An Inquiry Into the Behavioural Economics of Poverty

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To My Light, My Angels and My Roots.
To My Family.

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Introduction

The Chronic Poverty Report (2008) estimated that, globally, 320-443 million people live trapped in a condition of chronic poverty. These are individuals who spend most of their life in a state of absolute destitution—excluded from the social, economic and political activities of their communities—and who are likely to transmit their poverty status inter-generationally to their children. For policy-makers that consider the end of absolute poverty a priority in the policy list, these individuals represent one of the greatest challenges. In scholarly environments—especially in economics—accounts of chronic poverty have centred on the notion of *poverty traps*, which are defined as "models of self-reinforcing mechanisms that cause poverty to persist" (Azariadis and Stachurski, 2004: 296). Models of "poverty traps" have been formulated both at a macro- and micro-level of analysis, with the latter attracting greater consensus among researchers. Theoretical models of poverty traps have focused, among others, on malnutrition (Dasgupta and Ray, 1986), market imperfections (Loury 1981; Banerjee and Newman, 1993), and government failures such as corruption (Bardhan, 1997).

Recently, a growing body of scholarly research has forcefully entered the debate, arguing to provide a different perspective on the mechanisms leading the poor to stay poor. This is the *behavioural economics of poverty* (Bertrand et al., 2004). This approach is inspired by the broader field of behavioural economics and focuses the analysis on individual decision-making in poverty. The central question asked in this approach is not *why individuals become poor*, but rather *why the poor remain poor*. At the explanatory level, the main message is that a better understanding of the psychological consequences of poverty on individual decision-making has the potential to "help explain a spectrum of behaviours among the poor" (Mani et al., 2013: 976). In a nutshell, this theory of poverty perpetuation emphasises the role that internal constraints (such as cognitive biases and self-control failures) might play for preventing individuals in poverty to take beneficial decisions that would allow them to 'escape' their condition. That is to say, a theory of poverty perpetuation in which individual decisions are the self-reinforcing mechanisms that work to keep people in poverty.

This thesis is motivated by wanting to grasp with greater clarity the potential of this recent approach, both i) as a scientific tool that explains poverty perpetuation, and ii) as a policy tool that targets the perpetuation of poverty. The interest in these questions arises from the recognition that this new approach to poverty has been gaining popularity in policy environments and in public debates about poverty (see, e.g., World Development Report, 2015). Reading through policy reports and newspaper articles[1], it is in fact possible to gain the impression that we are witnessing a ground-breaking addition to the policy tool-kit, which, if implemented consistently in policy environments, might play an important role to end the plague of poverty perpetuation. This thesis embarks from the following question: is the behavioural economics approach to poverty able to provide "revolutionary" insights to understand the dynamics of poverty perpetuation and to inspire policy-makers for the implementation of effective policies to break the cycle of poverty? I will analyse this question by engaging in a critical evaluation of the explanatory value and policy value of the empirical and theoretical efforts produced in this research strand.

The thesis is structured as follows.

Chapter 1 provides an extensive overview of the behavioural economics of poverty. Here, the main theoretical and empirical findings are presented, together with the analytical framework employed by authors in this research strand. Particular attention is paid to the new perspective proposed with respect to the behavioural patterns of the poor and how this perspective might inform explanation and policy-implications.

Chapter 2 critically engages with the explanatory value of this approach. In this respect, the behavioural economics of poverty is regarded and evaluated as an explanation of: i) individual decision-making in poverty, and ii) the dynamics of poverty perpetuation.

Chapter 3 focuses on the policy value of the behavioural economics of poverty in "affluent" ("developed") nations. It provides a shift from explanatory focus to policy focus and analyses where the contribution of this approach might stay with respect to the policy objective of targeting the perpetuation of poverty.

Finally, Chapter 4 concludes by summarizing the main findings of the work and providing a space for dialogue, where potential reactions to this work by behavioural economists are envisioned and directly addressed.

[1] For policy reports in "affluent" nations, see Behavioural Insights Team UK (2016). For newspaper articles, see, among many others, *Forbes* "The Next Big Thing in Global Poverty: Changing Behaviour" (January 2016), or the *Economist* " Poor Behaviour" (December 2014).

1. The Behavioural Economics of Poverty

This first chapter offers a detailed review of the so-called *behavioural economics of poverty*, a label already used in the literature to refer to an emergent body of works in the behavioural economics literature (see, e.g., Anand & Lea, 2011; Sheehy-Skeffington & Haushofer, 2014). Behavioural economics is a research field that has been gaining relevance in the economics discipline and has recently been exerting an influential weight on the formulation of public policies. Mullainathan and Thaler define it as "the combination of psychology and economics that investigates what happens in markets in which some of the agents display human limitations and complications" (2000:1). In a general sense, behavioural economics is interested in providing a more psychologically realistic model in the study of economic individual decision-making. As a first step, this has entailed the rejection of the model of human behaviour adopted in neoclassical economics, *Homo Economicus*: a rational, self-interested and utility-maximizer agent. Herbert Simon (1955) provided an early critique of this model, introducing the term "bounded rationality" to take into account the limited information processing capabilities of economic agents. Following this, behavioural economists have relied on a view on human behaviour as characterized by bounded rationality, bounded willpower (i.e. self-control) and bounded selfishness. By increasing the psychological realism of economic models, these authors aim at increasing "the explanatory power of economics", fuelled by the conviction that this "will improve economics on its own terms—generating theoretical insights, making better prediction of field phenomena, and suggesting better policy" (Camerer & Loewenstein, 2002:1).

The *behavioural economics of poverty* represents a growing body of literature that focuses on the study of economic decision-making in the context of poverty. In this thesis, I will identify this approach with a number of contributions, listed in the footnote[2], that have advanced empirical insights into poverty by using the methods of behavioural economics. There is no doubt that the emerging, and fast moving, field of behavioural decision research that spans a number of disciplines might also harbour more contributions that could, in a broad sense, be taken to advance behavioural insights of poverty. This thesis, however, focuses narrowly on the recently emerging empirical literature that advances an approach of behavioural economics to research on poverty, and I identify the contributions listed in the previous footnote with it. During

[2] The following articles are here taken as contributions to the behavioural economics study of poverty: Bertrand et al. (2004, 2006), Haushofer & Fehr (2014), Haushofer (2011), Mani et al. (2013), Schilbach et al. (2016), Sheehy-Skeffington & Haushofer (2014), Shah et al. (2012), Spears (2011), Mullainathan & Shafir (2010, 2013a, 2013b), Hall et al. (2013), Anand & Lea (2011), Gennetian & Shafir (2015), Sheehy-Skeffington et al. (2016), Mullainathan (2006). Please note that not all of the papers listed are based on an empirical analysis.

the thesis, I will also make use of a broader body of literature, of course. However, the claims regarding the explanatory and policy value that I will advance apply narrowly to the literature in the footnote.

The term *behavioural economics of poverty* made its first appearance in a seminal article published in 2004 in the *American Economic Review*, by the title "A Behavioural Economics View on Poverty" (Bertrand et al., 2004), which argued to provide "a different view on the behavioural patterns of the poor"(ibid: 419). This strand of research offers a micro-level approach to poverty, which focuses on the cognitive and motivational constraints on behaviour (Anand and Lea, 2011). In relation to the overall project of behavioural economics, it wishes to offer a richer psychological—especially, cognitive—explanation of the behaviour of the poor, by showing how the context of poverty exerts a causal influence on the decision-making processes of those who live in it. In turn, it is believed that this knowledge can significantly contribute to the explanation of the phenomenon of individual poverty perpetuation (referred to as "cycle of poverty" or "poverty trap"; see, e.g., Haushofer, 2011). Therefore, as a first snapshot on the approach, two relations appear to gain particular relevance here: i) the relation between the context of poverty and individual decision-making of the poor, ii) the relation between individual decision-making in poverty and poverty perpetuation.

In the same spirit that has characterized the increasing popularity of behavioural economics, authors working in this strand have appeared eager to derive implications for anti-poverty policy from their works. The conduct of empirical research in this area, in fact, is seen as "not only yielding greater understanding, but an ability to use this understanding to help battle the persistence of poverty in the twenty-first century" (Sheehy-Skeffington & Haushofer, 2014:105). Mani et al. (2013:980) argue that their empirical findings "suggest a different perspective on poverty and has important policy implications". Broadly, this approach points to the relevance of behavioural change on the side of the poor as a tool for poverty alleviation, and proposes measures to increase the effectiveness of policies serving this goal. In recent years, the behavioural economics approach to poverty has started gaining widespread recognition in policy environments. A clear manifestation of this is in the case of development policy, with the 2015 World Development Report by the World Bank, "*Mind, Society and Behaviour*", dedicated to show the relevance of behavioural insights for the formulation of anti-poverty policy in the context of development.[3]

In order to analyse the behavioural economics approach and its relevance for anti-poverty policy, this chapter focuses on the following dimensions of the approach:

[3] It should be clarified that this report draws on a literature broader than behavioural economics to include insights from neuroscience, cognitive science, sociology, anthropology and political science (2015: 3).

1.1) conceptualization of the poor, 1.2) analytical framework, 1.3) explanatory mechanisms in the relation between poverty and individual decision-making—where particular attention is paid to 1.4) the Scarcity Hypothesis—and 1.5) policy implications. Finally, section 1.6) provides a summary and sets the stage for the second chapter. During the exposition, attention will be devoted to the experimental methodology employed by these authors in order to test theoretical hypotheses about the causal effect of poverty on individual decision-making.

1.1 The "Behaviourally Poor"

Since the seminal article by Bertrand et al. (2004), the behavioural economics of poverty has claimed to provide a different view on the poor and their behaviour. Here, I refer to this view as the *behaviourally poor*. These authors introduced this perspective as an alternative to two other camps that they regard as "standard theorizing about poverty […] the first camp presumes that people are highly rational, they hold coherent and justified beliefs and pursue their goals effectively, without mistakes and with no need for help […] the second camp attributes to the poor a variety of psychological and attitudinal short-fallings that render their views often misguided and their choices fallible, leaving them in need of paternalistic guidance" (ibid:419). Here, I refer to the first camp as the *rationally poor* and to the second camp as the *culturally poor*.[4] While the *rationally poor* depicts the behaviour of the poor as calculated adaptations to prevailing circumstances (i.e. decisions based on a cost/benefit type of analysis), the *culturally poor* views the poor as being part of a specific "culture", which decisively affects their values, preferences and behaviour.

The *behaviourally poor* is different insofar as "the behavioural patterns of the poor may be neither perfectly calculating nor especially deviant […] the poor may exhibit the same basic weaknesses and biases as do people from other walks of life, except that in poverty, with its low margins for error, the same behaviours often manifest themselves in more pronounced ways and can lead to worse outcomes" (ibid: 419). This short passage makes clear a first central aspect of the *behaviourally poor*: the poor are not intrinsically different from the non-poor. In the jargon of behavioural

[4] I recognize that the use of these labels might be subject to misunderstandings and that their employment here is in need of greater clarification. The labels are abbreviations that are useful to (succinctly) identify different views on the behavioural patterns of the poor. The "behaviourally poor" is used in order to identify the behavioural economics view on the behavioural patterns of the poor. That is, this label should not be interpreted as implying that some of the poor are "behavioural" while others are not, or that some are more behavioural than others. Similarly, the abbreviation of "culturally poor" is used because Bertrand et al. (2004) associate this view with the "culture of poverty" research strand (see, e.g., Lewis, 1959), which argues that poverty comes—in certain environments—with specific cultural traits that contribute to the perpetuation of poverty. In the case of the "rationally poor", the label is employed because Bertrand et al. (2004) associate this view with Rational Choice Theory.

economics, they are subject to the same weaknesses (e.g. limited self-control and computational power) and biases as non-poor people are. As the behavioural economics of poverty has grown and experimental evidence has started to be gathered, however, the view of the *behaviourally poor* has been decisively shaped by the evidence in support of the hypothesis that poverty impedes cognitive function (see, e.g., Mani et al., 2013). This points out the fact that poverty is a (decisional) context that negatively affects the cognitive capacities of those who live in it.

To get the full picture of who the *behaviourally poor* are, in fact, it is necessary to introduce the context in which poor people take decisions: the decisional context of poverty. With respect to this, Sheehy-Skeffington and Haushofer argue that it "is so radically different from that of wealth and comfort that a unique framework for the behavioural economics of poverty is needed […] the pervasiveness with which poverty penetrates everyday lives affects decisions not only by narrowing the set of options from which one can choose, but by altering the mind-set of the decision-maker" (2014:97). More concretely, behavioural economists depict the context of poverty as one of "great and persistent challenges, where people are preoccupied or overwhelmed" (Gennetian and Shafir, 2015:907) and where "the poor must manage sporadic income, juggle expenses, and make difficult trade-offs [such that] preoccupations with budgetary concerns can leave fewer cognitive resources available to guide choice and action" (Mani et al., 2013:976).

Linking the two aspects together, the view of the *behaviourally poor* can be summarized in two statements:

1) The poor are subject to the same biases and weaknesses as the non-poor (*Intrinsic similarity*→ *equally capable*)
2) The context of poverty negatively affects the functioning (or exercise) of cognitive capacities of those living in it (*Contextual difference*→ *less capable*)

In the second statement, it seems to be implied the fact that poverty might exacerbate the presence of cognitive biases—common to all human beings—and their consequences on the decisions taken by the poor. It is not completely clear, however, whether the authors wish to argue that a condition of poverty makes individuals more likely—with respect to the non-poor—to fall prey of biases in the first place, or whether they are equally likely but the effects of such biases have a greater adverse effect because of the conditions in which poor individuals live. Clearly, the two statements are not mutually exclusive and the most sensible interpretation appears to be that behavioural economists would be willing to entertain both positions. To sum up the view of the poor in the behavioural economics of poverty, Mani et al. (2013: 980) state that "the poor in this view are less capable not because of inherent limitations, but because the very context of poverty imposes a load and impedes their cognitive capacity".

To conclude this section, it is worth noting that the category of the "poor" in this approach does not make any reference to the actual demographic characteristics of those living in poverty. That is to say, on this approach, the poor are not identified through demographics, but rather through the effects of poverty on the cognitive machinery of individuals. What characterizes the poor is not their age, gender, ethnicity, labour-market position, social condition or geographical place; it is the behavioural patterns induced by the context of poverty. This has the implication of treating the poor as a homogenous category, such that it is not relevant whether one has been in poverty for a day or for an entire life, or whether one is poor in a "poor" country or in an "affluent" country. We will return to this point in greater detail in Chapter II. Now it is time to analyse the general analytical framework employed in this approach.

1.2 The Analytical Framework

In both public and scholarly discussions, the relationship between poverty and individual decision-making has long been a controversial one. A great deal of arguments has focused on the causal relation from decision-making and behaviour to poverty, trying to show how "failings" internal to the poor can and do result in poverty. Such arguments have usually been prone to the permeation of dubious moral assumptions about the intrinsic characteristics of the poor. In contrast with these arguments, the behavioural economics of poverty starts from a different analytical focus, positing poverty—or, more precisely, the context of poverty—as the causal antecedent of behaviour. In this framework, it is not anymore behaviour that explains poverty, but rather poverty that explains behaviour. That is, the analytical role of poverty shifts from being the *explanandum* (what is to be explained) to being the *explanans* (what explains). To visualize the difference better, two contrasting analytical frameworks can be formulated, where the arrows should be interpreted as holding causal power:

- *Analytical Framework I: Explain poverty in terms of individual behaviour*

Intrinsic personal traits (e.g. preferences, values, behavioural dispositions)→ individual decision-making and behaviour→ poverty

- *Analytical Framework II: Explain individual behaviour in terms of (the context of) poverty*

Context of poverty→ psychological effects on those living in poverty→ individual decision-making and behaviour

It might be argued that the behavioural economics of poverty provides a synthesis of the two analytical frameworks. In fact, the depicted causal chain begins with the first causal relation in the second framework (i.e. *context of poverty→ individual decision-making*) and ends with the last causal relation in the first framework (*individual decision-making→ poverty*). Therefore, the complete analytical framework employed by behavioural economists can be visualized as:

- *BE Analytical Framework: Explain individual behaviour in terms of poverty & poverty perpetuation in terms of individual behaviour*

Poverty→ psychological effects → individual decision-making and behaviour→ poverty[5]

Writing down the analytical framework in this way, it becomes clear that the story told above is only part of the whole story. Poverty in this framework, in fact, is not only the *explanans* but also the *explanandum*; and the same applies to the individual decision-making of the poor. That is, the context of poverty is what takes to explain the decision-making of the poor, and the decision-making of the poor—given the effect of the context upon it—is taken to explain the perpetuation of poverty. This should make it clear that the question the behavioural economics of poverty wishes to provide an answer to is not 'why are people poor?' or 'why do people become poor?', but rather 'why do people remain poor?'. The analytical focus is on the exploration of the causal mechanisms that lead poor people to take harmful/ non-beneficial decisions that perpetuate their status of poverty (Gennetian and Shafir, 2015), with the attention being devoted to psychological mechanisms. In essence, looking at the overall framework, the behavioural economics of poverty aims to provide a different analysis and explanation for the perpetuation of poverty, starting from the belief that "poverty may favour behaviours that make it more difficult to escape poverty" (Haushofer and Fehr, 2014:682). It can be confidently stated that, analytically, it depicts a situation in which poverty tends to perpetuate itself: a "poverty trap".

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[5] To have textual evidence of this framework, see Sheehy-Skeffington and Haushofer's (2014: 105) depiction of a cycle of poverty through decision-making. Schematically, their framework is as follows: poverty→ lack of control→stress, cognitive load, narrowing of focus→economic decision-making→poverty.

