

# Measuring poverty through refined functionings: preliminary results of a research in Italy

Maurizio Norcia<sup>a</sup>, Antonella Rissotto<sup>a</sup> Elisa Noci<sup>c</sup>

<sup>a, b</sup> Istituto di Scienze e Tecnologie della Cognizione – Consiglio Nazionale delle Ricerche  
Via San Martino della battaglia, 44 – 00185 – Roma – Italy

<sup>c</sup> Dipartimento di Scienze dell’Educazione - Università di Roma “Roma III”  
Corresponding author: maurizio.norcia@istc.cnr.it

**Abstract:** This article addresses a study on poverty conducted by the National Research Council, adopting a comprehensive approach to understanding poverty. Unlike traditional methods that primarily focus on income and consumption, our research incorporates a multidimensional perspective. This approach includes socio-psychological elements, such as individuals’ perceptions of their socio-economic status, awareness of factors contributing to poverty, and the extent of their social capital. The objective of our research was to devise a practical method for applying the Capabilities Approach, as proposed by Amartya Sen, to real-world contexts. In the initial phase of implementing this model, we concentrated on the aspect of well-being and deprivation associated with housing, through the lens of the Capabilities Approach (CA). We elaborate on our methodology for integrating the functional aspect of housing — combining its material characteristics with other factors that contribute to an individual’s well-being. Furthermore, we will examine the outcomes of this methodological approach. This includes the items included in our survey and the decisions made during the operationalization process. Our aim is to demonstrate how the Capabilities Approach can be effectively “translated” into actionable strategies, thereby enhancing our understanding and measurement of poverty from a broader, more holistic perspective.

**Key Words:** Capabilities, functionings, multidimensional poverty, refined functionings, socio-economic status perception

## **I. INTRODUCTION**

### **Theoretical approaches to the phenomenon of poverty**

The concept of poverty is one that transcends simple definitions, straddling both common vernacular and the theoretical analyses across various academic disciplines. This dual presence underscores the complexity inherent in understanding poverty, which is further compounded by the myriad of conceptualizations that arise from diverse perspectives. Central to the discourse on poverty are the ongoing debates surrounding not only the methodologies employed for its detection but also the very definition of what constitutes poverty.

Traditionally, poverty has been conceptualized as a state characterized by the lack of material resources necessary for an individual or a group to meet the costs associated with sustaining and reproducing their livelihoods. This perspective predominantly relies on monetary indicators of well-being such as wealth, income, or consumption levels. The objective is to delineate poverty through exogenous factors, based on absolute or relative objective data. Specifically, 'absolute poverty' is determined by identifying a set of essential goods required to maintain a socially acceptable minimum standard of living. Conversely, 'relative poverty' is defined in relation to the average resource availability within a given reference population, highlighting disparities in resource distribution [1][2]. Complementing these traditional measures, subjective indicators based on individual perceptions of poverty have also been integrated into the analysis, offering an additional layer of understanding [3].

However, a shift towards more nuanced interpretations of poverty has emerged, advocating for a conception of poverty that extends beyond mere economic deprivation or purely subjective experiences. Within this evolved framework, the multidimensional, cumulative, and dynamic aspects of poverty are emphasized, particularly within the context of Western postmodern societies. 'Multidimensional' in this sense refers to the various individual and contextual factors that contribute to poverty, encompassing not only economic elements but also the broader social fabric including familial structures, social networks, and the physical and mental health of individuals. Poverty is 'cumulative' as it aggregates different elements that interact and impact one another. It is also 'dynamic', reflecting a progressive trend akin to a vicious cycle where poverty can either be mitigated or exacerbate over time, potentially leading to chronic conditions. This perspective argues that relying solely on income or consumption as indicators fails to capture the multifaceted nature of inequality and deprivation, as individuals with similar income levels can experience vastly different degrees of well-being [4].

In recent decades, the discourse on poverty has been enriched by the inclusion of concepts such as social exclusion and vulnerability, particularly within European literature and social policy. These concepts resonate with the multidimensionality of poverty, drawing attention to inequalities in access to intangible resources like power, information circulation, and community participation. They also highlight processes that may hinder social integration within social networks. Specifically, vulnerability encompasses exposure to social processes that can precipitate distress in the current societal context, including employment instability, lack of access to public protection, housing issues, and family dissolution [6][7][8].

