced a good housing outcome that positively effects human flourishing. The primary focus of housing policy performance needs be the enhancement of the housing-relevant-capabilities.

Some Possible Areas of the Capability Application in Housing Research

The capability approach is often criticised due to its vagueness with application and operationalisation measures. It is yet relatively at the beginning phase of its operationalisation, but already a lot of empirical research in other domains has developed various methodologies. In this section, some possible areas of applying the capability approach to housing studies are explored, based on a review of previous research in other domains.

Identifying Target Groups of Housing Policy

The field of multi-dimensional poverty assessment has applied the capability approach most actively. It allows a better understanding of poverty thereby identifying who are poor, to what extent and how. It eventually influences on identifying target groups of a social policy and determining budget allocation. Social policies have identified their target groups mainly by income or expenditure measurement. Housing policy is no exception to this. The capability approach critically questions ‘opulence’ as an evaluative space, and argues to take into account non-monetary poverty, which implies deprivation in functionings and capabilities. Non-monetary poverty dimensions include, for instance, undernourishment, underweight, under education, gender inequality in school enrolment, and mortality. Several research results have shown that there is a low correlation between monetary poverty and non-monetary poverty. There is significant lack of overlap between the poor people

identified according to income and function-deprivations. Some example studies include: Klasen (2000), Ruggeri-Laderchi (1999) Qizilbash (2002), Perry (2002) and the mid-term report on the progress of the Millennium Development Goals (MDGs) (Bourguignon et al. 2008). These findings have provided significant implications for social development programmes, given that most governments allocate their budgets based on the estimates of poor household headcounts according to income.

The problems of monetary measurement of poverty in defining who are deprived, in which way, and how deep have brought the need for measuring poverty in multi-dimensions. This also brought up the technical issues of giving different weights to more critical dimensions and of reflecting poverty gap – how deep a person's deprivation is below the poverty line – in the measurement. The multi-dimensional poverty assessment is the most exclusive application of the capability approach.³ It includes the dimensions of, for example, a lack of education, poor health and nutrition, low personal security, disempowerment, poor quality of work, social isolation and a lack of income (as one of dimensions) (e.g. Alkire et al. 2015). Such research also tries to identify different levels of poverty groups. For instance, one person having deprivation in four functionings is in more serious poverty than others having only one functioning-poverty. In this multi-dimensional poverty assessment, different weights can be applied for a specific capability or functioning deprivation (e.g. the Akire-Foster Method, *ibid.*). As an application, the Human Development Index gives three times more weight on literacy than school enrolment indicator for evaluating one's educational achievement.

A similar approach can be taken in housing research. A possible application would be an analysis on multi-dimensional deprivations or obstacles that a person faces in achieving a housing-relevant-functioning. A person may have income above a poverty line or an income threshold for social housing target beneficiaries, but this person can still be deprived in multiple capabilities relevant to housing at the same time. However, she will not be categorised as a target group for social housing policies. Such multi-deprivations involve, for example, lack of access to formal housing finance, no ability of mobilizing informal financial sources, little tenure security (in case of tenants or informal dwellers), lack of access to reliable housing market and housing policy information, limited capacity of utilising that information, gender inequality, lack of entitlements that are connected to the state of job (e.g. permanent, temporary, or informal), or long distance to income opportunities from affordable housing. Such multiple deprivations can be weighted equally, but giving different weights to more important dimensions can have advantages for providing better insights. For some cases of informal settlers, being able to secure tenure can be much more critical capability than other housing-related capabilities such as an access to electricity or being able to live in a durable structure. Population in informal settlements often are able to incrementally transform their shelter to a durable housing but are limited due to the lack of tenure security. The entitlement to be a registered resident can be more critical capability for the tenants in informal settlements in comparison to the primary occupiers because the tenants often have low chances of getting entitlement for compensating programmes (e.g. public housing provision, monetary compensation) when a relocation for redevelopment happens. The access to housing finance or public housing programmes can be more limited to the low-income people in informal economy than those in formal economy. The level of such deprivations may appear differently per disaggregated demographic groups, such as youth, elderly, income levels, and gender. This approach may allow us to have an insight to diagnose housing problems, particularly of marginalized groups in a society, and thus to define a housing policy target groups and problem solving measures.