Obviously, behavioural economists are not the first ones to ask the question of why the poor remain poor or, more precisely, of why the poor engage in behaviours that reinforce their status of poverty. To provide a glimpse of this, we can refer to two other theories that have been presented as alternative answers to the same question: 1) *welfare state dependency*, 2) *early childhood experiences*. The former is an argument formulated in relation to the welfare state and the (mis-) incentives it creates for the behaviour of the poor. In this view, the core problem is the welfare state itself because responsible for the creation of "cultural and social norms that drive the poor, among other things, toward reliance on welfare, non-marital fertility and divorce" (Danzinger et al., 2000). The latter, instead, is an argument that relates the behaviour of the poor to experiences in early childhood. Early childhood is a fundamental period for the development of critical cognitive capacities. If these are not developed, their lack can have lifelong consequences on the cognitive functioning of individuals and their ability in decision-making (Noble et al., 2015; Shonkhoff & Phillips, 2000). This is why, plainly stated, a life started in poverty is more likely to be a life ended in poverty. Concerning the latter argument, it is important to note the difference with respect to the behavioural economics of poverty. While *early childhood experiences* theories focus on the long-lasting and cumulative psychological and neurobiological effects of poverty on children born in such environment, the behavioural economics of poverty analyses and provides evidence for the *immediate* (rather than cumulative) effect of poverty on the cognitive machinery of individuals and the quality of their decisions.

Another way to appreciate the analytical shift entailed by the behavioural economics of poverty is to compare it to the way standard economic theory analyses the relation between individual decision-making and poverty. Usually, economists have posed the attention on two types of preferences in the explanation of why certain people become poor and others do not: time preferences and risk preferences. In this respect, "economists have generally seen time preferences as fixed properties of persons: causally prior to behaviour and important determinants of who accumulates wealth and who remains poor" (Spears, 2011:5). Deaton (1990) builds a theoretical model of consumption under borrowing constraints in which—making space for heterogeneity in time preferences—the population is divided into two groups: one is able to save and accumulate assets, while the other fails to do so and is destined to live around a subsistence level. More generally, economists have focused on the following choices in the relation between time preferences and economic outcomes: 1) saving decisions, 2) investments in education, and 3) investments in healthcare (Fuchs, 1982). The main difference in the behavioural economics of poverty is that time and risk preferences are not seen as fixed properties; rather, the focus is on how the context of poverty might shape the time and risk preferences held by individuals. This view entails that "the economic and social conditions under which poor people live may affect discount rates and risk-taking behaviour, even though the intrinsic time and risk preferences of the poor may be identical to those of wealthier persons"(Haushofer and Fehr, 2014:683). Once again, given the analytical framework employed, the behavioural economics of poverty is not in the position to say whether time and risk preferences are the causal determinants for entering into poverty. What it can say—and try to explain—is how the context of poverty affects such preferences and how this has causal implications for the perpetuation of poverty.

1.3 Individual Decision-Making in Poverty

With reference to the analytical framework depicted above, the behavioural economics of poverty has tried to provide empirical evidence only for the first relation in the chain: the causal effect of the context of poverty on the individual decision-making of the poor.[6] More precisely, it has focused on the relation between poverty and cognition, with particular attention to the cognitive processes created by poverty. In order to provide such evidence, behavioural economists have relied on experimental methods, both in the lab and in the field. Different mechanisms have been identified so far in the behavioural economics, and broader psychological literature, that might explain how poverty affects the psychological processes of individuals facing it. The proposition underlying all of them is that of a "limited mental resource that poverty occupies or consumes, leaving less remaining capacity to guide or regulate our behaviour"(Spears, 2011). Before listing and briefly reviewing them, however, a paragraph is needed to present the model of cognition adopted by most authors in the behavioural economics of poverty. Without such a model, it becomes hard to make sense and assess the different mechanisms proposed.

In order to study the effects of poverty on cognitive processes, in fact, researchers necessarily have to rely on a specific theorization of the human information processing system. At a general level, under the influence of cognitivism[7], behavioural economists have been relying on the metaphor of the brain as an information-processing device (Sent, 2004). When the brain is seen as a computer, it is instructive to think in terms of a relation of input-cognition-output. In this relation, the environment is conceptualized as providing stimuli, information and cues (inputs) for cognitive processes that are responsible for producing an output, the decision.

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[6] As we will see later, in fact, in order to (conceptually) close the causal chain, the behavioural economics of poverty seems relying on intuitions rather than sound empirical evidence. That is, very few evidence is presented to defend the claim that "the poor are worse managers of their finance" and also that (mis-directed) financial decisions are salient mechanisms through which the perpetuation of poverty can be explained.

[7] Cognitivism is a strand of psychology, which has its roots in the so-called cognitive revolution that, differently from what predicated by behaviourism, argued that psychologists ought to study mental processes inside the human mind. Cognitivism has exerted a great influence on the field of behavioural economics (Sent, 2004).

Therefore, cognitive processes are treated as computational processes, and the environment is identified through its properties that affect these computational processes. A dimension of open-endedness can already be identified here. In fact, if we acknowledge the role of the environment as providing stimuli for cognition, it is fundamental to identify which properties or features of the environment are to be deemed relevant and which are not. In a sense, it looks like the category of *environmental stimuli* has to be constructed in an arbitrary way. That is, tracing the line between those features of the environment that provide stimuli for cognition and those who do not is likely to be an arbitrary exercise rather than a rigorous empirical one.

Therefore, in order to grasp the explanation of individual decision-making in poverty provided by this approach, it is necessary to get clear how 'environment' (or, context) and cognition are being identified. With regard to the model of cognition, the authors in this strand seem to be adopting a model of cognition that has become commonplace in behavioural economics, popularized to the general public through Kahneman's best-seller "*Thinking, Fast and Slow*": Dual-System Theory (see, e.g., Schilbach et al., 2016) [8]. Dual-System theory—or, more precisely—Dual-System theories have been employed to describe the mechanisms underlying behaviour and decision-making. Despite differences in formulations (for a detailed overview, see Evans, 2008; Weber & Johnson, 2009), all these theories share the fundamental assumption that "human behaviour is the result of the interplay of two broad types of decision processes, which, in a nutshell, capture the difference between reasoned/reflective thinking and impulsive/reactive decisions"(Alos-Ferrer & Strack, 2014:2). System 1 is fast, automatic and effortless, while System 2 is slow, controlled, effortful and rule-governed. Stated trivially, System 1 thinking is more likely to produce "bad" decisions, while System 2 thinking to produce "good" decisions. A prediction of these theories is that "if working memory functions are impaired, processes of the reflective type become ineffective, and the behavioural balance is upset in favour of more impulsive/ automatic processes"(ibid: 3). In this literature, the capacity for System 2 thinking is referred to as *bandwidth* (Mullainathan and Shafir, 2003) and defined as " the brain's ability to perform the basic functions that underlie higher-order behaviour and decision-making" (Schilbach et al., 2016). This construct, which Schilbach et al. (2016:435) refer to as providing "a way to at least partly understand a great many of the thought processes that drive decision-making by the poor", can be disentangled into two separate components:

[8]This is not to claim that *all* the authors in the behavioural economics of poverty rely on this model of cognition. Some empirical and theoretical works, in fact, might not need to rely on such model for explanation. However, this model plays an important role in the works identified here as belonging to the behavioural economics of poverty, where extensive attention has been paid to the role of biases on economic decision-making (see, Schilbach et al., 2016 for explicit reference).

1) *Cognitive capacity*: the cognitive mechanisms that underlie the ability to solve problems, retain information, and engage in local reasoning (i.e. *intelligence*)

2) *Executive control*: the ability to manage cognitive activities—deciding whether, at any particular moment, one wants to attend, plan, initiate, or inhibit certain actions or control an impulse[9] (i.e. *discipline*)

Having identified the underlying model of cognition, we need to see how the 'environment' (or, 'context') of poverty is identified. Behavioural economists look at the context of poverty as a *decisional context*—a context in which a decision has to be made—and at the poor as *decision-makers*. The decisional context created by poverty is different from that of wealth insofar as it poses a significantly heavier demand on the limited cognitive capacities of individuals. When financial resources are scarce, in fact, monetary concerns about how to pay for basic necessities are likely to frequently occupy one's thoughts, leaving less cognitive resources available for other decisions (Shah et al., 2012). The relationship environment-cognition is captured in characterizations of the context of poverty as a context that "creates a different mindset" (Haushofer & Fehr, 2014), "imposes load, saps attention and impedes cognitive capacity" (Mani et al., 2013). Talking in terms of bandwidth—the generic term employed by Mullainathan and Shafir (2013a) to refer to a wide and diverse set of cognitive functions—poverty is a context that "taxes bandwidth".

Spears (2011:4) identifies three different explanatory mechanisms in the behavioural economics and larger psychological literature that study the consequences of poverty on individual behaviour: 1) *Scarcity,* 2) *Ego-Depletion,* 3) *Difficult-choices.* The first explanatory mechanism, "scarcity", will be dealt with more in length in a separate section of this chapter. Here I briefly explain the rationale behind the other two and their main explanatory mechanism. The theory of ego-depletion[10], developed in the realm of social psychology (see, e.g., Baumeister et al., 1998; Vohs et al., 2008), posits that self-control is a limited resource, which is depleted by resisting temptations or inhibiting behaviour. Applied in the context of poverty, this theory predicts that, given the impossibility from the side of poor people to indulge in temptations, their self-control will be consumed. The theory of difficult-choices is somewhat similar and suggests that the difficult trade-offs that poor people recurrently face cause a loss in cognitive control, depleting cognitive resources and diminishing the poor's capacity to inhibit automatic behaviours. Both theories are compatible with a framework called the

[9] These definitions are taken from Gennetian and Shafir (2015: 910).

[10] The theory of ego-depletion is currently under fierce empirical attack. An international collaboration of psychologists and laboratories led to a large-scale (2,141 participants) replication of the experimental findings of ego depletion. The results have been recently published and have found a null effect, discrediting the theory of ego depletion (Hagger et al., 2016).

limited-resource model of self-control. In relation to the relevance of self-control failures for poverty, Vohs (2013:970) writes:

> "Failures of self-control are implicated in some of society's most pressing problems, including poverty. When people want to reach a goal, they use self-control to produce responses and behaviours aimed at moving themselves from the current (undesirable) standpoint to the preferred state. This powerful process, however, is not used as often as it should be. One reason is that self-control is a limited and depletable resource […] the depletion of self-control leads to unwise spending, creating a vicious circle: overcoming urges and making decisions can deplete mental resources, which in turn can lead to problematic behaviours. Because the poor must overcome more urges and make difficult decisions more often than others, they are more likely to overeat, overspend, and enact other problematic behaviours"

What is particularly interesting in the cited passage is the identification of potential feedback loops between poverty and self-control. On one side, the decisional context of poverty is characterized by a continuous engagement with delicate and important trade-offs, leading to depletion in self-control. On the other side, when self-control is depleted, decision-making patterns shift from reasoned (System 2) to intuitive (System 1), facilitating the conditions for counterproductive behaviours. This line of reasoning in terms of feedback loops applies more broadly to the relation between poverty and cognition in the behavioural economics of poverty. As argued by Dean et al. (2017:5), "the relationship between cognitive function and poverty could be bi-directional, generating the potential for feedback loops, reduced mobility, and—if the resulting effects are large enough—poverty traps". With respect to the real-world behaviours in which these feedback loops might manifest themselves, the behavioural economics of poverty poses the attention on economic and financial decisions of the poor such as saving, borrowing, take-up of welfare benefits and technology adoption.

It must be acknowledged that since Spears' classification, new lines of research have come up in the behavioural economics of poverty, pointing to different explanatory mechanisms. Some studies, for instance, have extensively focused on the causal relation between poverty and stress, suggesting a causal effect of negative shocks on stress levels (see, e.g., Chemin et al., 2013). In closely related work, Haushofer (2011:14) argued that "poverty raises levels of stress hormone cortisol, causes dysregulation and altered gene-environment interactions in serotonergic neurotransmission, and raises levels of the sex hormone testosterone". And, going back to the feedback loops, "these neurobiological effects in turn have behavioural consequences; specifically, they impair executive function and exacerbate behavioural biases in economic choice"[11]. Another study by Haushofer and Fehr (2014) has focused on the causal effects of poverty on risk-taking and time-discounting. In this respect, they argued that poverty causes stress and negative affective states—such as depression and anxiety—that lead individuals to take short-sighted and risk-averse decisions that might contribute to the perpetuation of poverty.

On a different note, experimental work by Hall et al. (2013) has investigated the effect of the stigma usually associated with a condition of poverty ("poverty stigma") on the cognitive performance of individuals. Starting from the hypothesis that stigma might lead to cognitive distancing and diminished cognitive performance, the authors carried on a field experiment in a New Jersey soup kitchen to test the effectiveness of an oral self-affirmation procedure intended to arouse a feeling of pride and self-worth among poor participants.[12] The results of the experiments were interpreted as providing evidence in support of the hypothesis that self-affirmation leads to improved cognitive performance (i.e. fluid intelligence and cognitive control) more among the poor than it does among the rich. Moreover, the authors found that self-affirmed poor individuals were more likely to show interest in a financial benefits program (such as the Earned Income Tax Credit in the US) than non self-affirmed individuals. For the authors, this suggests that "behaviourally insightful interventions in the context of stigma and threat can have a substantial impact on reasoning and decision making and, among other things, may reduce barriers to program participation" (ibid: 623).

Finally, a recent work by Sheehy-Skeffington et al. (2016) has examined in a series of lab experiments the impact on cognitive functioning of the temporary experience of low subjective social status. This low subjective status was experimentally induced in some participants by giving them false feedback on their relative position in the socio-economic ladder. In a way, this research can be interpreted as an attempt to study the effects of perceived relative poverty on cognitive function. The experimental results showed that the participants who were randomly assigned to receive a feedback inducing the subjective perception of relative poverty, performed worse in a cognitive task aimed at measuring inhibitory control than participants who did not receive such negative feedback. In a first instance, these results were interpreted as providing evidence of the negative effect of perceptions of subjective low societal status on cognitive function. However, follow-up studies changed the experimental set-up by making explicit to participants that high performance at the cognitive task might have led them to increase their relative socio-economic status. This change in the set-up led

[11] Another body of literature outside behavioural economics has also investigated the effects of the material deprivations often associated with poverty (e.g. malnutrition, sleep deprivation, physical pain) on cognitive function.

[12] The experimenters recruited 80 participants among the clients of an urban New Jersey soup kitchen (38 female, 42 male, mean age= 41 years). The average reported annual household income among participants was $8,000 (Hall et al., 2013: 620).

authors to revise their hypothesis, arguing that "those in the low socio-economic status condition were not experiencing a deficit in cognitive function, but were, rather, distracted by the status threat that the low-SES feedback induced […] this distraction led to worse performance on a cognitive task that seemed irrelevant to status" (Sheehy-Skeffington et al., 2016).

1.4 The Scarcity Hypothesis

In this section, with the intention of making the analysis more tractable and detailed, I extensively focus on one explanatory hypothesis that retains a central role in the behavioural economics of poverty: the *Scarcity Hypothesis*[13] (see, e.g., Shah et al., 2015; Mani et al., 2013; Mullainathan and Shafir, 2013a). First, I present the theoretical hypothesis; then I provide a short review of the experimental evidence gathered in support of it.

Mullainathan and Shafir define scarcity as "having less than you feel you need" (2013a:4), and conceptualize poverty as money scarcity; that is, one kind of scarcity among others (e.g. time scarcity). The Scarcity Hypothesis is about the effects of (perceived) scarcity on the cognitive processes of individuals. Concisely, the hypothesis can be reconstructed as follows. The human cognitive system has limited capacity, especially for System 2 Thinking. When this capacity is depleted, individuals are pushed towards automatic decision-making. Resource scarcity shapes the allocation of limited cognitive resources over competing activities, creating a 'tunnel vision': attention is focused on the domain where scarcity is experienced (*attentional capture*), at the expense of other activities and concerns (*attentional neglect*). In the words of Shah et al. (2012:682), "resource scarcity creates its own mind-set, changing how people look at problems and make decisions". When people experience scarcity, their attention is drawn to the domain where scarcity is salient. This process consumes attentional resources, creating a cognitive load and leaving fewer resources for decisions in domains unrelated to scarcity.

In a nutshell, scarcity "captures the mind" and lead people to engage in a form of tunnel vision, with a focus on pressing needs at the expense of long-term outcomes. It should be noted here that nothing in the argument is so far specifically about poverty. So, what does all this imply for the case of poverty? As mentioned above, poverty is taken here to be a form of scarcity and is broadly defined as "the gap between one's needs and the resources available to fulfil them" (Mani et al., 2013). Concretely, poverty is conceptualized as money scarcity. The story goes that for the

[13] The Scarcity Hypothesis was popularized to the general public through the best-seller by Sendhil Mullainathan and Eldar Shafir, *Scarcity: Why Having Too Little Means So Much* (2013).

poor, monetary concerns absorb a great amount of the capacity needed to carry on decisions. The poor must manage sporadic income, make difficult trade-offs, have to think daily about how to meet fundamental needs (i.e. food, clothing, housing); these are the activities where attention is captured, implying that other concerns, especially long-run ones, are neglected (Bertrand et al., 2004). What can attentional capture and attentional neglect explain with respect to the behaviour of the poor? Mani et al. (2013:980) argue that these two mechanisms are the "most compelling explanatory mechanisms to explain how poverty reduces cognitive resources". In turn, this knowledge provides us with an understanding of "a great many of the thought processes that drive decision-making by the poor" (Schilbach et al., 2016), shedding light on the economic and financial decisions of the poor (e.g. saving, borrowing, technology adoption). One instance of this relates to the borrowing behaviour of the poor.

Shah et al. (2012) argue that, in order to explain the fact that "poor people often engage in behaviours that reinforce their conditions of poverty" (such as overborrowing), scarcity—or subjective feelings of "having less than you need"—become crucial. Shah et al (2012:684) summarize in this way the meaning of their experimental studies: "these studies provide compelling support for the notion that scarcity elicits greater engagement and that a focus on some problems leads to neglect of others […] we suggest that cognitive load arises because people are more engaged with problems where scarcity is salient. This consumes attentional resources and leaves less for elsewhere […] once we appreciate where attention is drawn under scarcity, we see how this mechanism can explain behaviours other than overborrowing". Mullainathan and Shafir (2013a) talk about a "cognitive tax" or "cognitive burden" that people in poverty face, making it harder for them to think deliberatively and pushing them towards automatic decision making. According to the two authors, this research can explain certain *poverty perpetuating* behaviours exhibited by the poor, such as underinvestment in education, non-take-up benefits, insufficient saving and excessive borrowing. The identification of feedback loops between poverty and individual-decision making, through the key role of cognitive processes, has led, in the case of the scarcity hypothesis, to the formulation of accounts of *scarcity-driven poverty traps*, which Ghatak (2015: 19) frames in the following way: "the psychology of poverty translates into a mind-set that affects the ability to think of the future (affecting savings and investments), effort and persistence, employability, interpersonal relations, social networks, and many other outcomes[…] this in turn reproduces poverty […] poverty thus becomes endogenous to poverty in a typically vicious circle of reinforcement […]what is interesting about scarcity-driven poverty traps is that they can persist even when a whole range of supply-side interventions aimed at fixing various kinds of market failures are in place".

