



The Genesis of Innovative Ventures: A Founding Team Imprinting Perspective



Brian Fox, University of Connecticut
Zeki Simsek, University of Connecticut
Ciaran Heavey, University College Dublin

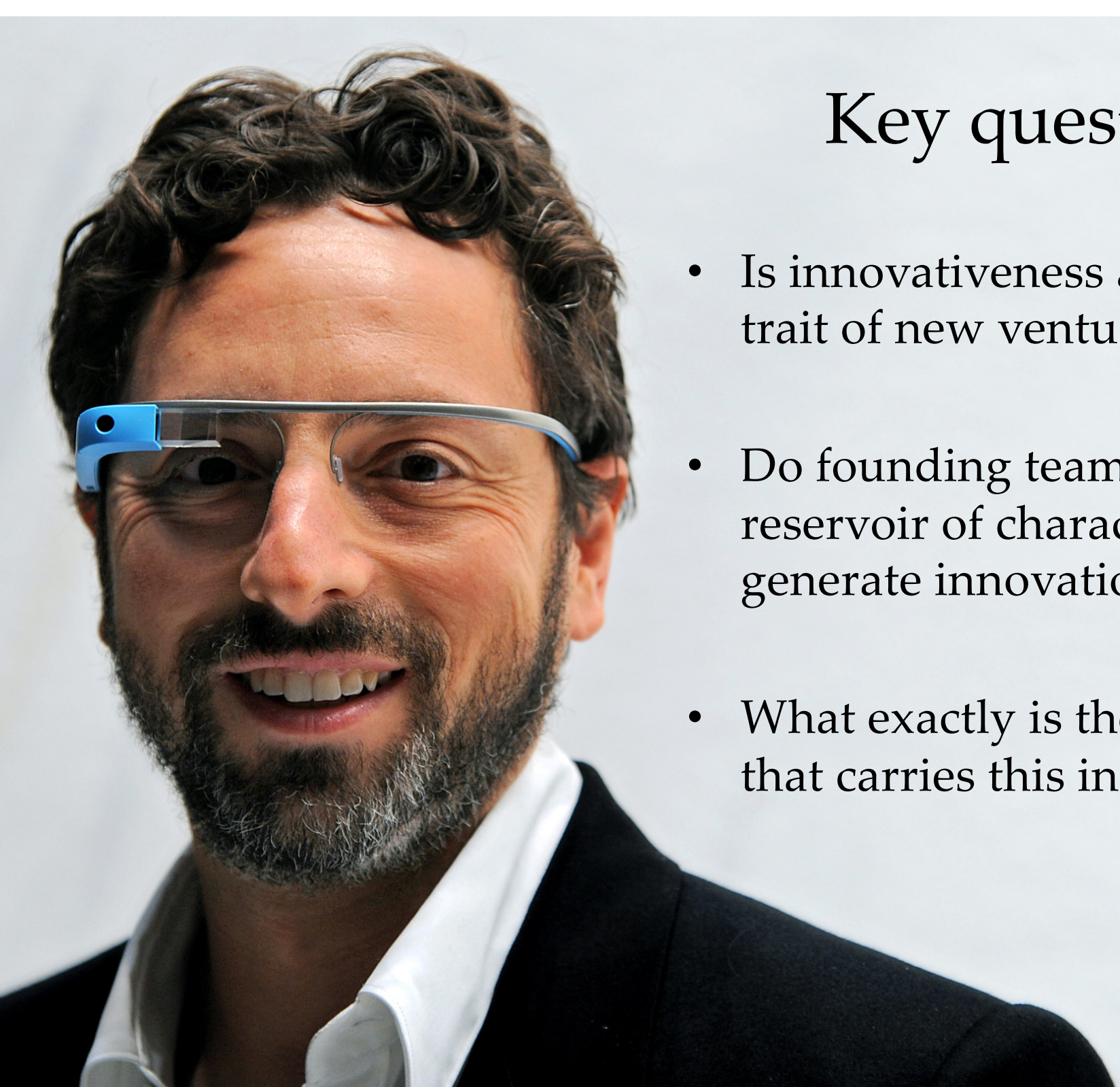
Monday, August 11, 2015
Presented at the Academy of Management Annual Meeting
Vancouver, BC

Motivation for study

Founder

New Venture





Key questions

- Is innovativeness an imprinted trait of new ventures?
- Do founding teams provide the reservoir of characteristics that generate innovation?
- What exactly is the “imprint” that carries this influence?

