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Can Hope Elevate Microfinance? Experimental Evidence from the Oaxaca Hope Project

Psychology & Economics of Poverty Convening

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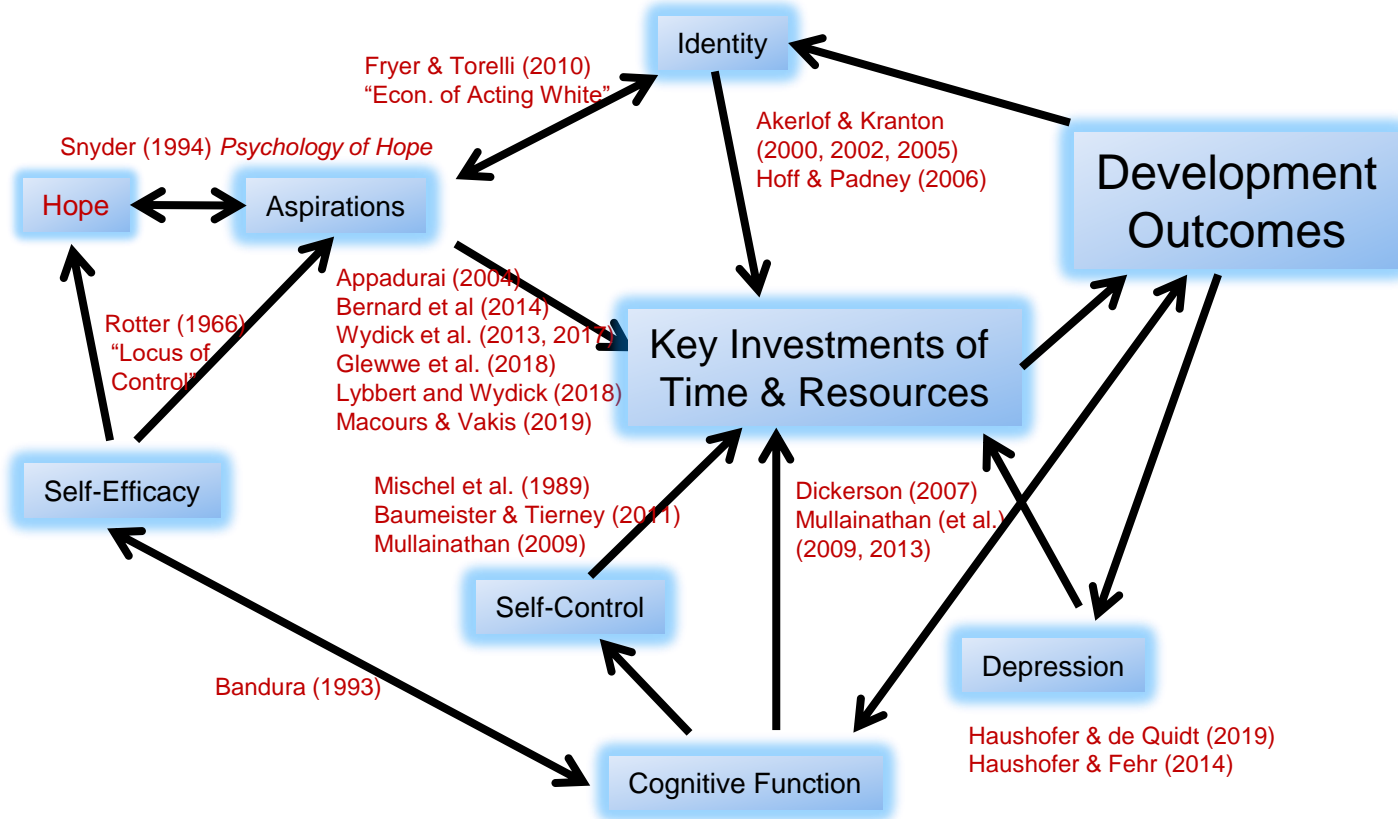
Questions of this Research:

- What is *hope* and how much do hope and aspirations matter in economic development in general and microenterprises in particular?
- If they do matter, can we significantly change hope and aspirations?
- If we can change them, can we detect the effect of these changes on the performance of microenterprises?