A pivotal contribution to the multidimensional approaches to poverty is the Capability Approach (CA) developed by Nobel laureate economist Amartya Sen. Esteemed for its analytical depth and significant impact on the international discourse, the CA has played a crucial role in reshaping the understanding of poverty. By focusing on the freedoms and capacities individuals possess to achieve desired life outcomes, the CA offers a comprehensive framework for assessing well-being and social justice, marking a significant departure from traditional income-centric measures of poverty.

### **The capability approach of Amartya Sen**

To elucidate Amartya Sen's approach, it is instructive to begin by examining his critique of John Rawls's celebrated theory of Justice as Fairness. Rawls [9] delineates a set of commodities that, in pursuit of a just society, should be distributed according to two principles: equal liberty and a distribution of inequality grounded in the principle of difference and the principle of equitable opportunities. Sen's primary contention lies with the framework Rawls employs to assess various inequalities: the mere distribution of commodities does not ensure the attainment of a just society, as individuals possess varying capacities (capabilities) to transform goods and resources into conditions (functionings) essential for their well-being. Likewise, equal access to certain roles does not necessarily equate to the actual ability to fulfill them. Thus, equity should be evaluated within the realm of capabilities (capability set), focusing on the opportunities individuals have to engage in valued activities and the genuine freedom to choose among different life paths that they deem worthwhile. In addressing equity—or, more precisely, the appropriate form of inequality—by focusing on capabilities, we can also safeguard maximal freedom: having the real ability to define and pursue one's conception of well-being inherently encompasses the exercise of fundamental and effective freedoms. Sen's conceptualization of freedom is therefore positive, a constructive view of freedom as the essential capacity for action and self-determination, in contrast to a negative view of freedom as simply the absence of formal constraints.

Central to Sen's analysis are the concepts of functionings and capabilities. Functionings encompass the actions and states of being that individuals actualize throughout their lives, ranging from basic necessities such as nourishment, clothing, and health maintenance, to more complex dimensions like self-actualization or participation in community life. Capabilities, conversely, represent the diverse combinations of functionings that an individual can feasibly achieve: "A person's 'capability' refers to the alternative combinations of functionings that are feasible for her to achieve. Capability is thus a form of freedom: the substantive freedom to achieve alternative functioning combinations (or, more informally, the freedom to pursue various lifestyles)" [10:75]. A third element in Sen's framework is "commodities," which refers to the goods and resources available to an individual. The transition from commodities (simply possessing an item, for example, a bicycle) to functioning (cycling) is mediated by conversion factors, which include personal conditions and socio-environmental characteristics. Clearly, conversion factors influence the perception of commodities as options already available to an individual. To gain a comprehensive and accurate understanding of an individual's living standards, it is insufficient to only consider commodities (possessions) or achieved functionings: according to Sen, in the continuum from commodities - characteristics of goods -

capabilities - functionings, the pivotal element is capabilities, understood as the potential for individuals to lead lives they value.

The capabilities approach can also navigate the dichotomy between absolute and relative in the conceptualization of poverty by recognizing that, while poverty is often an absolute condition in the realm of capabilities, it assumes a relative dimension in the context of commodities. This implies that the goods required to achieve certain functionings might vary over time: “in a country that is generally rich, more income may be needed to buy enough commodities to achieve the same social functioning, such as ‘appearing in public without shame’” [11: 115].

