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Travis J. Lybbert, Bruce Wydick

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Hope and Poverty in Development Economics: Emerging Insights and Frontiers

Travis J. Lybbert and Bruce Wydick

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Abstract

This paper describes emerging work in development economics at the intersection of hope, poverty and material prosperity. We blend Sen's capability approach and Snyder's hope theory to provide a conceptual framework for integrating hope into development economics. This framework emphasizes the interplay of internal and external constraints, belief updating and differential malleability of hope between children and adults. The paper then surveys the recent literature in development economics related to Snyder's components of hope: aspirations, pathways and agency. This survey focuses primarily on the domains of education, employment and enterprise and uses the Sen-Snyder framework to synthesize patterns in these results. It concludes with a discussion of promising research frontiers for development economists, including the need to understand how complementarities between hope components shape realized outcomes and to accommodate distinctive features of hope as it is experienced by the poor in non-Western contexts.

Keywords: Development economics; Poverty; Hope; Aspirations; Capability Approach; Education; Enterprise.

1 Introduction

The modern study of hope originated in the ravages of World War II as researchers sought to understand the role of positive psychology in the ability of both soldiers and civilians to cope with unimaginable tragedy (e.g., Frankl, 1985; Menninger, 1959, 1968). Although incomparable in many ways, the experience of abject poverty and deprivation has raised similar questions about the influence of hope among the desperately poor who cope with serious hardships while striving to improve future prospects for themselves and their families.

The rise of behavioral economics has prompted development economists to investigate the role hope plays – or could play – in poverty alleviation and economic growth. For rich and poor alike, hope mediates perceptions of the future and motivates behavior in the present. It guides our understanding of the relationship between action and outcomes. It is an emotional and spiritual cornerstone of the human experience, but also shapes material progress through investments that create opportunities and enhance productivity.

Among hope-related concepts, aspirations have received the most attention from development economists. While aspirations clearly stem from expectations, which are standard features in intertemporal economic models, early work studying the relationship between aspirations and poverty triggered new interest in the formation and impact of aspirations. Theoretical models in this literature treat aspirations as socially-embedded reflections of the success one can reasonably expect (Appadurai, 2004; Ray, 2006; Genicot and Ray, 2017) and formalize aspirations failure as a potential byproduct of poverty (Dalton et al., 2016). After this initial aspirations focus, we advocated for a broader approach in development economics that adopted a more interdisciplinary framework of hope (Lybbert and Wydick, 2018). Specifically, we proposed an economic model that integrates aspirations along with the two other components of Snyder's hope theory (Snyder, 1994) to illustrate complementarities between aspirations (goals), pathways, and agency. While aspirations have continued to receive significant attention from development economists in recent years, there is also increasing interest in related concepts such as self-efficacy and locus of control. This work, like recent research in development economics more generally, has been pre-

dominantly empirical in nature and often has prioritized causal inference over descriptive (and qualitative) detail. It has also tended to treat these components of hope in isolation and to ignore interaction effects with other components.

We survey the recent hope-related work in development economics using a framework that blends Sen's capabilities approach (Sen, 1974, 1979) with Snyder's hope theory (Snyder, 1994). We focus our review on the three domains that have received the most attention in low- and middle-income countries (LMICs): education, employment and enterprise. We synthesize this work and discuss emerging patterns in the context of the Sen-Snyder framework. In conclusion, we offer our own assessment of the research frontiers and prospects for this area of inquiry. There is yet much to learn about the critical interdependencies and complementarities between aspirations, pathways, and agency. Similarly, we advocate for greater openness to descriptive evidence that sheds light on the emergence and impact of hope in contexts that prize the communal over the individual – and that attempt to span the potential disconnect between non-poor researchers and the poorer individuals, households and societies we aim to understand.

2 A Sen-Snyder Framework of Hope and Poverty

Development economics has historically grappled with the causes and consequences of economic poverty and the effectiveness of interventions aimed at alleviating it (e.g., Yule, 1895). In recent years, behavioral economics has broadened the field to encompass effects that emerge from social relationships, human emotion and psychology, personality traits, virtues, and spiritual beliefs (Kremer et al., 2019). These behavioral perspectives generate new insights related to poverty and development more generally. In this section, we provide a conceptual bridge between hope and development economics. The Sen-Snyder framework we propose captures many elements of the microeconomic model of hope we develop in Lybbert and Wydick (2018) in order to clarify key connections, synthesize emerging empirical analysis, and raise questions for future study. Snyder (1994) proposes three components of hope: goals, agency, and pathways. In our work,

we often substitute the term "aspirations" for goals as it is more widely used in development economics.[1] These components are necessary but individually insufficient for hope to take root (Snyder, 1994). They are more complements than substitutes (i.e., more like ingredients in a recipe than alternative forms of transportation to a common destination). Without a sense of agency or a vision of pathways – or at least a belief that pathways will soon appear – aspirations themselves may wither without the support of pathways and agency. Correspondingly, agency and pathways are likely to be more potent in creating hope in the presence of high aspirations.

In his capabilities approach, Sen persuasively emphasizes the inherent value of capabilities and the freedom to choose among them. These capabilities – the freedoms people have to experience, to be and to become – are integral to human flourishing even when one ultimately chooses only a subset of these (Sen, 1992; Sen and Honderich, 1985; Sen, 1985). Sen's approach to human welfare implicitly differentiates between internal and external constraints on this set of possible doings and beings.