Outline:

- Background on Hope & Aspirations in development economics as a research concept
- Outline an economic model of hope based on the three components of hope formulated in positive psychology
- Description of the Oaxaca Hope Project RCT
- Early results after 1-month from start of experiment
- Later results after 1-year from start of experiment
- Conclusions

Influence of Psychological Factors on Economic Development:



What is hope? Both a *noun* and a *verb*:

1. (Noun) Desire accompanied by expectation of or belief in fulfillment, e.g.
 - “When they started their life together, they were young and full of *hope*.”
 - “Rescuers have not yet abandoned *hope* that more survivors will be found.”
 - “He had little *hope* of attending college.”
- 2a. (Verb) to cherish a desire with anticipation
 - Davíd *hopes* *that* it may rain on his field tomorrow.”
- 2b. (Verb) to desire with expectation of attainment
 - “Davíd *hopes* *to* irrigate his field this coming Saturday.”

We argue: Contextual meaning of “hope” is important

- Key difference between “**hope that**” (in 2a) and “**hope to**” in (2b):

Wishful hope, which may motivate fatalism

VS.

Aspirational hope, which may motivate proactivity

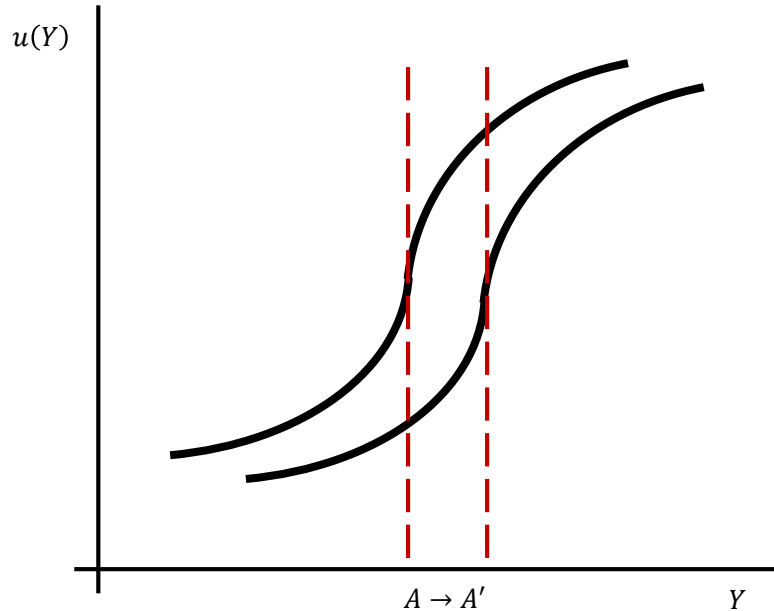
The Psychology of Hope

- Snyder (1994) classic *Psychology of Hope* identifies three necessary characteristics of hope:
 - Goals/Aspirations
 - Agency/Self-Efficacy
 - Pathways/Avenues
 - E.g. A woman living in poverty establishes a goal of expanding her clothing business, has a reasonable basis for believing she is capable of her realizing her aspiration, and identifies the pathway to her goal as obtaining a microfinance loan and getting additional small-business training.

A Model of Hope

We parameterize an aspirations-dependent utility function...

$$u = 1(Y < A) \cdot A \left(\frac{Y}{A}\right)^{(1/1-\alpha)} + 1(Y \geq A) \cdot A \left(\frac{Y}{A}\right)^{1-\alpha} \quad (1)$$



Agency and Pathways

A complete production structure reflecting both agency and pathways is given by

- $Y = \pi_1 e + \pi_2 v$ (2)

- $E[Y] = \begin{cases} \pi_1 e & \text{if } e < \bar{e} \\ \bar{Y} & \text{if } e \geq \bar{e} \end{cases}$ (3)

where $\pi_1 \bar{e} = \bar{Y}$.