The scarcity hypothesis in relation to "poverty" has been tested with experimental set-ups, both in the laboratory and in the field. Mani et al. (2013) present the results of a lab experiment with shoppers at a New Jersey mall and a field experiment with sugarcane farmers living in 54 villages around the districts of Villupuram and Tiruvannamalai in Tamil Nadu, India. In relation to them, they argue that the lab experiment presents a great deal of internal validity, while the field experiment provides external validity to the hypothesis. In the lab experiment, researchers presented adverse financial hypothetical scenarios to two groups of respondents, rich and poor (categorized with respect to their income in relation to median income in US). Participants were randomly assigned either to a "hard condition", in which the scenarios-involved costs were relatively high (e.g. $1,500 to repair a broken car), or to an "easy condition", where the costs were lower (e.g. $150 to repair the car). The hypothetical scenarios were intended to trigger participants' financial concerns. While thinking about these scenarios and how to "solve" them, participants had to perform two computer-based tasks, used to measure cognitive function: Raven's test and a special compatibility task. The results showed that in the case of the "easy" scenarios, there was no significant difference between the cognitive performance of poor and rich people. Differently, in the case of the "hard" scenario, the poor performed significantly worse than the rich (ibid: 977). The authors interpreted this result in terms of the greater attentional capture that the hard condition created for poor people versus non-poor. As attention was focused on solving the task, the cognitive performance of participants in tasks unrelated to financial considerations was lower than the ones of the rich.

In their field study, 464 sugarcane farmers had to perform cognitive tests (more specifically, the Raven's Matrix[14]) pre-harvest and post-harvest. Indian sugarcane farmers receive income annually at harvest time[15], experiencing cycles of poverty—poor before harvest and richer after. In the view of the experimenters, this natural fluctuation in income would allow to compare cognitive capacities for the same farmer when poor (before harvest) versus richer (after harvest). No financial concerns were artificially created here, as they relied on concerns that would "naturally" arise. The results showed significant pre- and post- harvest differences in cognitive tests, with better cognitive performance post-harvest. The authors argue to find a difference between 13 and 14 IQ points, similar to the cognitive impact of one night without sleep. The mechanism suggested by Mani et al. (2013:980) for the causal effect of poverty on cognitive function is the following: "poverty captures attention, triggers intrusive thoughts, and reduces cognitive resources […] we find attentional capture to

[14] Raven's (Progressive) Matrices test is the most common and universally-accepted measure of fluid intelligence (and, as such, a frequent component of IQ tests), developed by the British psychologist John Raven (Raven, 1936).
[15] The farmers who took part in the experiment gained at least 60% of their income from sugarcane farming.

be the most compelling mechanism". The following factors that might be responsible for a variation in cognitive function between pre- and post-harvest were controlled for: physical exertion, anxiety and training effects in the cognitive task.

Shah et al. (2012) also conducted laboratory experiments in which participants had to play a number of game show games, such as *Wheel of Fortune*. Prior to the games, participants were randomly assigned to the "rich" group and received more points (or time, guesses, etc. depending on the specific rules of the game) or were assigned to the "poor" group, who had relative smaller budgets. None of the participant was actually poor, but rather they were all Princeton University students. Participants took short cognitive tests following the games, aimed at capturing the degree of cognitive fatigue.[16] The study found that participants who were randomly assigned to the "poor" performed worse on the tests than those assigned to "rich". Furthermore, in some games, participants were able to take out a loan for more points (or, seconds) in the current round. Having introduced the possibility to borrow, the authors found that the "poor" who could borrow did worse in the end than those who could not "borrow", arguing that the evidence provided shows "compelling support for the notion that scarcity elicits greater engagement and that a focus on some problems leads to neglect of others (manifesting in behaviours such as over-borrowing)" (ibid:684). Therefore, the experimental evidence is interpreted in support of the scarcity hypothesis.

As claimed at the beginning of this section, the scarcity hypothesis retains a central role in the behavioural economics of poverty. Here I provided a detail presentation of it in order to appreciate more in-depth how the general analytical framework is employed in order to provide an explanation of poverty perpetuation (i.e. *scarcity-driven poverty trap*). Moreover, this detailed presentation will allow to give focus to the claims made in chapter II, with respect to the value and limits of this framework as an explanation of decision-making in poverty and poverty perpetuation.

1.5 Policy Implications

"The good news might be that simple and inexpensive policies have substantial impact"
Bertrand et al. (2004)

"Small differences can affect large behaviours"
Mullainathan (2006)

[16] The Dots-Mixed task was used to measure cognitive fatigue; it assesses executive functions such as attention and cognitive control.

So far, we have posed the attention on two main aspects of the behavioural economics of poverty. On one side, there is the perspective on the poor; what I have termed the *behaviourally poor*. On the other side, there are the explanatory mechanisms in the relation between poverty and individual decision-making. Now, it is time to briefly present the nature of the "important implications" that authors working in this strand envision as deriving from this "different perspective on poverty" (Mani et al., 2013:980). The policy value of the behavioural economics of poverty in affluent nations will be dealt with in greater detail in chapter III. This section offers a glimpse of the general policy relevance, both in "developing" and "developed" countries.

Since the seminal article by Bertrand et al. (2004), in fact, behavioural economists working on poverty have been eager to derive from their analysis implications for anti-poverty policy. Throughout the articles presented and analysed in this chapter, it can be vividly perceived a common feeling of "hope that this [approach] will lead to a more refined understanding of poverty and thus contribute to the solution of this lingering global problem" (Haushofer & Fehr, 2014:866). The overall policy-message that comes out of the behavioural economics of poverty can be concisely reconstructed as follows. Experimental research shows that poverty has a causal effect on the cognitive functioning of individuals living in it, leading to a "cognitive impediment" and making the poor "less capable" of taking "good decisions", i.e. those decisions that would allow them to climb out of poverty. From the policy side, what appears crucial is to change the view (or, perspective) of how the poor behave from the *rationally poor* to the *behaviourally poor*. In the words of Gennetian and Shafir (2016:915), "in assuming that poor individuals act "rationally" as prescribed by standard economic thinking, policy-makers and researchers are often left puzzled by a program's failure".

Relying on the *behaviourally poor* perspective, then, policy-makers can design interventions and programs that are more effective at pushing (i.e. *nudging*) poor people to take long-run beneficial decisions for themselves. Thaler and Sunstein (2008:6) define a nudge as "any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives", where the 'choice architecture' are the "properties of the environment in which the choice is made" (i.e. properties of the decisional context). The underlying reasoning goes that, by having a richer understanding of the "psychological lives of the poor", policy-makers are in a better position to alter the choice architecture in such a way that behavioural change is steered in the desired direction. In the words of Sheehy-Skeffington and Haushofer, 2016:105), "a focus on the psychological mechanisms underlying economic behaviours associated with poverty can reveal points at which one can intervene to increase the incidence of decisions that enhance long-term well-being". The poor, however, take a multitude of different decisions everyday; which ones ought to be nudged? In the behavioural economics of poverty, the bulk of attention is dedicated to economic and financial decisions of the poor, such as consumption decisions, saving decisions, borrowing decisions and take-up-of-welfare-benefits decisions.

On a similar note, Mani et al. (2013:979), while commenting the results of their experimental studies, argue that "the data reported here suggest a different perspective on poverty: being poor means coping not just with a shortfall of money, but also with a concurrent shortfall of cognitive resources". Being aware of this, policy-makers "should not impose cognitive taxes on the poor and should respond to natural variations in the same person's cognitive capacity" (ibid). This can be seen as the first policy lesson coming from the behavioural economics of poverty. Interestingly, it is in negative form: what should not be done. That is, simply stated, interventions targeting the poor (e.g. training programme, welfare form) should not impose cognitive load on individuals who are already cognitively loaded. In this sense, simple interventions such as smart defaults, help filling out forms, planning prompts and reminders are seen as particularly helpful to the poor.

Given the universality of the explanatory mechanisms identified in this literature, policy implications in relation to poverty can, in principle, be equally formulated in what would appear as two distinct phenomena: poverty in affluent nations and poverty in (so-called) 'developing countries'. In practice, implications have indeed been formulated in both cases. The seminal article by Bertrand et al. (2004), for instance, focused on ways to improve the financial and take-up-welfare-benefits decisions of the poor in the nation with the greatest gross domestic product in the world, the United States. However, it seems that the main path through which behavioural insights to poverty have been reaching and influencing policy-environments is in the context of development[17]. As already mentioned, a manifest example of this is the 2015 *World Development Report,* which was indeed dedicated to stress the relevance of behavioural insights as a tool for alleviating poverty.

In an article by the striking title "Better Choices to Reduce Poverty", Sendhil Mullainathan claims that "psychology will revolutionize the way we re-design the institutions of developing countries and, hopefully, in the process help to alleviate poverty"(2006:380). Particular attention in the previous short passage should be given to the word 'institutions'. For Mullainathan, (2006:380), "this picture—that good institutions help facilitate transactions between people—is incomplete […] I think good institutions also help reduce the problems that arise *within* a person. This kind of

[17] There is increasing interest in how the insights of behavioural economics could be applied to development economics. For an overview, it might be worth looking at the UNU-WIDER Special Issue in the Journal of Income and Wealth, *Poverty, Development and Behavioural Economics* (2014).

statement is hard to make sense of with standard economic reasoning where individuals are rational, autonomous units with full self-control. This framework doesn't leave room for people to have problems with themselves so what could institutions help with? […]" (italics in original). In Mullainathan's thinking, as soon as we detach ourselves from 'standard economic reasoning' we gain a different perspective on what 'institutions' can and ought to do, such as "helping solve self-control problems"(ibid). In turn, solving self-control problems inside people might have large effects on their productivity, their rate of technology adoption and their financial behaviour. This is the process that Mullainathan envisions as key to the design of institutions in development that can lead to poverty alleviation.

1.6 Summary

At the end of this first chapter, which picture of the behavioural economics of poverty do we get? Throughout it, I have pointed out the following features:

- The analytical focus is on the decision-making of individuals living in poverty, the *choices of the poor*. The process of decision-making enters in two crucial relations: 1) how the context of poverty affects individual decision-making, and 2) how individual decision-making in poverty affects the perpetuation of the condition of poverty. Bridging together the two relationships we arrive to an explanation of poverty perpetuation, or poverty trap (see the discussion on *Scarcity-driven poverty traps*).

- With respect to the former relation (i.e. how poverty affects decision-making), attention is devoted to the effects of cognitive mechanisms induced by the context of poverty. Experimental methods, both in the lab and in the field, have been employed to test different theoretical hypotheses. The main message of this research can be summarized as: poverty impedes cognitive function (Mani et al., 2013). Particularly salient here is the "Scarcity Hypothesis", which argues that the allocation of attentional resources is shaped by feelings of scarcity in such a way that leads to decisions that can be present- and scarcity-focused at the expense of other, long-term, important considerations.

- With respect to the latter relation (i.e. how individual decision-making affects poverty), the behavioural economics of poverty does not provide direct experimental evidence. Rather, it seems relying on general behavioural economics research into the effects of time and risk preferences on consumption, saving and investment behaviour. In turn, these behaviours are judged with respect to their effect on individuals' ability to climb out of poverty.

- The behavioural economics of poverty provides a different perspective on the poor and their behaviour: the view of the *Behaviourally Poor*. The *Behaviourally Poor* is a less capable individual not because of poorer inherent traits but because of the causal effects of the context of poverty on the cognitive mechanisms of those who live in it. In practice, what identify the poor are the effects of poverty on the cognitive machinery of individuals.

- Starting from the view of the *Behaviourally Poor,* the behavioural economics of poverty argues to provide important implications for anti-poverty policy. The general policy-message stresses the importance of pushing the poor towards taking long-term beneficial decisions for themselves. Nudging the poor implies modifying the choice architecture of individuals such that they are steered towards "good" economic and financial decisions. These decisions are seen as having a large effect on the individual ability to escape poverty. As we saw in section v, these insights are gaining widespread attention especially in the context of development.

- Finally, the behavioural economics of poverty provides a financial-cognitive conceptualization of poverty, as a phenomenon characterized by two types of scarcity: scarcity of financial resources and scarcity of cognitive resources.

In conclusion, the behavioural economics of poverty leaves us with a somewhat ambivalent message. We are being told that cognitive mechanisms retain a central role in explanations of why the phenomenon of poverty perpetuates itself in individual lives. Further, we are induced to believe that envisioning policy interventions aimed at increasing the quality of the (economic) decisions of the poor can have a substantial impact on our efforts of poverty alleviation.

The first sense in which this message is ambivalent is as follows: it still remains unclear how well the experiments provided are able to capture the experience of poverty in the real world. As such, for the moment being, it seems to be an open question whether the effects found do indeed translate in meaningfully large effects on real-life (economic) behaviour of the poor. This might be deemed as an issue of external validity.

A second sense in which this message is ambivalent is this: the "cognitive focus" employed in the explanation of poverty perpetuation is not straightforward to reconcile with research that has stressed the role of socio-structural factors in the explanation of poverty generation and perpetuation. That if, from being used to pay attention to external constraints preventing people to get out of poverty (e.g. lack of employment opportunities, institutionalized social and power relations), now our attention is being directed towards internal psychological constraints.

The following questions, then, arise: how salient are the identified cognitive mechanisms, both in accounting for real-world experiences and in providing an explanatory framework for poverty perpetuation? And, relatedly, how salient are policy interventions that target these cognitive mechanisms in the overall frame of anti-poverty policy? That is, what is the value of 'improving' the individual choices of the poor, and how can it be done? The following chapters focus on these questions, with the aim of providing greater clarity about the potential of the behavioural economics of poverty—as it currently is—as an explanatory tool (Chapter 2) and policy tool (Chapter 3) for the perpetuation of poverty.

2. The Explanatory Value

This chapter examines the explanatory value of the behavioural economics of poverty with respect to i) ''the behaviour of the poor' (Shah et al., 2012) and ii) the dynamics of poverty perpetuation. As already mentioned at the end of the first chapter, there is a feeling of ambivalence and indeterminateness about the relevance of this approach, both as an explanatory and a policy tool in relation to poverty. Here I focus on further investigating the ambivalence regarding behavioural economics of poverty as an explanatory approach. To start with, I identify two potential sources of ambivalence. One source of ambivalence comes from the object of the explanation, the *explanandum*. Mani et al. (2013:976) open their article by stating that "the poor often behave in ways which can further perpetuate poverty". So, what is being explained in this approach: (a) the behaviour of the poor, (b) the poverty-perpetuating behaviours of the poor, or (c) how poverty perpetuates itself? Or, possibly, all the three of them? The three options are clearly connected but seem to differ to a certain extent insofar as (a) carries on a notion of high-generality, (b) seems already identifying behaviours that perpetuate poverty, and (c) appears as an explanation of poverty perpetuation that works exclusively through individual behaviour. A second source of ambivalence comes from the salience of the *explanans* (i.e. what explains): universal cognitive processes—for the behaviour of the poor—and counterproductive choices on the side of the poor—for the perpetuation of poverty. That is, how relevant or strong are the explanatory mechanisms identified when applied to the behaviour of the multitude of individuals aggregated behind the macro-category of 'the poor' or to the causes behind the perpetuation of their poverty condition? It appears necessary to reflect upon these questions and dissolve the ambiguity in order to gain a clearer picture of the relevance and implications—both in terms of explanation and policy—of this recent and growing scholarly approach to poverty.

This chapter starts its journey from these questions. To find an empirical answer to them would represent an unreachable goal for this thesis, but probably also for the most skilled among the empirical researchers. The avenue I will take in this thesis is to come to a clearer understanding of the potential and limits of the behavioural economics of poverty, by examining its explanatory value. Where has the behavioural economics of poverty taken us so far? As we zoomed in into the minds of 'the poor', we might now be prone to explain their behaviour in terms of 'limited self-control' (Vohs, 2013) 'attentional capture' (Mani et al., 2013), 'cognitive load' (Sheehy-Skeffington & Haushofer, 2014). And, given the centrality reserved to the decision-making of the poor in the explanation of poverty perpetuation, we might now be prone to explain the perpetuation of poverty through the effects of these psychological factors on the decisions of 'the poor'. Ultimately, then, the explanation provided by the behavioural economics of poverty is an *individualist explanation*. That is, the behaviour of the poor is explained through universal mental processes occurring in a context of poverty; and poverty perpetuation is explained through individual decision-making (see, e.g., Sheehy-Skeffington & Haushofer, 2014). As such—to provide a clear counterpart to it—it appears useful to draw from works that have focused on the role of socio-structural factors in the perpetuation of poverty. These works will help to shed light on other mechanisms exerting a causal power on both individual decision-making in poverty and the ability of individuals to get out of poverty.

