

Poverty, Aspirations and the Economics of Hope

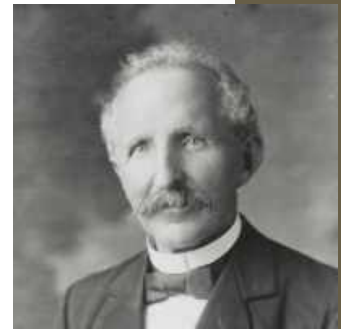
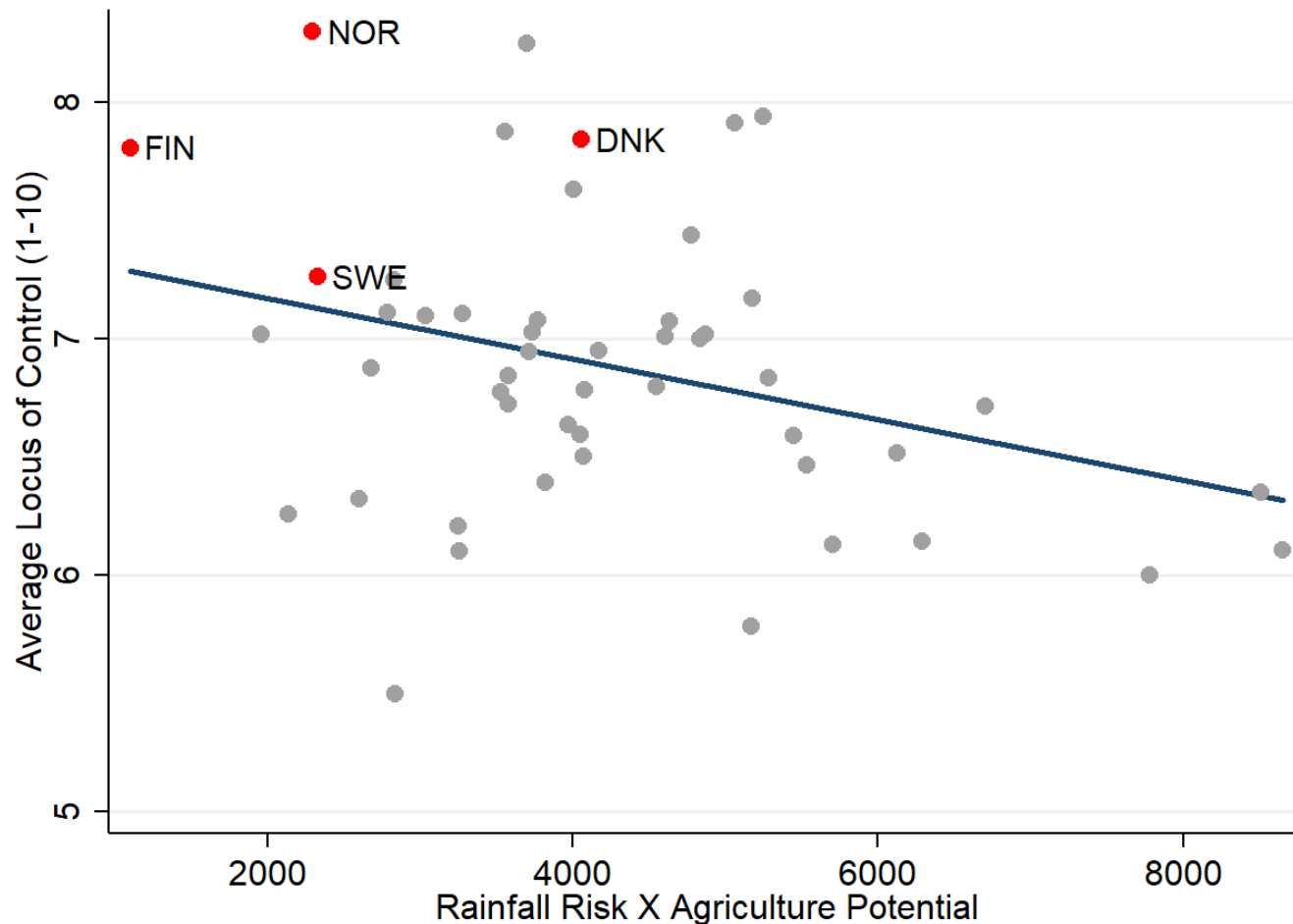
Travis J. Lybbert, University of California, Davis

17 June 2019 | Copenhagen

Nordic Conference on Development Economics

What does my Danish blood have to do with this talk?

“Ancestral Roots of Locus of Control” (Phillip Ross 2018)



‘Economics of Hope’...really?

“Economics achieved coherence as a science by amputating most of human nature. Now economists are starting with those parts of emotional life that they can count and model... They’ll surely find that the processes that make up the inner life are not amenable to the methodologies of social science. The moral and social yearnings of fully realized human beings are not reducible to universal laws and cannot be studied like physics.”

- David Brooks (NY Times 2010)

Should economists dabble in matters of the soul?

Are there ways for us to study hope that neither amputate deeper dimensions of hope nor abandon methodological rigor?

Overview

1. Hope and psychology
2. Hope, poverty and economics
3. An economic model of hope
4. Hope and microfinance
5. Conclusion and reflections

The Oaxaca Hope RCT and results

Hope and Human Dignity:

Exploring Religious Belief, Hope, and Transition out of Poverty in Oaxaca, Mexico

Bruce Wydick, Robert Dowd, and Travis J. Lybbert

ECONOMIC VIEW

Think Positive, Climb Out of Poverty? It Just Might Work



THE ECONOMICS
OF POVERTY TRAPS

Edited by Christopher B. Barrett,
Michael R. Carter, and Jean-Paul Chavas

Perceived Self-Efficacy, Poverty, and Economic Development

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Poverty, Aspirations, and the Economics of Hope

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I. Introduction

In recent years, development economics has increasingly ventured into domains that were previously reserved for psychology and other fields. Theoretical, empirical, and experimental work in behavioral development economics