Economics has traditionally focused on external constraints, such as natural resources, capital, infrastructure, and discretionary income, which may limit a person's capabilities. Sen, however, proposes that some constraints are less related to hard resource constraints and may have origins in social relationships, culture, and human psychology. Poverty as a paucity of capabilities can just as easily manifest this second type of constraint, which can become internalized in the individual's perception of herself and her possibilities. Once internalized, these capability constraints can persist even after the original limitation that generated the constraint has faded, much like learned helplessness can persistently distort decisions after external limitations have relaxed (Seligman, 1972).

The link between Sen and Snyder, which forms the crux of our framework of hope and poverty, is the conversion of resources into capabilities via "conversion factors." These mediating factors determine how effectively an individual's resources and access to public goods translate into ca-

[1]In comparison, "goals" tend to be used more frequently in the business and management literature. While aspirations may be more general than goals, the terms are closely correlated, so we follow the emerging convention in development economics and use aspirations, while recognizing that they are not perfect synonyms.

pabilities. The capability approach describes three types of conversion factors: environmental, social and personal. The latter set of conversion factors include the physical, cognitive, and emotional traits that shape an individual's true "capability set." Internal constraints are reflected in these personal conversion factors, which, *inter alia*, include hope. These conversion factors are malleable and can change based on personal successes and failures, but they can also calcify with time. In this way, external constraints can become internalized and persist after the external constraint is relaxed.

We represent our Sen-Snyder framework in heuristic form in Figure 1. A combination of external influences (e.g., context and peer effects) and innate traits and tendencies define the individual agent in this framework. Hope as a personal conversion factor – potentially one of many – emerges as a cognitive and behavioral life approach that colors, constrains, and motivates the individual's perception about what is possible or desirable. Personal factors, along with critical external conversion factors, shape attitudes, expectations, effort, and investments and thereby determine how effectively the agent can translate resources into viable capabilities. This is not a deterministic framework, so stochastic shocks also shape this capabilities mapping. Ultimately, the agent's choice of actual beings and doings ("functionings") from among this capability set create a feedback loop of learning (e.g., Ersoy, 2019). These experiential-learning feedback loops are the basis for updating beliefs about action and rewards. They can be well-worn highways of familiar experiences that reinforce existing traits, or new and tentative foot-trails linked to novel experiences that may open new dimensions of self-discovery and opportunity.

The representation of the agent in this framework allows for key differences between a child, who is influenced more easily and importantly by external forces, and an adult, whose innate traits and tendencies are more dominant and impervious to external influences and novel experiences. The representation of the capability set is intended to capture Sen's core insight that freedom in the form of a non-binding capability set directly relates to human flourishing, in addition to conveying instrumental benefits through the option value of expanded choices. Thus, expanded capabilities are welfare-enhancing even if the set of chosen functionings remains un-

changed.

This heuristic depicts several key features related to hope and economic development. First, the poor face myriad constraints with respect to pathways out of poverty. A feeling of hopelessness, that it is impossible to change a present and difficult situation, may originate from actual external constraints that prevent change, but it also may persist as an internal constraint even when external constraints are relaxed by new opportunities. Second and conversely, when external constraints genuinely restrain capabilities, relaxing internal constraints may do nothing to improve outcomes. Third, the presence of feedback loops as the basis for learning and belief updating imply an equilibrium nature to hope: facing the same set of external constraints, both high and low levels of hope can become self-confirming equilibria reinforced by experiences. Finally, the malleability of hope for a given agent is a function of innate personality traits (e.g., openness) as well as age. Like so many other traits (Cantor et al., 2019), hope is likely more malleable among children than adults.

Consider an important implication of these key features. The novelty of a given opportunity or experience, along with how quickly and directly it generates success/fail feedback after an investment is made, will determine whether an individual's stock of hope subsequently changes. It may be difficult for hope to emerge after a negative feedback pattern has become entrenched based on repeatedly disappointing outcomes after investments of money, time, or energy. Moreover, the shorter the cycle of investment, outcome and learning, the more readily the agent can learn and update her beliefs. For example, the feedback cycle in educational settings (i.e., exposure to new material, effort in the form of study and attention, and results in examination or assignment) is shorter than the feedback cycle in most other production contexts. While other factors also play a role in this process (e.g., stochastic shocks create noise and can hamper learning in these feedback loops), exposure to new opportunities is more likely to catalyze virtuous investment-results-hope feedback cycles when cycles are shorter and more direct and when individual traits are more more malleable.