### **The difficulty of operationalizing**

Amartya Sen’s approach has significantly influenced the academic discourse on well-being by highlighting the limitations of relying solely on monetary indicators. However, the challenge lies in the operationalization of his approach, which involves translating the theoretical framework into practical, measurable terms. Sen’s methodology, one of the most comprehensive in poverty research, does not prescribe a detailed list of dimensions beyond basic capabilities associated with extreme poverty conditions, such as avoiding severe illness or premature death. Scholars ([12][13]) have pointed out the difficulty in operationalizing Sen’s approach due to its depth and the breadth of information and interpretation it requires. Comim [14:2] characterizes Sen’s approach as a “fruitful philosophical incursion into development ethics.” Ysander ([13]) mentions several unsuccessful attempts to operationalize this approach, while Sugden ([12]) and Comim ([14]) identify specific challenges:

- a) The hypothetical nature of capabilities, which are not directly observable and exist in a counterfactual domain.
- b) The extensive range of functionings that encompasses all aspects of human life, which also need to be valued by individuals themselves. This complexity necessitates a method for devising a comprehensive list of functionings. Sabina Alkire [15] reviews various methods used in literature to establish such lists, including utilizing existing data or conventions, aligning with universally agreed-upon functionings (e.g., human rights), deriving a list from the researcher’s own premises, or engaging stakeholders in participatory processes to create the list.
- c) Once specific dimensions are identified, the challenge becomes how to weight each dimension to accurately depict states of deprivation or well-being. This step is crucial for comparing different individuals’ conditions or the same individual’s condition over time. A significant obstacle in this process is the “pervasive human diversity” ([11:xi]), acknowledging the variability in how individuals perceive and value different aspects of their lives. This consideration underscores the necessity of evaluating individual evaluations of life situations and the importance of resources, not as the sole criterion for assessing a person’s condition but as part of a broader evaluative context.

Given these challenges, particularly the counterfactual nature of capabilities, our research has chosen to focus on functionings, or what individuals actually achieve. In doing so, we aim to account for the connection between an individual’s achievements and their freedom of choice. Following Sen’s ([16]) concept of “refined functioning,” we examine functionings in the context of the alternatives available to individuals. This approach allows us to more accurately capture the essence of well-being and deprivation, acknowledging the

complexity of human life and the need for a nuanced understanding of poverty and well-being beyond economic measures.

## **II. METHOD**

### **The choice of a functioning and its operationalization**

Amartya Sen's approach, notably distinct for its refusal to endorse a universally applicable list of capabilities or functionings essential for individual well-being, underscores the Capabilities Approach's (CA) inherent adaptability. This flexibility mandates that each application of the CA be tailored to its specific context, encompassing both the temporal-spatial and disciplinary environments [17]. This aspect of Sen's methodology diverges markedly from Martha Nussbaum's perspective, which, while offering a list of capabilities grounded in a particular conception of justice, remains abstract enough to be adapted across various contexts.

Sen further distinguishes between basic capabilities and general capabilities. Unlike general capabilities, basic capabilities (BC) are fundamental for physical survival and safeguarding against severe deprivation. In the study of poverty, particularly within developing nations, BC are instrumental in delineating a basic threshold that separates the impoverished from the non-impooverished, including essentials like the capacity for adequate nutrition and shelter, and escaping preventable illness or untimely death [11].

Operationalizing the CA necessitates a meticulous selection and definition of the capabilities or functionings to be examined within a given research context. Sen emphasizes the significance of agency in this selection process, advocating for a reasoned approach to choosing a particular set of capabilities or functionings. Robenys [19] suggests several criteria to guide this selection: the choices must be explicitly stated, and the methodology leading to these choices should be clear, well-argued, and defensible, acknowledging that it may differ across various applications of the CA.

Given our goal to develop a replicable framework for assessing poverty through Sen's lens, we opted not to construct a comprehensive list of functionings. Instead, we focused on a specific functioning that could act as a precursor for such a framework, selecting one that holds relevance across a diverse population. This led us to prioritize functionings categorized as "basic" by Sen, identifying adequate shelter as a critical factor for assessing well-being or poverty in modern Western societies, where food deprivation is largely absent.

The concept of adequate shelter was tailored to reflect not only the material necessity of a physical dwelling but also its significance in expressing social status, personal care, and maintaining relationships. This nuanced understanding of shelter encompasses both a place of protection and a space that facilitates personal and social well-being, highlighting the dynamic interaction between an individual's housing condition and their broader life circumstances.

Operationalizing such a defined functioning within a replicable framework necessitates an examination of actual functionings, or achieved capabilities, with respect to housing. It involves assessing the availability and characteristics of one's dwelling in relation to their needs. However, within the CA framework, it's imperative to also consider the individual's perception of their dwelling as a foundation for fulfilling various dimensions of life, including social status and personal care.