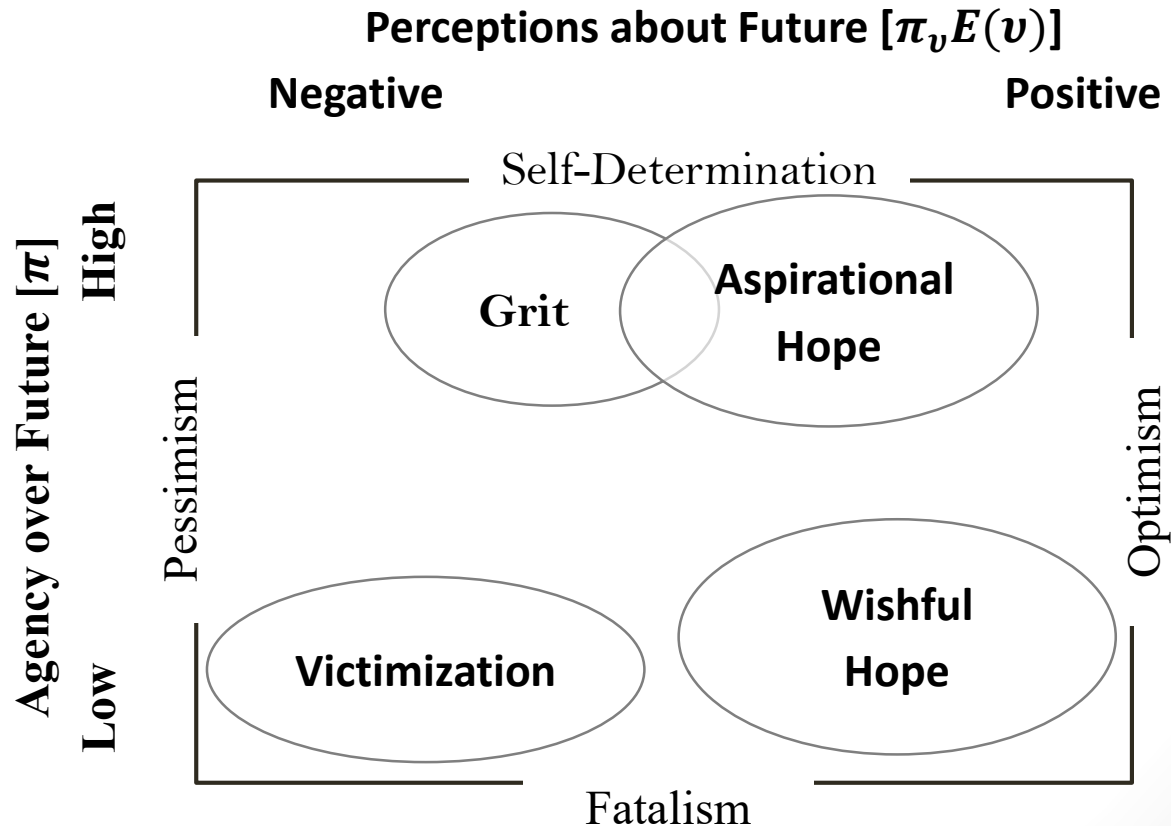
1. Hope and Psychology

- Hope is more and deeper than optimism
- Hope is forward-looking, entails uncertainty, requires imagination
- Hope is more about *eudaimonia* (happiness as meaning) than *hedonia* (happiness as pleasure)
- Hope reflects past experiences and is therefore dynamic
- Hope is context-specific and easier to pin down when confined to purely material realms

Hope “is the elevating feeling we experience when we see – in our mind’s eye – a path to better future” (Groopmans 2003)

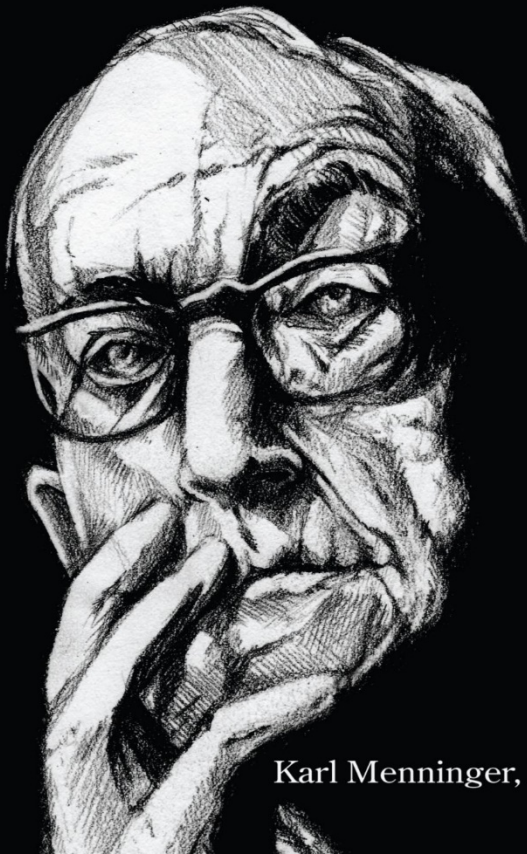
A Typology of Hope & Hopelessness

$$Y = \pi e + \pi_v v$$
$$v \sim N(0, \sigma^2)$$

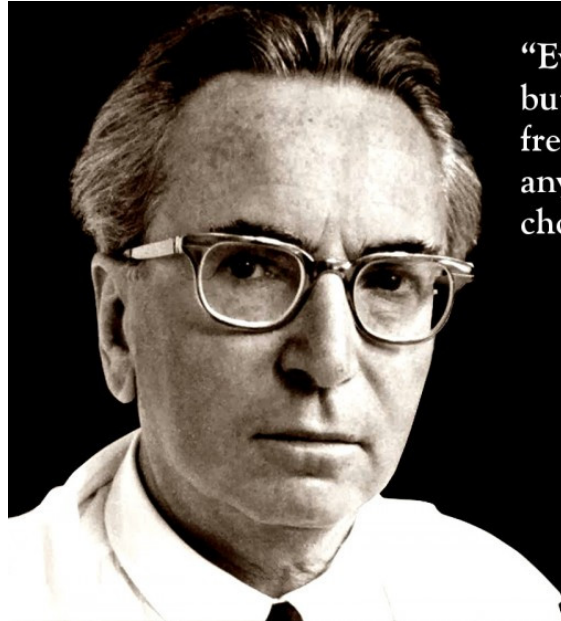


The Psychology of Hope

The Crime of Punishment



Karl Menninger, M.D.



“Everything can be taken from a man but one thing: the last of the human freedoms—to choose one’s attitude in any given set of circumstances, to choose one’s own way.”

Viktor E. Frankl

*“... are we not now duty bound to speak up as scientists...about this ancient but rediscovered truth, the validity of Hope in human development – Hope alongside its immortal sisters, Faith and Love?”
(1959)*

Positive Psychology & Hope-Related Work in Psychology

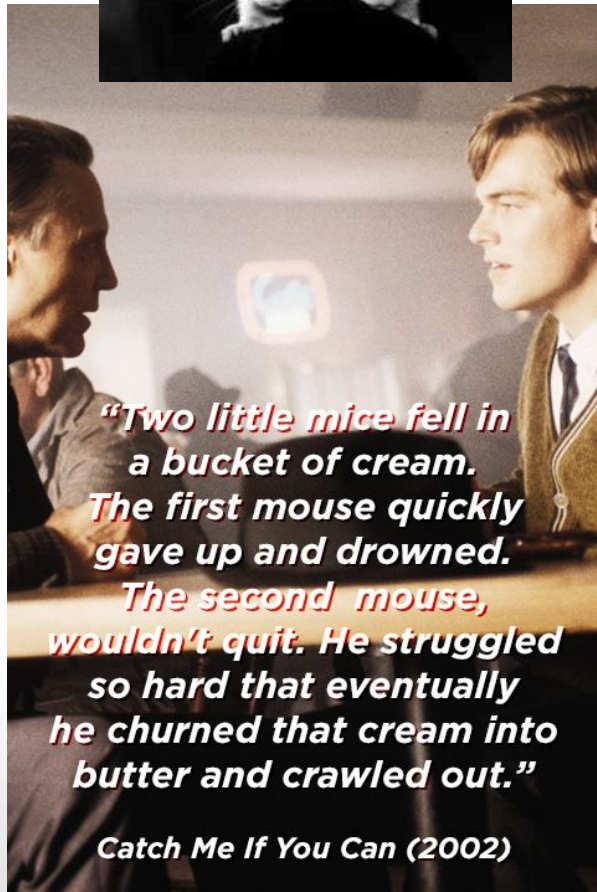
Locus of control, self-efficacy and learned helplessness theory



