Evolution of Entrepreneurial Judgment: Effect of Experience, Uncertainty, and Cognitive Style

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Agenda

• Central thesis
• What do we know?
• Research question
• Theory
• Evidence
• Implications
Entrepreneurial Judgment

• Judgment is a core function of E (Foss & Klein, 12)
• E judgment implies a novel allocation of productive resources under conditions of uncertainty (Mises; Knight; Schumpeter)
• Judgment is a process that takes the knowledge stock as the input
• E’s make judgments based on their subjective knowledge. Entrepreneurial cognition research examines how that knowledge is stored, accessed, processed, and revised
Knowledge Structures

• Robust (and probably not surprising) finding:
  – prior knowledge matters (Shane 00)

  What does that knowledge look like?

• Cognitive scripts (Mitchell et. al 00)
• Prototypes (Baron & Ensley 06)
• Structural mapping (Grégoire & Shepherd 12)
Unresolved Problems and Research Question

• Existing knowledge structures do not emphasize causality directed at entrepreneurial success
• Existing knowledge structures do not investigate uncertainty about the knowledge and knowledge itself concomitantly
• "..call for novel and rigorous theorizing to develop a more complete and accurate understanding of how knowledge evolves" (Holcomb et. al 09: 168)
• Existing theories have little to say about how E’s change their subjective knowledge (Minniti & Bygrave 01)
Theory

• The essential judgment occurs when E figures out how to allocate resources for profitability. There is a complex and uncertain path to success

• We posit a parallel knowledge structure might exist in the mind: a causal map (Kitchin 94; Thagard 92; Tolman 48)

• We expect that causal map to change as experience accumulates (Corbett 05) – selectivity of venture-specific knowledge (VSK)

• Knowing something is both conceptually different than and neurologically separate from the feeling of knowing (Burton 09) – conviction in VSK
Theory (Experience → VSK)

- **H1a.** More time invested in working for the venture leads to more selectivity in VSK
- **H1b.** More time invested in working for the venture leads to more conviction in VSK
- **H2a.** Further stages in venture development leads to more selectivity in VSK
- **H2b.** Further stages in venture development leads to more conviction in VSK
Theory (Uncertainty $\rightarrow$ VSK)

- Highly uncertain opportunities will present experiences that are difficult to make sense of and distill into expertise

$H3a$. Task uncertainty leads to less selectivity in VSK

$H4a$. Unknown product leads to less selectivity in VSK

- In contrast, the unrefined and ambiguous causal map will be more “valuable” for those

$H3b$. Task uncertainty leads to conviction in VSK

$H4b$. Unknown product leads to conviction in VSK
Theory (Cognitive Style $\rightarrow$ VSK)

• H5a. Self-efficacy leads to selectivity in VSK
• H5b. Self-efficacy leads to conviction in VSK

• H6a. Decisiveness leads to selectivity in VSK
• H6b. Decisiveness leads to conviction in VSK
Methods

• PSED II: 1214 nascent E’s; resulting sample has 539
• Dependent variables
  – Selectivity in VSK: Coefficient of variation of AF1 to AF10
  – Conviction in VSK: Sum of absolute difference from the value of neutral opinions of 3
• Independent variables
  – How many hours in total have you devoted to this new business?
  – Will all, some, or none of your potential customers consider this product or service new and unfamiliar?
  – I am confident I can put in the effort needed to start a business.
  – I would describe myself as indecisive.
# Results (Selectivity)

<table>
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<th>Variables</th>
<th>Control</th>
<th>Experience</th>
<th>Uncertainty</th>
<th>Cognition</th>
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## Results (Conviction)

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Implications

• We theorize a new knowledge structure, causal map, and provide a way to measure it
• We offer that construct as a way to operationalize the highly abstract concept of judgment ala Foss and Klein 12
• As E’s gain more experience, they settle down on the important and limited set of success factors
• Unknown product and conviction link can be interpreted as optimism
• Self-efficacy and decisiveness lead to conviction. Ours is not an emotional state measure