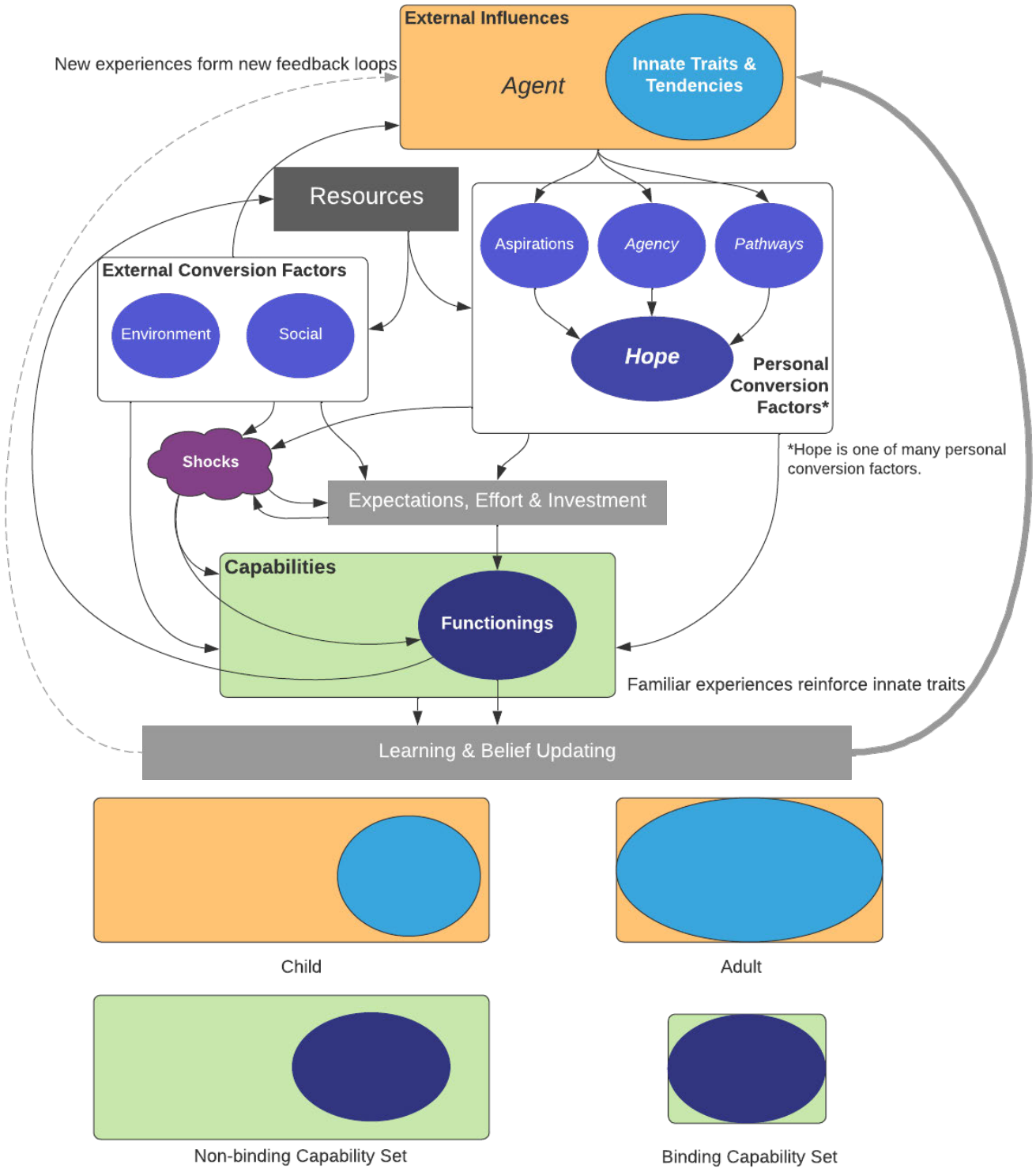

Figure 1: Heuristic depiction of a Sen-Snyder framework of hope and poverty

3 Hope in Recent Development Economics Research

With this Sen-Snyder framework in mind, we now review recent and relevant empirical work in development economics. Our goal here is to identify common threads in this expanding body of work and to summarize what this work suggests about the relationship between hope and its components and standard economic development outcomes across a variety of domains. Surveying the literature from this perspective can be challenging as not all interventions featured in this work easily concord with a single hope component; we aim to classify studies based on their *dominant* hope feature. Development economists increasingly elicit these hope features using standard scales that have been validated elsewhere, such as Snyder's (1994) hope scale, although these metrics that have typically been developed in high income countries. Since such measurement considerations have not (yet) figured prominently in this literature, they do not feature in this brief survey.

3.1 Aspirations

While economists have begun exploring the nature, origin, and effects of each of the three hope components, the study of aspirations has garnered the most attention in development economics. Seminal models demonstrated the social-embeddedness of aspirations (Appadurai, 2004) and how they may contribute to poverty traps in LMICs (Ray, 2006). Often building on these models, subsequent research has examined aspirations across several domains, including education, employment, and enterprise. We consider each of these in turn.

3.1.1 Education

A substantial literature has accumulated in the development and labor economics literature that emphasizes the role of aspirations related to education. Taken together, the evidence across studies suggests not only that educational aspirations are relatively malleable, but also that educational outcomes are quite responsive to aspirations.

Some of this research has investigated the role that peers play in the formation of education-related aspirations. Gagete-Miranda (2021) uses data on Brazilian networks of friends and administrative data to examine the impact of peers on aspirations for schooling. To solve the problem of peer endogeneity, she uses friends-of-friends' characteristics to instrument for friends' aspirations, finding that a student having one additional friend with aspirations for college increases the probability of college aspirations by 11.4 percent (Gagete-Miranda, 2021).[2]

That peer comparisons shape educational aspirations is also supported by Fabregas (2017), who uses academic achievement cutoffs for admission to middle schools in Mexico to identify the effects of peers on educational aspirations. She finds that those who were marginally above the cutoff for placement into schools with higher-achieving students tended to increasingly shift their educational aspirations from academic to vocational programs, ostensibly as a result of negative comparisons with peers (Fabregas, 2017).

As in high income countries, *parental* aspirations in LMICs also play a large role in shaping both educational aspirations and outcomes of children. Around the globe and spanning very different contexts, parents' aspirations for their children's education tend to be heavily shaped by societal norms both within a larger cultural context of a region or country and in more localized subcultures. Maertens (2013), for example, studies the role of parental expectations in three villages in rural India on educational outcomes. She finds that parents' educational aspirations vary strongly by gender: only 39% of daughters would be permitted by their parents to pursue higher education compared to 71% of sons. Moreover, only 8% of daughters are expected to complete higher education compared to 22% of sons. She finds that expectations about education are heavily shaped by expectations about age of marriage, where the expectation that girls marry young significantly constrains both parent and child educational aspirations for girls, but not for boys (Maertens, 2013).