Snyder's Hope Theory:

1. Goals | 2. Pathways | 3. Agency

- Hope as a way of thinking – not purely emotion
- A 'high hope' individual has a *goal*, sees a viable *pathway* to that goal and believes she has the *agency* to progress along this path
- High hope individuals remain open to "alternative pathways that reframe challenges in new ways"



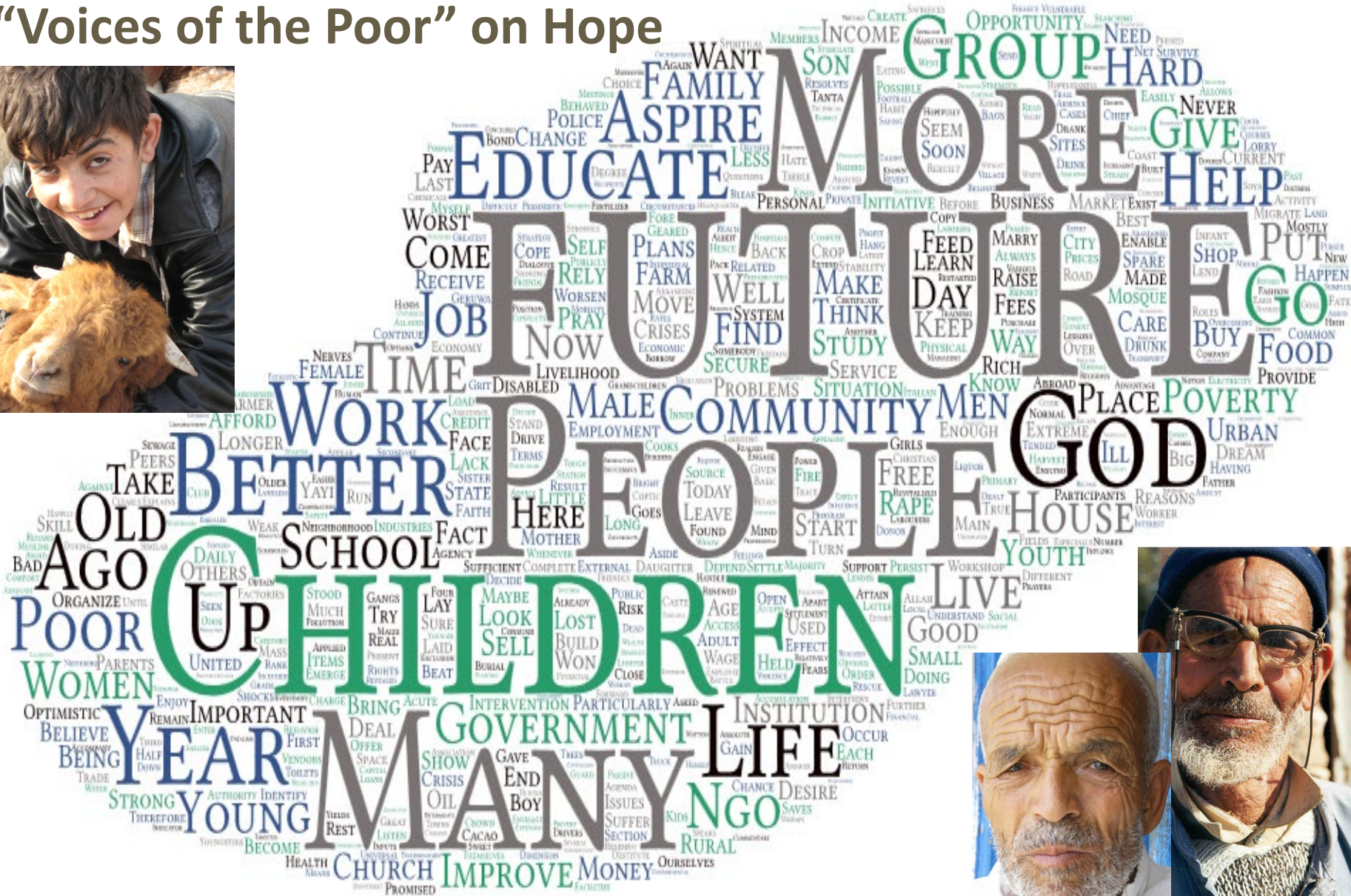
"Two little mice fell in a bucket of cream. The first mouse quickly gave up and drowned. The second mouse, wouldn't quit. He struggled so hard that eventually he churned that cream into butter and crawled out."

Catch Me If You Can (2002)

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“Voices of the Poor” on Hope



2. Hope, Poverty and Economics

- Bandan's intervention in West Bengal offered the ultra-poor assets, a small stipend and weekly training sessions
- 18 months later the effects were so big and so persistent that the direct impact of the intervention could not fully explain them (Banerjee et al. 2013)

Where did these massive effects come from?



2. Hope, Poverty and Economics

International Child Sponsorship

- Wydick et al (2013) measure adult outcomes of sponsored children and their unsponsored siblings in six countries
- Sponsorship as a child leads to dramatic improvements
 - Years of schooling and completion rates, including tertiary school
 - Probability and quality of employment
 - Leadership and civic engagement

What's driving these impressive effects?

What's Driving Big Sponsorship Effects?

Using psychometric indices, child sponsorship causes

- Much higher levels of **hope** (0.66σ)
- Higher levels of **happiness** (0.42σ)
- More **self-efficacy** (0.29σ)



Hope, 15th percentile



Hope 93rd percentile

Hope and 'Positive Deviance'

- Mini-documentaries in Ethiopia change aspirations and investments (Bernard et al. 2014)
- *Queen of Katwe* in Kampala improved test scores of secondary students (Emma Riley 2018)
- Showcasing success in such ways may shape goals, agency and/or pathways

Is showcasing positive deviance statistically reckless?

Depends on your view of outliers

Random noise?

Unobservable factors that may be malleable?



