



Center for International Development
at Harvard University

Entrepreneurial Finance Lab

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Overview

- Financial Intermediation (for growth): matching money to ideas
 - Particularly hard to do for SMEs in developing countries, resulting in a 'missing middle'
 - Yet evidence suggests SMEs often have significant returns to capital (80%+ yr)
 - Therefore huge returns to solving this problem and empowering entrepreneurs; BOE~ \$3.6 trillion GDP
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Why is it difficult to finance SMEs?

- One significant problem - Screening:
 - Investor needs to identify and value ideas
 - Identify: How do you find the potential entrepreneurs?
 - Value: How to you determine future value of an idea?

 - Btw still also have a Monitoring problem:
 - Investor needs to ensure pay-back (moral hazard)

 - Would like to know:
 - Entrepreneur's **ability** (to take your \$100 and make \$200)
 - Entrepreneur's **honesty** (to repay; not run away w/ \$200)

 - Existing Models face challenges
 - Banks – screen mostly on \$ (collateral)/credit history
 - VCs – screen on ability/honesty but very costly
 - MFIs – little investment/risk finance; Joint liability not as effective
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So what can one do?

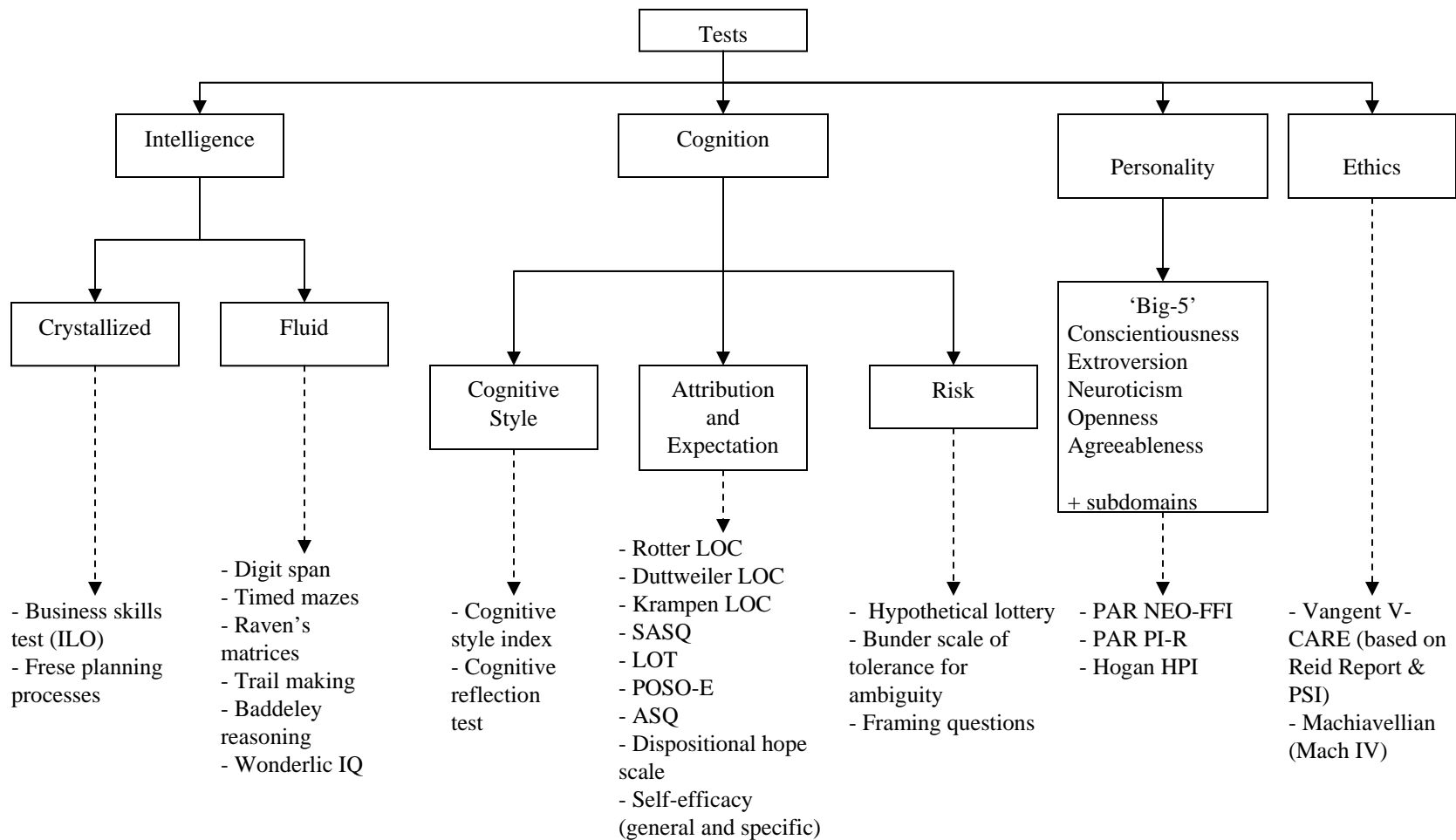
- Screen ability and honesty directly (like a VC)
 - BUT in a lower-cost automated way to allow for smaller investments (like a bank/MFI):
 - US example: boom in SME lending due to automated credit scoring (but mostly relies on credit history)
 - Need to lower transaction costs and not rely on rich credit histories
 - We think this could be done using psychometrics (add-on)
 - Apply extensive literature on the cognitive and psychological characteristics of successful entrepreneurs
 - To create an automated test of entrepreneurial potential and trustworthiness
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Why we think this can work

- Entrepreneurship research has a set of consistent results
 - And on samples much more difficult to evaluate:
 - Mostly attempts to distinguish successful managers from successful entrepreneurs
 - SME owners in developing countries have greater variance in ability, tighter link between entrepreneur and firm outcomes
 - Indeed, studies on this particular group have even *stronger* results
 - E.g. Frese et al in South Africa, Zimbabwe and Namibia, de Mel McKenzie & Woodruff in Sri Lanka, and our own pilot results (Business Partners) in South Africa

 - 30% of US companies use the services of the over 2500 firms that offer employment screening tests
 - Huge market take-up and evaluations in academic research suggest they are quite effective
 - Despite the incentives for test-takers to ‘game’ the tests
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We have assembled a prototype test examining these areas, in cooperation with a team of academics and industry specialists



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- Stage 1 - Validation:
 - We now need pilot partners (diff industries, countries) to test its effectiveness

 - A suitable partner is any organization (e.g. Bank, VC, NGO) with access to: (preliminary – Business Partners, Technoserve)
 - a sample of 500+ entrepreneurs
 - about which they have performance data
 - The partner has the clients take our test (online, on stand-alone computers, or pen-and-paper)
 - We compare test scores to business performance, delinquency, investment decision, etc.
 - In return for their participation, pilot partners get preferential access to the screening technology

 - Further stages: Tie in with Financial instruments (micro-equity?); Scale up etc.

 - Bottom line: get \$ to poor/unconnected but able entrepreneur
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