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Framing the Future: Harnessing Aspirations to Save

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Abstract

This project involves evaluating the current literature on willpower and savings in the developmental context and proposing new research. The goal is to show that there is space to further apply behavioral research to the realm of household finance for the poor. This has been done by examining how the application of time preference, commitment, and willpower can relate to aiding development. Upon examination of the current literature, it becomes clear that behavioral solutions to developmental problems can result in cost-effective solutions to institutional problems. Through showing the current limits of behavioral research, this paper highlights the importance of further research into the cultural-specific relationship between temporal landmarks and the ability to shift time preference and enhance savings.

Savings and Development

Development is the first and last, the beginning and the end of economics. The field emerged in its modern form as an expression that nations derive their wealth from capital accumulation. The truth of prosperity has and may continue in perpetuity to linger in the malaise of unfulfillment. This does nothing to temper to the obligation one feels towards his or her world, nation, or self-interest, to act on behalf of the proliferation of human possibilities that encapsulates development.

Problems of saving have always been, and will always be fundamentally linked to time. How time is perceived, how uncertainty and risk is understood, how the future is relatively valued, and the difference between intention and action which is accounted for in willpower, are all essential to saving. Saving is also an essential component of growth, so the problems with savings are problems with growth. What hasn't been adequately addressed in the literature and what is needed is an understanding of and possible implementation of frames which contrast the narrative of fatalism and counteract those which deplete willpower. The idea is that different frames can affect willpower itself. An example being that when one individual assumes a less certain future they will be less productive and more likely to leave profitable investments unrealized. This is the intimate connection between fatalism and uncertainty. Exogenous to this circumstance is whether or not the context of the worker merits a more or less certain outlook. What should be investigated is the possibility surrounding future oriented temporal landmarks increasing willpower, agency, and generally the ability to for individuals to apply themselves more fully to the possibilities of life surrounding them.

In accordance with the examples provided by the startlingly few instances of countries' real gross domestic product actually converging towards one another, leveraging savings towards competitive export-oriented growth is reassuring to traditional models (Dornbusch, Fischer, Startz, 2011, p.89). Often the countries which have actually bridged the dismal gap between the output of nations have found creative substitutes or "indigenously determined elements" to pave their road to industrialization (Gerschenkron, 2000, p.26). Noted in Gerschenkron's theories is the formulaic pattern in which countries evolve, which favors first the elements that most benefit an exterior nation. That is to say, how the largest corporations or single economic elements may most easily access each other's markets.

Nothing about the components of international trade are wrong, but it is feared that the order of their implementation or arrangement may jumble, distort, or otherwise confuse the path a country must take to growth. Will a country embrace the realization of its markets and the unwinding of already established networks without trust being present? To say what is meant more directly, development is a function of the societal attitude towards the future, and change must come first from the human factors.

> "To break through the barriers of stagnation in a backwards country, to ignite the imaginations of men, and to place their energies in the service of economic development, a stronger medicine is needed than the promise of better allocation of resources or a lower price of bread… what is needed is to remove the mountains of routine and prejudice is faith-faith… that the golden age is not behind but ahead of mankind." (Gerschenkron, 2000, p. 24)

If change does not first come from the human organization, then debt will precede savings, and fear will presage hope, the result being broken castles of countries and the stagnation of the status quo.

Household Finance and Behavioral Economics

Models of growth and historical evidence indicate that savings is the key to macroeconomic growth in the long run, but little research has been spent on analyzing the specifics of why it is that those who are most often excluded from the development process do not save. It is the poor who must do so; a comprehension of their context is essential to a complete understanding of development and relies on behavioral economics. The newest branch of economics builds its empirical base in the refutation of Milton Friedman's defense of the rational choice model which asserts that: “Since false assumptions can yield accurate predictions, even if assumptions appear false their empirical weakness should be tolerated if they lead to accurate predictions.”, The quote is Camerer paraphrasing Friedman in his essay on Neuroeconomics (2008 , p. 358). The basic premise of this is that humans make *predictably* irrational choices due to errors of mental accounting (Thaler, 1985, p. 199), as well as the effects of framing the choice (Kahneman & Tversky, 198, p. 453), and a slew of other cognitive biases such as the effects of social norms (Ariely, 2008). This work is especially relevant due its potential dividends being compounded by the burden that poverty weighs on mental processing (Mani et al, 2013, p. 976), as well as the possibilities, which present themselves for improving welfare through the implementation of policy at a relatively low cost.