The literature on socio-structural factors regarding poverty is as vast as it is wide. I will make no attempt to review it here. Rather, I will focus on one application in which the contrast between the different kinds of explanation becomes clear. In this respect, I will present few cross-disciplinary contributions—both theoretical and empirical—that have highlighted the influence of socio-structural factors in the perpetuation of poverty, with a special focus on the persistence of two different types of poverty: urban poverty and rural poverty. The choice of focusing on research about these two 'categories' of poverty is twofold. First, they are categorizations familiar to economists. Second, they provide a different explanatory story—than the behavioural economics one—regarding the role of the 'context' of poverty on individual decision-making and on the inability of poor individuals to get out of it. In these approaches, in fact, poverty is spatially identified: it has a place. This allows for the study of social interactions that might shape the opportunities and decisions of people in poverty and might play a substantial role in the dynamics of poverty perpetuation. Moreover, spatially identifying poverty allows for the study of poverty perpetuation not only in individuals, but also in specific places. In the case of urban poverty, the emphasis is posed on *neighbourhood effects* in neighbourhoods of concentrated poverty. This literature puts to the front the role of social interactions in shaping individual decisions and socio-economic outcomes. After a brief overview, I present Durlauf's (2001) theoretical account of *Memberships Theory of Poverty*. The presentation of this approach is instrumental to provide a comparison with the explanation provided by the behavioural economics of poverty as identified in the first chapter. The comparison is not aimed at judging the relative import (e.g. merits and problems) of the two explanatory frameworks as they are—to a certain extent—incommensurable. Rather, the comparison will prove itself useful in order to appreciate one opportunity that has been (mostly) neglected so far in the behavioural economics of poverty: the study of social influences on the decision-making of the poor.

Let me briefly foreshadow the general conclusions I will draw from the analysis in the chapter. It will be pointed out that the empirical works in the behavioural economics of poverty have not paid attention—in the explanation of the 'behaviour of the poor'—to the role that social interactions inside spatial context(s) of poverty (i.e.

rural/urban) might play on individual decisions and the dynamics of poverty perpetuation. On the one hand, the reviewed literature on rural poverty, stresses the role of a limited opportunity structure for the possibility of poor individuals to climb out of poverty. On the other hand, literature on neighbourhood effects points out the role of social influences (e.g. peer effects, role models) on the behaviour of individuals and their socio-economic outcomes. It will be argued that the negligence to explicitly address the spatial and social context of poverty undermines the depth of the explanation provided when applied to the real-world behaviour of 'the poor' and the processes underlying the perpetuation of poverty. So far, the behavioural economics of poverty has explained the decisions of the poor as they were seemingly taking decisions in a 'social vacuum', largely uninfluenced by the social context they are part of. If future empirical research will be in line with what presented in chapter 1, it appears as the behavioural economics of poverty is destined to provide a narrow explanation of individual decision-making in poverty (*narrowness-of-explanation-of-decision-making-in-poverty*) and the dynamics of poverty perpetuation (*narrowness-of-explanation-of-poverty-perpetuation*). On one side, this *narrowness* appears to be there to stay given that this approach provides an explanation of poverty perpetuation solely focused on individual decisions. On the other side, it will be pointed out that the larger field of behavioural economics already possesses the theoretical resources to study social influences on decision-making. Therefore, it will be suggested that the behavioural economics of poverty might benefit from employing these resources also in the study of poverty.

The chapter is structured as follows. Section 2.1 presents the behavioural economics of poverty as an explanation of poverty perpetuation. Section 2.2 provides a critical perspective of the behavioural economics of poverty in relation to the view of the poor as a homogenous category. Section 2.3 presents a review of the empirical and theoretical efforts that have pointed out socio-structural influences on the perpetuation of poverty. Finally, Section 2.4 offers concluding remarks.

2.1 As an explanation of poverty perpetuation

The first step necessary in order to set up the discussion is to define what is being explained in the behavioural economics of poverty. As we saw in the first chapter, the behavioural economics of poverty depicts a vicious circle of poverty perpetuation in which individual decision-making has the central analytical and explanatory role. To state it once again, the causal story goes as follows. The context of poverty affects the decision-making processes of individuals in such a way that leads them to take counterproductive decisions that are responsible for the perpetuation of poverty. In the words of Mani et al. (2013:341), "the poor often behave in less capable ways, which can further perpetuate poverty". Therefore, we should refer to the behavioural economics of poverty as an explanation of why poor people remain poor because of the counter-productive decisions they take (see, e.g., Gennetian and Shafir, 2015). Schematically, this interpretation might be reproduced as follows. (1) The behavioural economics of poverty assigns a central role to counter-productive decision-making of the poor in the perpetuation of poverty. (2) The behavioural economics of poverty provides an explanation regarding the causes of counter-productive decision-making of the poor. Therefore, (3) the behavioural economics of poverty is a framework set to explain the perpetuation of poverty. The general framework can be visualized as:

Poverty→ *(Cognitively) impaired individual decision-making*→ *Poverty*

More precisely, it is an explanation of poverty perpetuation that works in two steps. First, it shows that counter-productive decisions of the poor are causally created by the context of poverty. Second, it posits that counter-productive decisions on the side of the poor are relevant variables in the perpetuation of poverty.

- *Explanation of individual decision-making of the poor*

  Explanans: cognitive processes causally induced by the context of poverty
  Explanandum: individual decision-making of the poor

- *Explanation of poverty perpetuation*

  Explanans: cognitively impaired individual decision-making
  Explanandum: perpetuation of poverty

A first source of ambivalence in this framework regards which *decisions* are taken to play a (central) role in the perpetuation of poverty. And, strictly relatedly, which decisions of the poor are being explained through the experimental evidence gathered. To put it simply, which decisions of the poor can be explained by the concept of *cognitive load created by poverty*? As already stated, the behavioural economics of poverty focuses on economic decision-making, especially borrowing and saving behaviour. For instance, the experiments by Shah et al. (2012) have been interpreted as an explanation of the over-borrowing behaviour exhibited by poor individuals. As such, it seems that authors working in this strand assign a central role to financial behaviour for staying or climbing out of poverty. However, when we pose the question as which behaviours this framework is able to explain, financial behaviour seems to be only one kind among many. Mani et al. (2013), in fact, state that "these data […] help explain a spectrum of behaviours among the poor" and go on pointing out a series of studies that claim that "the poor use less preventive healthcare, fail to adhere to drug regimens, are tardier and less likely to keep appointments, are less productive workers, less attentive parents, and worse managers of their finances". Therefore, despite the focus on economic decision-making, it might be concluded that authors working in this strand believe their explanation to apply to a large set of behaviours adopted by the poor, as health behaviour, parenting behaviour and work (productive) behaviour.[18]

A remarkable feature of the explanation of poverty perpetuation provided by the behavioural economics of poverty is that it explains poverty perpetuation by referring to *poverty as an effect*. That is, in the explanation of how poverty perpetuates itself, no reference is made to the processes/causes that might have led to a condition of poverty in the first place (*poverty generation*). This is due to the analytical framework employed by the authors in this strand. In fact, by positing the context of poverty as causally prior to behaviour, the explanation can only depart from an empirical situation in which poverty is already in place. To put it differently, this approach has nothing to say about why people become poor, but only about why people remain poor. This feature of the explanation has both a bright and a dark side. The bright side is that it provides a different perspective on why poverty perpetuates; a perspective showing that—regardless of the causes that led an individual to end up in poverty—being in poverty itself decreases the ability of poor individuals to take "good" decisions that might help them climbing out of it. Stated plainly, once an individual is in poverty, a new, more difficult 'decisional life' is about to start. The dark side is related to the other side of the coin. If we allow for the sensible claim that factors and processes leading to *poverty generation* are, in some cases, also responsible for *poverty perpetuation,* then it becomes apparent the limitedness of this approach with respect to the mechanisms of poverty perpetuation it can identify. For instance, if falling into poverty is caused by lack of labour power and marketable skills, these factors also clearly undermine the capacity of an individual to climb out of poverty. Similarly, if social processes such as discriminatory social norms lead vulnerable groups to stay in poverty, such processes also exert an influence on their ability to escape from it. By being blind to these factors, this approach is only able to provide a narrow view on poverty-perpetuating mechanisms.

As made clear in the introduction of this chapter, the main question of interest here is the following: how *salient* are the explanatory mechanisms identified when applied to real-world behaviour of the poor and their ability/opportunity to get out of poverty? This question might be conceived as an issue of external validity with respect to the experimental findings gathered by authors working in this strand. That is, do the

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[18] To see this, we might refer back to the explanation provided by the Scarcity Hypothesis (Mullainathan & Shafir, 2013a). When individuals perceive scarcity, their attention is captured by the domain in which scarcity is salient and neglected for the domains in which it is not. This implies that, if scarcity is felt in the financial domain, individuals might be more likely to neglect attention to other 'domains', such as their duties as parents.

effects found in the lab (e.g. lower cognitive performance at an IQ test, Mani et al., 2013) translate into meaningfully large effects in real-world behaviours? In this respect, one possibility is that the behaviour of non-poor people facing financial scarcity in the lab might differ significantly from the behaviour of poor people in real-world settings. In fact, people who have been living in poverty for a long period of time might have "internalized" their condition and adopted some kind of coping strategy in order to deal with the financial and cognitive hardships characterizing a life in poverty. As such, they might be able to structure their life differently so that the impact of recurrent cognitive load on their decisions would not be as large and 'harmful' as the behavioural economics of poverty depicts.

This chapter is not in the position to provide an empirical answer to these questions and, therefore, needs an alternative argumentative strategy. Relying on the analysis of the behavioural economics of poverty done so far, it asks a basic question: how does the explanatory framework change when we embed 'the poor' in a specific spatial and social context? More precisely, (1) how does the explanation of individual decision-making in poverty change? And, (2), how does the explanation of poverty perpetuation change? In order to see this, it is necessary to hinge from a different literature—more sociological in nature—that has long stressed the role of socio-structural factors in the generation and perpetuation of poverty in spatially identified contexts such as *urban poverty* and *rural poverty*. These explanatory accounts provide a counterpart to the 'placeless' explanation of the behavioural economics of poverty, especially in relation to the role given to the social context. Further, they clearly show that the way in which the 'context' of poverty is identified has substantial implications for the explanation provided of the decision-making of people in poverty. Before getting to this literature, however, it is necessary to make one step back and ask a question whose answer has been taken for granted so far. The behavioural economics of poverty, in fact, argues to provide a new perspective on the behaviour of 'the poor'. But, who are 'the poor'? Reflecting on this question will lead to highlight a critical feature of the behavioural economics of poverty: the aggregation of 'the poor' in a homogenous category.

2.2 The poor as a homogenous category

Who are 'the poor' in the behavioural economics of poverty? One way to go about answering this question is to refer back to the experimental works in this research strand and analyse who are 'the poor' in the experiments. In the greatest majority of the experiments produced (see, e.g., Mani et al., 2013; Shah et al., 2012; Spears et al., 2011; Sheehy-Skeffington et al., 2016), none of the participants were "abjectly poor", but rather in some cases people in "financial distress" (Spears, 2011). An exception must be made for the work by Hall et al. (2013), in which the "poor" were clients of a soup kitchen in New Jersey and reported average household income below \$8,000. In this case, the participants' income was below the poverty line. In the experiment by Mani et al. (2013), participants were deemed 'rich' or 'poor' depending on their income in relation to median income (i.e. a measure of relative poverty). The median income of the participants in the lab experiment was around \$ 70,000, with a lower bound of \$ 20,000. Those who were categorized as 'poor' would then represent the last third or quartile in the income distribution of the US population. A different story was in the experiment by Shah et al. (2012), in which the 'poor' were Princeton University students. The fact that the participants in many experiments were not poor, but the hypotheses tested in these experiments have been applied to the behaviour of the poor, is indicative of the explanatory framework of the behavioural economics of poverty. Once the 'context' of poverty is characterized as financial scarcity, in fact, this condition can be recreated in the lab, and the effects can be measured on anybody experiencing this state of financial scarcity (see, e.g., the experimental set-up by Mani et al., 2013; Shah et al., 2012). This is because, as stated by Mani et al. (2013), this research is not about poor people, but about whoever might find him- or herself in a condition of poverty. It should be further noticed that—again exception made for Hall et al. (2014)—the experiments do not provide any information regarding the age, gender and ethnicity of the participants.

What characterize "the poor" in this approach are the effects of poverty on the cognitive machinery of the poor, i.e. the cognitive load created by a condition of recurrent and pervasive financial scarcity (Mullainathan & Shafir, 2013a). This has the implication of dealing with the poor as a homogenous category, an *undifferentiated collection of individuals*. That is, in order to explain how the poor behave and how poverty perpetuates, it is not necessary or possible to distinguish among the different categories of the poor, who are instead aggregated in a unique macro-category. As a first implication of this, the framework is not able to answer questions such as why certain social groups or individuals are more likely to stay in poverty than others.[19] In a sense, in this framework, the dynamics of poverty perpetuation are the same for all the poor. Here, the following two questions are asked. Is it a meaningful practice to deal with the poor as a homogenous category? And, does this homogeneity have implications for the explanatory power of the framework when applied to the real-world behaviour of the poor? In a nutshell, I propose to answer "no" to the first question, and "yes" to the second one; this section offers some substance in support of these conclusions. The following quote by Amartya Sen, in his work *Poverty and Famines: An Essay on Entitlement and Deprivation* (1981) provides an insightful start for the discussion:

[19] In Europe, a prominent case of a social group disproportionately likely to be long-term poor are the Roma, 53% of whom in Hungary are long-term poor. Even though they represent only 4-5% of the population, they represent more than one third of the chronic poor (Green & Hulme, 2005).

"A small peasant and a landless labourer may both be poor, but their fortunes are not tied together. In understanding the proneness to starvation of either we have to view them not as members of the huge army of 'the poor', but as members of particular classes, belonging to particular occupational groups, having different endowments, being governed by rather different entitlement relations. The category of the poor is not merely inadequate for evaluative exercise and a nuisance for causal analysis, it can also have distorting effects on policy matters […] As a category for causal analysis, 'the poor' isn't a very helpful one, since different groups sharing the same predicament of poverty get there in widely different ways. The contrast between the performances of different occupation groups that are all typically poor, indicates the need for avoiding gross categories such as the poor or the rich […] Even for evaluative purposes there is need for discrimination *among* the poor according to the severity of deprivation."

(Sen, 1981:156, italics in original)

In this quote, Amartya Sen warns us about the negative implications for both causal analysis and policy of treating 'the army of the poor' as a homogenous category. The reasoning behind is that there is not such a thing as the 'the poor', given the diversity in experiences and characteristics of the multitude of individuals that are aggregated in this category. Sen points to the possibility that the processes and causes leading individuals to end up and stay in poverty might be different for different groups and different categories of the poor. Not taking into account this possibility is what amounts to the negative implications for causal analysis. Moreover, this inability to differentiate among different causal mechanisms is deemed as having negative implications for the effectiveness of policies aimed at targeting the causes of poverty generation and perpetuation. Another aspect of the diversity of 'the poor' concerns the fact that people in poverty do not experience equal degrees of deprivation and social exclusion (*poverty depth*). For instance, in a wealthy nation, to be poor with a house, social relations and a bad-paid job is different from being poor and homeless, socially marginalized and out of the labour market. If we make the case of employment status, for instance, different situations can apply. Some of the poor might have a job whose wage does not allow for an adequate level of subsistence (*working poor*). Some others might have lost their job and fallen into poverty only recently. Some others might have lost it many years ago and never managed to get it back (*long-dependent poor*). Yet others might be too young or old in order to apply for a job in the first place. Once again, the point is that there are various ways to disaggregate the category of the poor in such a way that provides benefits for evaluation and causal analysis.

Just like there is no such a thing as "the poor", there is no such a thing as "poverty". Poverty, in fact, comes in many different "shapes and forms: chronic and transitory poverty, rural and urban poverty, youth and elderly poverty, voluntary or involuntary poverty" (Graf & Schweiger, 2013:3). These classifications allow for differentiating the poor with respect to a set of relevant characteristics, such as the duration of the poverty phenomenon, the geographical context of poverty, the age profile of the poor, and the voluntariness of the poverty experience. Poverty comes in different degrees and, when it perpetuates itself, it should be seen as a dynamic process rather than as a static condition. By dealing with 'the poor', the behavioural economics of poverty is not able to distinguish between different durations of the experience of poverty; that is, it is not able to distinguish whether one is *transitorily* poor, *chronically* poor, or *inter-generationally* poor.[20] Generally speaking, chronic poverty is differentiated from transient poverty as an experience of deprivation that lasts for a long period of time. Hulme and Shepherd (2003) characterize it as "occurring when an individual experiences significant capability deprivations fro a period of five years or more". At first sight, identifying someone as chronic poor does not give any additional information about the causes that led this person to end up and stay in poverty. However, in the literature, the concept of chronic poverty has emerged from " a critical rethinking of the usefulness of talking about the poor as a general category" (Green & Hulme, 2005: 873). From this perspective, what is valuable about the concept of chronic poverty is the introduction of a dynamic dimension that allows to talk in terms of processes rather than lack-of-something, with a special focus on the social and political processes underlying the generation and perpetuation of poverty for certain individuals and social groups. Research on chronic poverty appears to be particularly relevant in relation to the behavioural economics of poverty, which indeed deals with "poverty traps".

Going back to the question posed at the beginning of this section, are the differences highlighted here with respect to different kinds of 'poverty' and 'poor' relevant for explaining the 'behaviour of the poor' as it happens in real-world settings? In the behavioural economics of poverty, it appears as they were not. In this framework, the decisions taken by those who have been poor for a day can be explained in the same way as the decisions of individuals who have been poor for all their life. This is due to the fact that the behavioural economics of poverty deals with the immediate cognitive impact of recurrent monetary concerns, and is silent regarding the cumulative effects of a life in poverty. Similarly, the poverty perpetuating dynamics of a poor individual in an 'affluent' country can be accounted for in the same way as those of a poor individual in a 'poor' country. What is striking about this conclusion is that—taking this framework as an explanatory framework of how poor people behave (or of why they engage in poverty-perpetuating behaviours)—it seems like we are in a position to explain the 'behaviour of the poor' regardless of the social and institutional environment in which poverty takes place. That is, in order to explain how poor

[20] In relation to the dynamics of poverty perpetuation, it might be useful to differentiate among different durations of the poverty experience because evidence has shown that the longer a person is in poverty, the less likely it becomes to get out of it (Chronic Poverty Report, 2008: 3).

people behave it is sufficient to have evidence of the "mental processes required by poverty"(Mani et al., 2013).