Imprinting

Imprinting is a process “whereby, during a brief period of susceptibility, a **focal entity** develops characteristics that reflect **prominent features of the environment** and these characteristics **continue to persist** despite significant environmental changes in subsequent periods” (Marquis & Tilcsik, 2013:199).

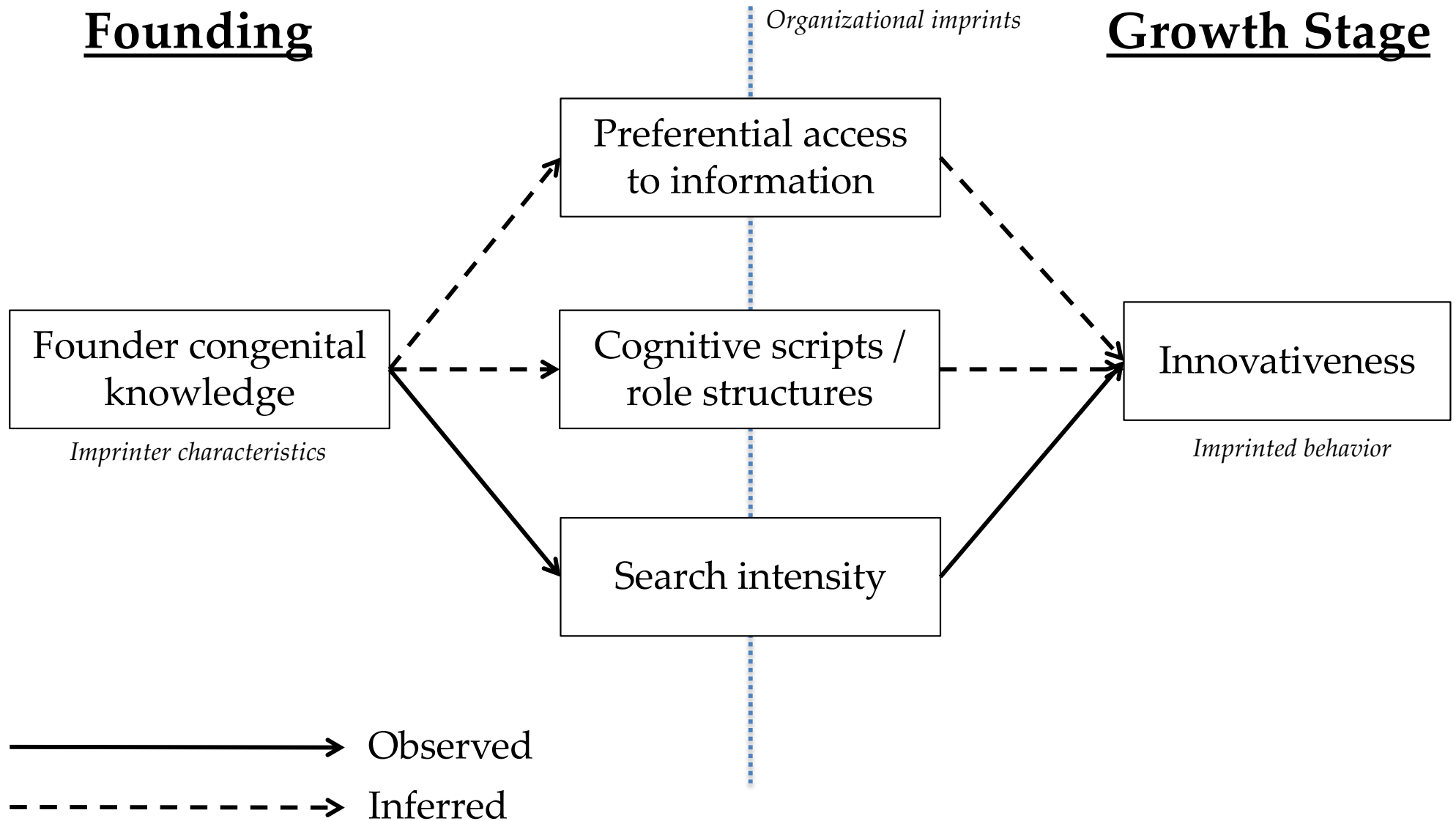


An aerial photograph of a long suspension bridge spanning a dense green forest. The bridge is crowded with people walking across it. The forest is lush and covers the entire landscape. The bridge has a white deck and metal railings, with suspension cables visible on the right side. The text 'What is not so clear' is overlaid in the center of the image.

What is not so clear

- Do prior imprinting findings translate to innovation?
- What specific mechanisms link the past with the present?

Conceptual model



Founding team congenital knowledge

- **Preferential access to information**
 - Within industry experience provides situated knowledge and basis for absorbing new information
- **Role structures**
 - Education allows for cross-functional role structures that perpetuate due to constraints
- **Cognitive scripts**
 - Outside startup experience imbues cognitive scripts that value diverse knowledge, encoded in routines

H1: Founding team congenital knowledge has an imprinting effect on new venture innovativeness, such that more congenital knowledge implies greater innovativeness in the growth phase.

Search intensity as an observable imprint

- **Search intensity**
 - Educated teams more likely to invest in R&D
 - Startup experience indoctrinates experimentation
 - Industry experience allows for distal, cognitive search
- **Search to innovation relationship well established**

H2: The imprinting influence of founding team congenital knowledge on new venture innovation in the growth phase is partially mediated by search intensity.

Empirical setting

- Data from the Kauffman Firm Survey (KFS)
 - Captures a cross section across US regions and industries
 - Firms surveyed from 2004 until 2011
 - High-tech and women owned businesses oversampled
- Missing data
 - Attrition between start and fifth follow-up ($n = 4,928 \rightarrow 2,408$)
 - Attrition between fifth and sixth follow-up ($n = 2,408 \rightarrow 2,012$)
 - Non-response on various variables ($n = 2,012 \rightarrow 1,462$)
- Descriptive statistics
 - Median of 550 observations per census region (4)
 - Median of 55 observations from each industry sector (19)