Serneels and Dercon (2021), also working with data from India, show that educational aspirations by parents are malleable and dynamic: They depend on current level of grade completion

[2]In this review we will not generally provide p-values or confidence intervals but will report results that are statistically significant at least at the conventional 5% level.

and reflect recent feedback in the form of academic performance. They find that a mother aspiring to an additional year of schooling for her child is associated with 0.48 additional grades achieved by age 18, but that this relationship is non-linear. While in this context educational aspirations depend substantially on caste, income, and village context (Serneels and Dercon, 2021), other work in Peru suggests that conditioned upon income status, educational aspirations are similar across indigenous and non-indigenous status (Pasquier-Doumer and Brandon, 2015). Thus, there is at least some evidence that contexts exist in which children have not internalized racial schema that constrain their opportunities (e.g., due to varying restrictiveness of norms and stereotypes across contexts). Even so, the study finds aspirations to be a channel of inequality persistence across ethnic groups where group membership is strongly correlated with socioeconomic status (Pasquier-Doumer and Brandon, 2015).[3]

A series of randomized controlled trials (RCTs) using inspirational videos to boost aspirations has shown generally positive effects on educational outcomes. Utilizing the randomization of an inspirational documentary film in rural Ethiopia Bernard et al. (2019) and Bernard and Seyoum Taffesse (2014) find that one of the outcomes most affected was parental aspirations for children's education, which increased by 0.25 years overall and by 0.45 years among parents with no formal education. School enrollment increased by 18% in treated households, and children in treated households spent about one extra hour per day in school and studied an extra 17 minutes per day. Household schooling expenditure also increased by 21% compared to the control group.

In a separate study in 415 villages in western Kenya, Garlick et al. (2021) conduct an RCT with cross-cutting interventions involving an unconditional cash transfer and a video documentary on people in similar villages who had successfully escaped poverty. The aspirations intervention had modest impacts on labour supply, expenditure on inputs, and revenue relative to the cash transfer. Combining the aspirations intervention and the cash transfer had no added effect above the cash transfer alone on employment and enterprise outcomes, but did increase children's education,

[3]In a non-LMIC context, Carlana et al. (2022) study a randomized intervention of tutoring and career counseling on high ability immigrants in Italy and similarly find the treatment increased educational aspirations and the likelihood of students choosing the "high track" by 5%.

education spending, and education attainment.

Other RCTs show similar results in educational outcomes. Riley (2017) randomizes the showing of the film *Queen of Katwe*, a movie based on the true story of a teenage girl from the slums of Uganda who becomes a chess master through hard work and perseverance, among 1,600 students in Uganda. Viewing the film led to a 0.11 standard deviation increase in performance in math scores, with the effect being driven by the lowest ability students and those at lower ranked schools. Similarly, Bhan (2020) carries out an experimental study in India that randomizes an inspirational film among elementary school children in India. He finds a 0.17σ increase in hope immediately after viewing the film that faded in subsequent weeks and a 0.16σ increase six weeks after treatment in standardized English test scores (but none in mathematics).[4]

Effects of interventions seeking to boost educational aspirations often impact one gender more strongly than another, but which gender is affected appears to depend substantially on context. Bernard et al. (2014, 2019) and Carlana et al. (2022) find larger impacts on boys' aspirations, but in an intervention in Mexico, Chiapa et al. (2012) find bigger impacts on girls. Bhan (2020) finds no significance in differential effects overall by gender, but larger effects on younger girls than other children. We see no clear pattern in the data across studies with different genders moderating effects within different contexts.

Empirical work in the education domain tends to support the notion of an aspirations gap: Aspirations should not be too low or too high relative to current reality to have the greatest effect on effort, investment and achievement (Ray, 2006; Genicot and Ray, 2017). In a study in Nepal, Janzen et al. (2017) find that a child's educational aspirations initially increase (slightly) with each additional average year of schooling achieved by higher achieving peers in the child's network, but then follow an inverse-U shaped relationship. Similarly, Ross (2019b) provides evidence of a non-linear relationship between an adolescent's aspirations gap and educational outcomes as a

[4]Although we focus here on studies in LMICs, there have been a number of recent studies in high-income countries that similarly study the effect of aspirations interventions on educational outcomes. For example, Rizzica (2020) uses a regression discontinuity design within the Widening Participation Program in the United Kingdom, which aimed to raised educational aspirations among students from disadvantaged backgrounds, and find that those just above the eligibility cutoff were more likely to apply for university than those below.

young adult. Occupational aspirations at age 12 are positively correlated with human capital at age 19, but when the gap in aspirations is too wide, educational outcomes actually decline.

Consistent with the feedback loops and self-confirming equilibrium nature of hope depicted in Figure 1, there is evidence that aspirations cannot persist at higher levels without tangible evidence that higher aspirations are achievable and realistic. From an educational policy perspective, such reinforcement of higher aspirations may occur when interventions simultaneously address both internal and external constraints, such as the provision of school uniforms, payment for school fees, and other costs of education. Wydick et al. (2013) use a regression discontinuity design based on the age-eligibility of children when the Compassion International child sponsorship program was introduced into villages in six low-income countries during the 1980s covering both costs of education and programming that enhanced aspirations among children. They find that international sponsorship increased secondary school completion by 40.5 percent with statistically significant impacts in all six countries. Ross et al. (2021) and Glewwe et al. (2018) find evidence of elevated educational aspirations among children currently enrolled in the program and increases in educational outcomes from the sponsorship program to be mediated by increases in hope (0.66σ) and self-efficacy (0.29σ).