Evaluation of Housing Policy Performance

The capability approach can also be used for an analytical reasoning or critical analysis on existing social practices or already existing empirical findings (Robeyns 2006). For instance, the housing

³ However, the emergence of multi-dimensional poverty assessment is not solely originated from the capability approach. It has been built on multiple leading research on poverty and other approaches such as sustainable livelihood approach.

satisfaction and preference studies have been one of mainstream evaluative spaces in housing research. However, as illustrated earlier, the capability approach addresses the limitations of utility focused evaluation. The comparison of housing satisfaction, subjective well-being and the state of non-utility affairs (i.e. observations on ethical issues), for example, can be an area of research to evaluate a housing policy or programme performance.

A more proactive application of the capability approach entails an evaluation of the extent in which a housing policy or programme has enhanced or adversely affected housing-related functionings or capabilities. Robeyns remarks that a policy should aim at “removing obstacles in their lives so that they have more freedom to live the kind of life which, upon reflection, they find valuable (2003:6).” Outcomes and (in)efficiencies of institutions or policies can be examined in terms of certain capability expansions. This can be framed as to what extent a housing policy and its institutional framework have removed the obstacles that a person faces in her housing process and thus contributed to achieving her housing-related-functionings. The outcome of a housing programme can be assessed by measuring not only positive impacts but also unintended side effects on a person’s capabilities in other domains such as less income generation opportunities and/or loss of community and social networks. Development aid projects in the housing sector, such as post-disaster housing reconstruction, can be evaluated its effectiveness and efficiency in terms of the enhancement of housing-related-capabilities, instead of in terms of the number of units provided or beneficiaries that are sheltered.

Housing Policy and Programme Design

The applications in the above two areas naturally lead us to rethink how we should design a housing policy or programme, and set its final end goal. Aiming at enhancement of multi-dimensional capabilities relevant to housing, or elimination of housing-related capability deprivations is certainly different than aiming at the provision of a certain number of housing units, an increase in subjective housing satisfaction, an improvement of housing quality, or an efficiency improvement of a public housing programme defined by cost-benefit analysis. The capability approach has a direct focus on human being as an end goal of a policy, and emphasises the inequality in capabilities of individuals rather than resource inequality. It stresses that final ends of development should be human flourishing instead of economic growth, which has been treated as a final ends to achieve while in fact it is only a means for human flourishing. In the housing policy design, and its agenda development, the capability approach can be applied as a basic framework for establishing social and ethical goal by re-orienting the focus of housing policy from economic concerns to human flourishing.

Participatory Housing Development

At housing practice level, participatory methods in the housing development can be a tool for reflecting the notions of the capability approach. During a participatory discussion process, the different levels of abilities and heterogeneous deprivations within the participants can be reflected in housing development. It can also open a space where marginalised groups can raise voices to local government, which may enhance their ability to be an important stakeholder in government’s decision making in the longer term. It acknowledges people as an active agent and provides a space where they can take decisions over their housing and settlements. The process generally carries non-material, non-monetary and non-utility concerns.

However, it requires a careful interpretation. Due to the phrase of “freedom to achieve the lives that a person has reason to value”, and the tendency of housing practitioners to focus on physical design of a housing unit and neighbourhoods, the capability approach may instinctively resonate participatory (physical) planning methods with readers. A discussion can easily be limited to the participatory housing planning or participatory surveys on design preferences for instance, because of its familiarity by housing practitioners, and the similarity of underpinning perspectives. A careful interpretation will be needed in order not to form such a confined boundary. Secondly, not all participatory housing

projects would bring capability enhancement. It is highly depending on the methods of facilitation and societal arrangement around the projects. It should not be translated simply as the expansion of individuals' freedom to achieve the housing or settlement that they prefer or desire. The focus should be to expand the capabilities of a person - for instance, empowerment and expansion of space for "deliberative democracy (Crocker 2008)" where marginalized groups can raise their voice - by placing people as an active leading agent. It also needs to aim to reflect the diversity of human beings in its planning result, such as different financial capacities, life paths and phases, gender, and age.