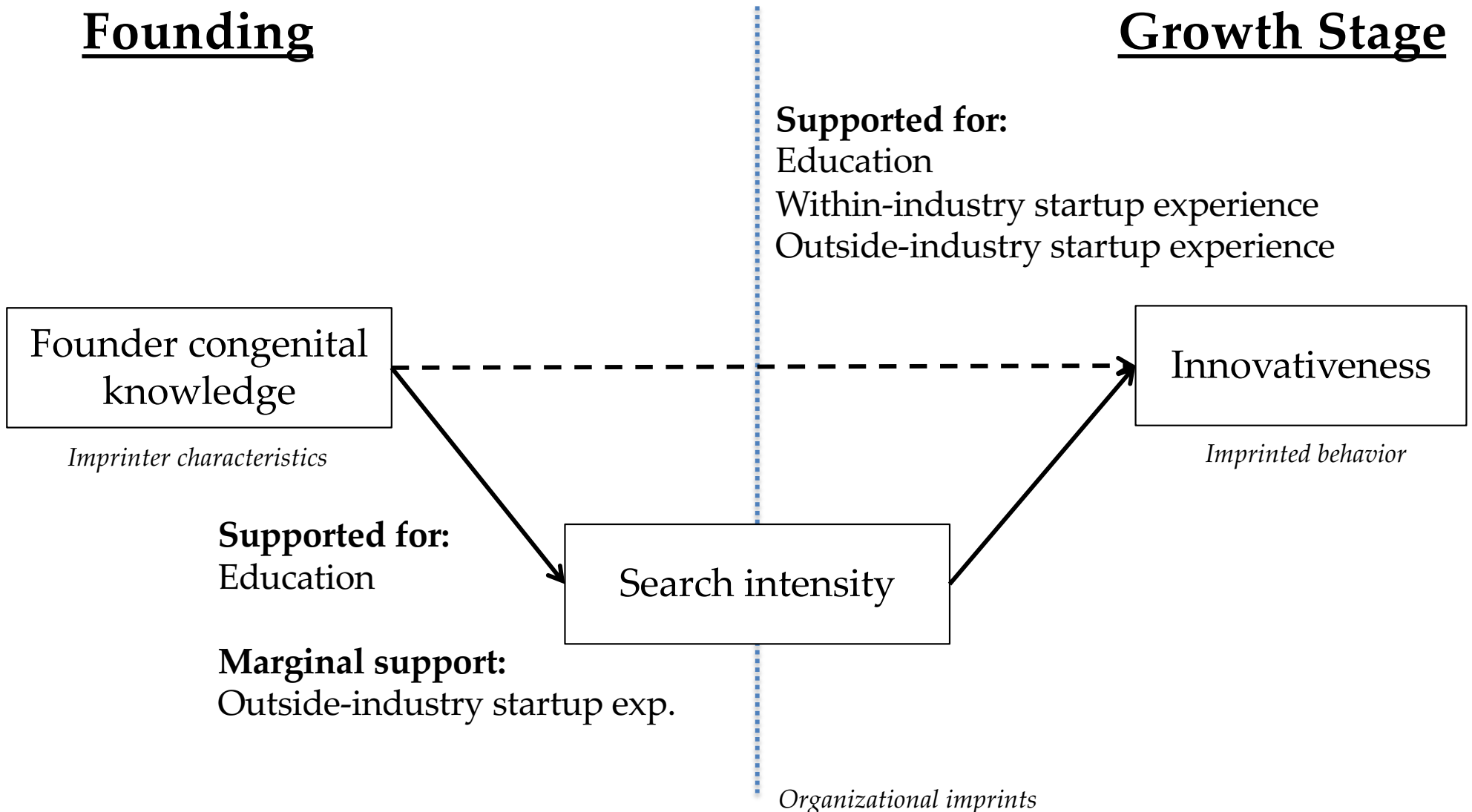
Measures

Construct	Variable	Time
New venture innovativeness	Factor with three indicators: New product introductions, new processes, and R+D spending (RMSEA=.038, CFI=.981, TLI=.971)	2011
Congenital knowledge	Average founding team education, number of outside-industry startups, average founding team industry tenure, number of prior within-industry startups	2004-05
Search intensity	Formative variable with three components: supply, demand, and geographic	2005-2010
Controls	Industry, census region, average age, number of owners, number of hours worked, sales distribution, high-tech status, size (# employees), credit risk, prior performance	