3.1.2 Employment

Several studies have examined the effects of poverty interventions on aspirations related to adult employment, where occupational aspirations are generally lower for the poor (Guyon and Huillery, 2021). Beaman et al. (2012) exploits a natural experiment based on a law that reserved leadership positions for women in randomized village councils in India. She finds that the gender gap in aspirations decreased by 0.14σ in parents and 0.17σ in adolescents where a female leader was assigned in these 'treated' councils. She also finds that girls were 8.3% less likely to want to be a housewife or have their occupation determined by their in-laws, 8.8% more likely to want to be married only after age 18, and 8.6% more likely to want a job that requires an education.[5]

[5]Outside LMIC contexts, research using the 1970 British Cohort Study to examine the connection between private schooling, internal locus of control, aspirations, access to networks, and self-esteem finds that increases in

We believe these results on employment suggests that programs and policies should seek to do more than elevate aspirations about future occupation, including raising aspirations about more immediate intermediate accomplishments in school and enabling students to realize these aspirations in order to lay the groundwork for improved labor market opportunities in the future. Raising aspirations toward the achievement of intermediate steps may be helpful in that once the intermediate step (such as a given level of education) is realized, aspirations may re-calibrate toward loftier goals (such as toward a specific professional occupation). This may follow from the influence of peers reaching the same intermediate step as well as the confidence gained from the achievement itself. These intermediate goals and re-calibrations may be particularly important when the aspiration gap between the current state and the larger aspiration is too large; larger goals may be more achievable when broken down into several smaller gaps where aspirations become upgraded at each step.

3.1.3 Enterprise

Several recent studies have assessed how aspirations influence enterprise outcomes. Dalton et al. (2018), for example, study aspirations among entrepreneurs in Indonesia, exploring the question of whether entrepreneurs dynamically update aspirations over time. The authors examine short- and long-term aspirations for growth in shop size, number of employees, number of customers and sales. Over 50% of entrepreneurs maintained they had no aspirations for growth over the next year, and 16% fail to imagine an ideal business in the long term. Dalton et al. (2018) observe lower aspirations for those with low profits, business skills, lower beliefs about agency and self-efficacy, and among older women with lower levels of education. Looking at entrepreneurs one year later, they find that baseline aspirations predict future business expansion and innovation and general performance outcomes. Nevertheless, they find that most entrepreneurs fail to set realistic aspirations at baseline and only slowly revise their aspirations to more realistic levels as

job-quality aspirations among 16-year-old students translate into a 0.20 increase in log earnings for males, but a statistically insignificant increase for females (Green et al., 2018). However, the study finds that elevated aspirations account for only a small percent of earnings differentials, which are more fully explained by the educational attainment of students.

outcomes are realized.

The effects of aspirations interventions on business performance in enterprise settings are typically more muted than in education, often effective at increasing aspirations (at least in the short-term), but displaying mixed results on enterprise performance. Garcia et al. (2022), in an RCT among 531 Bolivian dairy farmers, find that an inspirational documentary designed to increase milk output among farmers with low levels of dairy production yielded an increase of 0.20σ in both an aspirational hope index and a business goals index, a 1.07σ increase in an index of quality-enhancing practices. Although there was an insignificant increase in milk production among farmers in the treated group, these farmers increased the *quality* of milk production markedly such that milk rejection rates (especially for reasons of milk acidity) fell by 0.16σ. Increases in aspirations and best practices were strongest among those displaying high levels of intrinsic motivation at baseline.

In Rojas Valdes et al. (2022), we report results from an RCT of a hope intervention among borrowers who were members of 52 savings and credit groups belonging to the faith-based NGO *Fuentes Libres* in Oaxaca, Mexico. The intervention instituted modules that addressed aspirations, agency, and pathways and included an inspirational film shown to the 26 treatment groups that documented the successes of four successful *Fuentes Libres* entrepreneurs. One month after the intervention, the strongest effects were found on aspirations, which increased by 0.27σ with small effects on enterprise outcomes. Twelve months after the intervention, the effect on aspirations faded but effects on agency and conceptualization of pathways increased by 0.15σ and 0.17σ respectively. At the twelve-month endline we found significant impacts on an index of overall business performance (0.18σ), especially in the areas of adding new employees, plans to add new employees, borrowing activity, and group survival (Rojas Valdes et al., 2022).

The results from this and other field experiments offer some evidence that it is possible to elevate components of aspirational hope to realize impacts on enterprise outcomes. However, in the context of the *Fuentes Libres* entrepreneurs, each woman in the study enjoyed access to the organization's financial products such that external constraints to enterprise growth had been

substantially relaxed. Moreover, we would classify the impacts that were realized on the enterprises as moderate, somewhat smaller and less sharp than impacts that appear to be realized in educational interventions in which both external and internal constraints to education are simultaneously addressed.

3.2 Agency

Agency is an essential assumption in any theoretical model that posits that agents maximize utility subject to constraints. In empirical work in development economics, while agency is explicitly featured less often than aspirations, it has recently been gaining traction in the form of self-efficacy (Bandura, 1977; Metcalfe et al., 2010) and locus-of-control (Lefcourt, 1976; Rotter, 1966) in a variety of studies ranging from education and occupational choice to agricultural technology adoption and entrepreneurship.

In a study of non-cognitive skills among girls in India, Roy et al. (2018) find that self-efficacy may lay the foundation for aspirations and strongly correlated with an enabling and supportive family and community environment. Self-efficacy correlates with both education and employment aspirations and with actual attainment in these areas. A one standard deviation increase in self-efficacy is associated with roughly a 0.50 increase in years of aspired schooling. The authors suggest that these intangible forms of human capital may be critical targets for intervention, but that in terms of predicting actual education and occupational outcomes, self-efficacy appears to be less important than aspirations.

