Deprivation, Psychosocial Competencies and Their Consequences

Stefan Dercon
Co-authors: Alan Sanchez, Tanguy Bernard, Kate Orking, Alemayehu Tafesse
Young Lives Conference
Background

• Non-cognitive skills are important for school and labour market performance.

• So investigate formation of non-cognitive skills, with a focus on aspirations

• Wider literature on behavioural aspects of poverty.
  – New line of work endogenising aspirations.
Findings from both papers

• Early childhood nutrition (height at age 7 or 8) predicts non-cognitive skills including aspirations at age 11 & 12.
  – Association in longitudinal data for four countries
  – Mechanisms hard to identify

• Exposure to 15-minute documentary showing similar individuals who succeeded in agri or small business
  – Randomised. Causal impacts on expectations, aspirations, forward-looking behaviours (rural Ethiopia)
  – Aspiration response flows from peers being treated.
Dercon-Sanchez

- Height at age 7,8 predicts self-efficacy, self-esteem and aspirations at age 11,12 in each of four countries.
- Height proxies early life health e.g. Deaton 2010.

Mechanisms?
(a) Direct contemporaneous effect of height (stature lends confidence…)

(b) Height reflects early childhood nutrition but effectively proxies cognitive skills (eg Anne Case vs Persico debate)
    So it may be cognitive skill that is predictive of self-esteem or aspirations.
    Early life nutrition leads independently to improved mental and physical development evident as cognitive ability and height.
    Height may then be a marker for cognitive skill (Anne Case). Spears 2011, Vogl 2012.

(c) Height (or early nutrition) directly shape non-cognitive skills.
Mechanisms

• Difficult to identify mechanisms.
• Controlling for (endogenous) income, cognitive ability, the authors lean towards (c).

• Using quasi-experimental cohort*state variation in exposure to a Clean Water Reform in Mexico, we find that an (exogenous) improvement in early life health leads to
• Increases in height but not cognitive scores for men and
• An increase in cognitive scores but not height for women.
• Illustrates a disconnect between height and cognitive scores
  — Bhalotra and Venkaramani 2012

• We argue this is because men have a comparative advantage in brawn relative to women (whose comparative advantage is in “brain” or “skill”). Galor & Weil 1996, Pitt et al. 2012
Mother-Child Correlation in Psycho-social Skills

• Dercon-Sanchez show that, in addition to child height, an important predictor of child non-cognitive skills is mother’s psycho-social skills.

• In work in progress (Bhalotra, Maselko, Sikander) we investigate causal evidence for maternal depression in particular.


• We test cognitive and non-cognitive skills (and height) of children of treated vs untreated mothers.
Returns

• Next steps: As the Young Lives cohorts emerge on the labour market- study the role of height, non-cognitive and cognitive skills at different points of the distribution
  • Lindqvist and Westman 2011

• Can then also look at gender-based occupational sorting to test the empirical relevance of the brain-brawn hypothesis.
• **Treatment**: documentary showing career success of matched individuals.
  – Placebo: popular film
  – Control: no screening

• Treatment randomised within village.

• Identify 4 friends of every individual, some of whom may be drawn into treatment
  – Can identify effects of peers being treated independently of effects of own treatment.
Main findings

• Treatment (own, peer) results in higher expectations, aspirations, savings, educational investment in children.
  – Plausible that savings and investment behaviour responds via expectations and aspirations.

• Treatment of friends seems more important
  – Socially determined aspirations (goals)

• Heterogeneity in impact:
  – Larger effects for people with higher baseline aspirations, younger people. No gradient in education
Background: Poverty and Aspirations

• **Wealth begets wealth** (Banerjee & Newman)
  • Emphasis on *external constraints* and poverty-
  • The poor have to exert higher effort than the rich to reach the same level of final wealth

• **Capabilities beget capabilities** (Heckman, Cunha)
  • Investments in early life, critical ages, dynamic complementarities

• **Success begets success**
  • Emphasis on *internal constraints* and poverty
  • Low aspirations are one sort of internal constraint that may cause poverty: Appadurai 2001, Ray 2006, Macours and Vakis 2009, Bernard, Dercon and Taffesse 2011
  • May explain the **uptake puzzle** that providing opportunity and information leaves uptake low.
Individual (vs social) constraints
Low aspirations as a consequence and cause of poverty

- Dolton, Ghosal and Mani 2013.
- (All) people underestimate how their aspirations evolve as a consequence of their effort (projection bias).
- The adverse consequences of this behavioural bias are stronger among the poor because they face external constraints.

Policy implication:
- Raising aspirations raises effort but resources are complementary to effort.
- May need complementary intervention that relaxes resource constraints.
Interpreting your evidence in light of theory

- Find that treatment has larger effects for people with high baseline aspirations

- Why?
  - Because people with higher baseline aspirations are people with weaker external (resource) constraints/ lower cost of effort (follows from model)
  - Or they are people with social networks that are larger and/or consist of peers with higher baseline aspirations (plausible)
  - Can you distinguish these possibilities?
Internal*Eternal Constraints
Expectations, Aspirations and Actual Returns

• How are the increases in savings and education financed?
  – No evidence of increased labour supply
  – Useful to incorporate interactive role of external constraints

• Do expectations lead aspirations?
  – Explore difference between revision of expectations and aspirations.

• Forward-looking behaviours appear to flow from an upward revision of aspirations

• But do they bear fruit?
  – What are the returns to saving or educating children?
  – Frustrated aspirations may generate negative feedback?
Persistence, Information/Salience Transmission

• Do the identified effects decay?
  – Relevance of understanding whether what was provided was new information or salience
  – Did the respondents know you would come back in six months?

• Potential intergenerational transmission of aspirations – if permanent shift.
  – Literature on intergenerational transmission of values, beliefs.
  – Intergen transmission of aspirations- unexplored contributor to intergenerational mobility in living standards.
Age

• An interesting feature of this paper is that it shows that non-cognitive skills (aspirations) are malleable in adulthood
  – contrasts with health and cognitive skills – which face the problem that “it’s too late” after age 2, or 10.
  – Attanasio et al- experimental manipulation of early life environment- impact on non-cognitive skills

• Your find that younger adults are more “treatable” (< median age in sample).
  – Interpretation: aspirations more malleable
  – Alternative interpretations: young adults have children of school going age// are at different stage of lifecycle income profile
Minor statistical points

• The coefficient on baseline aspirations will tend to be biased upwards (correlated with individual fixed effect in the error term).

• Controls (child, household, community) are included.
  – They should not alter the coefficient of interest if treatment is randomized- as a test, check if they do.
Related work

Ghosal, Mani and Roy 2013.

- **Sex worker community in Kolkata** where psychological constraints may be binding given social marginalization
- Random sample from a subset of houses invited to participate in an aspiration-raising training workshop.
- Reported aspiration, self-confidence, locus of control – and future-oriented (savings) behaviour are higher in the treatment group compared to the control. Also look at peer effects.

**Classical Music Orchestras Program**- started in Venezuela 30 years ago – now in several countries.

- Motivation- to motivate and “include” poor children
- Results not only in nurturing musical talent but also improvement in school performance