To provide an example, Shah et al. (2012: 683) explain the borrowing behaviour of the poor in the following way:

"Attentional neglect can explain another particularly striking behaviour, why low-income individuals take short-term, high-interest loans, with interest rates that can approach 800%. These loans make it easier to meet today's needs but the loan's deferred costs make it difficult to meet future expenses. If scarcity creates a focus on pressing expenses today, then attention will go to a loan's benefits but not its costs"

This passage explains the 'myopic' borrowing behaviour through a cognitive mechanism created by financial scarcity, without making any reference to the opportunities that poor people face when taking the decision at hand. When an individual is income-constrained, credit opportunities are clearly restricted. Formal financial institutions are reluctant to provide a loan to individuals with the knowledge that the loan will be used for consumption rather than productive investment, and that no collateral (including a stable source of income) can be relied upon if the loan does not get repaid. If formal institutions refuse to give them the money necessary to satisfy urgent needs, and informal channels—such as family and friends—are not able to provide financial support, the poor might have no other choice but to resort to predatory lenders, who can charge an interest rate approaching 800%. In the explanation provided above, however, the *bad decision* of the poor is exclusively explained through internal mental processes, and no external (institutional) constraints for *good* borrowing behaviour are identified. In a sense, the explanation provided by the behavioural economics of poverty seems departing from a prior assumption about the institutional environment, in which the poor—were them not cognitively loaded—might have taken a more beneficial decision. However, without making any reference to the institutional environment in which the poor behave, it becomes hard to judge whether this assumption is warranted or not.

Summing up, the following points should be stressed. In the explanation of poverty perpetuation, the behavioural economics of poverty does not distinguish among different categories of poor (e.g. working poor vs. non-working poor, chronic poor vs. transient poor) and of poverty (e.g. rural and urban poverty). This is due to the fact that what characterizes the poor in this approach are the (immediate) cognitive effects of the context of poverty; a context that is not defined neither spatially nor socially. Such explanatory framework appears in contrast with the convictions of many authors—especially in the realms of sociology and anthropology—who believe that in order to understand poverty it is fundamental to position it in its 'context', by which they mean the "socio-economic, structural and cultural context" (Oyen, 1999: 460). In order to see how the analysis changes when the social context of poverty is introduced, I turn towards interdisciplinary works that have studied poverty in urban and rural settings. These studies provide a vivid imagine of the role of social interactions on the perpetuation of poverty.

2.3 The place of poverty: taking decisions in a social context

In the behavioural economics of poverty, the behaviour of the poor is explained exclusively in terms of cognitive processes created by the 'context' of poverty. As a scholarly approach, sociology starts from a different presupposition and is interested in explaining the behaviour of individuals in relation to the social structure they are part of (Massey et al., 1991: 397). Wilson (2010:201) defines social structures as "the way social positions, social roles, and networks of social relationships are arranged in our institutions, such as the economy, policy, education and the organization of the family". Examples of social structures are markets (e.g. the labour market) or 'roles' related to a specific social position in the family or the community. As we can see from this depiction, social structures are essentially about social interactions among different individuals. Then, introducing the social structure to the explanation of the behaviour of the poor, the broad question becomes: how do social interactions shape the decisions taken by poor individuals and their ability to get out of poverty?

In the behavioural economics of poverty, cognition appears to be fundamentally an individual process; that is, no social influences are seen as explicitly affecting the cognitive machine and the decisions it produces (see, e.g., Mullainathan & Shafir, 2013a; Mani et al., 2013). In contrast to this idea of cognition as an individual process, Hodgson (2007: 218) has argued that "the acquisition of this cognitive apparatus involves processes of socialization and education, involving extensive interaction with others […] the means of our understanding of the world are necessarily acquired through social relationships and interactions […] cognition is a social as well as an individual process […] individual choice is impossible without these institutions and interactions". Even though this passage is related to Hodgson's appraisal of different meanings of methodological individualism in economics, its message is relevant for the discussion at hand, because it poses the attention on the importance of institutions and social interactions for individual choice. Starting from here, the aim of this section should be regarded as pointing out the implications—in terms of analysis and explanation—of introducing social interaction as an influence on the individual decision-making of the poor and on the dynamics of poverty perpetuation. Before starting, it should be noted the obvious fact that social interactions happen at many different levels, from the household to the neighbourhood and larger institutional environment. This implies that analysing the effect of social interactions on individual decision-making in poverty can depart from different levels of analysis and point out different kinds of social influences affecting decision-making in poverty. Moreover, generalizing the issue, the impact of social relations on the decisions of the poor and their status of poverty can be studied either in relations between the poor themselves and in relations between the poor and the non-poor.

In order to provide focus to the discussion, and analyse the role of socio-structural influences on individual decision-making in poverty and on the dynamics of poverty perpetuation, it is useful to focus on contributions that come out from poverty research that has paid great attention to the spatial identification of the phenomenon of poverty: rural and urban poverty. Pahl (1968) refers to research about rural and urban poverty as "milieu studies", because they deal with social and cultural processes that are contained within "territorially limited settings". Differently from what done in the behavioural economics of poverty, these studies start from a spatial-geographical identification of poverty. The 'context' of poverty is now concrete, specific, spatially and socially delineated. The environment of poverty gains a place. This methodological move has great benefits because it allows to identify and study the patterns of social interactions underlying the phenomenon of poverty and its perpetuation. In relation to this, Robert Park has argued that "it is because geography…determines so irresistibly…the associates with whom each one of us is bound to live that spatial relations come to have, for the study of society and human nature, the importance which they do" (1926: 231). Moreover, by identifying poverty in its geographical location, these studies are able to talk about the persistence of poverty not only in individuals, but also in specific places.

At this point, it might be argued that, strictly speaking, the "individualist" explanation provided by the behavioural economics of poverty could also—at least in principle—explain why poverty tends to persist in specific places. If a place (e.g. a neighbourhood) is identified as imposing the same cognitive load on individuals, this *environmental stimulus* might explain the behaviour of all the individuals living in that environment. Even if this point is granted, however, it would remain the necessity to spatially identify the environment imposing load on individuals and to elaborate on which properties of the environment affect cognition and in which way. Moreover, differently from studies about the persistence of poverty in rural and urban settings, the behavioural economics of poverty does not seem to be in the position to study the feedback loops between environment and individual behaviour. That is, even though it might point out the effects of the environment on individual behaviour, it does not seem equally capable to identify the effects of individual behaviour and social interactions on the environment.

Concerning the study of rural poverty in the US context, sociologist Cynthia Duncan has provided valuable insights regarding the role of patterns of social interaction on the perpetuation of poverty in rural settings. In one of her most widely cited works (1996), she writes:

> "Class and power relations evolve and solidify into social structures over time, and thus understanding persistent poverty also requires an historical perspective. Rural social relations are anchored in the political economy of particular places, and they are maintained through memory and tradition, reputation and history. Long-term residents have an historical sense of place—they know the families there across generations, and will identify their strengths and weaknesses, their good deeds and bad, and their power or vulnerability. Booms and busts in the economy and acts of resistance or compliance are recorded not only in official records, but also in family members' decisions about work, family or migration. Finally, in rural areas we can see the process through which people and places become trapped in poverty. We can see how employers' expectations for members of certain families can directly affect the opportunities made available to them, and how constrained opportunities diminish young people's aspirations"
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> (Duncan, 1996: 105)

This passage highlights the importance of historical and institutionalized social relations for understanding the perpetuation of poverty in rural settings. These are social relations that "solidify into social structures" and provide a clear pattern for the economic and social activity of the community. In Duncan's account, a central role is assumed by the *social class context,* "the character of relations between classes that emerge from a given social structure". In respect to this, she argues that the lack of a consistent middle class in rural settings has led to greater social polarization and isolation, in which the poor "do not have contacts to obtain legitimate work, and cannot relate to potential role models in other classes because they are segregated from them" (ibid: 114). Moreover, Duncan stresses the role of social and power relations in shaping the *opportunities* faced by people in poverty. In another work co-authored with Ann Tickamyer (1990), the authors extensively focus on the *opportunity structure* in rural America, arguing that such limited opportunity structure decisively shape the opportunities for upward mobility. This points to the first benefit of embedding the decisions of the poor in a specific spatial and social context: the possibility of identifying the opportunity structure against which many important decisions are taken.

Concerning urban poverty, researchers have paid particular attention to the division of the city into different *neighbourhoods*. One concept that has been gaining attention in poverty research is that of *concentrated poverty*, defined as areas where a great portion of the population lives below the poverty line. A seminal work about the role of neighbourhoods in the generation and perpetuation of poverty has been conducted by Wilson (1987), who argued that neighbourhoods in which poverty became to be concentrated during the 1970s generated an extremely disadvantaged social environment. More precisely, he argued that individuals living in such neighbourhoods experienced a social isolation that excluded them from having information and taking advantage of employment opportunities. Generally, researchers interested in the role of neighbourhood effects formulate the central question as: "does the neighbourhood structure exert an effect on the residents (behavioural, attitudinal or psychological) even when controlling for individual characteristics of the residents?" (Friedrichs et al., 2003: 797). This question points to the relevance of this approach with respect to the behavioural economics of poverty. Research that focuses on neighbourhood effects, in fact, is interested in pointing out the effects of structural and cultural factors on individual decision-making in poverty and the ability of poor people to move out of it. That is, it tries to isolate supra-individual factors that might influence the individual choices and outcomes of people in poverty.

Methodologically, there are two main approaches to the measurement of neighbourhood effects on individual behaviour: i) neighbourhood case studies and, ii) statistical analysis of longitudinal data (Friedrichs et al., 2010: 801). The first approach relies on ethnographic methods to study individuals' attitudes, behaviours and social relationships. The second, instead, performs statistical regressions on longitudinal datasets that provide information about individuals over a long period of time. This allows observing the dynamic interrelationship between neighbourhood, behaviour and socio-economic outcomes, controlling for personal characteristics. Research on neighbourhood effects has centred around two main questions. First, how much of an effect do neighbourhoods have on individual behaviour? And, second, how are neighbourhood effects transmitted? Answering these questions has proven difficult so far for a variety of reasons. One crucial criticism of the methodology employed in this strand of research comes from the so-called *self-selection bias* (see, e.g., Plotnick & Hoffman, 1999). Some critics, in fact, have claimed that most results about neighbourhood effects are biased because of the self-selection that individuals make of the neighbourhood where to live. In this line of reasoning, it is not neighbourhoods that determine (at least partially) socio-economic outcomes of the residents, but rather the characteristics of the individuals that determine the concentration of poverty in certain neighbourhoods. This criticism, however, has been addressed through the use of different techniques such as the use of instrumental variables or social experiments (for a review, see Haurin et al., 2002).

An empirical work interested in neighbourhood effects is by Massey et al. (1991), in which the authors provided evidence for the relation between neighbourhood effects and individual behaviour. Their hypothesis was that segregation and poverty interact at the metropolitan level to distribute economic deprivation unequally among neighbourhoods inhabited by Whites, Blacks and Hispanics (ibid: 405). From their empirical analysis, they concluded that neighbourhood poverty promotes male joblessness, unwed childbearing, and single motherhood among individuals, arguing to have shown "theoretically and empirically how personal behaviours that are widely associated with the underclass, and which outwardly appear to be idiosyncratic and wholly individual, are in fact linked to structural conditions in society that are beyond individual control or influence" (ibid: 416). Overall, since the 1980s, research about the effects of concentrated poverty in neighbourhoods has found that individuals living in these neighbourhoods are more likely to engage in certain kinds of behaviours, such as dropping out of school, involvement in crime and unsuccessful family management (Small & Newman, 2001). Regarding the channels identified in relation to the transmission of effects from the neighbourhood to individual behaviour, the following mechanisms have been identified (Friedrichs, 1998; Gephardt, 1997; Leventhal & Brooks-Gunn, 2000; Sampson et al., 2002): i) *neighbourhood resources* (e.g. accessibility to jobs, health services), ii) *model learning via social ties* (e.g. interpersonal networks) iii) *socialisation and collective efficacy* (e.g. commonality of norms).

In the field of economics, a prominent theoretical model of the effect of social influences—including at the neighbourhood level—on individual decision-making is represented by Durlauf's (2001) *Memberships Theory of Poverty*. In his theoretical formulation, Durlauf is interested in providing a framework for analysing the effects of group membership on individual socioeconomic outcomes. By doing so, his aim is to deliver a model of poverty trap that does not work at the individual or family level, but at the social level, in which social interactions assume a central place. The groups he identifies are both *endogenous* (such as neighbourhoods, schools and firms) and exogenous (such as ethnicity and gender). Durlauf (2001: 3) identifies the following channels through which group influences affect the decisions of group members:

- *Peer Group Effects*: "the effect that the choices of some members of a group have on the preferences of others in evaluating the same choices"
- *Role Model Effects*: "the influence that characteristics of older members of a group have on the preferences of younger members"
- *Social Learning*: "the influences that the choices and outcomes experienced by some members of a group have on the subsequent choices of others via information that these choices and consequences impart"
- *Social Complementarities*: "the choices of some members of a group make the choices of other members more or less productive depending on whether the choices are positively correlated or not"

What clearly comes out of Durlauf's theory is the interdependence of choice among different individuals belonging to the same 'group' and the effects of such interdependence on the socio-economic outcomes of individual members. He refers to such mechanisms as *social poverty traps*, that is traps that "apply to groups of individuals and to mechanisms that involve group-level rather than family-level influences" (ibid: 7). In relation to the behavioural economics of poverty, this approach points out the role of group influences on the cognitive machinery of the poor and their decisions. In this framework, individual decisions are decisively shaped by the characteristics and behaviour of individuals of a particular community (or, in this case, a particular 'group'). At a general level, this framework enables to consider how the social context might contribute—through the effects of social interactions—to shape and modify individual cognitive processes and the decisions resulting from them. It also allows to study the normative background against which decisions are made, by analysing the role of contextual socio-cultural norms on individual behaviour.

For the purpose at hand, an interesting feature of Durlauf's theory is the fact that it identifies some of the effects known and analysed by behavioural economists, such as social learning and peer group effects (see, e.g., Thaler and Sunstein, 2008). This overlapping hints to one possibility for the behavioural economics of poverty; that of studying the role of social influences in the decision-making of individuals in poverty. The failure to explicitly analyse the effects of social influences on individual decisions is remarkable if we look at the broader field of behavioural economics, where the role of the social context on individual decision-making has long been recognized and studied. A prominent example of this is the study of *herding behaviour* in behavioural finance. Herding occurs when "individuals mimic others, ignoring their own substantive private information" (Scharfstein and Stein, 1990). Banerjee's (1992) micro-economic model of herd behaviour describes it as a rational learning process in which people's decisions are interdependent and reinforcing. Fundamentally, herd behaviour is seen as an instance of social learning and contagion, in which individual decisions are strongly influenced by the observations of what others do. How could the study of herding behaviour be applied in the case of poverty? In order to be applied, it seems necessary to adopt a notion of 'context' that allows for spatial identification and social interaction. Without giving poverty a place and a socio-cultural specificity, in fact, it becomes hard to explicitly analyse the role of social interaction. Therefore, it looks like that—as long as the behavioural economics of poverty will be relying on a notion of poverty context that is spatially and socially abstracted—studying such social influences on decision-making and their effects for the perpetuation of poverty will be beyond its purview.

2.4 Concluding remarks

This chapter has tried to provide a critical perspective on the explanatory value of the behavioural economics of poverty with respect to i) individual decisions of the poor, ii) dynamics of poverty perpetuation. In this respect, the main conclusion relates to the narrowness of the explanations provided by this emergent approach. More precisely, narrowness in two dimensions has been identified:

1) *Narrowness of explanation of decision-making in poverty*
2) *Narrowness of explanation of poverty perpetuation*

With respect to both, the approach has been deemed 'narrow' due to the failure to explicitly recognize and include in the analysis the socio-structural factors that might have an effect on individual decision-making in poverty and the dynamics of poverty perpetuation. The literature on the persistence of poverty in rural settings gives a strong indication of the role of social and power relations in affecting the opportunity structure of people in poverty (see, e.g., Duncan, 1996). These institutionalized relations exert a significant influence on the ability of poor individuals to get out of poverty by restricting their *opportunities* to do so. When social processes and social norms (e.g. discriminatory social norms towards women, disabled, elderly) are involved in the creation and perpetuation of a condition of poverty, the autonomy for decision-making of poor individuals is decisively impaired. In this scenario, which research on chronic poverty has shown to apply to the conditions of many who are trapped in a condition of persistent poverty, the explanation provided by the behavioural economics does not appear to be a salient one. That is, "cognitive load", "lack of self control", "attentional neglect" and "stress" do not provide a satisfactory and exhaustive explanation of the causes leading the poor to stay poor. This points to the *narrowness-of-explanation-of-poverty-perpetuation*.

On the other hand, literature on urban poverty and neighbourhood effects has shed light on the fact that individual behaviours and individual socio-economic outcomes are shaped by social interactions in segregated and isolated neighbourhoods. The message coming out of literature on neighbourhood effects—despite its own limitations and methodological problems—is relevant for pointing out the *narrowness-of-explanation-of-decision-making-in-poverty*. Once again, this narrowness is imputed because of the non-inclusion in the analysis of an explicit study of social influences (e.g. social relations at the kin, neighbourhood and institutional le) on the process of individual decision-making (see, Mullainathan and Shafir, 2013a; Mani et al., 2013). A relevant question to be asked here is the following: how do contextual socio-cultural factors affect the cognitive machinery of individuals in poverty and shape their decisions? One possibility in this respect is that social influences at the neighbourhood level might shape individual cognitive process and the behavioural outcomes of individuals. This possibility, however, cannot be captured in the behavioural economics of poverty, in which cognition appears to be fundamentally an *individual* process (see the scarcity hypothesis). This chapter has further suggested that the behavioural economics of poverty might benefit from explicitly studying social influences on individual decision-making in poverty.

The dimensions of narrowness identified are not intended to discredit the value of the empirical efforts produced in the behavioural economics of poverty, but rather to point out the limitedness of such an approach as an explanation of poverty perpetuation. The experimental findings obtained in lab and field experiments, in fact, provide some evidence regarding the cognitive consequences of taking decisions in a condition of poverty. However, it is yet not clear whether the effects identified translate into large or meaningful effects on real-world behaviour of the poor. That is, it is not clear how salient these thinking processes are when we are to explain the behaviour of the poor in different socio-cultural, macro-economic and political contexts. Moreover, this chapter has pointed out another critical feature in the explanation the "behaviour of the poor" (Shah et al., 2012) in this approach; namely, the identification of the poor as a homogenous category. In this respect, it seems that in order to explain the behaviour of the 'poor' we need more specificity in: i) the category of the 'poor' (e.g. chronic poor, transitory poor, young, elderly), ii) the environment in which the poor act (i.e. institutional and socio-cultural environment), and iii) the types of behaviour that are to be explained.