Given that the application of agency concepts like self-efficacy in empirical development economics is still quite nascent, much of this work has yet to make its way through the peer-review publication process. One such working paper tests the impact of "generalized self-efficacy" on women's employment in Uttar Pradesh, India. McKelway (2021) conducts a two-part randomization that cross-cuts a psycho-social treatment aimed at increasing women's generalized self-efficacy (i.e., sense of self-efficacy across a range of potential life goals and domains) with a video aimed at husbands and in-laws that promotes the value of women's work. The study finds that

the video successfully increased measured self-efficacy of the women and that these effects are evident one year after the treatment. McKelway (2021) also finds that these induced self-efficacy gains led to increased paid employment, but these employment effects disappear one year later. McKelway's explanation for this pattern is the prevalence of binding constraints at home. Specifically, "having too many household chores" was by far the most common reason provided for women leaving outside employment. Even very high levels of self-efficacy were insufficient to overcome the dominant norm held by both men and women that "a women's main role should be to tend to household chores" (McKelway, 2021).

Several recent studies have aimed to empirically test the role of self-efficacy and locus of control on agricultural technology adoption. In a pair of closely related articles, Abay et al. (2017) and Taffesse and Tadesse (2017) explore the association between locus of control and the adoption of several agricultural technologies in Ethiopia. Both studies find strong correlations between internal locus of control and technology adoption, but neither is able to extract a causal link from locus of control to the adoption decision. Wuepper and Sauer (2016) propose an identification strategy for estimating the causal effect of self-efficacy on the benefits Ghanaian farmers reap from production contract arrangements. These authors use historical instruments, especially the historical presence of successful cocoa cooperatives during the colonial era, to predict farmers' self-efficacy. This first stage relationship is interesting on its own as a commentary on historical factors that influence individuals' agency.[6] While the results suggest that self-efficacy increases benefits from contract farming, the measure of self-efficacy used by the authors is unconventional and opens the door to alternative explanations.[7] More recently, Malacarne (2019) finds similar evidence in the context of drought tolerant maize adoption in Mozambique.

The potential role of agency in shaping the decisions, outcomes and success of entrepreneurs and small enterprises has long been appreciated among applied psychologists and business researchers (Chen et al., 1998; Zhao et al., 2005). It is therefore not surprising that many descriptive

[6]For a related and equally intriguing study on the deep historical roots of locus of control, see Ross (2019a).

[7]A related paper tests whether adoption of climate adaptation techniques in agriculture is shaped by non-cognitive skills more generally, but including self-efficacy (Kreft et al., 2021).

studies have tested the correlation between measures of self-efficacy and locus of control, on the one hand, and entrepreneurial activity and success, on the other. These studies, like those applied to agricultural technology adoption, generally find positive correlations, but struggle to identify causal relationships. As described earlier, Rojas Valdes et al. (2022) leverages a hope intervention and RCT to test the effect of increased aspirations, pathways and agency on microenterprise outcomes in Oaxaca, Mexico. While this study was not designed to separately test the effect of each hope component, it did find that the intervention had a more enduring effect on elevating agency among the female microfinance borrowers in the study than it did on their aspirations.

3.3 Pathways

Pathways are a mainstay of theoretical models in economics, although they are rarely referred to by this name and are often represented only implicitly as they are generally incorporated as the *absence* of a pathway, often captured by a constraint. Such a constraint is typically modeled on physical inputs or outputs, but rarely as an internal constraint or a failure to see a specific and viable path to achieve a particular goal.

In the hope framework of Snyder (1994), the link from a present state to an aspired future state occurs through the conceptualization of one or more pathways leading to the realization of the aspiration. While an aspiration delineates a destination, pathways represent the envisioned route to this destination. One might even consider the importance of a match between agency and a particular pathway leading to an aspiration. High levels of agency (in its general sense) may not be sufficient to create hope unless they are well-matched to the particular domain of agency that is required to navigate a particular pathway. In economics, one sees examples of this among workers who have accumulated skills in industries that are in decline or subject to foreign competition, where workers' industry-specific skills are not well-matched to sectors where greater economic opportunities lie, leading to feelings of hopelessness among these workers.

Pathways are sometimes conceptualized through investigation, reason, or intuition, but for many they are manifest through demonstration, mentoring, and role-modeling. Mentoring and

role-modeling have long been understood as important phenomena in the business and education literature (e.g., Roche, 1979; Orpen, 1997; Ehrich et al., 2004) and can play different roles in the creation of hope. Mentors may elevate aspirations by sharing inspiring success stories that underscore similarities with the mentee's own traits, expertise and interests. Particularly if these similarities are central to one's identity (Akerlof and Kranton, 2000), they may also enhance a person's sense of their own agency. Eble and Hu (2020), for example find with data from China that assignment of a female math teacher improves the math performance of low-performing girls.

New research in development economics, however, has found that mentorship can convey new ways of conceptualizing and envisioning pathways out of poverty. A study of mentoring among low-income entrepreneurs in Chile randomized the assignment of both role models and technical assistance personnel who made home visits to low-income entrepreneurs (Lafortune et al., 2018). The authors find that both those entrepreneurs assigned to receive the role-model intervention and those assigned to receive the technical assistance intervention increased profits by about 15 percent of the control group mean, but that the role models achieved this outcome at considerably lower cost (Lafortune et al., 2018).