The decisions the poor make are not guided by a precise rational calculation, neither are they symptomatic of the values produced by the deviant culture poverty develops, but rather a function of certain biases to which all humans are prone and are made acute by the stress of scarcity (Bertrand, Mullainathan, Shafir, 2006, p. 8). That poverty not only exerts a mental strain, but is also made all the more troubling by the apparent tendency for the poor to partake in counterproductive behavior, such as not saving or repeatedly taking out loans at exorbitant rates (Yunus, 2008, p. 11). The lack of infrastructure and underdevelopment of institutions creates a more unpredictable daily environment, which compound the difficulty of planning exponentially, which is necessary to save, which is arguably the keystone of growth.

Why do the poor make counterproductive decisions, and why do they save so little when so many investments have high returns? For instance:

> "Goldstein and Udry (2006) found that farmers in Southern Ghana despite rates of real returns ranging between 250% and 300% compared with 30-50% in well established food crop cultivation, only 18% of the land is used for pineapple growing. In Kenya, Duflo, Kremer, and Robinson (2003) report that less than 15% of a sample of Maize farmers used fertilizers despite rates of returns greater than 100%. In the same region, the pickup rate of free de-worming pills was only 57%." (Bernard, Dercon, Taffesse, p. 3, 2011)

The stress of poverty splits attention and disrupts focus much like mobile phones seem to affect the youth, except it can't be turned off or put away. Research found that "Evoking financial concerns has a cognitive impact comparable with losing a full night of sleep (Mani et al, 2013 p. 979-980)." by comparing the pre- and post-harvest fluid intelligence of farmers and carefully controlling for variables such as stress, nutrition, or physical exertion. There emerged a stark difference in the farmers decision making ability prior to harvest. The researchers suggest that the emphasis should not be on the poor, as if they are imbued with inherent traits, but rather the situation of poverty. The way Banerjee and Mullainathan put it is that in the absence of social and physical infrastructures that ease cognitive burdens, the distraction of work and the time spent focusing on matters that deal with the home deplete human capital, or simply focus (p. 3, 2008). To plan, one must have more intricate available mental models, and more nuanced views, than a citizen of the first world. That is difficult. What can be done is to combat these biases, and institute structures by which the poor can more easily navigate a more chaotic world.

Lending to the poor is one way which the time preferences and pressures around poverty can be realized. Microfinance is essentially the effort to provide lending at sustainable rates that allow for possible repayment, and a necessary step to save, as debt must first be conquered before grain can be stored away, houses built, and possibly currency deposited. The success of micro-lending can be attributable more to organizational innovation than simply lending at lower rates than the local moneylender. There are clear lessons in making borrower's liable to each other's loans thus leveraging the simple social mechanism of shame to likely bring repayment levels to highly respectable position they inhabit (Banerjee & Duflo, p. 166, 2011). Another cue to take is that the repayment schedules of most MFIs is based on a fixed amount per week, at a fixed time, amongst a recurring group of borrowers who are beholden to each other (Banerjee & Duflo, p.167, 2011). MFIs could create a similar set of savings contracts which legally bind clients to not repay a loan, but shift the control of a portion of their money to a future self at a fixed rate for a fixed periods to be accessible only after a certain amount has been reached ($25, $50, $100, Etc…). Again, this savings device would function on group accountability and act as an evolution to microlending. Those who graduate from their loans may desire to save.