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3. An Economic Model of Hope

We build directly on Hope Theory and model hope as

1. **Aspirations** (goals) \rightarrow aspiration-dependent utility function
2. **Agency** \rightarrow marginal productivity of effort (e.g., self-efficacy)
3. **Pathways** \rightarrow production function constraint

$$\max_{e_t} U_{t+1} = E[u_{t+1}] - c(e_t)$$

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

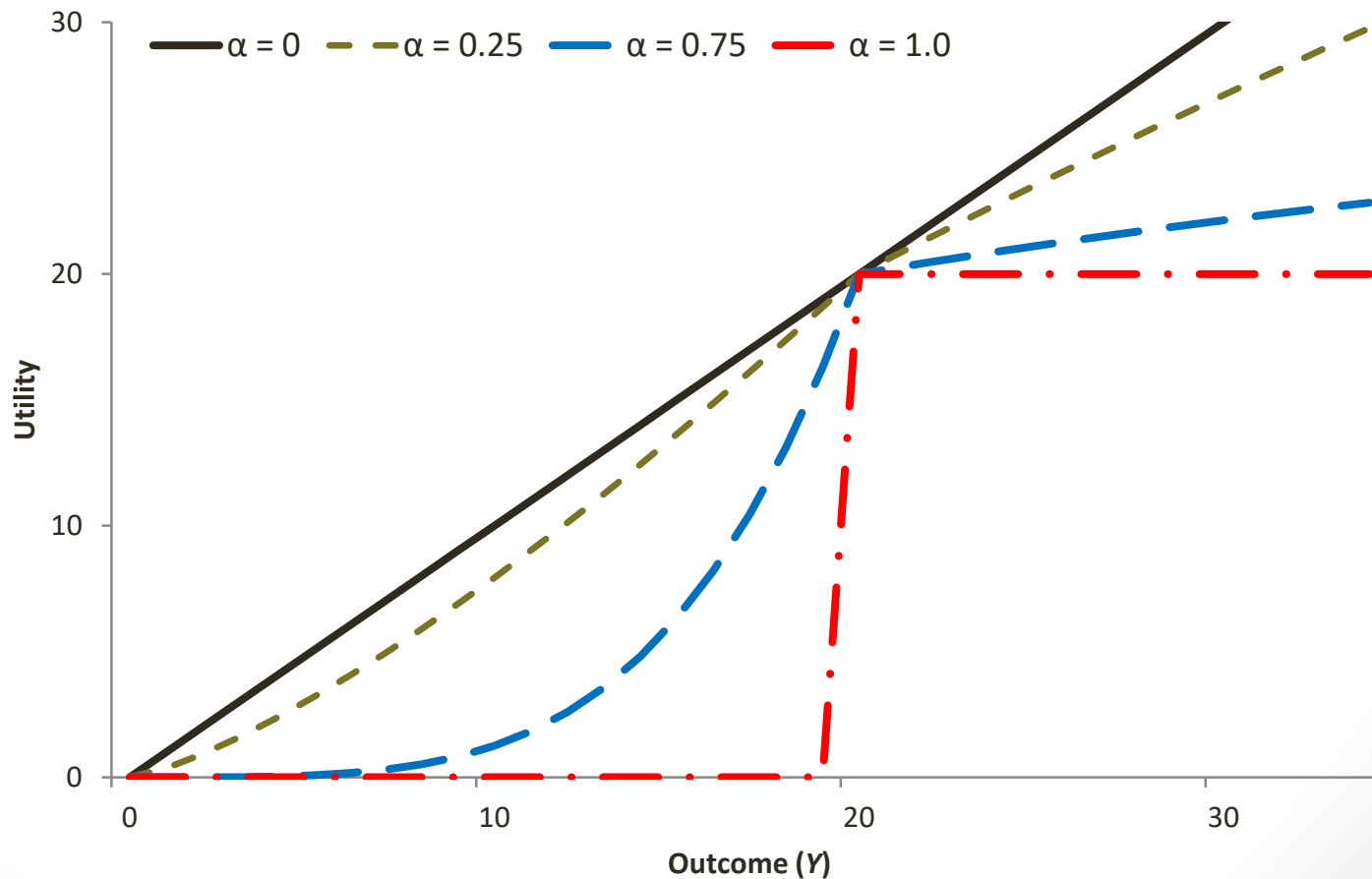
$$Y_{t+1} = \pi e_t + \pi_v v_{t+1}$$

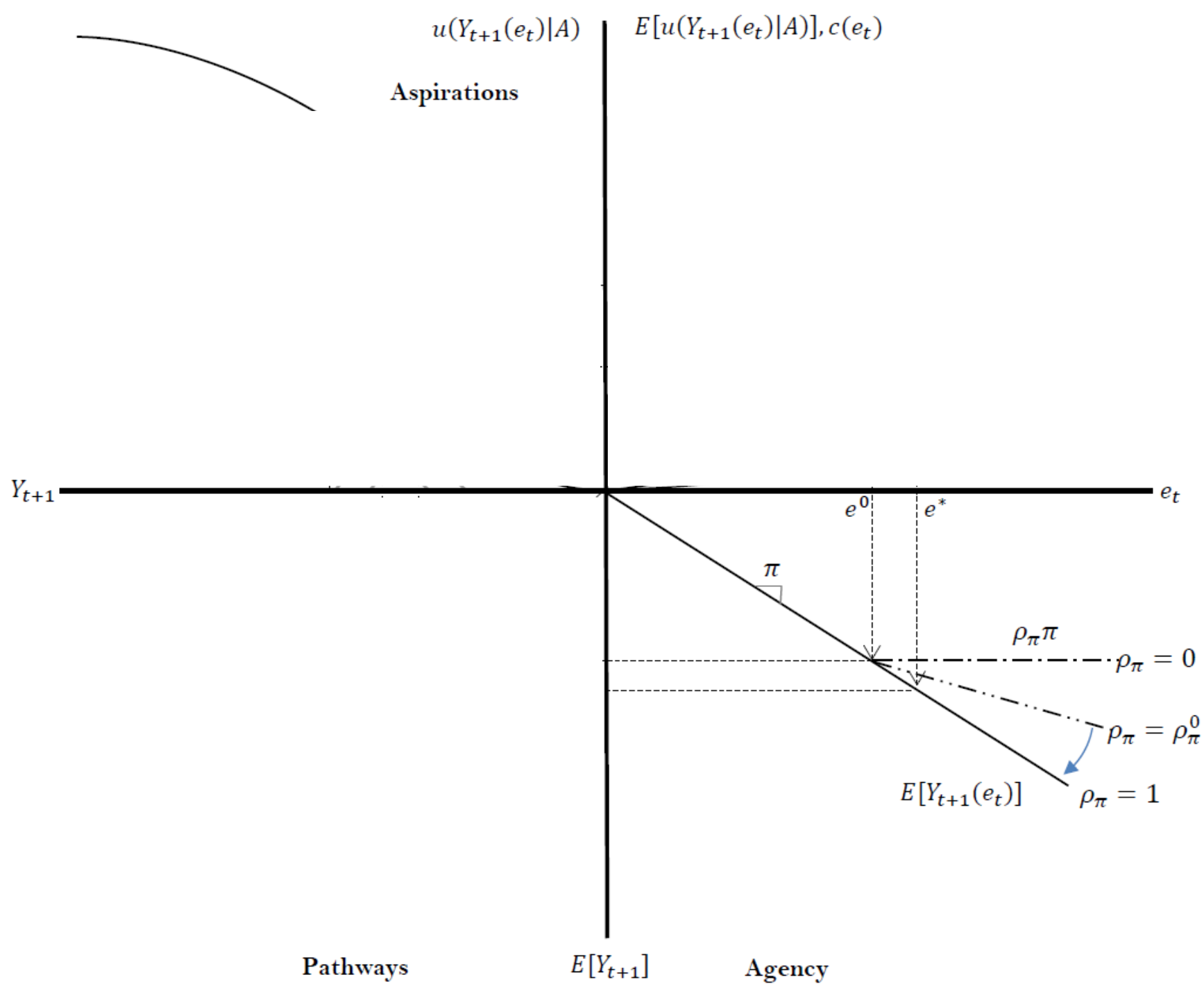
$$E[Y_{t+1}] = \begin{cases} \pi e_t & \text{if } e_t < \bar{e} \\ \bar{Y} & \text{if } e_t \geq \bar{e} \end{cases}$$

$$c'(e_t) > 0, c''(e_t) > 0, c(0) = 0$$

Aspiration-dependent Utility Function

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





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4. Hope and Microfinance

“...there is scant evidence on how behavioral tendencies actually mediate credit impacts, and in any case, the presence of behavioral deviations from rationality may in some cases strengthen the case for microcredit rather than weaken it.”

