

Behavioral Biases in Individual and Institutional Decision-Making in Africa: What Implications for Development Policies?

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Abstract

This article aims to analyze the tools that behavioral economics could bring to development economics for a better understanding of “homo africanus” behaviors. These, embedded in social structures, can, in many cases, be interpreted as cognitive, emotional or moral biases, which could justify the proposition of "nudge" development policies in Africa. These policies aim, by correcting behavioral biases, to bring about individual and institutional decisions in line with rational choices. It is still necessary that the theory of rational choices be refounded taking into account the primacy of social structures on economic decisions, specific to African cultures. It is at this price that partial and false public policies based on a caricatural description of African realities will terminate.

Keywords: social norms, rational choices, development economics, behavioral economics.

JEL Classification: D01, D87, O12, Z13

1. Introduction

At the top of the agenda of public and private development agencies is a strong focus on understanding more deeply the actual behavior of African economic actors. Too many of the development policies implemented are in fact only partial and false policies based on a caricatured description of African realities (Duflo, 2009). To remedy this, development economics borrows more microeconomic approach, having long discussed the issue of development from a macroeconomic point of view, with the major principles and policies that result. The research works of Angus Deaton, 2015 Nobel of Economics and Esther Duflo, 2012 John Bates Clark Award, contribute to this turning point. The microeconomic approach to development to identify individual and institutional decisions in Africa is even more useful here than anywhere else, the "non rational" choices seem to be the norm rather than the exception (Hugon, 1992, 2013). In general, the studies on the psychology of the African man highlight his obvious penchant for emotionalism. Senghor (1939) did he not say that "the negro is emotion, reason is Hellenic", meaning by that if "the European reason is analytical by use, negro reason is intuitive by participation" (Senghor, 1956). While discursive reason can be approximated by the rationality proper to the theory of rational choices, intuitive reason, or emotion, has connections with cognitive and emotional biases.

To analyze the non-rational choices of economic actors, a new economic discipline emerged in the 1980s: behavioral economics. This one deals with behavioral biases which are as many deviations from rational behaviors as defined by the standard theory of rational choices. Yet, for the moment, development economics integrates behavioral economics only marginally. Some studies use it to understand more finely the economic behaviors in Africa (Duflo et al, 2011; Schultz et al, 2007; Karlan et al, 2016), but these studies are only an oasis in a desert of application of behavioral economics to development economics. The most decisive applications of behavioral economics focus for the moment on developed economies where behavioral biases are not as recurrent as in Africa. In these countries, there is a convergence between research and public policies, on the basis of behavioral economics.

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In the United States, was created in the White House in 2015 by presidential order, a unit that uses behavioral science to refound several public policies that correct behavioral biases. The goal is to better serve Americans in the areas of health, education, savings, and other areas where today's choices have long-term consequences. Ditto in the United Kingdom. In all, 51 countries around the world are more or less trying to adopt this type of approach.

It is in this context that the awarding of the 2017 Nobel Prize for Economics to Richard Thaler, one of the founders of behavioral economics, sounds like a call for African economists and development actors to reconfigure their research work and taking into account the methods and results of behavioral economics, adapted to the African context. Our objective in this article is to highlight the applicability of tools and methods of behavioral economics to better understand the individual and institutional behaviors in Africa. The rest of the article is organized as follows: in section 2, we show how behaviors that deviate from rational choices can be explained by the social norms and obligations specific to African cultures. In section 3, after interpreting the internalization of social norms as psychological dispositions that may lead to behavioral biases, we propose that development policies be of the "nudge" type aimed at correcting these biases. Section 4 concludes our article.

2. Homo africanus, theory of rational choices and development policies

2.1. Rational choices and social norms

Most studies that deal with economic decisions specific to African cultures explain that economic choices are embedded in social norms and obligations (Zaoual 1991; Zadi 2012; Hugon 2013). The "African individual", homo africanus according to the expression of Hugon (1992), is not an "isolated atom" but an actor belonging to an enlarged group, that of a community. Cultural characteristics (solidarity, mutual aid, etc.), constituting regulatory procedures necessary for the survival of all members of the network, are a defense mechanism against disorder and uncertainty. Hyden (1980, 2007) speaks of a logic of affective economy. There is a priority given to fun or symbolic activities, the social link and interpersonal relationships. In reality, African actors internalize social structures through their practices, their learning and their subjectivity, and transform them. Three instances make it possible to link social structures and behaviors: the normative (obligations, permissions, forbidden), internalization (norms more or less understood, accepted or assimilated) and social control (weight of the repression of the groups of belonging). In such a context, the community constraint, in the form of rights and obligations, largely determines economic behavior. In other words, total satisfaction of collective obligations is a prerequisite for individual economic calculation (Mahieu, 1990).

