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# Kindred Spirits: The Influence of Cognitive Frame Similarity on Contingency Planning in Strategic Alliances

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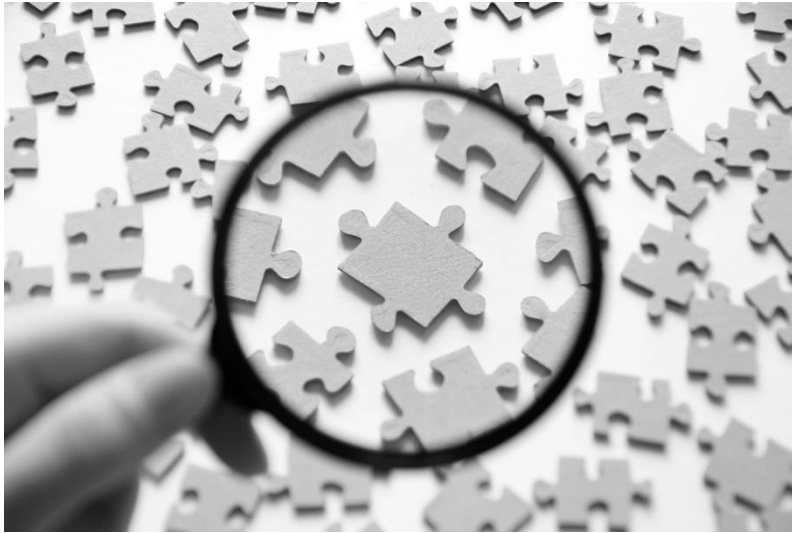
## Research Presentation

*Content Analysis PDW at the Academy of Management Annual Meeting in Chicago  
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# Overview

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1. Research Question
2. Theoretical Model and Hypotheses
3. Methodology
4. Results
5. Discussion



# 1. RESEARCH QUESTION

# Contingency planning is central to strategic alliances because it makes partnerships more reliable and predictable

## Strategic alliance contracts



See Mayer and Bercovitz, 2008

# However, alliance partners frequently rely on the prospect of future “good faith” negotiations to deal with contingencies

## The use of good faith in contingency provisions

“In the event of any alleged or threatened infringement by a Third Party [...], the Parties will confer **in good faith** as to how to address such infringement.”

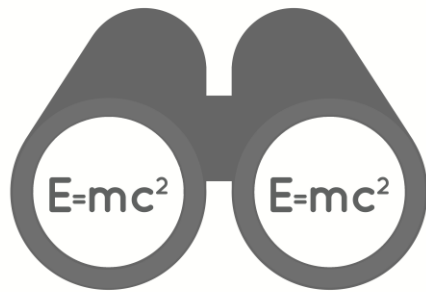
*Excerpt from alliance agreement between a pharmaceutical company and a biotechnology firm*



“The term ‘good faith’ is often referred to, but less often defined. It can be difficult to know exactly what is meant by the term in any given situation.”

*Parker et al., 2016*





## 2. THEORETICAL MODEL AND HYPOTHESES

# Extant research hints at a trade-off involved in contingency planning – but is essentially silent on how organizations make it!

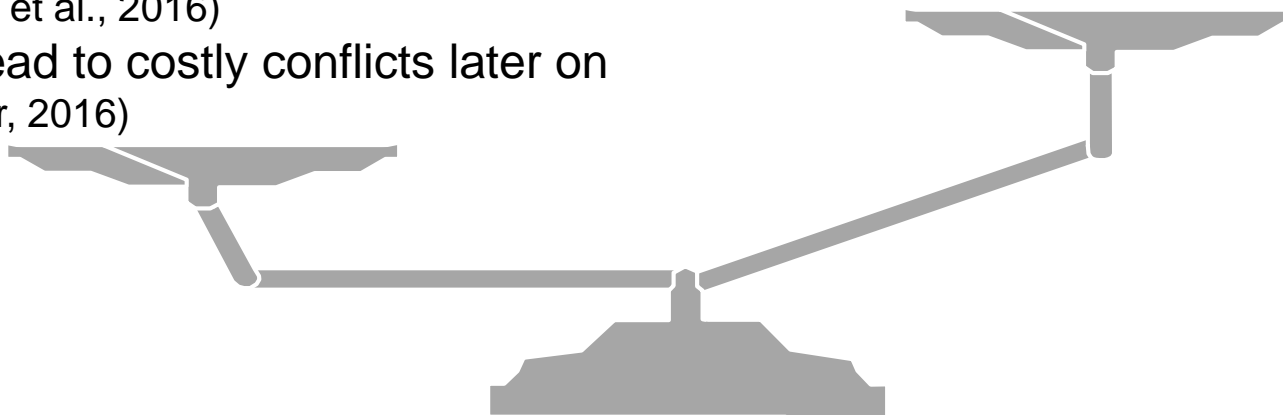
## Disadvantages and advantages of “good faith” contingency planning

### Disadvantages of “good faith”

- Not clearly defined, creates interpretive uncertainty (Parker et al., 2016)
- Can lead to costly conflicts later on (Richter, 2016)

### Advantages of “good faith”

- Increases flexibility
- Decreases upfront contracting costs (Crocker & Reynolds, 1993)



**What determines how firms make this trade-off and, in turn, how much they rely on “good faith”?**

# We argue that partners with similar cognitive frames are more likely to reach an agreement on contingencies in good faith