Moreover, it's crucial to address the dynamic aspect of an individual's relationship with this functioning, exploring past choices and future aspirations related to their housing situation. Adopting Sen's concept of "refined functionings," our approach seeks to maintain the connection between individual achievements and the freedom of choice, considering all possible alternatives in the empirical definition of functionings. This methodology echoes the work of Josiane Vero [20], who examines the poverty condition among a sample of French youth, specifically focusing on whether the functioning, in this case housing, is a matter of choice among available alternatives.<sup>a</sup>

In this analysis, we aim to provide a comprehensive understanding of individuals' living conditions within a particular context, moving beyond simple income metrics to include a broad array of complex functionings. An individual's well-being is not solely determined by their income but also by the journey they have embarked on to achieve their current state and the opportunities available for personal growth. Enhancing well-being, thus, is not just about supplying more goods but about broadening development prospects and empowering individuals to access a wider range of functionings. This approach underscores the importance of expanding the set of capabilities available to individuals. By examining refined functionings in dynamic terms, we can deepen our insights into capabilities, incorporating the essence of substantial freedom into our analysis.

Within this framework, the initial layer of information we consider pertains to commodities, specifically focusing on the type of shelter accessible to an individual. We categorize the various forms of shelter available in the current context as follows (also illustrated in Fig. 1). This categorization enables us to assess the diversity of living conditions and their implications for individuals' well-being, considering not just the physical aspect of shelter but also its significance in terms of social status, personal autonomy, and the capacity to nurture significant relationships:

- On the street; in dormitories or other reception centers; in a car; staying with a friend.
- In garages, caravans, or other unsuitable accommodations; in a residence, temporary structure.
- In a rented room.
- In a rented house, through usufruct, or other usage rights free of charge.
- In a owned house (with or without a mortgage).

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<sup>a</sup> To incorporate the freedom of choice in the functioning "autonomy", for example, kids who live at home by choice and those living at home out of necessity were separated. Only for the latter group there is a state of deprivation for the functioning "autonomy", because just for that group we can point out a real lack of freedom of choice.

54. Could you talk to us about your dwelling?

<sub>1</sub> Street, night shelter, car.

<sub>2</sub> Garage, caravan.

<sub>3</sub> Room

<sub>4</sub> House free of charge

<sub>5</sub> House of property

**Figure 1**

In our study, we also deemed it crucial to examine the structural characteristics of the shelter, specifically focusing on its dimensions (measured in square meters, the number of bedrooms, and the number of occupants), essential utilities (such as water and electricity), and supplementary amenities and possessions (including ventilation, lighting, and the availability of appliances and technological equipment) (Fig.2).

Could you tell us about its characteristics?

55. Size (m<sup>2</sup>) | \_\_\_\_\_ |

56. Number of rooms (if applicable) | \_\_\_\_\_ |

57. Number of tenants in your dwelling (if applicable) | \_\_\_\_\_ |

58. Are there lacks related to basic facilities (electricity, water, heating, sanitation)?  
| \_\_\_\_\_ |

59. Are there aspects pertaining to your dwelling that you consider more positive (structural features, lighting, ventilation, noise, electrical appliances and other technological equipment ...)?  
| \_\_\_\_\_ |

60. From this same point of view, are there lacks that you perceive as relevant?  
| \_\_\_\_\_ |

**Figure 2**

In our poverty analysis, when considering the ownership of goods, we might traditionally conclude that the pinnacle of well-being aligns with owning a particularly large and well-equipped home. However, the Capabilities Approach (CA) shifts focus to the significance of how these goods aid or detract from the essential dimensions of functioning, as determined by individual perceptions and evaluations. This perspective bridges the gap between analyses grounded in mere possession of goods and those predicated solely on subjective perceptions [21].