- Banerjee et al. 2015, p.20

Fuentes Libres, a microfinance bank in Oaxaca, Mexico, puzzled over these behavioral tendencies as well...

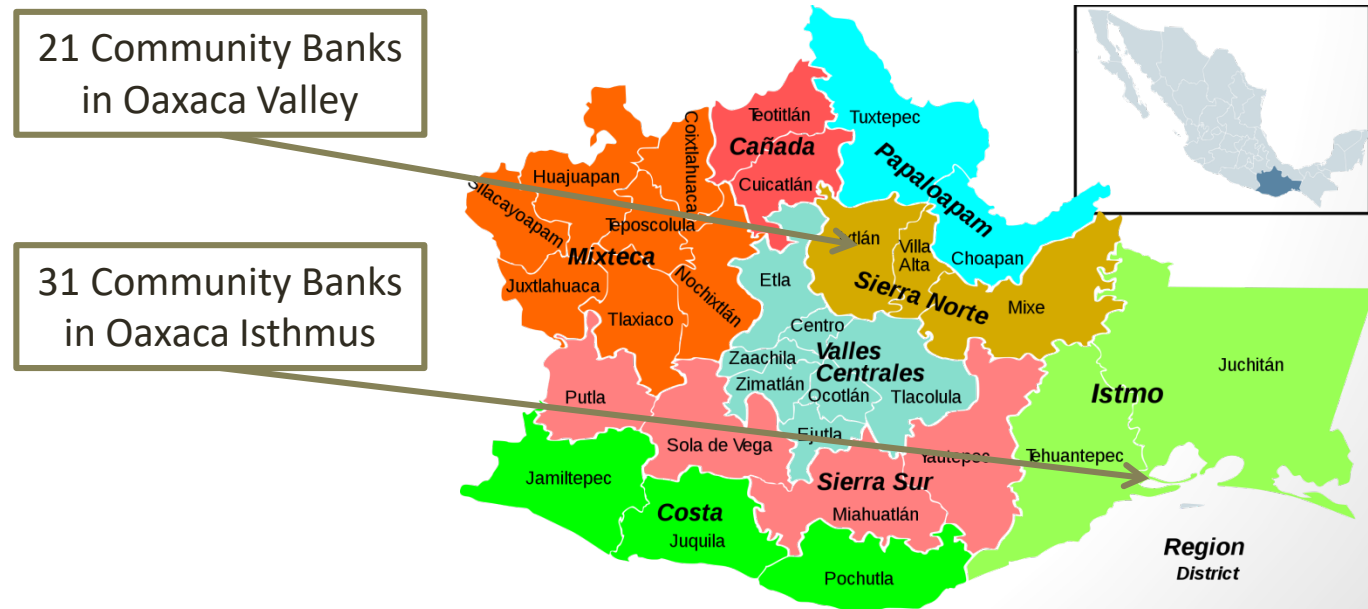
Can hope elevate microfinance?



4. Hope and Microfinance

The Oaxaca Hope RCT

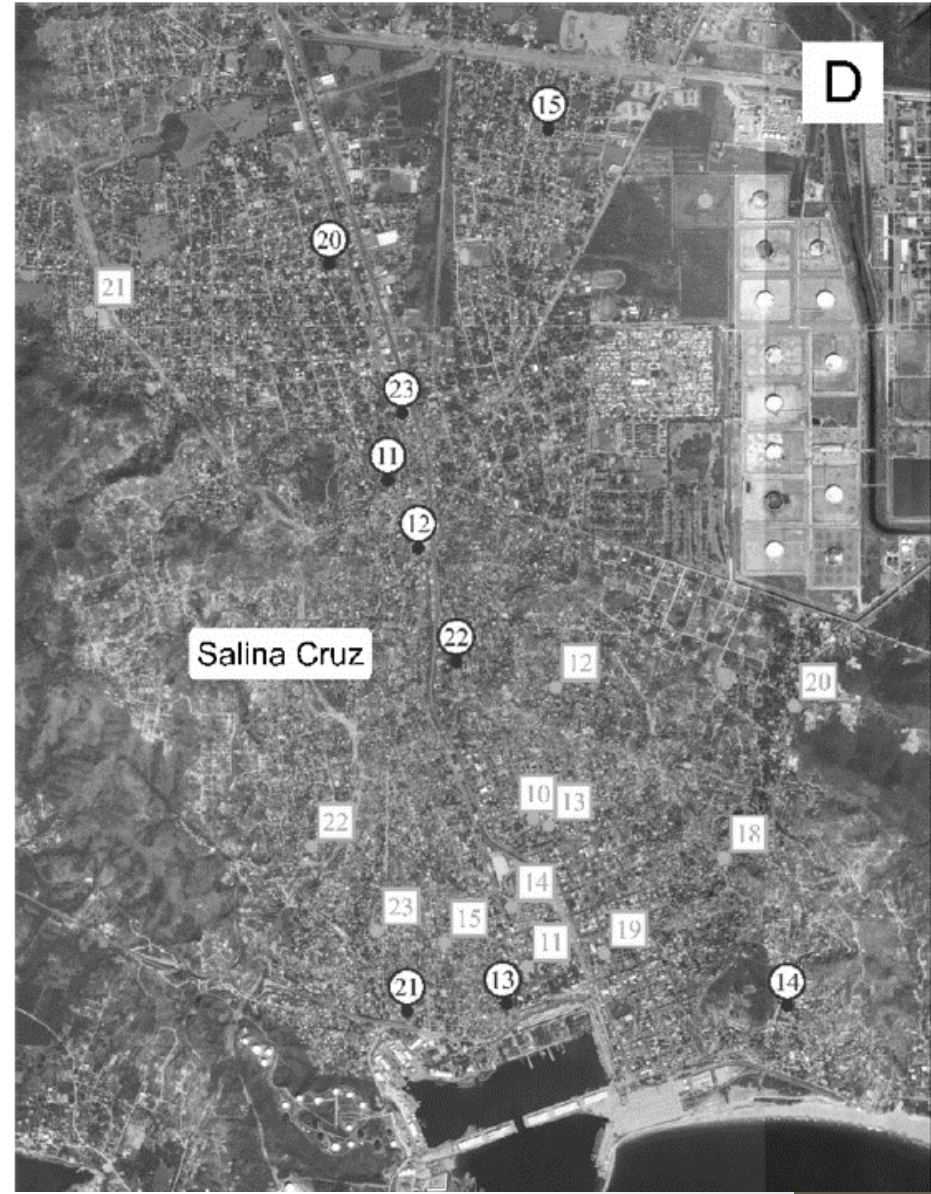
- Joint research with Bruce Wydick (USF), Irvin Rojas (CIDE), Bob Dowd (Notre Dame)
- Christian NGO Partner: Fuentes Libres with 52 community banks in Oaxaca, Mexico