Summary of results

Founding

Growth Stage



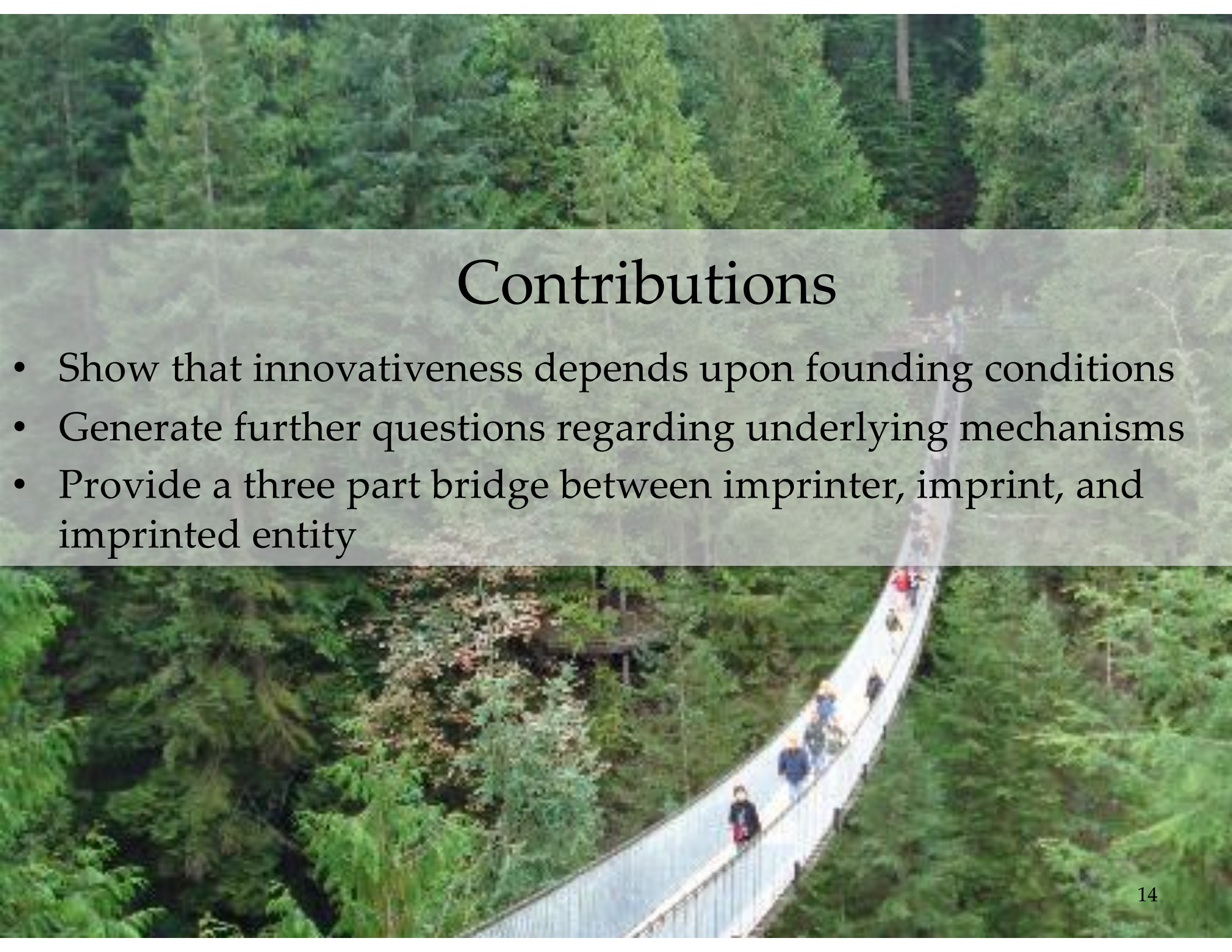
Supplemental tests

- Founding team turbulence:
 - Change in founding team composition (~20% of cases)
 - Relationship between:
 - search intensity and innovativeness diminishes
 - general congenital knowledge (education and outside industry startup experience) strengthens
 - Within-industry congenital knowledge diminishes
- Model robustness
 - Insufficient evidence to conclude selection bias exists from first to fifth followup (Heckman approach)
 - Search intensity exhibits stability over time ($b = .284, p < .01$)



Future directions

- How do the different “governing mechanisms” play off of one another?
- Which mechanisms “switch off” when founders depart, and which are expressed more strongly?

An aerial photograph of a suspension bridge spanning a dense green forest. The bridge is a light-colored walkway with metal railings, and several people are visible walking across it. The forest is thick with various types of trees, and the bridge's cables and towers are partially visible in the distance.

Contributions

- Show that innovativeness depends upon founding conditions
- Generate further questions regarding underlying mechanisms
- Provide a three part bridge between imprinter, imprint, and imprinted entity

For more information...

Brian Fox
brian.fox@business.uconn.edu

Zeki Simsek
zsimsek@business.uconn.edu
Ciaran Heavey
ciaran.heavey@ucd.ie