Others

The capability application can be applied in various areas for housing policy studies. In this paper, some possible areas of its application are discussed particularly in the areas of empirical research and housing practice. However, the application should not be constrained to them. The capability approach is an open-ended framework, and therefore named as 'an approach' instead of 'a theory'. It is a general, open and underspecified idea, which can be specified and theorised depending on the aim of using the approach (Alkire 2005). It can be used for a theory development (e.g. theory of justice), an assessment framework of a specific issue (e.g. gender inequality), a normative basis for political critics (Robeyns 2017:29), or an analysis framework for a certain phenomenon and housing policy implications – for example, examining what opportunities the informal housing sector provides compared to the formal sector in the global South. It can also be a framework for comparing welfare state (e.g. "[economic] incentive giving state" versus "capability state" in the domain of work-welfare policy, by Dean et al. 2005).

Conclusion: challenges and the way forward

The previous sections provide a brief introduction of the capability approach with its key concepts and distinctive features. The capability approach, as a evaluative framework, proposes freedoms or capabilities (as proxies of the freedoms) as an appropriate evaluative space of well-being, rather than resources or utility. Research on housing outcome and policy design has largely been resource- and utility-focused. The paper examines their problems and limitations, and argues they can be overcome by applying the logics of the capability approach. The paper argues that non-opulence and non-utility concerns should be taken into account in housing outcome evaluation, instead of limiting its concerns to quantity of housing units, physical quality of housing, housing satisfaction, and housing affordability.

The application of the capability approach to housing studies and its operationalisation can be challenging. However, an increasing number of applications in other disciplines with various methods and methodologies provides a great promise. The paper suggests some potential areas of the capability applications in housing studies. They include the identification of target groups of housing policy, evaluation of housing policy performance, housing policy and programme design, and participatory housing development. However, its application can be expanded further not only to empirical research but also to theory development, building normative bases for social and political criticism, and framework for welfare state and housing system comparisons. For the application, concepts of housing-relevant-functionings and –capabilities need to be defined.. The paper briefly discusses them with some examples, but this topic needs further inputs from empirical, theoretical as well as philosophical research.

The capability approach is an open and flexible approach. Its little specified features, providing neither a set of functionings and capabilities nor a way to value the set, has caused critiques on its practicality and feasibility of operationalisation (Sugden 1993:1953; Roemer 1996:191-93). However, such openness is precisely a core aspect of the capability approach. The approach starts from the critiques on the conventional approaches that recognise human beings as homogeneous beings, and

thus focusing on unidimensional measurement and sum-ranking. The right space of critical discussions would be the validity of its framework for diagnosing problems that public policies concern and for evaluating societal arrangements for well-being and justice. In this aspect, the capability approach is providing a well-grounded framework for reviewing in what perspective housing policies have diagnosed problems and causes, in which way they have responded to the causes and thus to what extent they have contributed to human flourishing. The paper argues that it is highly valuable to explore the capability approach and its application in housing research, especially for discussing housing policy directions in the future by re-orienting the focus from economic concerns to human flourishing as an end goal.

An advantage of the capability approach is that it is an extremely interdisciplinary approach. Within the housing domain, the capability approach application requires interdisciplinary concerns around housing, such as planning, economics, laws, social science and humanity. It crosses the other domains of welfare - education, health, pension and employment. Hatuka and Bar (2017) critically observe that housing studies is a too “specialised and fragmented body of knowledge”. They highlight the importance of: being aware of the underlying premises and paradigmatic boundaries of housing studies; and exploring the path to support new research agendas and action strategies. In its recent report, UN-Habitat (2016) also recognises the problem of fragmented body of knowledge. The report calls for more integrated approach in the context of urban development. The capability approach can provide a coherent framework for cross-cutting issues around housing. A frame of housing-relevant-capabilities may provide a common platform where diverse disciplines can collaborate for a better policy.