Despite this fundamental difference between homo africanus and the homo economicus of standard economic theory, some studies explain certain behaviors embedded in social structures by the theory of rational choices (Hugon 1992; Koulibaly, 1992; Koulibaly and Mahieu, 1992). For example, the collective consumption of oxen related to ceremonial sacrifices is explained as the best way to rationally use perishable goods. Similarly, the high fertility observed can be explained in terms of the rationality of production of a workforce or in terms of old-age insurance. The technique of burning, very often considered irrational, becomes rational when the rare factor is labour. In a situation of uncertainty, African agents, who internalize social structures, have reasoning in terms of expected utility, especially as community membership is a reducer of uncertainty. They also reason in terms of intertemporal utility, since compliance with social norms could respond to the long-term concern of African agents in the face of uncertainty. In addition, behaviors such as those for economic actors to remain in the informal respond to a logic of risk minimization. Practices such as investing in children's education, urban migration or polyactivity follow a logic of expected utility. Moreover, certain generalizations of the theory of rational choices, such as the theory of imperfect or asymmetric information, the theory of property rights, the theory of explicit or implicit contracts, make it possible to rationally explain behaviors more or less embedded in social structures.

In a nutshell, the application of the theory of rational choices makes it possible to analyze the concept of community, anthropological fiction, from the point of view of methodological individualism (Koulibaly, 1992). Respect for collective obligations and the community imperative is a constraint that the African actor takes into account in its optimization program. This constraint, very often consisting of huge cash or in-kind withdrawals for the benefit of other nationals of the socio-ethnic group, is not residual but rather a priority. African actors participate, in varying degrees, in several registers, ranging from the ideal-type of homo traditionnalis to that of homo economicus (Hugon, 2013). They adopt an economic behavior based on very strong social constraints limiting the free will and on individualistic economic strategies limiting the effects of structure.

Utilitarian calculus peculiar to a community transfer society results in behaviors that neither the standard microeconomic theory nor the macroeconomy of development can predict. This largely explains the failure of the projected development models for Africa and the poverty of statistics on poverty (Mahieu, 1990).

2.2. Non rational choices, social norms and development politics

In some studies, many economic behaviors embedded in social norms are analyzed as deviations from the theory of rational choices. Here, deviations from rational choices are explained more by social norms and obligations. We give some examples in terms of individual and institutional decisions:

- E1: The dissolution in the traditional universe of the economic surplus produced in the market sphere is explained by the social flexibility and the elasticity of social safety nets.
- E2: Consumers often respond less to price incentives than to social norms (Hugon, 1992). Choices are less about quantity than about income: urban or rural income, informal or wage income, polyactivity, etc.
- E3: The nepotist, clientelist and tribal behaviors that are considered as vices in a logic of efficiency, find their explanation in a community logic, when one takes into account the constraint of the community pressure.
- E4: Business creators prefer to remain in the informal sector in order to preserve the social ties and the informal relations that prevail there.
- E5: African economic agents generally have a very strong preference for the present, which explains the high interest rate or the low detour of production. This strong preference for the present, which is not compatible with rational choices, is explained by community logic and is reinforced by instability, low life expectancy and precariousness.
- E6: Some African governments have pro-cyclical fiscal behaviors resulting in structurally deficit public finances. Indeed, these states constantly anticipate permanent positive shocks and temporary negative shocks. Rational choices require governments to cautiously manage tax deals to avoid unsustainable budget deficits (countercyclical fiscal actions). These non-rational state behaviors are linked to his social preference for the present.
- E7: African countries in the franc zone remain in this currency area not on the basis of a rational cost-benefit analysis whose results remain ambiguous, but because they are driven more by the community's logic of maintaining tutelary links with France.