After the elimination of debt comes the accumulation of capital, which is often done among the sector of society outside the bounds of law and the jurisdiction of informational oversight. On the way to growth, these people who make up the informal sector can be caught in an "economic apartheid", the case of which is argued extensively and persuasively by Hernando de Soto (p. 16, 1999). Information increases in importance and becomes more unequal as those with non-fungible or inaccessible capital, or no to little capital make up larger and larger portions of the population. But that is dependent on the respective government reforming its monopoly on the informational institution of property, which is long hoped for, but does not occur often.

Savings and Time Inconsistency

The recurring theme here is that the gravitational center of focus rests under the present moment. If one's focus in the context of poverty is overwhelmingly dominated by present concerns, then there naturally lies the possibility that one could and should take advantage of the precious time which is spent thinking in a forward manner. Fatalism can poison this hope and decrease investment; due to the belief that their actions will not make a difference and that they are essentially helpless with an external locus of control (Bernard, Dercon, Tafesse, p. 4, 2011). Attention can, of course, be diverted, in that "reminders change intertemporal allocations, and improve consumer welfare, by providing associations between future expenditure opportunities and today's choices that mitigate the attentional failure (McConnell, Mullainathan, Zinman, p. 3, 2010)". The future-oriented thinking of many who find themselves in poverty exposes a desire to more evenly distribute time valuation, but an apparent inability to do so.

Giants of modern capitalism often rose from the savings of poor farmer. In this way, the rise of elaborate multinationals is intimately and profoundly dependent on the will of a coffee farmer. A key to saving is financial networks (Adams, 1978, p. 8), but that is outside the scope of this proposal. To propose savings as a primary framework in which policy and research should be advanced is not so much an imposition of what is considered theoretically necessary, so much as a response to what is apparently desired.

There is much apparent demand for links to a formal savings network: in most studies which present consumers with a formal bank account, more than half accept. As illustrated by the works of Ashraf, Karlan, and Yin, not only is take-up of bank accounts high, but those that indicate having a "hyperbolic" time preference, and are aware of them, desire to be committed to saving (p. 656, 2006), (p. 6, 2010). By "hyperbolic time preference" it is meant that one heavily discounts the short-term future and prefers the present, while also maintaining a value on the long term future.

Research indicates that simple implementations, such as text message reminders to repay loans, can result in higher repayment rate when reciprocity is incurred (Karla, Morten, Zinman, p.2, 2012). Likewise, social norms can either hurt or help the uptake of savings among the poor. The social network may extract a "tax" from some of its participants in the manner of those who give more assistance than they receive (Dupas, Robinson, p. 1139, 2013). These networks, which are a substitute for the nonexistent infrastructure, which is the basis of being able to count against the future, can also benefit from the savings behavior of an individual within it. Dupas, Keats, and Robinson also suggest that access to a bank account alleviates the burden of a social network "tax" and has positive spillover effects throughout the community in terms of food safety and increased intercommunal transfers (p. 4, 2015). Something as simple as a safe place to store money can increase health savings by 66% and flatten the present and future value of the time inconsistent (Dupas, Robinson, p. 1138, 2013).

Savings, in all circumstances, is an expression of hope in the future, even when it is an attempted mitigation of risk. Classical economists and their critics largely missed the value risk taking entrepreneurs added to capital. Developmental economics may have a correlating under-inspected element within development; the overlooking of psychological factors which hinder the action of many in poverty to fall short of their often-capitalistic goals. To manage risk, one needs to project into time, and to do so they are dependent on a world of constants of which are mostly nonexistent in the poor.

Not only would the unpredictability of the institutional structures surrounding the poor lead even someone from the developed world to often partake in counterproductive decision-making, but the context of poverty also depletes the capacity of willpower to commit to better financial decisions by often tempting present time preference. Uncertainty not only strains bandwidth, it diminishes it. This assumption is in line with behavioral psychology, of which one study finds "coping with uncertainty about what the future may bring reduces self control resources and increases the individual's tendency to favor *want* options over *should* options (Milkman, p. 163, 2012)". Being clearly applicable and consistent with other research in development, this leads to the question of how exactly may willpower be increased? More research should be done on what element of poverty it is that separates intention from action when it comes to increased certainty about the future, and while the existing literature around forward-thinking action implies there is policy possible, it is not clear which is most effective as a substitute to certainty in the absence of infrastructure.