Acknowledgement

Thanks to my PhD supervisors Marja Elsinga and Joris Hoekstra for their support and feedback, and to the OTB-Research for the Built Environment for providing scientific research environment.

Appendix. Ten central human capabilities by Nussbaum

Life	Being able to live to the end of a human life of normal length; not dying prematurely, or before one's life is so reduced as to be not worth living.
Bodily Health	Being able to have good health, including reproductive health; to be adequately nourished; to have adequate shelter.
Bodily Integrity	Being able to move freely from place to place; to be secure against violent assault, including sexual assault and domestic violence; having opportunities for sexual satisfaction and for choice in matters of reproduction.
Senses, Imagination, and Thought	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 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 have pleasurable experiences and to avoid non-beneficial pain.
Emotions	Being able to have attachments to things and people outside ourselves; to love those who love and care for us, to grieve at their absence; in general, to love, to grieve, to experience longing, gratitude, and justified anger. Not having one's emotional development blighted by fear and anxiety. (Supporting this capability means supporting forms of human association that can be shown to be crucial in their development.)
Practical reason	Being able to form a conception of the good and to engage in critical reflection about the planning of one's life. (This entails protection for the liberty of conscience and religious observance.)
Affiliation	<ol style="list-style-type: none"> 1. Being able to live with and toward others, to recognize and show concern for other humans, to engage in various forms of social interaction; to be able to imagine the situation of another. (Protecting this capability means protecting institutions that constitute and nourish such forms of affiliation, and also protecting the freedom of assembly and political speech.) 2. Having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of non-discrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, national origin and species.
Other species	Being able to live with concern for and in relation to animals, plants, and the world of nature.
Play	Being able to laugh, to play, to enjoy recreational activities.
Control over one's environment	<ol style="list-style-type: none"> 1. Political. Being able to participate effectively in political choices that govern one's life; having the right of political participation, protections of free speech and association. 2. Material. Being able to hold property (both land and movable goods), and having property rights on an equal basis with others; having the right to seek employment on an equal basis with others; having the freedom from unwarranted search and seizure. In work, being able to work as a human, exercising practical reason and entering into meaningful relationships of mutual recognition with other workers.

Source: excerpted from Nussbaum (2011:33-34)