As we can see, the deviations of African economic actors from the theory of rational choices are mainly explained by the social norms and obligations specific to African cultures. Such deviations render ineffective the developmental public based on the neoclassical theory of rational choices. Such economic policies, caricaturedly describing African realities, can only be partial or even false. To implement more relevant development policies, one must first understand these socio-cultural norms specific to African cultures (Henri and Kossou, 1985; Unesco, 1994; Ipou, 2015). Then, avoiding the trap of sanctifying or folklorizing these norms, we must identify those that are conducive to economic and social development and those that are not. The development policies implemented must build on the former while they must change the second. However, socio-cultural norms are difficult to modify in the short and medium term. Thus, to confine the explanation of the deviant behavior of African agents in socio-cultural norms is implicitly run the risk of rendering inoperative the underlying public policies.

To overcome this limit, it is possible to interpret the internalization of these social norms in terms of psychological dispositions leading to cognitive, emotional or moral biases. Therefore, deviations from rational choices can be analyzed as behavioral biases using the tools of behavioral economics. Moreover, such an approach can be fruitful in terms of development policies, especially since behavioral economics advocates policies to correct these biases in the short and medium term.

3. Homo africanus, behavioral biases and development policies

3.1. Behavioral economics: precursors to founders

Initially, it was a matter of highlighting the limits of Von-Neumann-Morgenstern's (1944) theory of expected utility which serves as the standard theory of rational choices in uncertainty.

The precursors of behavioral economics are Maurice Allais, Herbert Simon, Richard Selten, Daniel Kahneman and Amos Tversky. Allais (1953) shows that in certain situations, the behaviors observed are systematically different from those predicted by the theory of expected utility:

It is the Allais paradox that violates the Von-Neumann-Morgenstern independence axiom. Simon (1955) criticizes the optimization rule as the cornerstone of rational choice theory. For him, the economic agents, with a limited rationality, try to find not optimal solutions, considered very difficult to achieve, but acceptable and simpler solutions. Selten (1962), in studying the impact of limited rationality on firm performance, highlights deviations from rational economic theory. Kahneman and Tversky (1979), two trained psychologists, observe that individuals make decisions in uncertainty by violating in many cases the predictions of expected utility theory. Instead, they develop the prospect theory based on four elements that better describe their observations: (1) individuals determine their utility not from the level of their wealth or consumption but from relative gains and losses at a point of reference; (2) individuals are more susceptible to losses than gains: loss aversion; (3) there is a decreasing sensitivity to gains and losses; (4) individuals weight the results by subjective, transformed probabilities, overweighting the low probabilities and underweighting the high probabilities.

In his thesis, Thaler observes a fact that cannot be explained by the theory of rational choices: the price that an individual requires to sell a property of which he is the owner is much higher than the price he would be willing to pay to buy the same property. How to explain this deviation from rational choices? Richard Thaler (1980) meets Kahneman and discovers his prospect theory. He uses the theory of loss aversion to explain this bias, then called the endowment effect. The explanation is as follows: individuals averse to loss, behave as if the objects they possess are worth more than similar objects they do not possess; therefore, in order to abandon possessed objects to others, they claim a higher price. It applies for the first time this theory from psychology to economic problems by generalizing the importance of reference points and loss aversion from the uncertain case to the deterministic case. In doing so, he initiates behavioral economics. This branch of the economy focuses on the following factors that characterize the individual: limited rationality, social preferences based on equity, lack of self-control. Thus, economic actors are often unable to respect their resolutions, do not have an iron will, are altruistic and have cognitive limits. Thaler and his co-authors highlight other behavioral biases: status quo bias (or inertia bias), procrastination bias, limited will bias, lack of self-control bias, mental accounting bias, etc.

3.2. Attempt to explain non-rational choices as behavioral biases

We return to examples of non-rational behaviors explained by social norms and show how they can be explained by using behavioral biases. E1: the dissolution in the traditional universe of the economic surplus produced in the market sphere: This behavior can be explained by means of mental accounting bias. Thaler (1985, 1999) develops the theory of mental accounting based on limited rationality and breaking with the principle of optimization. This is a psychological theory describing how limited cognition affects spending, savings, and other household behaviors. Individuals group their expenses into different categories (house, food, clothing, etc.), each corresponding to a separate mental accounting. These mental accounts simplify financial decision making because of the limited rationality. Each account has its own budget and its own point of reference, which leads to limited fungibility between accounts: the value that an individual attributes to a currency amount depends on the account assigned to him, which in turn depends on the context. African households allocate a mental account to expenditures in the traditional universe, and they do not reduce their obligations in the traditional universe because of the limited fungibility between these different items of expenditure.