The role of mentoring in illuminating specific pathways out of poverty is highlighted even more strongly in work by Brooks et al. (2018) using an RCT in which Kenyan entrepreneurs in a low-income district outside Nairobi randomly took formal business classes or were mentored by a successful entrepreneur in the same community. In contrast to the structured business curriculum, mentors were allowed to discuss anything they felt would be helpful to their mentee's enterprise. Brooks et al. (2018) find that, compared to the control group, profits of those entrepreneurs assigned to mentors increased by 20 percent over the first 17 months of the intervention, whereas those assigned to receive business training realized no statistically significant changes in profits even when business practices changed. What appeared to drive this difference was that the accounting, marketing, and financial concepts taught in the business courses were difficult for the entrepreneurs to apply to the local context. In contrast, the mentors were able to demonstrate

specific pathways to higher profits by identifying where to obtain inputs and wholesale goods from low-cost suppliers. The results of the study point to the importance of interventions that create or delineate specific and concrete pathways rather than general or abstract principles.

Part of the success of both of these interventions may lie in the way that humans learn. As social creatures, we typically learn more effectively and naturally by example than by abstract principles. It is often much easier to understand how to take specific steps to reach a goal by following another's lead than it is to make the conceptual leap from theory to application. By demonstrating a specific pathway to a goal, mentors may more successfully foster hopefulness among the poor than less personal educational interventions.

4 Patterns in Recent Research Results

Our review of recent work in development economics related to hope reveals a few key patterns in the empirical literature. We summarize four specific patterns, then discuss their implications in the context of the Sen-Snyder framework above.

1. Aspirational hope plays a leading role in educational attainment, and aspirations interventions in education are often effective at both raising aspirations and improving schooling outcomes (Fabregas, 2017; Riley, 2017; Janzen et al., 2017; Gagete-Miranda, 2021; Bernard et al., 2019; Bhan, 2020; Serneels and Dercon, 2021; Garlick et al., 2021; Ross et al., 2021).

2. Aspirational hope is strongly correlated with positive enterprise and employment outcomes, but aspirations interventions display more modest and varied impacts on target outcomes than they do in education (Beaman et al., 2012; Taffesse and Tadesse, 2017; Green et al., 2018; Garcia et al., 2022; Rojas Valdes et al., 2022).

3. As sources and components of hope, agency and self-efficacy are associated with favorable economic outcomes, and preliminary evidence suggests that interventions in these areas can display causal effects in education, employment, and enterprise (Roy et al., 2018; McKelway, 2021; Rojas Valdes et al., 2022).

4. Role models can increase aspirational hope and improve economic outcomes among the poor, often by illuminating concrete steps that constitute potential pathways out of poverty (e.g., Lafortune et al., 2018; Brooks et al., 2018; Eble and Hu, 2020).

Among these, a few extensions and implications merit discussion. Recent empirical research reveals consistent differential effects of hope-related interventions in educational versus employment and enterprise contexts. Within the education domain, hope-related interventions appear quite promising in their effects on educational aspirations, school attendance and even test scores (e.g., Bernard et al., 2014; Riley, 2017; Bernard et al., 2019; Bhan, 2020). These results appear to hold in the short-term with some studies hinting at long-term effects, whereas similar interventions in the domain of employment and enterprise appear to be more modest and context-specific.

The Sen-Snyder framework presented above may help to explain this emerging pattern of results. In short, the domain of education simultaneously meets several criteria that this framework suggests are likely to make outcomes more responsive to hope-related interventions. Consider three specific elements of the framework in this regard. First, education involves children and young adults, whereas employment and enterprise more typically involve older adults. The young are more influenced by external forces, and their hope, as with other innate traits and tendencies, may therefore be more malleable. This distinction is important because many of the studies have relatively compressed timelines, such that results hinge on short-term sensitivity to the hope intervention in question.

Second, binding external constraints are likely to be more prevalent in the domains of employment and enterprise than in education. Investments in the form of time, focus and effort are much more likely to translate directly into improved educational outcomes (e.g., attendance, exam scores, etc.) than they are to employment or enterprise outcomes (e.g., wages, sales, profit, etc.). While hope interventions that target adults in the latter domains often yield positive impacts, they tend to be more mixed, more modest and of shorter duration than similar results in education. Differences in the production environment clearly explain at least some of these differential effects: Success for workers and entrepreneurs demands a host of complementary inputs

and is shaped significantly by stochastic shocks, whereas the production function for success in the classroom is simpler and more deterministic. To the extent these differences explain the pattern of hope-related results, they underscore that where external constraints are binding we would naturally expect to see interventions targeting internal constraints to have little effect.

Third, the hope-investment-outcome feedback loop is typically shorter and more direct in education than for employment and enterprise (which may be harder to impact overall), allowing for rapid updating of beliefs. When a middle school student sees an inspirational film (e.g., Riley, 2017; Bhan, 2020), feedback can accrue soon after she increases her effort. In addition to her self-efficacy and aspirations being more responsive to the film compared to those of adults, added effort in study provides quicker feedback in academic achievement than an adult might receive in the labor market or in entrepreneurial activity.

Although not (yet) clearly established in the literature, these three elements likely have potent interaction effects that may further predispose educational domains to being more responsive to hope. Initial kernels of hope activated by encouragement, mentoring or other sources of inspiration can create virtuous cycles of investment of time, resources, and energy that yield positive economic outcomes and solidify hope as an enduring part of individual personality. These interaction effects, however, can cut both ways: Initial hopelessness can trigger feedback loops that exploit malleability in a negative direction and, with the prevalence of binding external constraints, can conspire to calcify hopelessness into persistent internal constraints that discourage future effort and investment. The question of whether genuine hope is only created endogenously through the former virtuous cycle or can be part of an exogenous intervention has only begun to feature in research, but it seems plausible that the interplay of endogenous and exogenous hope will vary by domain as well.