Finally, it might be worth to briefly reflect upon the general frame of poverty perpetuation that comes out of the behavioural economics of poverty as a series of counter-productive decisions. This is an agency-centred explanation insofar as poverty perpetuation is explained through individual decision-making. In this case, agency seems to be identified with the capacity of individuals to take reflective (beneficial) decisions (i.e. those produced by System 2 thinking). Starting from this, it can be said that the explanation provided by the behavioural economics of poverty focuses on the *internal* constraints to agency for getting out of poverty. In this sense, depleted self-control (Spears, 2011), attentional capture (Mani et al., 2013), stress and depression (Haushofer and Fehr, 2014) are the constraining factors that prevent individuals from taking "good", long-run beneficial decisions. The literature pointing out the role of social and structural factors on poverty perpetuation, instead, stresses the role of *external* constraints to individual agency for getting out of poverty. Can these frameworks be 'reconciled'? Yes, if we do not apply a criterion of mutual exclusivity. Then the explanation of poverty perpetuation provided by the behavioural economics of poverty might represent a—potentially—valuable complementary (rather than substitutive) explanation of the causal forces leading people to remain in a condition of poverty.

3. The Policy Value

After having carried on an analysis into the explanatory value of the behavioural economics of poverty, this chapter is interested in providing a perspective on the policy usefulness of the theoretical and empirical efforts produced in this research strand. As already mentioned throughout this work, behavioural economists have been eager to stress the policy relevance of their findings and derive policy implications from their analyses (see, e.g., Bertrand et al., 2004; Mullainathan & Shafir, 2013; Gennetian & Shafir, 2015). At a theoretical level, the behavioural economics of poverty provides a different perspective on the mechanisms underlying the perpetuation of poverty. The provision of this new theoretical account might be welcomed with high expectations from a policy-maker interested in exploring new possibilities to break the cycle of poverty in which poor individuals might be trapped. To see whether the current state of the literature is able to satisfy the policy-maker's expectations, the central question asked here is the following: which tools and policy avenues does the behavioural economics of poverty provide with respect to the policy objective of breaking the perpetuation of poverty? In order to provide an answer, this chapter focuses on the recommendations for anti-poverty policy pointed out by behavioural economists in the case of affluent ("developed") nations.

It will be shown that the policy recommendations mostly work as *behavioural tweaks* on existing services and programmes targeting the poor (e.g. provision of welfare benefits). This application relates to a central *policy message* coming out of the behavioural economics of poverty, which might be expressed in negative form: do not impose (extra) cognitive burden on the poor when implementing services and programmes targeted at them (see, Mani et al., 2013). In the behavioural perspective, in fact, what drives the ineffectiveness of many well-intended programs for the poor is that they do not pay sufficient attention to the cognitive and behavioural limitations (e.g. effect of cognitive load) of the targeted individuals (Gennetian & Shafir, 2015). To become more effective, it is suggested a change in policy perspective to incorporate the view of the *behaviourally poor* in the design and implementation of specific programmes. From this, it is possible to trace a first conclusion about the policy relevance of the behavioural economics of poverty: behavioural insights might be regarded as (mostly) useful for increasing the effectiveness of existing policies, rather than providing new and substantially different policy implications to end the perpetuation of poverty.

This first set of policy implications relates to the behavioural economics view on the poor. However, as pointed out in the previous chapters, this approach also appears to provide a different view on how poverty is perpetuated, i.e. through cognitively impaired economic decision-making. Starting from this, one *policy objective* is identified: pushing the poor to increase their level of savings (see, e.g., Mullainathan and Shafir, 2010, 2013b). Behavioural economists suggest the employment of nudges that might help achieving this objective by changing the choice-architecture for people in poverty (e.g. design of commitment devices such as reminder text-messages) and counter-acting the cognitive limitations of individuals. In respect to this policy avenue, this chapter reflects upon the relevance of focusing on economic decision-making in poverty (i.e. saving and borrowing behaviour) as a tool for breaking the cycle of poverty. Even though it cannot be denied that increased savings among the poor would be a desirable goal—also from a policy perspective—it is far from clear the feasibility and potential of "good" saving behaviour on the side of the of the poor as a tool to escape a "poverty trap". The focus on saving behaviour points to one observation with respect to the policy application of the behavioural economics of poverty. It appears as a tool more suitable for preventing people to end up in poverty or make their condition of poverty worse, rather than as a tool to provide individuals with opportunities and resources to break a—possibly long-lasting—cycle of poverty.

Abstracting from practical policy discussions, this chapter also briefly reflects on the potential influence of the behavioural economics of poverty on anti-poverty policy thinking. That is, on political discussions about what causes the perpetuation of poverty and what is needed to end it. In this respect one potential *danger* is recognized. In a nutshell, the danger is that—despite the narrowness in terms of explanation and policy implications identified—this approach might be perceived as "sufficient" or "revolutionary" to end the perpetuation of poverty. This danger does not come directly from the words of behavioural economists, who would be very reluctant—I believe—to argue that nudging the poor is what it takes to completely solve the lingering problem of poverty. However, this danger does not appear so remote if we take into account different entrenched features, such as the inexpensiveness of the policy measures suggested by behavioural economists, the delicate political discussions about the size and effects of the welfare state, and the widespread recognition that behavioural public policy has recently been gaining (see, e.g., Shafir, 2013; Chetty, 2015; Bhargava and Loewenstein, 2015). This point will further elaborated upon in the concluding section.

Before getting into the core of the discussion, it should be reminded that the behavioural economics of poverty is a recent and growing field of research. Policy implications are only starting to be derived and they appear, so far, limited in their scope. As such, at this point in time, it would be unwarranted to say the last word about the policy usefulness of this approach. In fact, if new theoretical directions will be explored in the following years—as it appears plausible—policy implications derived from such analyses might also be augmented, improved or modified. It follows that the present evaluation should be regarded as a first and partial evaluation of the potential in terms of policy implications of the behavioural economics of poverty. Moreover, in order to make the analysis more tractable, this chapter has made the choice to focus on the policy-implications in "developed" nations, rather than in "developing" countries. The choice not to deal with poverty in developing countries is due to the willingness to separate the behavioural economics of poverty from behavioural development policy, which is a broader strand of literature that has also been gaining great interest in the recent years.

The chapter is structured as follows. Section 3.1 serves as an introduction to the discussion by analysing how the analytical focus in the behavioural economics of poverty might be translated into a policy focus. Section 3.2 provides a short overview of the policy implications derived by behavioural economists in the case of affluent nations. Here the *behavioural tweaks* are presented together with the central policy message identified. Section 3.3 reflects upon the potential of focusing on saving behaviour as a tool for escaping poverty. Finally, Section 3.4 provides concluding remarks.

3.1 From analytical focus to policy focus

In order to apply a gradual shift from discussions about the explanatory value of this approach to discussions about its policy relevance, it might be useful to start once again from the skeleton of the explanatory framework and analyse, at first glance, which policy avenues appear to be open. For the present purpose, the explanatory framework can be represented as:

Poverty → *Cognitive processes* → *"Bad" economic decision-making* → *Poverty*

For a policy-maker laying his or her eyes on this framework, individual decision-making immediately stands out as a key variable to focus on in order to stop the perpetuation of poverty. That is, with the objective of breaking the cycle of poverty, a policy-maker might get the idea that it is necessary to change the quality of the economic decision-making of people living in poverty. If this is granted, the usefulness of the behavioural economics of poverty comes from the causal explanation provided with respect to what causes such "bad" individual decisions. As stressed throughout this thesis, the causal story presented imputes counterproductive decision-making on the side of the poor to cognitive processes causally induced by the context of poverty (i.e. pervasive financial scarcity). As such, from the perspective of the policy-maker, three policy avenues appear—in principle—possible for the aim of increasing the quality of individual decision-making of the poor:

1) Target financial scarcity
2) Target the cognitive processes
3) Target "bad" economic decision-making

Target financial scarcity - What would be the value of targeting financial scarcity directly? In the explanatory framework of the scarcity hypothesis (Mullainathan & Shafir, 2013; Mani et al., 2013), (perceived) financial scarcity is the environmental input responsible for the inducement of specific cognitive processes. As such, to tackle financial scarcity would imply to avoid the triggering of the cognitive processes at the roots of counterproductive decision-making. It would amount to change the *context* responsible for the lower quality of decision-making. Regarding *how* financial scarcity should be targeted, behavioural economists restrain from providing any argumentation in support of redistributive policies or generous cash transfers to the poor. This might be due to the fact that redistributive policies are considered as the *expensive* policies to target poverty par excellence. In contrast, the message of the behavioural economics of poverty is that *cheap* interventions can have a large effect (Bertrand et al., 2004). As such, to target financial scarcity—through the provision of cash transfers—is not the policy implication that behavioural economists focus on. However, there seems to be a way in which behavioural economists aim at targeting financial scarcity. This relates to the third point in the policy list: targeting the economic decision-making of the poor. In this respect, a "good" saving and borrowing behaviour of the poor are regarded as having the potential to provide the poor with a financial buffer that might help when they have to face shocks of different nature, such as income and health shocks (Mullainathan & Shafir, 2013).

Target cognitive processes – To target cognitive processes might appear as the least straightforward of the three options. However, in the causal chain depicted above, it is cognitive processes that are causally responsible for "bad" economic decision-making. As such, if policy-makers managed to target the cognitive processes of individuals in poverty, the quality of their decision-making should—in principle—be expected to increase. Targeting cognitive processes would amount to target the negative consequences of the context on individual decision-making, without changing the context itself. That is, rather than modifying the context in which people decide, it would intervene to increase individuals' mental abilities to cope with that specific context. This intervention, clearly, does not retain any economic connotation, and should rather be regarded as a *psychological intervention* to combat the perpetuation of poverty. This kind of intervention has been advocated for by Haushofer and Fehr (2014:866), who—focusing on the effect of negative affective states (e.g. depression and anxiety) and stress on economic decision-making—suggested the use of "psychotherapy-like interventions". At a general level, if the aim is to target cognitive processes, two questions immediately arise. First, *which* cognitive processes should be targeted? And second, *how*, in practice, should they be targeted? With respect to the former, two variables that occupy a central role in the explanation provided by behavioural economists are limited attention and limited self-control (see, e.g., Mani et al., 2013; Vohs, 2013). With respect to the latter, Sheehy-Skeffington and Rea (2017:39) proposed—on the basis of the evidence provided by some psychological studies (see, e.g. Tang et al., 2007)—that learning and practicing meditation might improve attention and self-control. As such, the provision of "meditation services" to individuals living in poverty might be seen as an attempt to work on the cognitive mechanisms responsible for bad individual decision-making. These policy options appear interesting and should not be too easily dismissed. However, the effectiveness of such measures is rather uncertain for a variety of reasons, including the willingness and availability of poor people to engage in meditation practices and the possibility for meditation techniques to have such a large effect able to counteract the negative cognitive consequences of poverty. Nevertheless, there do not seem to be, a priori, valid reasons to oppose such attempts.

Target "Bad" Economic Decision-Making This policy action has been the main focus of behavioural economists (see, e.g., Mullainathan & Shafir, 2010,2013; Gennetian and Shafir, 2015). The target here is to have policy measures that lead the poor to take more beneficial decisions for themselves, such as saving more, borrowing less, and taking up of welfare benefits. To increase the quality of economic decision-making is seen as conducive to greater financial stability for the poor and less vulnerability to financial shocks of different nature. That is, the underlying proposition is that by targeting the economic decision-making of the poor, it is possible to reduce the financial instability that is so consuming of scarce mental resources (Mullainathan & Shafir, 2013). These policy measures are effectively "nudges", which intervene on the choice environment of the poor and harness a certain heuristic to bring about a specific behavioural change (Grune-Yanoff & Hertwig, 2015). More precisely, such nudges are aimed at altering the choice architecture faced by poor people, with the attempt to counteract the effects of limited cognitive capacity (e.g. limited attention and limited self-control) on decision-making that characterize all individuals, and particularly those living in a context of poverty (i.e. a context of pervasive financial scarcity). Examples of such nudges envisioned to lead the poor to save more are reminder text-messages or the design of commitment devices to counteract self-control failures (Mani et al., 2013).

These three policy options are the ones that, in principle, might follow from the explanatory framework of the behavioural economics of poverty. However, as argued above, behavioural economists have posed their attention on the third option, i.e. how to increase the quality of (economic) decision-making of the poor. As such, the remaining of the chapter will scrutinise more carefully the potential of this policy option. First, however, I give a brief overview of policy recommendations formulated in the case of affluent nations.

3.2 A brief overview of policy recommendations in affluent nations

The policy recommendations derived by authors working in the behavioural economics of poverty have found, so far, a rather narrow application. In the case of affluent nations—where the institutional environment is characterized by the presence of a (more or less generous) welfare state—the focus has been on two main issues: i) take-up of welfare benefits, ii) participation of the poor in the financial mainstream (Mullainathan & Shafir, 2010, 2013; Bertrand et al., 2004, 2006). From an individual decision-making point of view, the two issues identified can be formulated as i) the decision to access welfare benefits, and ii) the decision to open a bank account. In respect to this, Bertrand et al. (2006) propose the use of marketing techniques in order to lead the poor towards beneficial decisions in these realms.

Concerning the take-up of welfare benefits, the *policy problem* is identified in the "remarkably low take-up rate" of many transfer programs in the US, where many individuals fail to gain benefits from welfare programs they would be entitled to. The behavioural perspective is seen as able to provide a different explanation with respect to why individuals fail to apply to such programs; an explanation grounded in the cognitive consequences of taking decisions in a context of poverty. The possible causes identified by these authors for the low take-up rates are "ignorance on the side of the poor for the programs they could benefit from", "hassle factors such as long applications", and "procrastination in signing up" (ibid: 16). Long applications to apply for welfare benefits, for instance, are cognitively demanding and add an extra burden on individuals that are already—by the context in which they take decisions—cognitively loaded. From this analysis, the authors propose a series of policy measures that might counteract these constraining factors, such as counteracting procrastination by sending a well-timed reminder or making application forms less complex and more collaborative. Another relevant issue related to the low take-up rate of welfare benefits is what in the literature has long been termed the "welfare stigma", i.e. the stigma associated with receiving welfare benefits (see, e.g., Horan & Austin, 1974). Hall et al. (2014: 623) have argued that "behaviourally insightful interventions in contexts of stigma and threat can have a substantial impact on reasoning and decision-making and, among other things, may reduce barriers to program participation". In this respect, the authors suggested the employment of self-affirmation procedures among the poor in order to create positive identities and avoid the harmful effects of perceived stigma when (non-) applying for benefits they would be entitled to.

With respect to the participation of the poor into the financial mainstream, the attention has been posed on pushing the poor towards the opening of a bank account (see, e.g., Bertrand et al., 2004). In this case, in fact, the *policy problem* is identified in the failure of many households living in poverty to have a bank account. In the US, approximately 10% of all households are "unbanked" (Bertrand et al., 2006: 11). Why should pushing the poor towards opening a bank account be seen as a policy objective? From a behavioural perspective, the opening of a bank account has important implications for consumption and saving patterns among the poor. As argued by Mullainathan and Shafir (2013: 284), "financial services may provide an important pathway out of poverty". The main idea behind is that when people do not put their money into a bank account, but rather have them readily available in cash, they are more prone to indulge in impulsive consumption at the cost of saving activity. As such, leading the poor to open a bank account is regarded as an instrumental action for pushing the poor to save more. Even in this case, Bertrand et al. (2006) suggest that a behavioural perspective on why the poor are not banked leads to policy measures that have the potential to increase the inclusion of poor people into the financial mainstream. Such measures include the design of informational campaigns pointing out the benefits of being banked, the triggering of identities among the poor that lead to a more positive response, and "simple instructional flyers delineating the steps to follow to open an account, offer precise maps on bank location, and describe how to use an ATM card" (ibid: 14). Moreover, from a public-sector perspective, the government might encourage the opening of bank accounts by transferring tax refunds directly into bank accounts (Mullainathan & Shafir, 2013b).

More generally, insights coming from the behavioural economics of poverty have been regarded as having the potential to increase the effectiveness of existing programs and services targeted at the poor (Gennetian and Shafir, 2015). This is because this research strand provides a different perspective on the psychological conditions in which poor people need to make decisions in the everyday life. Once the psychology of the poor is taken into account, the failure of existing programs is explained by the fact that they do not pay attention to the cognitive and behavioural limitations of the targeted individuals. That is, many well-intended programs might fail because "they impose regressive taxes on people's cognitive capacity, on their mental bandwidth available for juggling daily routines" (ibid: 910). These authors provide three case studies of policies and programmes targeted at the poor in the US context that would benefit from the inclusion of a behavioural perspective: i) SNAP (Supplemental Nutrition Assistance Program), ii) Opportunity NYC CCT Program, iii) Early Head Start Children program. I briefly go through them in order to provide a concrete picture of how behavioural insights have been envisioned to apply to increase the effectiveness of existing programs targeting the poor.

SNAP is a central component of the US safety net and it serves the function of providing food to individuals with gross income under 130 percent of the federal poverty threshold (Food and Nutrition Service, 2013). Again, the problem identified with this programme stays in the low take-up rates, which are explained by the fact that eligible individuals might be cognitively loaded and mentally depleted, and might have procrastinated before applying for it. The proposed solution takes the form of a "simple intervention [that] may increase participation by leveraging tax information". When filling in a tax form, in fact, an individual already provides most of the information necessary in order to determine eligibility to SNAP. As such, the authors propose that an opt-out option in the tax form (i.e. the provision of a different *default option*) could facilitate enrolment in SNAP.