E2: Agents respond less to price incentives than standards:

This behavior can be explained via two types of bias: the mental accounting bias and the reference points bias. Through mental accounting, African agents psychologically limit spending on certain goods. For such goods, the buying behavior no longer depends on the prices but on the mental accounts assigned to them by the agent. The bias of reference points concerns situations where certain transactions do not take place despite the positive surplus that they release either for the buyer or for the seller. According to Thaler's (1985) reference point theory, the utility of the economic agent is broken down into acquisition utility (associated with the consumption of the good and corresponding to the standard concept of consumer surplus) and transaction utility. (associated with the buy/sell transaction). The latter is the difference between the current price and the price considered fair or reference price based on the ethics and values of the agent. There is a bad deal for the consumer when the current price is higher than the reference price and a good deal if the current price is lower than the reference price. In case of negative transaction utility (bad deal), the consumer does not buy even if the price of the good is such that its surplus (usefulness of acquisition) is positive. Here, the consumer reacts less to prices than to some sense of ethics and norms.

E3: Nepotistic, clientelistic, tribal behaviors contrary to the logic of efficiency:

These practices can be explained through limited will bias. This is a self-control problem that Thaler and Shefrin (1981) deal with as part of a principal-agent model. The principal and the agent are two different facets of the personality of the individual (dual personality of the man: doer-planner model): the principal in him is his tendency to plan while the agent in him is his tendency to do (doer). The planner tries to constrain and incite the agent in him to maximize the utility over the lifetime. To maximize intertemporal utility, the planner may force the doer to consume less today by applying an expensive will or impose rules that limit the doer's discretion. The will can resist the short term temptation but it involves a psychic cost. For example, the planner in the individual may have the concern to avoid nepotism to increase the intertemporal efficiency of the company. This involves applying an expensive will to accept the stigma of refusing to yield to community pressure to hire family members. This costly will used to avoid nepotism implies that the effective degree of self-control is endogenous, in contrast to the exogenous hyperbolic discount of Strotz (1956). If the psychic cost is beyond a certain threshold, the individual will engage in nepotist and clientelist practices that are economically ineffective.

E4: the decision for business creators to remain in the informal despite the potential gains that are out of it:

This behavior can be explained through status quo bias. In some cases, loss-averse individuals have a strong tendency to remain in the status quo, inertia, as losses from a change are weighted more heavily than gains (Samuelson and Zeckhauser, 1988; Tversky, 1991; Koszegi and Rubín, 2006). It could explain the persistence for many entrepreneurs to stay in the informal despite the high potential to get out. Earnings include: greater access to lucrative business contracts, access to state schemes to support entrepreneurship, and so on. The losses from the perspective of the informal promoter are: the obligation to pay taxes, and to report wages paid to illegally hired employees. Expected gains may well outweigh expected losses, but too much loss aversion induces persistence in the informal economy.

E5: the too strong preference for the present:

This strong preference for immediacy can be explained through self-control bias. Thaler (1981) considers the preference for immediacy as a problem of self-control and uses the concept of hyperbolic discount (Ainslie, 1975) to analyze it. The agent makes a trade-off between myopia and planning both present in the dual personality of the individual. Like the explanation given in E3, if the psychic cost of resistance to short-term temptation is too high for the individual, he behaves according to a strong preference for the present. Neuro-economic research, such as McLure et al (2004), shows that the problem of self-control involves the interaction of the prefrontal cortex (planner, long term) and the limbic system (maker, short term).

E6: Procyclical fiscal behavior of african governments:

Many african governments constantly make anticipation errors assuming permanent positive shocks and temporary negative shocks. This behavior can be explained by two types of bias: the procrastination bias and the optimism bias. The phenomenon of procrastination and temporal incoherence concerns the tendency to constantly postpone a decision. It cannot be explained by the standard model of intertemporal choices based on the exponential discount of Fisher (1930), Samuelson (1937) and Strotz (1955). The latter shows that intertemporal choices are consistent only if the agents expect exponentially using a constant discount rate over time. If the government does not exponentially discount, its intertemporal choices, for example, saving in good times, are not consistent. Due to limited cognitive skills and limited will, the government will always postpone for the coming days the decision to make substantial savings on its huge current budget resources. He does not always act in his interest. In addition, the optimism bias relates to the government's tendency to anticipate permanent positive shocks and transitory negative shocks.