Matched Cluster Randomization

Matched groups hierarchically

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
 - 601 Microfinance Borrowers:
326 treatment, 275 control



The Hope Intervention

Objective: Increase aspirational hope among female micro-entrepreneurs in the randomly selected community banks through a three-pronged intervention

1. **Creation and Screening of a Documentary Film** showcasing inspiring borrowers within the organization.
2. **Hope → 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*.

Positive Deviance Documentary



- Hope dies last.



- My goal this year is to build a room in my house for my daughter.



- My father was an alcoholic. Sometimes we didn't have enough food to eat at home.



- It doesn't matter if we don't have an academic degree. There is always a way to move on.

<https://goo.gl/ZzgbLY>

Project Timeline

2015

| 2016

May

Jun

July

Aug

Sep

Oct

Nov

Dec

Jan

Feb

Mar

Apr

May

Jun

Survey

Baseline

One-month
follow up

12-month
follow up

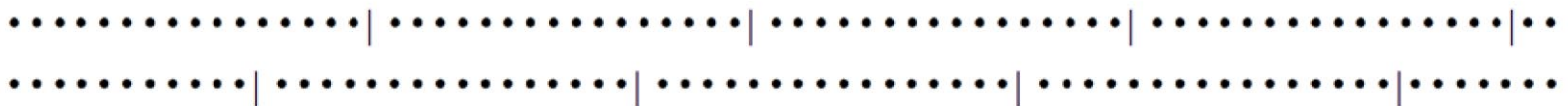
Administrative data on savings and loan transactions

Intervention

Documentary
& goals

Hope curriculum

Weekly SCG
meetings,
16 week cycles



Data

Survey at Baseline, 1 month, and 12 months

- 5 questions used to create Aspirations Index
- 5 questions used to create Pathways Index
- 5 questions used to create Agency Index
- Other indexes: happiness, optimism, future-mindedness, risk-aversion, religiosity
- Hope 3: Aspiration, pathways, agency
- Hope 8: Hope 3 plus five related indexes
- Gross enterprise revenue, net profits, employees in enterprise, enterprise plans, business performance index

***Fuentes Libres* administrative data (aggregated by group)**

- Savings (weekly)
- Internal loan demand (weekly)
- Group survival (cycle-level)
- Fuentes loan demand (cycle-level – 95% of total loan value)

No significant differences between treatment and control at baseline

Confirmatory vs Exploratory Results

Based on our pre-analysis plan:

Confirmatory (pre-specified)

- Self-reported outcomes
 - Hope and related measures
 - Microenterprise inputs and outcomes
- Administrative outcomes
 - Savings
 - Loan demand

Exploratory (non-pre-specified)

- Mediation tests
- Group survival to next loan cycle as an outcome
- Heterogeneous effects by Catholic v Evangelical

