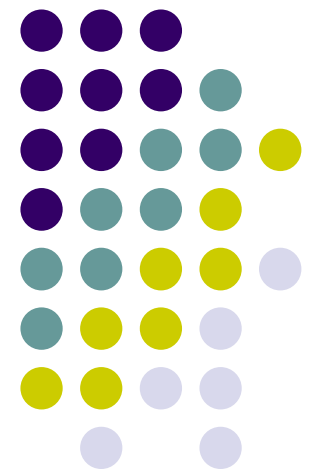
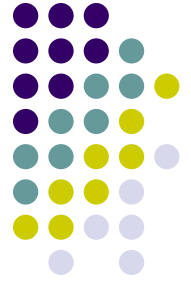


Patenting Decisions in Universities: A Micro-Institutional Perspective

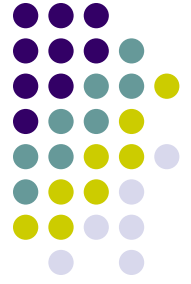
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Background

- In recent decades, U.S. universities have been conferred with a third mission: To facilitate technology transfer and economic development.
- The Bayh-Dole Act, enacted in 1980, legitimizes research commercialization in universities.
- In responses, universities have also made significant changes to adopt their new mission (e.g., establishment of Technology Transfer Offices).



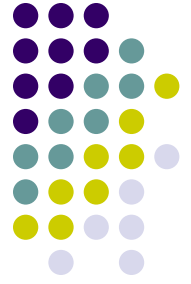
Research Question

- What factors determine university scientists' and engineers' decisions to patent or not to patent?
- More specifically, this study aims to develop a conceptual framework explaining variations of patenting decisions among scientists who work in the same university?



Literature Review

- The psychology of decision making:
 - Expectancy-value approach: People are likely to adopt the behavior with perception of desirable outcomes.
 - Belief-systems approach: People tend to adopt the behavior which is consistent with personal belief system defining what appropriateness is.



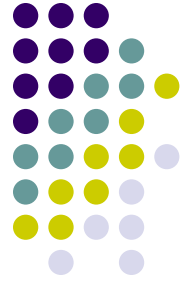
Literature Review (Cont.)

- The institutional perspective:
 - Institutions can be defined as “the rules of the game in a society or, more formally, the humanly devised constraints that shape human interaction (North, 1990, p. 3).”
 - Decision making as rule following: People are inclined to comply with formal and informal rules legitimized in organizations regardless of technical efficiency of their decisions.
 - Rules inform individuals about expectations from organizations regarding their roles and associated performance (Michaels, Cron, Dubinsky, & Joachimsthaler, 1988). They reduce the choice-based actions such that discretion merely exists within an institutional iron cage (DiMaggio & Powell, 1983).



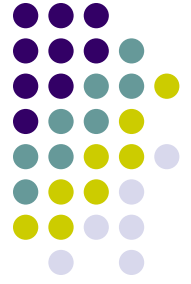
Reflection

- Why are there variations of behavior among people who work in the same institutional context?
- In the case of university patenting, why do scientists in the same university department have a different degree of the adoption of patenting behavior, even after controlling the technology opportunities among the fields (Colyvas, 2007)?