Consequently, we have incorporated the assessment of individuals' perceptions of fulfillment concerning various aspects of functioning. This evaluation draws on key theories that examine the connection between possession and satisfaction, as outlined by Veenhoven [22]. The hedonic theory posits that fulfillment arises from possessions that facilitate a satisfying lifestyle, including elements of functioning that support self-care (such as relaxation and hygiene), engagement in activities valued by the individual, and the cultivation of meaningful relationships (Fig.3). This nuanced approach allows us to explore the complex interplay between material possessions and their role in achieving a state of

well-being, highlighting the importance of how individuals utilize and value their goods in the context of their lives.<sup>b</sup>

65. Does your dwelling allows you for taking care of yourself satisfactorily (relax, personal hygiene, cooking...)?

<sub>1</sub> Yes

<sub>2</sub> No

66. How?

|\_\_\_\_\_|

67. Does your dwelling allows you for making activities you value satisfactorily?

<sub>1</sub> Yes

<sub>2</sub> No

68. How?

|\_\_\_\_\_|

69. Does your dwelling allow you to relate with others satisfactorily?

<sub>1</sub> Yes

<sub>2</sub> No

70. How?

|\_\_\_\_\_|

**Figure 3**

The comparison theory, which suggests that satisfaction is derived from juxtaposing one's own situation against that of their reference group, emphasizes the continuous evaluations we make based on what is perceived as attainable within our social circles. This theory posits that individuals gauge their satisfaction by measuring their circumstances against the standards of those in similar conditions. In line with this perspective, our objective is to quantify the level of satisfaction individuals experience by comparing their own living situations with those of their friends and acquaintances (Fig.4).

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<sup>b</sup> In reference to each dimension, it was asked if the house responds to the specific need and how. It was also used a general question aimed at investigating the presence of relevant dimensions not suggested by the research team.



63. Do you feel pleased in comparing your dwelling with your friends' one?

<sub>1</sub> Yes

<sub>2</sub> No

64. Why?

\_\_\_\_\_

**Figure 4**

Finally, satisfaction is also connected to the fulfillment of specific objectives, where goods are valued for their role in enabling individuals to attain their personal goals. This viewpoint aligns with the emphasis on a dynamic analysis through the lens of refined functionings. We explore the alignment between an individual's current housing situation and their expectations, as well as examining the journey that led to their current state and the potential for future developments (Fig.5).

61. Does your dwelling meet your current expectations?

<sub>1</sub> Yes

<sub>2</sub> No

62. How (if Yes)? Why (if No)?

\_\_\_\_\_

**Figure 5**

### III. CONCLUSION

Amartya Sen's Capability Approach (CA) offers a nuanced framework for understanding individual well-being by acknowledging its complexity and incorporating both material and immaterial dimensions that contribute to it. The CA is inherently contextual, firmly rooted in specific temporal and spatial realities, and adopts a dynamic perspective on poverty. This methodology bridges the divide between objective and subjective, as well as absolute and relative approaches to poverty, opening a pathway for simultaneously advancing equality and freedom in a mutually reinforcing, virtuous circle.

To fully leverage its theoretical depth and potential, the CA must be effectively operationalized within social research and applied to evaluate conditions of well-being and poverty. This entails developing tools that, while maintaining the complexity of the theoretical framework, can provide detailed insights into specific contexts and generate indicators valuable for policymaking. Despite the academic consensus moving beyond a purely material and economic depiction of poverty, prevalent poverty indicators still predominantly focus on income or consumption. Consequently, policy-making often relies on oversimplified and distorted representations of poverty and affluence. Addressing the challenge of operationalizing the CA is thus of paramount importance.

Our work aims to contribute to this effort by proposing a method for operationalizing the CA, using housing as a pilot domain. Our intention is to create a straightforward, flexible tool for assessing well-being from the perspective of the CA, without sacrificing its

theoretical sophistication. Our analysis considers both commodities and the various dimensions of well-being associated with housing. We draw upon theories that explore the relationship between material possessions and satisfaction, and incorporate the concept of refined functionings to capture the dynamic aspects of well-being. Should this approach prove effective for housing, it paves the way for developing a comprehensive list of functionings that can be similarly operationalized. This would enable a broader examination of welfare and poverty conditions within a specific space-time framework, offering a more accurate and comprehensive tool for informing policy decisions.

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