References

- Alkire, S. (2002) "Introduction: capability and valuation". in *Valuing Freedoms: Sen's Capability Approach and Poverty Reduction*, Oxford: Oxford University Press, pp 1-23.
- Alkire, S. (2005) Why the capability approach?, *Journal of Human Development and Capabilities*, 6(1): 115-33.
- Alkire, S., J. Foster, S. Seth, M.E. Santos, J.M. Roche and P. Ballon (2015) *Multidimensional Poverty Measurement & Analysis*. Oxford: Oxford University Press.
- Arndt, C. and J. Volkert (2011) The capability approach: A framework for official German poverty and wealth reports, *Journal of Human Development and Capabilities*, 12(3):311-37.
- Boelhouwer, J. (2010) *Wellbeing in the Netherlands: The SCP life situation index since 1974*, The Hague: The Netherlands Institute for Social Research, SCP.
- Bourguignon, F. A. Bénassy-Quéré, S. Dercon, A. Estache, J. W. Gunning, R. Kanbur, S. Klasen, S. Maxwell, J. Platteau and A. Spadaro (2009) Millennium Development Goals at midpoint: Where do we stand and where do we need to go?, a background paper for the 2009 *European Report on Development*.
- Brandolini, A. and G. D'Alessio (1998) Measuring well-being in the functioning space, *Unpublished paper*, Rome: Banca d'Italia.
- Chiappero-Martinetti, E. (2000) A multi-dimensional assessment of well-being based on Sen's functioning theory, *Revista Internazionale di Scienza Sociali*, 58:207-39.
- Clapham, D., C. Foye and J. Christian (2017) The Concept of subjective well-being in housing research, *Housing, Theory and Society*, DOI: 10.1080/14036096.2017.1348391.
- Coates, D., P. Anand and M. Norris (2013) Housing, happiness and capabilities: A summary of the international evidence and models, *Open Discussion Papers in Economics*, The Open University, No 81.
- Coates, D., P. Anand and M. Norris (2015) A capability approach to housing and quality of life: the evidence from Germany, *Open Discussion Papers in Economics*, The Open University, No 78.
- Crocker, D. A. (2008) *Ethics of Global Development: Agency, Capability, and Deliberative Democracy*, Cambridge: Cambridge University Press.
- Dean, H., J. Bonvin, P. Vielle and N. Farvaque (2005) Developing capabilities and rights in welfare-to-work policies, *European Societies*, 7(1):3-26.
- Evans, S. (2016) What should social welfare seek to achieve? Applying the capability approach, *Ethics and Social Welfare*, DOI: 10.1080/17496535.2016.1234632.
- Frediani, A. (2007) Amartya Sen, the World Bank, and the Redress of Urban Poverty: A Brazilian Case Study, *Journal of Human Development*, 8(1):133-52.
- Fukuda-Parr, S. and A.K. Shiva Kumar (eds.) (2003) *Readings in Human Development*, Delhi: Oxford University Press.
- Gaspar, D. (2007) "Human well-being: concepts and conceptualizations", in M. McGillivray (ed.) *Human Well-Being: Concept and Measurement*, Basingstoke: Palgrave Macmillan. pp 23-64.

- Gulcur, L., A. Stefancic, M. Shinn, S. Tsemberis and S. N. Fischer (2003) Housing, hospitalization, and cost outcomes for homeless individuals with psychiatric disabilities participating in Continuum of Care and Housing First Programmes, *Journal of Community & Applied Social Psychology*, 13:171-86.
- Haffner, M., C. Lennartz and K. Dol (2012) "Housing", in J. Jonker (ed.) *Countries compared on public performance: A study of public sector performance in 28 countries*, The Hague: Netherlands Institute for Social Research, pp 241-285.
- Hatuka, T. and R. Bar (2017) Navigating housing approaches: A search for convergences among competing ideas, *Housing, Theory and Society*, 34(3):277-96.
- King, P. (1996) *The Limits of Housing Policy. A Philosophical Investigation*, London: Middlesex University Press.
- King, P. (2009) Using theory or making Theory: Can there be theories of housing?, *Housing, Theory and Society*, 26(1):41-52.
- Klasen, S. (2000) Measuring poverty and deprivation in South-Africa, *Review of Income and Wealth*, 46(1):33-58.
- Malpass, P. (2008) Housing and the new welfare state: Wobbly pillar or cornerstone?, *Housing Studies*, 23(1):1-19.
- Nicholls, C. M. (2010) Housing, Homelessness and Capabilities. *Housing, Theory and Society*, 27(1):23-41.
- Nussbaum, M. (1988) Nature, function, and capability: Aristotle on political distribution, *Oxford Studies in Ancient Philosophy*, Supplementary Volume I, pp 145-84.
- Nussbaum, M. (1992) Human functioning and social justice: In defence of Aristotelian essentialism, *Political Theory*, 20 (2):202-46.
- Nussbaum, M. (2003) Capabilities as fundamental entitlements: Sen and social justice, *Feminist Economics*, 9 (2-3):33-59.
- Nussbaum, M. (2006) *Frontiers of Justice*, Cambridge, MA: The Belknap Press.
- Nussbaum, M. (2011) *Creating capabilities: The human development approach*, Cambridge, MA: Harvard University Press.
- Parfit, D. (1984) "Appendices: I. What makes someone's life go best", in *Reasons and Persons*, Oxford: Oxford University Press. pp 493-502.
- Perry, B. (2002) The mismatch between income measures and direct outcome measures of poverty, *Social Policy Journal of New Zealand*, 19:101-127.
- Qizilbash, M. (2002) A note on the measurement of poverty and vulnerability in the South African context, *Journal of International Development*, 14:757-72.
- Re-InVEST (2018) Rebuilding an Inclusive, Value-based Europe of Solidarity and Trust through Social Investment (research project website) [online] <http://www.re-invest.eu/>, accessed: 7 May 2018.
- Regan, S. and W. Paxton (2001) *Asset-based welfare: International experiences*, London: IPPR.