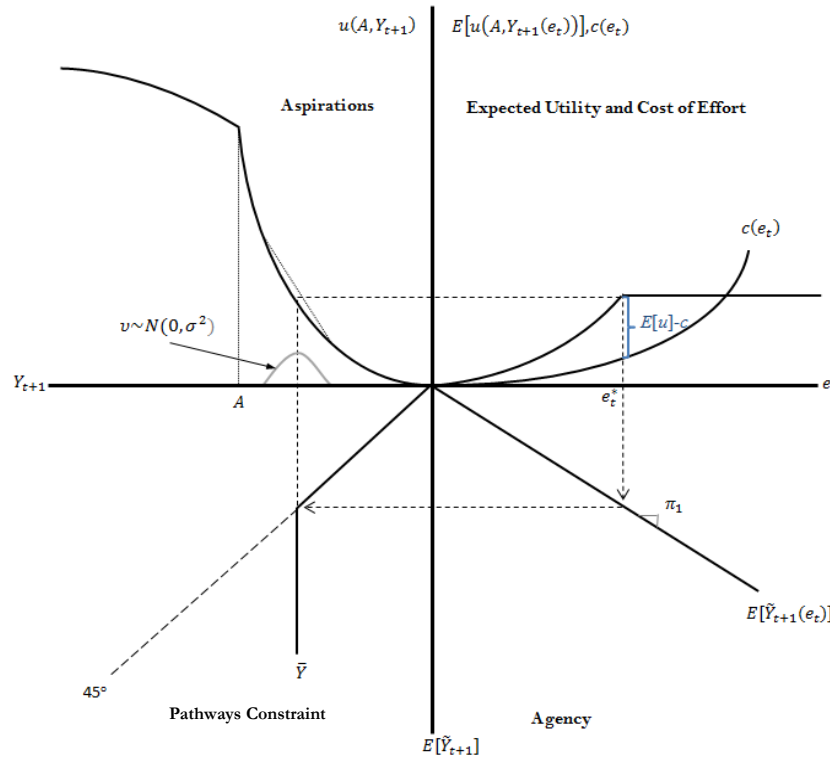
- Assume that effort is costly in utility terms at an increasing rate according to the function $c(e)$ where $c'(e) > 0$, $c''(e) > 0$ and $c(0) = 0$.
- The agent in this economic model of hope solves the problem

$$\max_e U = E[u] - c(e)$$

subject to (1) – (3).

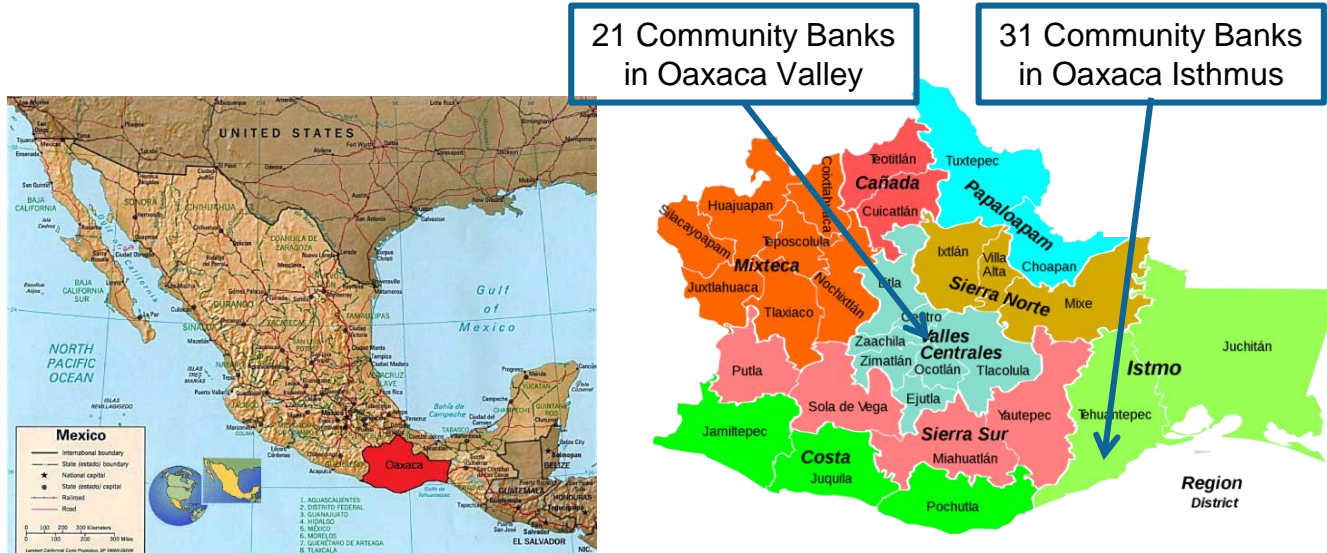
A Model of Hope

- Putting the model together we have:



Oaxaca Hope Project

- NGO Partner Fuentes Libres
- 52 Community Banks: Credit + Savings



Randomization:

- Cluster Randomization
 - Pairwise matching at community bank level
- Used loan officer focus group to rank factors most heavily influencing borrowing group performance.
- Matched groups in pairs by hierarchical matching process of
 1. Same Loan Officer
 2. Size of group
 3. Experience of Group
 4. Age of Members
 5. Similarity of Microenterprises
- 52 Community Banks (Female): 26 treatment, 26 control
- 780 Microfinance Borrowers: about half in treatment group

Intervention: Año de Esperanza

Goal: Increase aspirational hope for microenterprises among women in the randomly selected community banks through three main interventions over 12 months.