Many of the features of the education domain that make it easier for students to learn and update beliefs also facilitate the job of researchers trying to estimate the impact of various interventions. While we cannot rule out that results are simply easier to measure and detect statistically in education than in other domains (e.g., because test scores and grades can quantify perfor-

mance directly and relatively cleanly), we find it hard to believe that the emerging differences in hope-related results across these domains is entirely driven by better outcome measurement. We interpret these domain differences as reflecting – at least in part – the fact that children are more responsive and malleable to such interventions in a variety of important ways (Cantor et al., 2019). This interpretation, which merits additional research attention, suggests that differential efficacy of hope-related interventions across these domains may reflect something more substantive about how hope takes root and evolves dynamically over the life cycle as part of broader human development.

5 Frontiers and Future Prospects

The Sen-Snyder framework we used to structure our survey of recent research rests on a number of key assumptions. These assumptions frame our conceptualization of hope. In this final section, we revisit a few of these framing assumptions in order to explore promising new research frontiers that may be underappreciated by development economists given the current trajectory of this literature.

While Snyder's simple conceptualization of hope serves as a useful starting point for initial forays into the topic by development economists given its alignment with familiar economic concepts and modeling approaches (see Lybbert and Wydick, 2018), most hope-related research in development economics is even more reductionist, typically focusing on a single hope component (most commonly, aspirations) in isolation of the others. It is difficult for this kind of approach to shed light on complementarities between components, which are relevant for research and for the design of policy, programs, and interventions in LMICs.

The second framing assumption we revisit pertains to our focus on empirical research that uses experimental methods to understand how changes in the components of hope affect different economic outcomes. In large part, this is simply a reflection of the prevalence in development economics of experimental methods that prioritize causal inference. Such evidence can be insightful

but also useful in practice since it typically has clear prescriptive application. While acknowledging the value of *prescriptive* evidence of this kind, we appreciate the importance of additional *descriptive* evidence about the role hope plays among the poor. This need for exploratory research aimed at characterizing perceptions of hope and its associated components was underscored by the 2015 *World Development Report*. Based on an internal survey of World Bank researchers and staff, this report concluded that "development professionals may assume that poor individuals may be less autonomous, less responsible, less hopeful, and less knowledgeable than they in fact are" (World Bank, 2014, p.18). Building on our understanding of hope through descriptive work within development economics and by incorporating descriptive insights from other disciplines will only enhance our ability to conduct high-quality and high-impact prescriptive work. Along these lines, Thomas and Markus (2022) provide a compelling argument in favor of "enculturating" international development science, including development economics, and advocate for greater awareness about the (often implicit) prevalence of Western conceptions of individualist and independent models of agency even when local populations are more inclined to communal and interdependent modes of action.

Moreover, the Snyder model is one of many conceptualizations of hope. Other models emphasize how feeling connected to others is often an essential dimension of the experience of hope, which may align more closely with the communal and interdependent tendencies of many LMICs. For example, Scioli et al. (2011) frame hope according to primal motives of survival, mastery, attachment, and spirituality. While economics as a discipline lends itself most naturally to understanding the mastery motive, which is also most congruent with Snyder's (1994) framework, mapping the other motives into economics – whether individually or collectively – may be more of a stretch.[8] Within the broader discipline of economics, however, development economics seems better positioned than other fields to explore a richer view of hope that sees aspirations, agency, and pathways as socially- and even spiritually-embedded. Such an approach aligns nicely with

[8]This is particularly true since – as we have underscored – much of the recent work in economics focuses on a *single* component of the Snyder model. Operationalizing yet broader conceptualizations of hope in development economics research is itself purely aspirational at this stage.

the increasingly-popular framework of "integral development" (see Bertina, 2013; Carozza and Sedmak, 2020). In this framework, different components of human flourishing – psychological, social, physical, environmental, economic, and spiritual – *combine* to shape human development outcomes such that, to different degrees, each is necessary but not independently sufficient.

Development economists could do more to explore these aspects of hope as part of an expanded empirical research agenda. Some of the work we review here suggests an important inter-generational dimension of hope as impacts on education from hope-related films are evident when the films are viewed by parents (Bernard et al., 2014; Garlick et al., 2021) as well as by children (Riley, 2017; Bhan, 2020). Parents may be able to realize higher levels of hopefulness vicariously through the possibilities open to their children even if interventions directly affect only the lives of their children. Such vicarious sources of hope surely extend beyond parent-child relationships. Western perspectives on hope – including the Snyder model – emphasize the individual and risk underestimating the social dimensions of hope. While some descriptive work probing these dimensions is emerging (e.g., Castro Baker et al., 2021), openness to these insights requires greater methodological flexibility than development economics has shown as a field in recent years, perhaps a more careful and patient appreciation of observational data over an exploration of phenomena through a long series of randomized experiments.

We conclude with yet broader reflections on how hope and poverty research relates to insights from philosophy about second-order volitions: our distinctly-human desires about our desires (Frankfurt, 1971). In this vein, Callard (2018) distinguishes between routine goals and transformative aspirations. Whereas routine goals are both achievable and conceivable using one's current values and worldview based on familiar experiences, transformative aspirations reach beyond what is familiar to the individual and demand "proleptic reasoning" based on the anticipation of values and experiences one can only aspire to acquire in some future state or time (Callard, 2018). Given how all-encompassing and taxing the experience of poverty can be – both emotionally and mentally (Mani et al., 2013; Dean et al., 2017; Ridley et al., 2020) – escape from poverty may be more transformational than routine. This crucial perspective of the poor, poten-

tially underappreciated by non-poor researchers, deserves greater attention. Seeking to better appreciate and understand the proleptic reasoning necessary for transformative aspirations to take root among the ultra-poor may open important new research frontiers on the economics of hope.

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