- Robeyns, I. (2003) Sen's capability approach and gender inequality: selecting relevant capabilities, *Feminist Economics*, 9(2-3):61-92.
- Robeyns, I. (2006) The Capability Approach in Practice, *The Journal of Political Philosophy*, 14(3):351-76.
- Robeyns, I. (2016) Capabilitarianism, *Journal of Human Development and Capabilities*, 17(3):397-414.
- Robeyns, I. (2017) *Wellbeing, Freedom and Social Justice: The Capability Approach Re-Examined*, Cambridge: Open Book Publishers.
- Roemer, J. E. (1996) *Theories of Distributive Justice*, Cambridge, MA: Harvard University Press.
- Ruggeri-Laderchi, C. (1999) The many dimensions of deprivation in Peru, *Queen Elizabeth House Working Paper Series*, No 29.
- Ruonavaara, H. (2017) Theory of Housing, From Housing, About Housing, *Housing, Theory and Society*, DOI: 10.1080/14036096.2017.1347103.
- Saunders, P. (1990) *A Nation of Home Owners*, London: Unwin Hyman.
- Sen, A. (1980) "Equality of what?", in S. McMurrin (eds.) *The Tanner Lectures on Human Values*, Volume 1. Cambridge: Cambridge University Press.
- Sen, A. (1985) *Commodities and capabilities*, Amsterdam: North-Holland.
- Sen, A. (1987) "The Standard of Living: Lecture II, Lives and Capabilities", in *The Standard of Living*, edited by G. Hawthorn, Cambridge: Cambridge University Press.
- Sen, A. (1992) *Inequality Re-examined*, Oxford: Clarendon Press.
- Sen, A. (1999) *Development as freedom*, New York: Knopf.
- Sherraden, M. (1991) *Assets and the Poor: A New American Welfare Policy*, New York: M.E. Sharpe.
- Sherraden, M. (2003) "Assets and the social investment state", in W. Paxton (ed.) *Equal Shares: Building a Progressive and Coherent Asset-Based Welfare Policy*, London: IPPR, pp 28–41.
- Sugden, R. (1993) Welfare, resources and capabilities: a review of Inequality Re-examined by Amartya Sen, *Journal of Economic Literature*, 31(4):1947-62.
- Tsemberis, S. (1999) From streets to homes: An innovative approach to supported housing for homeless adults with psychiatric disabilities, *Journal of Community Psychology*, 27(2):225-41.
- Tsemberis, S. (2010) "The Pathways Housing First Program", in *Housing first: The pathways model to end homelessness for people with mental illness and addiction*, Center City, MN: Hazelden, pp 11-32.
- UN-Habitat (2016) *World Cities Report 2016*, Nairobi: United Nations Human Settlements Programme (UN-Habitat).
- Volkert, J. (2014) "Capability approach applications in Germany: Official poverty and wealth reporting and beyond", in S. Ibrahim and M. Tiwari (eds.) *The Capability Approach: From Theory to Practice*, London: Palgrave Macmillan.

Wolff, J. and A. de-Shalit (2007) *Disadvantage*, Oxford: Oxford University Press.