The second case study relates to the "Opportunity NYC CCT Program". This program was launched in 2007 in New York City with the aim of incentivising poor individuals to engage in a series of beneficial behaviours (e.g. health behaviour, children's educational outcomes, search for a job) through the provision of financial rewards. In essence, it is a program that aims at changing the behaviour of poor individuals by providing substantial financial incentives to do so. The program works such that when participants show a proof of having engaged in certain desired behaviours (e.g. going to a health visit for their children), they receive an amount of cash that varies depending on the kind of completed behaviour. Proof of participation could be verified through two different channels; either through automatic administrative records or by requiring participants to directly send documentation. In this case, the behavioural perspective provides insights on why cognitively-loaded participants might fail to actively provide such documentation and, as such, fail to reap the financial benefits of the program. As a policy response, the authors envision " a right balance of reminders and default accreditation". Finally, the third case study relates to the Early Head Start Children program, designed to assist low-income mothers and their children until the age of three. Without the need to go into the details of the program, even in this case the authors identify the problem in the low take-up rates and propose the use of well-timed reminders, including text-messages, to increase the take-up rate of these programs and their effectiveness.

Starting from these policy recommendations, it appears that the policy relevance of the behavioural economics of poverty might not be in the formulation of radically alternative policies aimed at breaking the cycle of poverty, but rather in the provision of a change in policy perspective able to increase the effectiveness of existing programs and services targeted at the poor. This change in perspective is strictly related to what, in the first chapter, has been labelled the *behaviourally poor*. In this context, the *behaviourally poor* is a view about the target of policy interventions. In a nutshell, this perspective sees the poor as individuals subject to a constant and vast amount of cognitive load, which depletes their attentional and self-regulatory capacity, with negative implications on the quality of their decision-making. From a behavioural perspective, if programmes targeting the poor are to be effective, they need to take into account such limitations. This leads to pointing out a central policy message of the behavioural economics of poverty.

Policy Message: When implementing programmes and policies targeted at the poor, do not create (extra) cognitive burden in targeted individuals.

It is from this negative message (i.e. what a policy-maker ought not to do) that most of the policy implications derived by behavioural economists depart from. In this sense, measures such as sending reminders, creating shorter and more collaborative application forms for welfare benefits claimancy, and the design of suited financial services should be seen as motivated by the aim of not creating a cognitive over-load on the poor and free up their mental resources when taking certain decisions (e.g. opening of a bank account or taking up of welfare benefits). How does this policy message follow from the explanatory framework highlighted in chapter II? It does not directly follow from the whole explanatory framework for poverty perpetuation; rather, it should be seen as the policy implication derived from the experimental evidence produced with respect to the (immediate) cognitive effect of poverty on individuals (Mani et al., 2013). As argued in the introduction of this chapter, however, the policy relevance of the behavioural economics of poverty also relates to the identification of one type of behaviour that might play a central role in the (non-)perpetuation of poverty: saving behaviour. In this respect, the *policy objective* is to push the poor to increase their level of savings. The next section reflects upon the value and feasibility of leading the poor towards a "better" saving behaviour for the objective of breaking their cycle of poverty.

3.3 Saving behaviour in perspective: a tool for escaping poverty?

In the explanation of poverty perpetuation, the behavioural economics of poverty has relegated a great attention to the role of "bad" economic decision-making (see, e.g., Sheehy-Skeffington & Haushofer, 2014). In this regard, "bad" economic decision-making is identified with patterns of under-saving and over-borrowing among the poor (Shah et al., 2012). From this perspective, a valuable policy objective is to push the poor to increase their levels of savings. The measures proposed to increase inclusion of the poor into the financial mainstream, in fact, have to be regarded as guided by this ultimate aim. With respect to the saving behaviour of the poor, Mullainathan and Shafir (2013b: 286) state that "the lack of buffer-stock savings is one of the most interesting puzzles to understand in the financial lives of the poor". But, is the fact that poor individuals fail to save really such an interesting puzzle? Recently, there has been a growing interest in the literature into the "financial lives of the poor", which have been investigated, in developing countries, through ethnographic methodologies and financial diaries (Schwittay, 2014). The seminal book *Portfolios of the poor: How the World's Poor live on 2$* (Collins et al., 2009) has provided a picture in which the poor engage in intense and 'sophisticated' financial activity in order to make ends meet. Similarly, Banerjee and Duflo (2007), relying on household surveys in a number of developing countries, have found that the poor do have some surplus that they do not employ for essential expenditures. These works seem pointing to the fact that also those living in incredibly restricted financial conditions have some possibility for saving and do actually engage in saving behaviour.

From the perspective of a policy-maker interested in breaking the cycle of poverty faced by certain individuals, what is the value of increasing the savings of the poor? Or, stated differently, what can saving behaviour change with respect to the perpetuation of poverty? To provide a clear-cut answer to this question is a delicate endeavour. On the one hand, there is the danger of oversimplifying the issue and end up arguing that the poor, given their condition of extreme financial scarcity, have no possibility for saving at all. However, as ethnographic studies and household surveys seem suggesting, the poor—even those living under 2$ a day—have some income available for saving and do actually engage in saving behaviour. On the other hand, however, there is the opposite danger of taking for granted that the poor can actually save and, if they fail to do so, it is due to lack of self-control rather than lack of possibilities. This line of reasoning seems the one leading to the "interesting puzzle" pointed out by Mullainathan and Shafir (2013b).

What appears uncontroversial is that having a substantial level of savings would definitely help the conditions of the poor, especially with respect to the many income and health shocks that they might experience in their lives. As such, having a financial buffer to rely upon could be decisive in order not to further deepen their condition of poverty. What appears more controversial, however, is i) which level of savings, if any, can get individuals out of a condition of poverty, and ii) whether these savings can remain untouched and accumulate for a long period of time, rather than being used in the short- and medium- term. In principle, there is no reason to object to any of the policy initiatives that try to achieve this objective, such as the governments' attempt to push individual savings by providing incentives through matched saving schemes. However, it is unclear which difference this focus can make—also from a policy perspective—with respect to breaking a cycle of poverty.

The main point to be made here is that—starting already from a condition of poverty—saving behaviour does not seem to represent a key variable to move out of poverty. For instance, for individuals who have been poor and out of the labour market for a long period of time, it is difficult to see how savings could be produced and sustained at all. For these individuals, who might be regarded as *chronic poor*, the puzzle presented by Mullainathan and Shafir appears to have an easy answer: lack of savings is due to a persistent lack of income (i.e. liquidity constraints). For another category of the poor, however, the puzzle might be more relevant. We might imagine this category as composed by individuals that live around the poverty line, occasionally being below of it and experiencing transitory spells of poverty. In this case, saving behaviour in periods of relative financial abundance might work as a "safety net" in periods of relative financial scarcity. However, even in this case, it is hard to imagine a scenario in which the poor would be in the condition to build a financial buffer able to protect them from negative shocks, while experiencing periods of relative—but still low—financial abundance. The upshot of this discussion is that the focus on saving behaviour seems to apply more to individuals who experience transient periods of poverty, or who might be near to a state of poverty, rather than to those living in a deep state of poverty for a long period of time, or possibly all their life.

Two observations follow from this analysis. The first observation relates to the image of the 'poor' that underlies the policy implications derived. As argued in the second chapter, in fact, individuals in poverty do not represent a homogenous category and might be disaggregated with respect to a series of relevant dimensions (e.g. duration of the poverty experience, age profile, labour-market position, or geographical context). Starting from this heterogeneity, it is not clear for whom saving behaviour represents a possible pathway out of poverty. One possibility is that authors in the behavioural economics of poverty rely—at least implicitly—on a specific conception of 'the poor'. In the formulation of the scarcity hypothesis ((Mullainathan & Shafir, 2013a; Mani et al., 2013; Shah et al., 2012), for instance, the 'poor' do not seem to be identified as individuals living in conditions of extreme destitution and social exclusion, but rather as individuals subject to a recurrent condition of financial scarcity, characterized by unstable and unreliable sources of income and multiple (financial) demands to be attended. In this respect, Gennetian and Shafir (2015: 920) talk about the "new face of the working poor, suffering not so much from a dearth of possessions as from a cavalcade of chaos—pay cuts and eviction notices, car troubles and medical crises—that rattles their finances and nudges a family towards the economic brink". This description seems capturing a substantial portion of the population in contemporary 'affluent' nations, especially in the face of adverse macro-economic circumstances following from the most recent financial crisis; a portion greater than what a standard poverty line might identify as poor. These are individuals facing a precarious condition of financial instability and for whom large unexpected shocks might create long-lasting troubles. When referring to them, it might be more appropriate to talk in terms of individuals *at risk of poverty*, rather than individuals in chronic poverty. A second, related, observation concerns the policy relevance of the behavioural economics of poverty. This relevance seems to reside more in the formulation of preventive measures to avoid the further deepening of a condition of poverty or the entrance in poverty from a condition of financial scarcity, rather than as empowering measures to help the poor climb out of poverty. That is, rather than being about how to provide the poor with new opportunities and resources to get out of poverty (*empowering*), it is about how not to worsen an existing condition of financial scarcity (*preventive*).

3.4 Concluding remarks

This chapter has provided a first evaluation of the policy usefulness of the behavioural economics of poverty in the case of affluent nations. It started by recognizing that, so far, the application of the behavioural economics of poverty to policies targeting the perpetuation of poverty in affluent nations has been quite limited. In this respect, the central points of the chapter can be summarized as follows:

- A central policy message is expressed in negative form: do not pose an extra burden on the attentional, motivational and self-regulatory capacities of poor individuals, when designing and implementing programs targeted to them. This policy-message follows directly from the view of the *behaviourally poor* and the experimental research about the immediate cognitive effects of poverty (Mani et al., 2013).

- From the explanation of poverty perpetuation provided—in which economic decision-making retains a crucial role—behavioural economists have focused on one specific *policy objective*: pushing the poor to increase their level of savings (see, e.g., Mullainathan & Shafir, 2010, 2013b).

- Fruitful applications of behavioural insights do not seem residing in the formulation of radically different policies, but rather in the modification of existing policy measures (e.g. programs and services) in order to increase their effectiveness.

- The policy relevance of this approach—especially with respect to the scarcity hypothesis—appears to be mostly related to the objective of not worsening an existing condition of poverty (or, financial scarcity), rather than directly contrasting the perpetuation of poverty or proposing alternative (policy) pathways out of it.

- In the case of affluent nations, the bulk of attention has been paid, so far, to how to improve two 'decisions' of the poor: i) taking-up of welfare benefits, and ii) opening of a bank account.

Overall, the policy applications of the behavioural economics of poverty might be deemed as quite disappointing. In fact, we started with an explanatory framework that claimed to provide a different perspective on the dynamics of poverty perpetuation; a framework in which the decisions of the poor—affected by cognitive processes causally induced by the context of poverty—exert a great influence on the perpetuation of poverty. However, when this framework gets applied to policy measures, it does not seem to have the potential to propose concrete measures to help the poor break the cycle of poverty. In this respect, the main intervention seems to be related to nudging the saving decisions of the poor.

Why is this so? One reason for this can be found in a critical feature identified in the explanation of poverty perpetuation provided by the behavioural economics approach to poverty. That is, in explaining how the poor remain poor, the causes that might have led the poor to become poor in the first place are neglected and left out of the analysis. Leaving them out, however, might have substantial implications for envisioning policies aimed at leading the poor out of their poverty condition. Another reason relates to the salience of "good" financial behaviour (i.e. saving and borrowing behaviour) for climbing out of poverty, especially for individuals who have lived in such condition for a long period of time and who do not have a secure source of income.

To conclude this chapter, I propose to momentarily abstract from these practical considerations and to reflect upon the general contribution of the behavioural economics of poverty for *policy thinking* about poverty. That is, how does this approach contribute to policy ideas for targeting poverty? With respect to this, I put forward one danger that might come out of the widespread acceptance and adoption—on the side of policy-makers—of the behavioural economics approach to poverty as the basis for policies targeting the perpetuation of poverty. Simply stated, the danger is that the attention on individual decision-making of the poor might lead to see poverty perpetuation exclusively as an issue of bad individual choices, leaving out of the (policy) analysis the social and structural influences—stressed in the second chapter—that might exert a substantial effect on the decisions taken by the poor (e.g. the opportunity structure faced by the poor) and their possibilities to get out of poverty. This danger gains substance because of several interrelated features surrounding anti-poverty policy in contemporary welfare states, such as the tightness of fiscal budgets and the momentum gained by behavioural public policies in policy environments. The measures of austerity implemented by governments in response to the financial crisis have led to significant cuts to public spending, the privatization of many services and the deregulation of the labour market. All these macro-economic factors might play against the ability of public policy to effectively contrast the phenomenon of poverty at a more structural level. In relation to this, the fact that the behavioural economics of poverty claims to provide cheap interventions that might have a large effect might result very attractive to the eyes of policy-makers, who got used to the idea that solving poverty ought to be an expensive effort.

One final point relates to the potential of this approach for changing political attitudes and lay beliefs about the causes of poverty and the responsibility for poverty alleviation. Spears (2011: 33) has argued that "the view that poverty is caused by bad decisions and bad behaviour is commonly held and politically influential, but may be moderated by evidence of the potential complexity of the causal ties between poverty and behavioural control". Is the behavioural economics of poverty in the position to counteract arguments that see bad decisions and bad behaviour on the side of the poor as the causes of poverty? Here, again, a distinction must be made between poverty generation and poverty perpetuation. In relation to those arguments that see bad decisions as the causes for people *becoming* poor, the behavioural economics of poverty has nothing to say. This is because the analytical framework employed begins from a condition in which poverty is already in place, being silent on what might have led to end up in poverty in the first place.

Regarding arguments about why the poor *remain* poor, instead, the behavioural economics of poverty is in the position to provide its own perspective. In this respect, I suggest to see the message coming out of the behavioural economics of poverty as supportive rather than in contrast with the view that poor people remain poor because of their "bad" decisions. This is because—taking their explanatory framework as an explanation of why people remain poor—the perpetuation of poverty is explained exclusively in terms of bad or biased (economic) individual decisions. Nevertheless, it appears as the behavioural economics of poverty is in the position to provide a "moderation" of such arguments, as suggested by Spears. The moderation comes from the claim that counter-productive decisions are not due to intrinsic characteristics of the poor, but rather due to the context of poverty itself. That is, poverty as a context yields predictable behavioural consequences that would apply equally to anybody finding him or herself in such a condition. Going back to the experiment by Mani et al. (2013), the message is that the poor are not less intelligent than the wealthy, but that the context of poverty makes them behave *as if* they were because of the cognitive burden it imposes on them. Therefore, by stressing the role of the context on individual behaviour, the behavioural economics of poverty might be in the position to moderate arguments that put the blame on the poor. To what extent it is successful in doing so, however, is not completely clear.

4. Concluding with a dialogue

This work has provided a critical evaluation of a recent and growing strand of research that has been gaining increasing attention in both academic and policy environments: the behavioural economics of poverty. In this respect, chapter I offered a detailed presentation of the approach, chapter II analysed its explanatory value, and chapter III focused on its implications for policies aimed at targeting the perpetuation of poverty. This concluding chapter serves two functions. First, it provides a brief summary of the main points made in this work with respect to the behavioural economics of poverty. Second, and more importantly, it offers a space for dialogue with authors working in this research strand. In order to introduce a dialectic mode, I envision and address possible reactions to the claims made in this work coming from behavioural economists.

In the first section, I provide a brief summary of the main points made in the three chapters of this work. In the second section, then, I envision a possible reaction from behavioural economists to each of the three chapters and address them immediately. Finally, a concluding note follows.

4.1 The essence of the thesis

This research work begun from observing the growing importance of this approach to poverty, and an interest in grasping its potential to contrast the perpetuation of poverty. The main messages of the thesis can be identified in the three chapters as follows.

Chapter I introduced and offered a detailed review of the behavioural economics of poverty. The main points to be taken from the chapter are:

- This approach provides a different perspective on the poor and their behaviour, which I labelled as the *behaviourally poor*. The *behaviourally poor* are individuals who are less capable because of the cognitive impediments created by living in a context of poverty.
- The analytical framework of the behavioural economics of poverty depicts a cycle of poverty, or "poverty trap". The framework starts from a condition where poverty is already in place and works through the causal effects of poverty on decision-making to explain counter-productive choices leading to the perpetuation of poverty. This framework is silent with respect to what might have led an individual to end up in poverty in the first place; as such, it has nothing to say in

relation to those arguments that see differences in intrinsic characteristics as drivers of a state of poverty.

- In the explanatory framework, attention is (mostly) paid to the economic behaviour of the poor (see, e.g., Sheehy-Skeffington & Haushofer, 2014).
- Behavioural economists have produced experimental evidence in support of the claim that poverty has a causal effect on individual decision-making (see, e.g., Mani et al., 2013; Shah et al., 2012).
- The Scarcity Hypothesis retains a central role in the behavioural economics of poverty. It is a hypothesis about the effects of a (subjective) feeling of pervasive financial scarcity on individual behaviour (see, Mullainathan & Shafir, 2013a; Mani et al., 2013).
- From a policy perspective, the findings of this approach have been taken to apply to poverty in both developed and developing countries.

Chapter II critically engaged with the explanatory value of the behavioural economics of poverty. The explanatory value was examined with respect to two components of this approach that are strictly interrelated: i) individual decision-making in poverty (i.e. "the behaviour of the poor), and ii) dynamics of poverty perpetuation. The following points were made:

- In both respects, the explanation provided by the behavioural economics of poverty has been deemed *narrow*. This narrowness is essentially related to the failure to capture the role of socio-structural factors in influencing the decision-making of the poor and the perpetuation of their poverty status. In a sense, the poor are depicted as seemingly taking decisions in a social vacuum. In contrast to this picture, inter-disciplinary literature on neighbourhood effects has provided theoretical and empirical support towards the idea that social interactions in neighbourhoods of concentrated poverty might exert a substantial influence on individual decisions and socio-economic outcomes.
- A remarkable feature of this framework as an explanation of poverty perpetuation is that it begins from *poverty as an effect*. That is, in order to explain why people remain poor, nothing is said about what led people to end up in poverty in the first place. This feature contributes to the *narrowness-of-explanation-of-poverty-perpetuation*.
- On the other hand, the fact that the behavioural economics of poverty has not explicitly analysed the role of social interactions on the cognitive processes and decisions of individuals in poverty contributes to the *narrowness-of-explanation-of-decision-making-in-poverty*.
- Identifying the poor through universal cognitive effects created by a context of poverty leads to refer to the poor as a homogenous category. One implication of this is that this framework is not able to recognize the possibility that different

processes and causes might lead different individuals to be trapped in a condition of poverty. Relatedly, it is not able to explain why certain individuals and social groups might be more likely to be in a condition of persistent poverty.