A Micro-Institutional Perspective

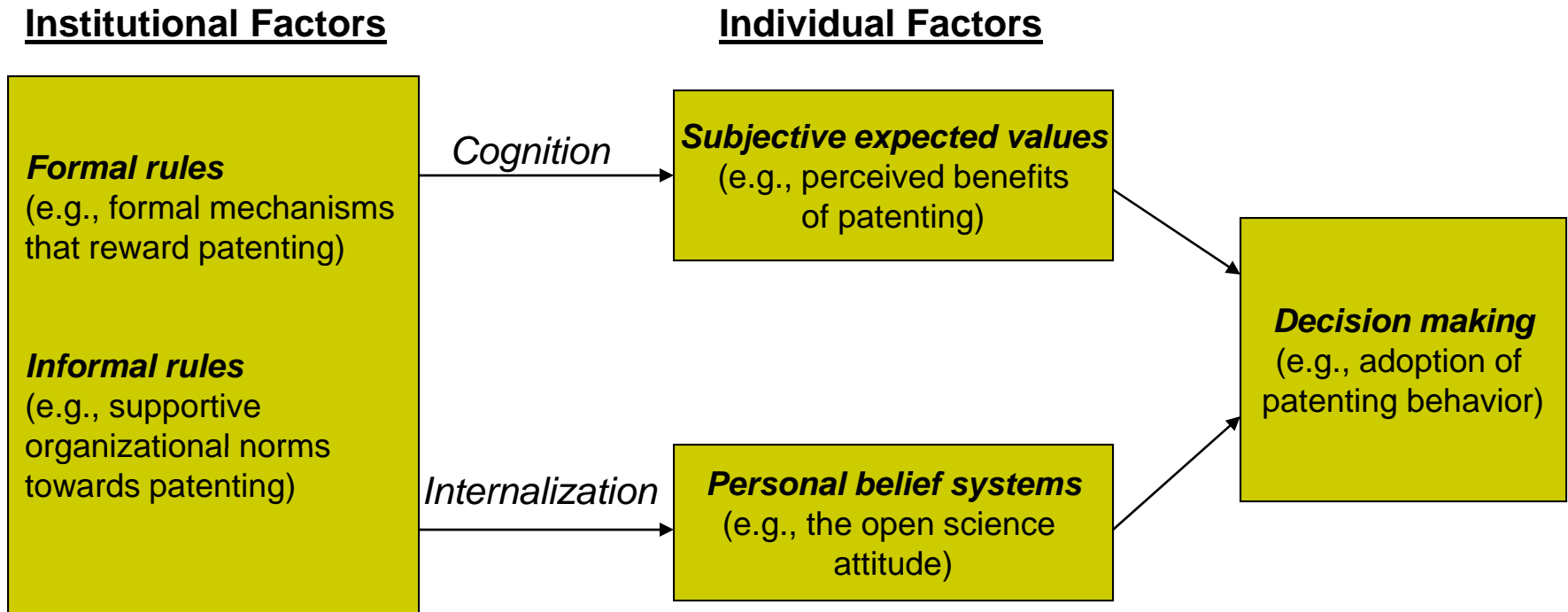
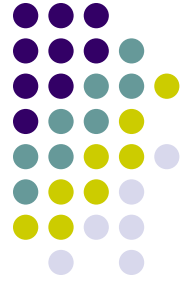
- The effects of institutions on human behavior depend upon how individuals perceive and interpret the institutional context (Berger & Luckmann, 1967).
- Institutions impose cognitive constraints on human behavior, while people also “make sense” with institutions recursively (Barley & Tolbert, 1997; Weick, Sutcliffe, & Obstfeld, 2005) .
- “Facing the same sets of institutional hurdles, self-reflective actors can make creative decisions about how to proceed (Immergut, 1998, p. 26).”

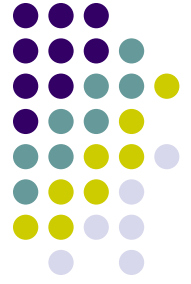


Proposed Proposition

- The effects of institutional factors on decision-making depend upon subjective perceptions and interpretations regarding the rules in question.
- *Proposition 1: The effects of institutional factors on the decision to adopt patenting behavior are mediated by individual factors.*

Conceptual Framework





Expected Contributions

- In response to Göktepe (2008), this study provides a synthesized theoretical framework to guide the empirical studies on university scientists' patenting decisions.
- In response to Greenwood et al. (2008), this study is also expected to contribute to the literature on organizational institutionalism by exploring the linkage between macro-level institutional factors and micro-level individual factors.