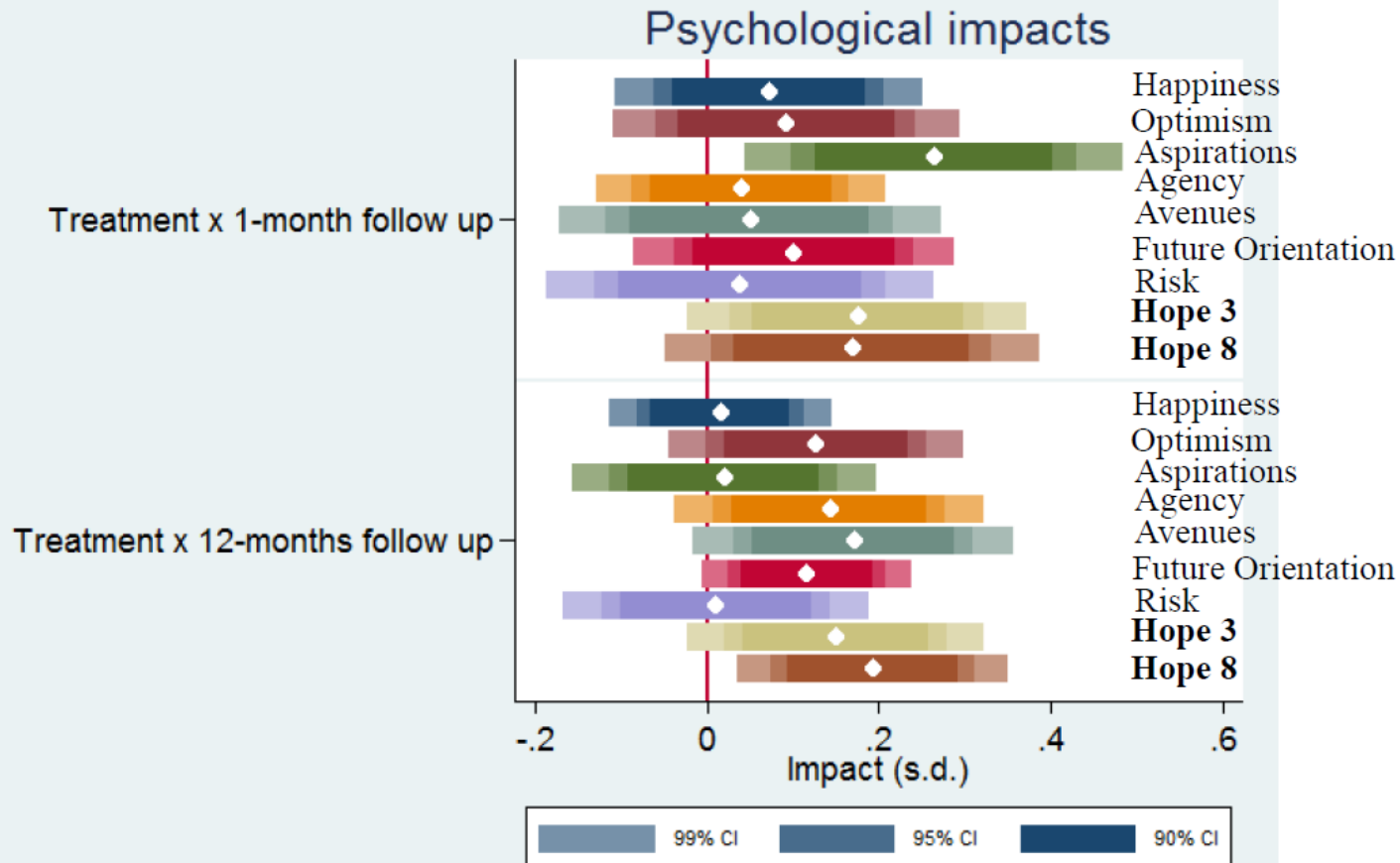
Analysis of Survey Data

We use an ANCOVA specification that controls for baseline outcome variables

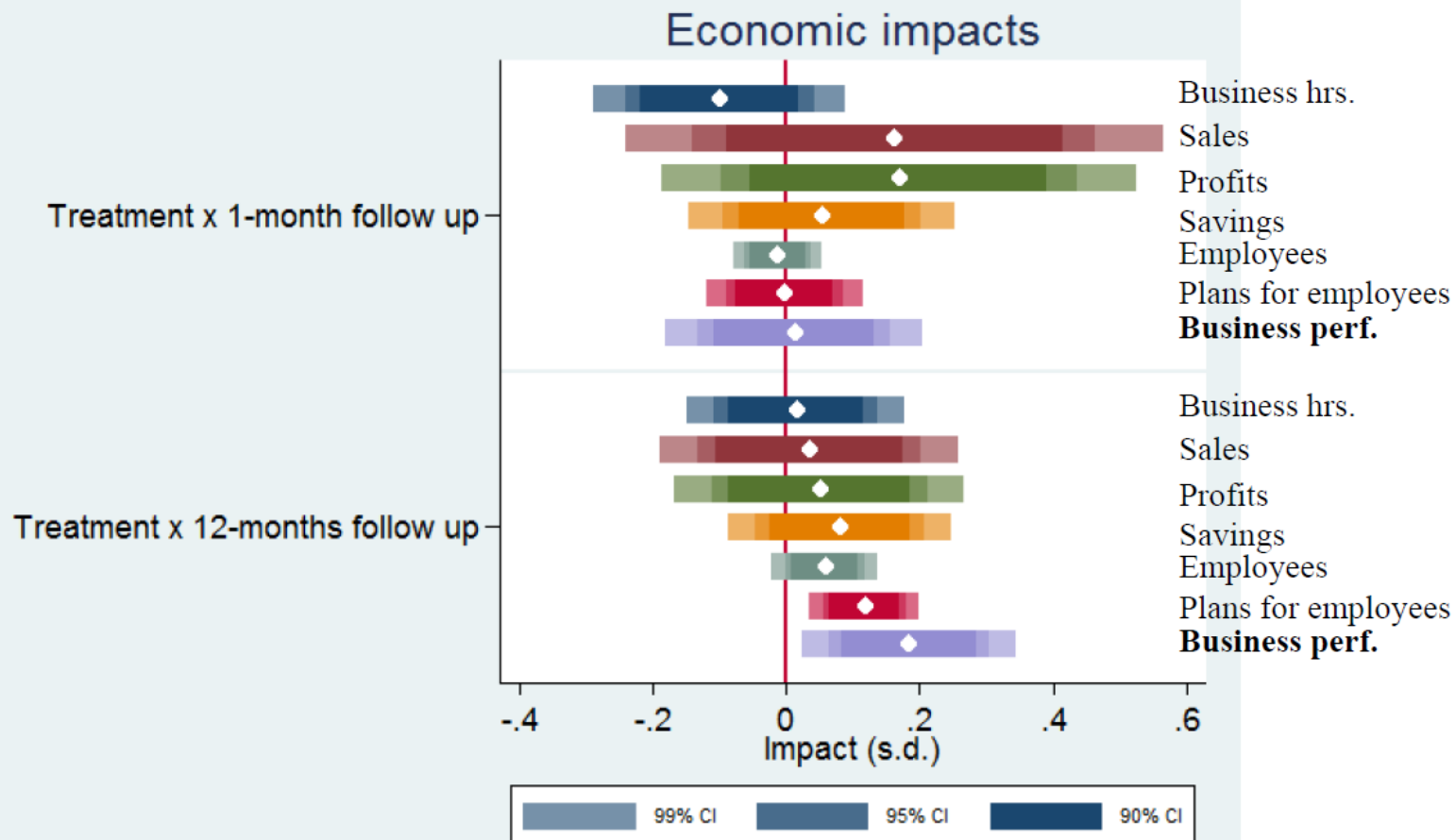
$$y_{ijt} = \alpha + \tau Treat_j + \theta y_{ijt-1} + \mathbf{X}_i' \boldsymbol{\beta} + \varepsilon_{it}$$

- Outcome variables from the survey (@ 1 mo, 12 mo)
Hope and hope components, other future and risk preferences, and self-reported business performance and investment
- Controls include age, education, religion, number and age of children, and matched-pair fixed effects
- Standard errors clustered at the group level
- Randomization Inference confirms statistical precision

Results: Treatment Effects



Results: Treatment Effects



Analysis of Administrative Data

- Three treatment outcomes from the administrative data
 1. Survival of lending group to subsequent lending cycles
 2. Savings (weekly average by group)
 3. Loan demand (cycle average by group)

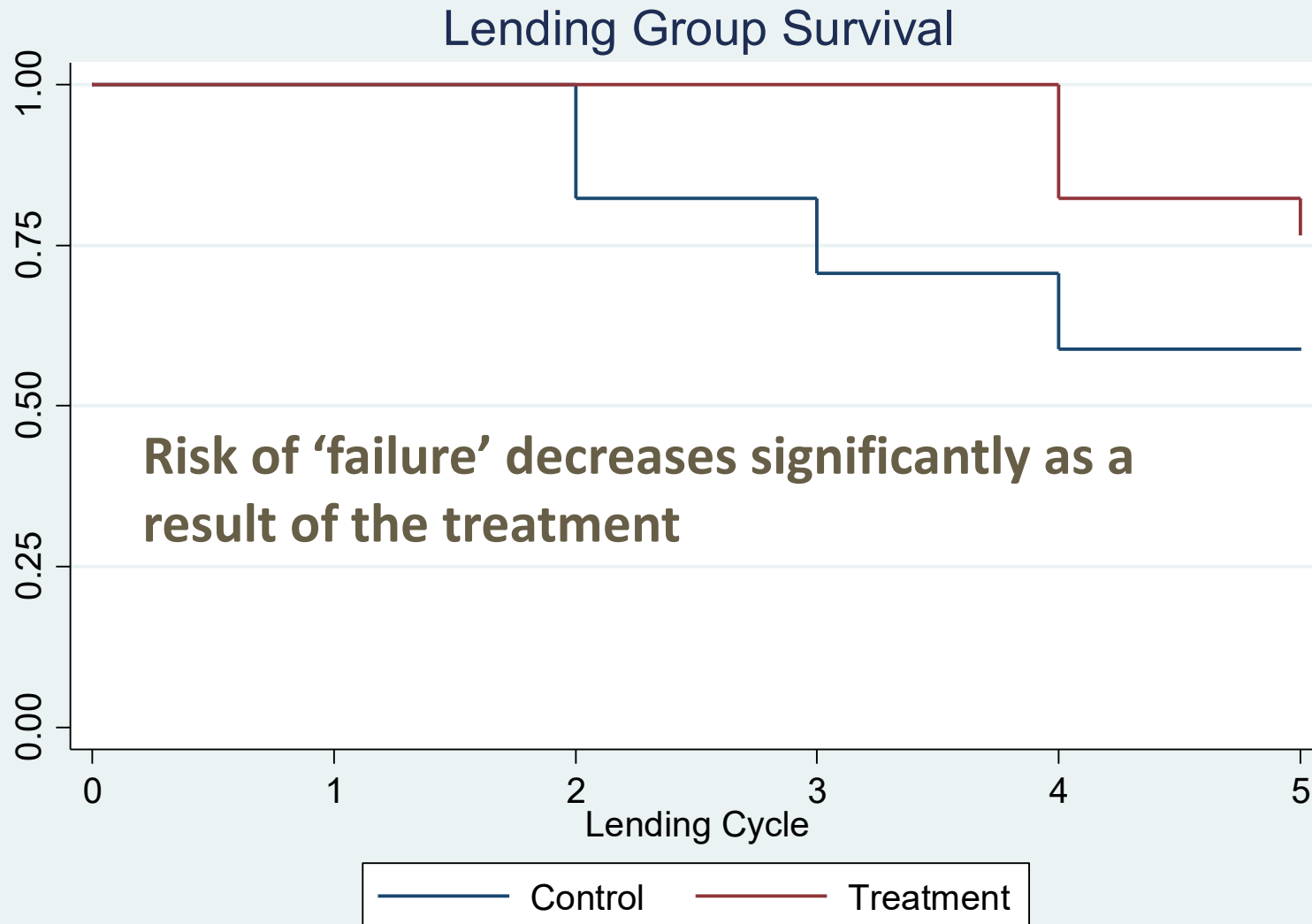
- Group composition can change within and between 16 week lending cycles, so we estimate