1. Creation and Screening of Documentary Film on best borrowers within the organization.



Intervention: Año de Esperanza

2. Goal Exercise with refrigerator magnets →

DIOS ME DA ESPERANZA...

1. ASPIRACIONES:
"Pon tu delicia en el Señor y El te dará las peticiones de tu corazón." (Salmos 37:4)

2. HABILIDADES:
"Todo lo puedo en Cristo que me fortalece." (Filipenses 4:13)

3. AVENIDAS:
"Reconócele en todos tus caminos, y El enderezará tus sendas." (Proverbios 3:6)

MIS METAS:
VENTAS SEMINALES: _____ AHORROS SEMINALES: _____ MI META DE FUTURO: _____

3. Hope Curriculum, intensive in first month but carried out continually for 12 months. Focus on development of "Los Tres A's":

- *aspiraciones*
- *habilidades*
- *avenidas.*

On Hope

- 5 questions used to create Aspirations Index
- 5 questions used to create Agency Index + ANOVA
- 5 questions used to create Pathways out of Poverty Index
+ data on future-mindedness, risk-aversion, spiritual values.

Business Performance, impacts on

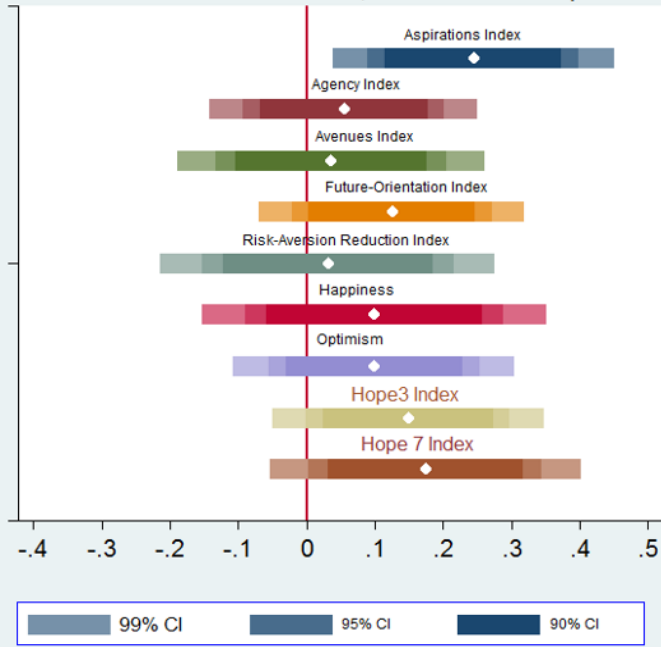
- Community bank savings, Gross enterprise revenue, Net profits, Employees in enterprise

Impact Estimator: ANCOVA

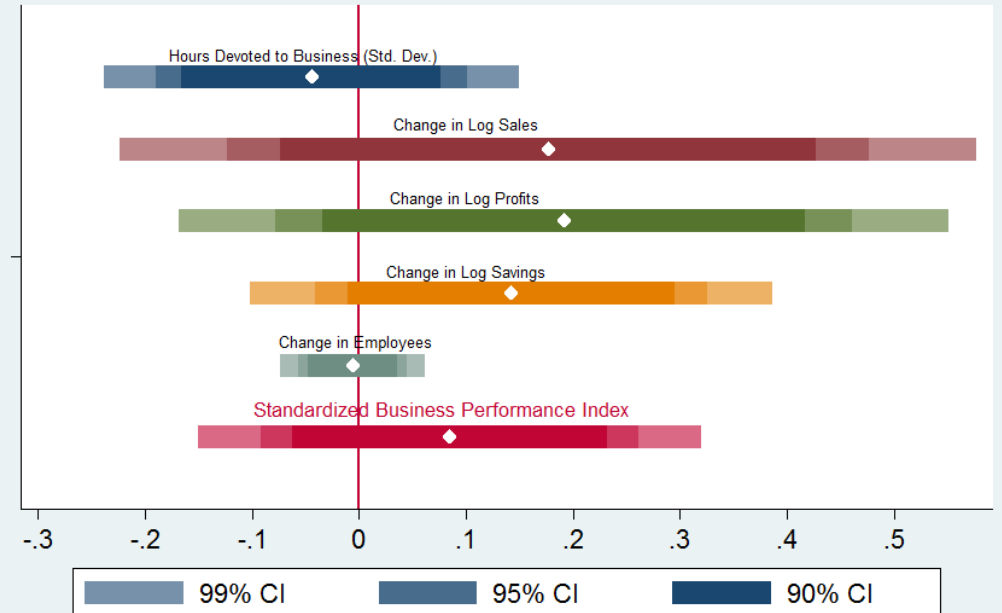
$$y_{ijkt} = \alpha + \tau_1(F_1 \times treated) + \tau_{12}(F_{12} \times treated) \\ + \delta F_{12} + \varphi y_{ij,t-1} + \mathbf{X}_i' \boldsymbol{\beta} + \gamma_k + \varepsilon_{it}.$$