E7: the decision for African countries belonging to the franc zone to remain in this monetary zone:

This decision can be explained through the status quo. The status quo bias is evident here in that even if it is undeniably demonstrated that the benefits attached to the exit from this monetary cooperation are greater than the potential losses, the countries will emerge as long as the losses are outweighed in relation to earnings.

3.3. Implications in terms of development policies

While the explanation of deviant behaviors by socio-cultural norms, difficult to modify in the short and medium term, renders the underlying public policies inoperative, their interpretation in terms of behavioral biases can help define concrete and effective public policies.

Indeed, behavioral economics treats behavioral biases, these deviations from the theory of rational choices, as behavioral errors that can be corrected. To achieve this, behavioral economics distinguishes three types of analysis: normative analysis, descriptive analysis, and prescriptive analysis (Raiffa, 1982). Normative theories characterize rational choice and are often obtained by solving an optimization problem. Descriptive theories simply model how people really make their choice, by systematically deviating from normative theory. Finally, prescriptive theories are attempts to encourage economic actors to improve their decision-making and to approach behaviors as predicted by normative theory.

Thus, prescriptive policies seek to correct behavioral biases. They give people a helping hand to make the right decisions on their own in order to achieve beneficial change. This is why such policies are called "nudging" (Thaler and Sunstein, 2003, 2008). These policies are described as libertarian paternalism in that they use human psychology to influence the behavior of economic actors and increase their well-being (paternalism) without restricting their freedom (libertarian) (Thaler and Sunstein, 2003, 2008). The application of this type of policy has made it possible to influence the making of economic and social policy decisions in several developed countries (United States, United Kingdom), in the areas of retirement savings, health, education and other areas where today's choices have long-term consequences. Some nudging experiments in developing countries have proved their effectiveness: nudging improves agricultural productivity in developing countries (Duflo et al, 2011); it decreases energy use (Shultz et al, 2007) and increases savings in developing countries (Karlan et al, 2016).

Nudging-based development policies are prescriptive policies that can help individuals and institutions in Africa to freely make decisions that reflect their intertemporal interests. Such prescriptive policies are based on normative analysis (rational choices) and descriptive analysis (deviation from rational choices) to motivate agents to make rational decisions. But what theory of rational choices are we talking about when it comes to choosing the normative theory towards which individual and institutional decisions in Africa should be directed? Clearly, this is not the standard theory of rational choices that has been said to ignore the realities of African cultures that are highly dependent on community pressure and social obligations. We must turn to the theory of rational choices specific to the consideration of social norms and obligations. This theory, of which a draft is perceptible in the research works of economists like Mahieu (1990), Koulibaly (1992), remains to be built in a systematic way. Indeed, and more generally, taking into account family networks, social norms and obligations (reception of dependents, transfers, etc.) leads to reversing the assumptions of the standard microeconomic theory (Hugon, 2013). Thus, the application to Africa of nudge-based development policies requires three actions: first, understand the behavioral biases highlighted in other economies; second, highlight other types of behavioral biases specific to Africa; and finally, refound the theory of rational choices taking into account the primacy of social structures over economic decisions in Africa.

4. Concluding remarks

In this article, we have shown how the tools and methods of behavioral economics can be of great value to development economics in its quest to better understand individual and institutional behavior in Africa. If behaviors that deviate from rational choices can be explained by the social obligations of African cultures, the internalization of these social norms can be interpreted as psychological dispositions that can lead to behavioral biases. The prevalence of these biases in Africa therefore justifies that nudge-based development policies are set to become the norm and not the exception in Africa. These policies seek to correct behavioral biases in order to motivate economic agents to make decisions that are consistent with rational choices. However, the normative theory of rational choices to which individual and institutional decisions in Africa must be directed must come from a re-founding of the standard theory of rational choices taking into account the primacy of social structures over economic decisions.

The examples we have developed to support our comments are more of an opening than a real demonstration. These are hypotheses that open up a whole field of research: the consideration of behavioral economics in the theories and economic practices of development. It was necessary to ask the stakes, that is done.

No longer remains for researchers and practitioners in development economics to seize it to operationalize the proposal. That is all the more necessary that the question of understanding the real behavior of homo africanus is now at the top of the agenda of public and private development organizations, which hope to put an end to the partial and false policies on a distorted description of African realities.

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