- It has been suggested that the explanatory framework of the behavioural economics of poverty would benefit from a greater engagement, in both theoretical and empirical works, with the role of social influences on individual decision-making. This suggestion gains substance once it is recognized that behavioural economics, as a broader research field, owns the theoretical resources to explicitly analyse the role of the social context on individual decisions (e.g. the study of herding behaviour).

Chapter III provided a perspective on the policy usefulness of the behavioural economics of poverty with respect to the policy objective of breaking the cycle of poverty for individuals in affluent or "developed" nations. The central claims can be re-presented as:

- Starting from the explanatory framework provided, three policy avenues are, in principle, open with the objective of increasing the quality of individual decision-making in poverty: 1) target financial scarcity, 2) target the cognitive processes, 3) target "bad" economic decision-making. However, out of these three policy avenues, behavioural economists have posed their attention on the third option, which amounts to nudging the economic decisions of the poor (e.g. commitment devices in order to save).
- In affluent nations, the focus has been on two main issues: i) take-up of welfare benefits, and ii) participation of the poor in the financial mainstream (i.e. getting the poor to open a bank account).
- More generally, insights from the behavioural economics of poverty have been regarded as having the potential to increase the effectiveness of existing programmes and services targeted at the poor. This increased effectiveness comes from a change in policy perspective that relies on the view of the *behaviourally poor*.
- A central policy message tells policy-maker what they ought not to do when designing and implementing programs targeting the poor: do not create (extra) cognitive burden.
- The policy measures derived appear to have *preventive* nature, rather than an *empowering* one. That is, their policy relevance is mostly related to preventing a further deepening of poverty, rather than providing the poor with opportunities and resources to climb out of poverty.
- At the level of policy thinking about poverty, one possible danger has been presented. This relates to the possibility that the attention on the individual

decision-making of the poor might lead to see poverty perpetuation exclusively as an issue of "bad" individual decisions, neglecting the role of social and structural factors with respect to the ability of poor individuals to get out of poverty. Plainly stated, the danger is that anti-poverty policy might become, mostly, an issue of (inexpensive) behavioural change on the side of the poor.

4.2 Entering a dialogue with behavioural economists

After having provided a brief summary of the main claims formulated throughout this work, we are now in the position to enter into a dialectic mode and engage with possible reactions coming from behavioural economists. To give order to the discussion, I envision one possible reaction for each of the three chapters presented and then I address them directly.

Remark 1: The identification of the "behavioural economics of poverty"

A first concern behavioural economists might have is the very starting point of this thesis, i.e. the way in which I identify the "behavioural economics of poverty". In this respect, it might be argued that the selection of the articles to be included in this approach has been arbitrary, running the risk to provide a limited or distorted picture of the behavioural economics of poverty. In turn, such arbitrariness might have implications for the critical analysis carried on in this work. This remark should not be dismissed too easily, and it deserves an elaborated response. On one side, this danger of arbitrariness must be recognized, especially when it is about delineating the "borders" of a recent and growing body of research. In cases like this, it is way too easy to leave some contributions out of the picture. In order to address this remark, I enlarge the focus and see which other papers might be taken to be part of/related to the behavioural economics of poverty. Then I evaluate whether the neglection to include them might have implications for the way this approach has been presented in the first chapter.

Firstly, regarding the focus on experimental works in behavioural economics in my thesis. Have I been neglecting theoretical contributions? At the theoretical level, some authors have provided models to show the effects of self-control problems on the perpetuation of poverty (see Barnheim et al., 2015; Banerjee and Mullainathan, 2010). These papers share the main message that failures in self-control can lead to the perpetuation of poverty, but there is an important difference among them. The model built by Banerjee and Mullainathan (2010), in fact, is centred around a specific assumption; that is, that temptation goods are *inferior goods*, such that their demand decreases as the overall level of consumption increases (assumption of "declining temptations"). This assumption implies that the poor spend a greater portion of their income on temptation goods (e.g. a donut or a cigarette) compared to the wealthy. Whether this assumption holds in reality, it is clearly an empirical matter. In the model by Barnheim et al. (2015), in contrast, such assumption is not built into the model. For the purpose at hand, however, what should be pointed out is that these contributions are in line with the picture of the behavioural economics of poverty provided in the first chapter. That is, these contributions focus on self-control failures as mechanisms leading to the perpetuation of poverty and on the effect of poverty on the self-control capacity of individuals. In the words of Barnheim et al. (2015: 33), "there is little we have to say about a worldview of poverty that is anchored on the premise of intrinsic differences […] what we emphasize, in contrast, is a notion of poverty that feeds back to the capacity for self-control". That is, this model cannot say whether failures in self-control lead individuals to end up in poverty in the first place, but only that such failures are exacerbated by a condition of poverty and contribute to the perpetuation of poverty. Another related theoretical contribution is by Banerjee and Mullainathan (2008), in which the authors investigate the relation between poverty and productivity. In their theoretical model, what explains the impact of poverty on productivity is *limited attention*, "based on the idea that attention is a scarce resource that is important for productivity" (ibid: 2). In a nutshell, the model differentiates between "home life" and "work life", arguing that as the poor need to be attentive at home, they will be less productive at work. The non-poor, instead, can afford to buy distraction-saving goods and services at home and are therefore able to achieve a higher productivity at work. Again, the message is in line with the picture provided of the behavioural economics of poverty, in which limited attention is a central variable to explain the decision-making of the poor (see the scarcity hypothesis) and the perpetuation of a poverty condition.

Secondly, another strand of research might be included in the behavioural economics of poverty and these are the works that focus on the relations between poverty and aspirations (see, e.g., Ray, 2006, Dalton et al., 2015). The works on aspirations and poverty have been heavily influenced by the theory of anthropologist Arjun Appadurai (2004), who came up with the concept of "capacity to aspire". In his account, the poor may lack the capacity to aspire and this might lead to the perpetuation of poverty. A central aspect in Appadurai's theory is that aspirations are largely socially, rather than individually determined; that is, they are fundamentally determined inside a specific community so that the "capacity to aspire" itself is constrained by the opportunities and resources of the local context. Appadurai's insights have been used as the basis of theoretical models interested in the relation between poverty, aspirations and individual behaviour. One work in economics that shares Appadurai's view on the social determination of aspirations is by Debraj Ray (2006:2), in which the author develops the concept of *aspiration window*: "the window is formed from an individual's cognitive world, her zone of similar, attainable individuals […] our individual draws her aspirations from the lives, achievement, or ideas of those who exist in her aspiration window […] as an economic agent who desperately seeks to escape poverty, I will emulate, imitate and learn from the economic strategies of those in my neighbourhood income or wealth group".

What immediately stands out in this theorization is the importance of the social context for the formation of aspirations and, consequently, for individual behaviour. Moreover, Ray tries to connect economic and social change (i.e. structural conditions) to the level of aspirations and, therefore, individual behaviour. If the work by Debraj Ray were to be included in the behavioural economics of poverty, which implications would follow? In this respect, it might be argued that this approach has paid attention to the role of the social context in shaping individual decision-making in poverty and the dynamics of poverty perpetuation. Suppose this point is granted. I envision two replies. Firstly, it nevertheless seems to represent a single contribution, and centred on the notion of "aspirations". Secondly, to my best knowledge, the attention to social influences at the theoretical level has not yet been properly developed in empirical works. Therefore, my point about the behavioural economics of poverty having not paid extensive empirical attention to the role of social influences on individual behaviour in poverty and the ability of the poor to escape their condition of poverty still stands.

Remark 2: The narrowness of explanation

The main criticism brought about by this chapter in relation the explanatory value of the behavioural economics of poverty, relates to the narrowness of this approach with respect to the explanation of i) individual decision-making in poverty and ii) the dynamics of poverty perpetuation. In both cases, the approach has been found to be narrow due to the failure to (explicitly) include in the analysis the socio-structural factors that might have an influence on both individual decision-making in poverty and the dynamics of poverty perpetuation. Given the centrality of this critique, it is important to reflect on possible reactions towards it. In this respect, behavioural economists might argue that my charge that this approach deals with the poor as seemingly taking decisions in a social vacuum is ultimately misguided. This is so because behavioural economists are well aware of the influence that the social context might have on the decisions taken by the poor (e.g. social determination of aspirations). Moreover, it might be argued that what I identify as a limit, i.e. the "narrowness of explanation", is instead a virtue of this approach, which allows to study in isolation the effects of psychological (cognitive) consequences of poverty on individual decision-making and poverty perpetuation.

In order to address these reactions, two main points need to be made. Firstly, my thesis did not claim about the impossibility for the behavioural economics of poverty to include the social context in the analysis. As pointed out in chapter II, in fact, behavioural economics as a broader research field already possesses the theoretical resources to explicitly address the study of social influences on individual decisions. However, so far, the young field of behavioural economics-inspired poverty research has not made full use of these resources and—especially in empirical works—the social dimension of poverty appears to have been mostly left out. To this observation, this thesis has added a suggestion; that is, that the explanatory value of the approach might benefit by paying greater attention to the role of social influences on decision-making in poverty. For instance, this might allow gaining a more vivid picture of the role of contextual social norms on individual decisions of the poor both in rural and urban settings. Secondly, it should be recognized that, indeed, the narrowness identified is what allows to study the effects of cognitive processes in isolation. However, concerns arise when such isolated effects—studied in laboratory settings and often on non-poor individuals—are taken to explain a large set of behaviours among the poor in the real-world (Mani et al., 2013). This is, clearly, an issue of external validity and is further complicated by the observations that the poor might not represent a homogenous category (even with respect to how they are able to cope with the cognitive load created by a condition of poverty) and that the socio-cultural context might exert a substantial influence on individual cognitive processes and decisions.

Remark 3: The limited value of behavioural economics research on poverty for policy

With respect to the claims made in chapter III in relation to the policy value of the behavioural economics of poverty, different reactions might be envisioned. Here, I focus on two reactions that might follow from specific claims made in the third chapter

a. The policy measures derived from the behavioural economics of poverty are not empowering

The first reaction might be to my claim that the policy measures derived from the behavioural economics of poverty appear to own a preventive rather than empowering nature, and—as such—do not really provide the poor with greater opportunities and resources to get out of poverty. To this claim, it might be responded that—by pointing out the psychological (internal) constraints on "good" decision-making and trying to counteract the effects of such constraints—the policy measures derived are in the position to free up mental resources and are, in that sense, empowering for the poor. For instance, going back to the relation between aspirations and poverty, it might be said that 'increasing' the aspirations of the poor would amount to increase the (internal) resources possessed by individuals in order to get out of poverty. My reply to this is as follows. Even though working on personal aspirations might be seen as an instance of empowerment, it is still far from clear how these aspirations ought to be addressed concretely and to what extent they can be modified by an external intervention. Moreover, it is unclear to what extent it would be desirable to increase the aspirations of the poor without changing the socio-economic context that is, at least partly, responsible for the formation of such aspirations. If individual aspirations to get out of poverty increase, but the opportunities offered by the local context do not, this mismatch might contribute to the frustration of aspirations and have adverse psychological effects on individuals and their efforts to get out of poverty. In the absence of any more evidence, it might be argued that interventions targeting directly the cognitive machinery may have, at least in principle, the potential to be empowering. However, I think that a different story applies to the policy measures on which behavioural economists have mostly focused so far: nudging the financial decision-making of the poor. In this respect, is it an empowering policy to provide a commitment device (e.g. limit on the level of withdrawals allowed) to counteract possible self-control failures? On this point, I retain my scepticism.

b. The policy implications are quite disappointing

Chapter III claimed that the policy implications derived from this approach might be deemed as quite disappointing, starting from the explanatory framework proposed by the behavioural economics of poverty. The disappointment comes from the fact that this approach appears not to be in the position to provide new, or, so to say, "revolutionary" policy avenues to end the perpetuation of poverty. Part of this was attributed to the narrow focus on the financial behaviour of the poor; and part to the fact that these implications have mostly worked as behavioural tweaks on existing policies, rather than as new or different policies. It should be reminded that I focused exclusively on policy implications in "affluent" nations. Which reactions might behavioural economists wishing to defend the relevance of their approach to poverty put forward here? On the one side, they might argue against my scepticism with respect to the role of saving behaviour for getting out of poverty and state again the central role of "good" saving decisions for getting out of poverty. But note that my thesis has not questioned the appropriateness of having this as a policy objective and has recognized the benefits that would accrue to the poor if they could rely on a financial buffer in case of adverse shocks of different nature. My sceptical point, instead, has been about the feasibility for individuals in poverty to accumulate savings and, especially, up to a level that would allow for productive investments and/or would serve as a financial cushion against negative shocks. As such, it is a more a remark on the practical value of implementing policies that focus on this objective.

Behavioural economists might also argue that the insights coming from the behavioural economics of poverty should not be seen as *substitutes* to existing policies, but rather as *complements* to them, and that therefore, my criticism is too harsh. This would open for the possibility that the disappointment expressed in this thesis is merely the result of having set the expectation bar too high with respect to the policy potential of this new approach to poverty. I would not disregard this hypothesis too easily. If this is true, then, it might be interesting to understand why these expectations have been set so high in the first place. As it happened to the author of this thesis, in fact, it is not impossible that the same expectations might arise in the minds of policy-makers. My reply would be this. This thesis does not blame behavioural economists directly. That is, I am confident that none of the authors mentioned in this research strand would argue that nudging the poor or improving the financial decision-making of the poor is *sufficient* to end the perpetuation of poverty. However, there is a rhetoric surrounding this approach that makes it hard to fully grasp what we should expect from the policy-implementations of the theoretical and empirical efforts produced. For instance, in the seminal article, Bertrand et al. (2004: 9), conclude by saying that "the good news might be that simple and inexpensive policies have substantial impact". Again, how substantial this impact is? And, towards which objective? Towards getting the poor to open a bank account or towards getting the poor out of the "poverty trap"? It is this rhetorical ambivalence—as in the case of Mullainathan's (2008) article "Better choices to reduce poverty"—that might have led the expectations too high. However, there seems to be a space for final agreement. Recognizing that behavioural policies might represent a valuable addition to the policy tool-kit in order to increase the effectiveness of programs targeting the poor, more precision and clarity might be demanded with respect to how the value of the behavioural economics research on poverty is being advertised.

4.3 A concluding note

In order to conclude this thesis, one final point shall be made in relation to the explanatory and policy value of the behavioural economics of poverty. At a general level, the behavioural economics of poverty may be regarded as a strand of literature that points out the *internal constraints* in poverty perpetuation; that is, constraints inside individuals that prevent them from getting out of poverty. This contribution should be welcomed insofar as it provides a previously unexplored perspective on the psychological effects of poverty and their incidence on the ability of poor individuals to climb out of poverty. On the other hand, however, this focus on internal constraints should not make us forget the existence of substantial *external constraints* (e.g. the opportunity structure, shortage of well-paid jobs) that might play a decisive role to keep people in poverty. For policy-makers interested in targeting the perpetuation of poverty, and for academics interested in the study of poverty traps, the main danger in this respect comes from a *either/or* type of reasoning; that is, to (exclusively) focus on either one or the other. The literature on internal constraints points to the fact that poverty traps can persist even in the absence of external constraints (e.g. access to credit, employment opportunities) that impede people to get out of poverty. When this message is coupled with the assumption that external constraints are, indeed, absent, the policy-maker might only be willing to work on the psychological processes of the poor or their financial decisions. The policy message might then be that, in order to get people out of poverty, the bulk of attention should be on trying to counteract the self-control and aspirational failures of poor individuals. One way to moderate this view would be to have more empirical and theoretical works that are willing and able to connect the internal and external constraints to get out of poverty and analyse how external constraints, such as a limited opportunity structure in a polarized and stratified society, affect the psychology of individuals.

This work begun by pointing out a feeling of ambivalence with respect to the value of this recent and growing approach as an explanatory and policy tool to target the perpetuation of poverty. This ambivalence can be partly solved, if we recognize that this approach is a complement rather than a substitute for i) existing theories of poverty traps, and ii) existing policies aimed at targeting the perpetuation of poverty. A final source of uncertainty cannot yet be solved at this point in time, which relates to the empirical success of the policy measures proposed to target the perpetuation of poverty. That is, it is still an open empirical question how much the measures proposed are able to change the decisions of the poor towards a "beneficial" direction and how much these "beneficial" decisions are able to carry the poor out of their poverty status. At this point, the (long-run) effectiveness of behavioural interventions is far from being clear. This uncertainty is also strictly related to one observation made in this work, i.e. that the poor do not represent a homogenous category. As such, there is the possibility that these measures might help certain individuals to get out of poverty, but might be ineffective for other categories of the poor. Despite the contribution provided by the behavioural economics of poverty, still much work remains to be done in order to understand what keeps people in their poverty status and how policy-makers can effectively intervene to break the cycle of poverty in which individuals are trapped.

Finally, the behavioural economics of poverty gives a clear message: poverty changes the *mind-set* of individuals. This thesis has urged to be careful when reading through these words and to not interpret them as the claim that "poverty is a state of mind". Poverty is largely a social problem, which is created and perpetuated through a myriad of social interactions that happen at different levels in our societies and decisively shape the opportunities for a decent or better life for many individuals. We might be willing to go inside the minds of the poor and find ways to change their mind-set in the direction that we—as external observers—see as beneficial. We might try to counteract the aspirational and self-control failures of the poor, to make them not perceive the stigma associated with welfare benefits, to 'soften' their cognitive burden. But this is unlikely to create new opportunities for the poor; it will, in the best-case scenario, contribute to make them perceive that such opportunities are there. And, what if? What if these opportunities are *not* actually there? Without certainty, to assume that they are might be one of the greatest obstacles in eliminating the persistence of poverty.

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