Short-term (1-month) results:

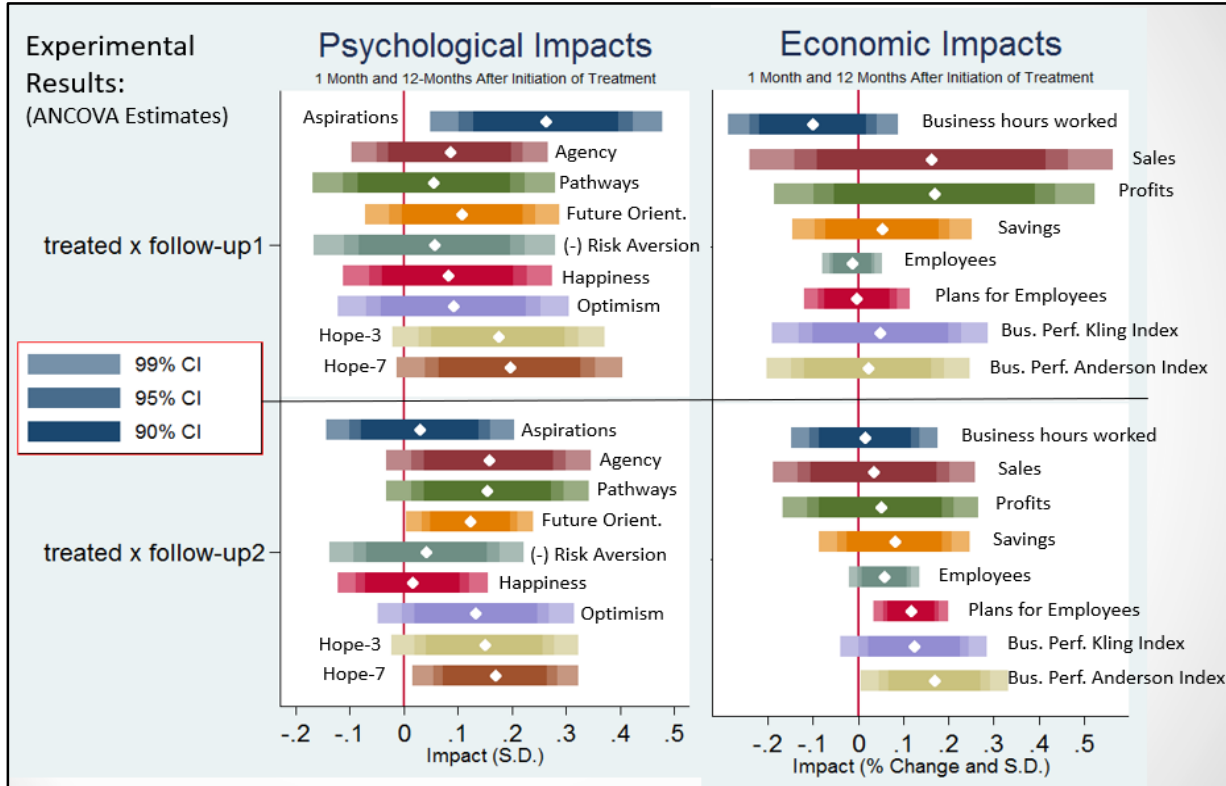
Impact Estimates from Hope Intervention
ANCOVA Estimations, 1-month follow-up



Impact Estimates from Hope Intervention
ANCOVA Estimations, 1-month follow-up



Longer-term (12-month) results:



Conclusion

- Impacts from Oaxaca Hope Project on psychological outcomes quite strong, significant.
- Impacts on economic outcomes more modest; but found that were bigger on lower-income, less hopeful women.
- Impact of hope intervention stronger than microfinance interventions generally. (Which are even more modest.)
- Evidence that it had a big effect on a smaller sub-group



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