$$\log(\overline{savings}_{jt}) = \alpha + \tau Treat_j + \mathbf{Z}_{jt}' \boldsymbol{\beta} + \varepsilon_{jt}$$

- Controls include 'week in loan cycle', month fixed effects, and matched-pair fixed effects
- Standard errors clustered at the community bank level

Treatment increased savings and internal loan demand with persistent effects across year

Treatment Effect on 'Survival'



Summary of Results

- **The ‘Hope’ intervention** raised all three components of hope – but at different paces
 - Aspirations increased, but later receded back to baseline
 - Agency/pathways responded slowly but increased significantly by 12mo
 - ‘Catholic effect’ prominent at 1mo, but fades at 12mo
- It increased future orientation and optimism
- It increased plans to increase employees and overall business performance, but not self-reported sales and profit
 - Eight women in treatment added employees; zero in control
- It increased group survival, savings rates and internal loan demand

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Earned Hope vs Borrowed Hope?

- Aspirations can be 'cheap talk' and easy to move, but agency and pathways only expand with struggle (grit) and experience
- Baseline hope predicts endline sales/profits
- Endline hope strongly correlates w/endline sales/profits
- But causal effects are weaker

Is hope born of experience (endogenous) more potent than hope induced by treatment (exogenous)?

- Believing alone doesn't make it so, but correcting misperceptions may trigger dynamic self-discovery and learning that look like it does
- Prior belief that additional effort is futile can be self-reinforcing as it stifles experimentation with higher effort levels and new pathways

How might economists contribute?

- **Measuring hope: modifying psychologists toolkit for new contexts**

Economists have tended to restrict their focus to material aspirations, but most people experience hope in deeper and richer ways than this.

- **Hope, poverty and welfare dynamics**

Could dynamic empirical methods shed light on the mechanics of hope and be a comparative advantage for economists?

- **Intervention design and policy agendas**

Economists may be late on the scene, but may be better placed to shape policy and program design (e.g., HDR 2015)

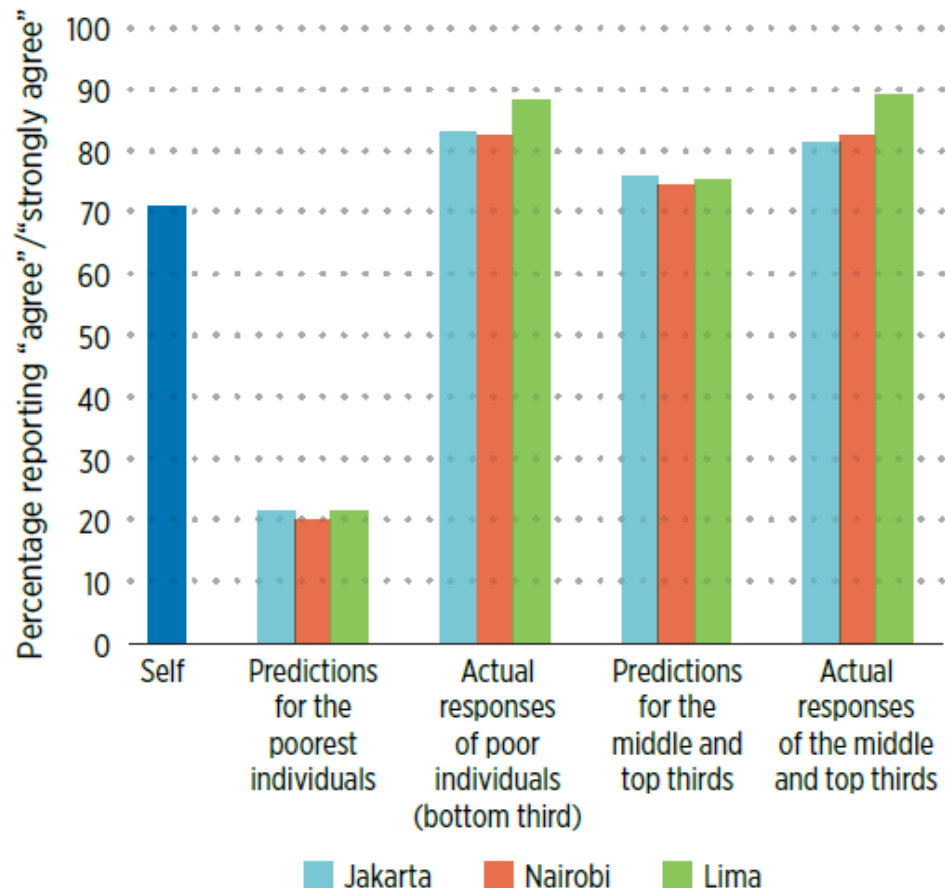
Is there really a need for 'hope policy'? Or should this work focus on illuminating heterogeneous/multiplier effects of relaxing external constraints?

How well do we understand those we study?

Figure B10.3.1 How World Bank staff predicted the views of poor people

a. Control of the future

Survey question: What happens to me in the future mostly depends on me.



"Development professionals may assume that poor individuals may be less autonomous, less responsible, less hopeful, and less knowledgeable than they in fact are." (WDR 2015)

- With hope as with other human experiences, there is often more than meets the eye
- Our Western concept of 'hope' may be overly individualistic

E.g., Ubuntu on hope

Thank you