The will to save is taxed under the division of attention inherent to poverty, and if one is to save the most, it should be when willpower is the greatest by either 1. The ease in cognitive burden (shown by the farmer time saving study) or the yet untouched upon 2. When willpower is the greatest. There has been a fair amount of research that is apparently yet to be applied to developmental settings, probably due to that application being less obvious. The applicability being the potential synchronicity of the supply or marketing of savings products after the specific cultural temporal landmarks around which willpower may swell. There are special periods of aspiration in the local cultural calendar, which can and should be leveraged to improve savings: shorten the gap between intention and action.

Aspiration

Culture, Appadurai argues, is an element of the past due its basis in tradition while economics is the study of the future by the way of its emphasis on prediction. With culture being so often chain to the past, it conceals the implication of hope: "in strengthening the capacity to aspire, conceived as a cultural capacity, especially among the poor… and the poor could find the resources required to contest and alter the condition of their own poverty (p. 179, 2004)". The differing outcomes of our condition cannot be explained by any one factor, especially culture, but as culture is the frame by which we understand and internalize our context, it is an important element which may influence savings. By expanding one's mental model of themselves to include success, it seems one has a reenergized commitment to realize themselves and their economic potential. The differing cultures of societies may also be a way in which time and time preference can be understood.

Hope, though, often has substantial obstacles in the attitudes of the poor. As previously discussed helplessness, fatalism, and uncertainty often combine together and reinforce each other to increase the present preference among the poor. Research has shown the potential to call upon the aspirations of the poor by simply playing a documentary to inhabitants of rural Ethiopia, providing "Audience members with a resonant, salient experience of what a different life may be like (Bernard, Dercon, Orki, & Taffesse, p. 3, 2014)." Through showing stories of success was able to mitigate the tendency towards fatalism and inspire greater aspiration. A result of this is a change in future-oriented behavior that can be seen by a noticeable impact on savings and credit taken (Benard et al, p. 13-14, 2014). This study raises the idea of a more widely instituted policy device to temporarily raise key expenditures which improve the future well being of a family, community, and nation.

One possible addition to the literature on savings in development is the adaptation of the research by Dai, Milkman, and Riis on temporal landmarks motivating inspirational behavior and its adaption to development and across different cultures. They find:

> "Across three archival field studies, we provide evidence of a "fresh start effect." We show that Google searches for the term "diet" (Study 1), gym visits (Study 2), and commitments to pursue goals (Study 3) all increase following temporal landmarks (e.g., the outset of a new week, month, year, or semester; a birthday; a holiday). We propose that these landmarks demarcate the passage of time, creating many new mental accounting periods each year, which relegate past imperfections to a previous period, induce people to take a big-picture view of their lives, and thus motivate aspirational behaviors." (p. 1, 2014).

Most elements engaging with savings and development appear to only engage the supply side. They intend to provide the poor with access to tools which may increase a behavior which is already assumed, while arguably necessary there appears to be a pittance of research which provides how to increase demand for the institutions in the first place, or more accurately, how to make best use of the fluctuations of willpower and time preference to capitalize on aspirations. This is so that the poor will make better investments in themselves and their future.

Framework of a study such as this would be preferably implemented within the confines of a MFIs that offers a saving function. First there should be preliminary research to confirm whether or not there is are similar temporal landmarks with comparable effects. If this returns in the affirmative, the variable manipulated would be the time availability of savings devices, perhaps even restricting the access to certain options to specific dates every month or year. The savings device itself, and even the possibility of accessing hold much potential to improve upon the navigational apparatus the poor need to ameliorate the situation of themselves and those around them.

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