## Cognitive frame similarity and good faith

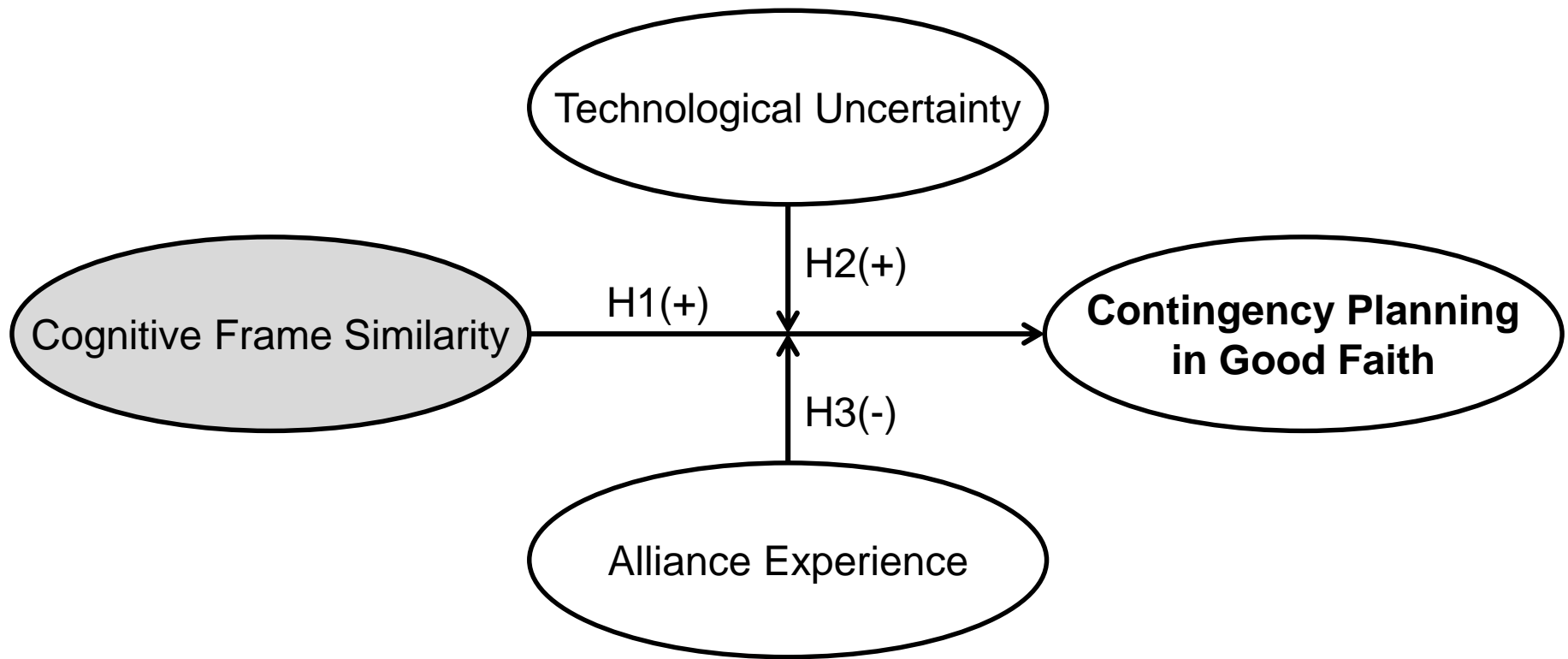
- **Cognitive frames** are schemas of interpretation that are shared among organizational members and direct and guide their attention, information processing, decision making, and actions  
(Cornelissen and Werner 2014, Goffman 1986, Kaplan 2011)
- Alliance partners with **high cognitive frame similarity** are more likely to interpret contingencies in similar ways because their respective sensemaking processes are more similar  
(Weber & Mayer, 2014)
- Thus, it is reasonable for alliance partners to deal with contingencies in good faith rather than attempting to formulate explicit contractual remedies ex ante

**Alliance partners with higher cognitive frame similarity are more likely to rely on “good faith” in contingency planning**



# The effect of cognitive frame similarity on the use of “good faith” is strengthened by uncertainty and weakened by experience

Hypotheses model

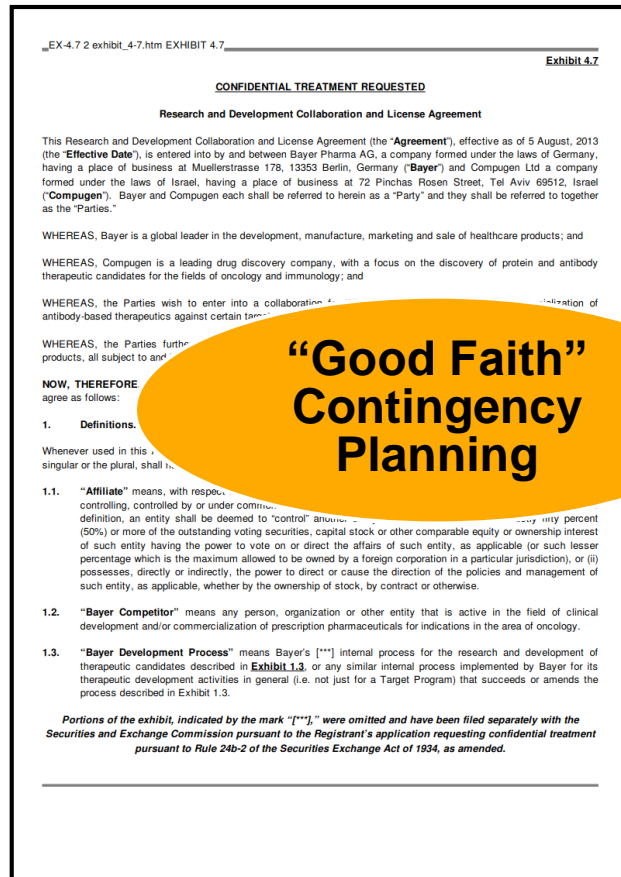




### 3. METHODOLOGY

# To measure “good faith” contingency planning, we count the number of “good faith” clauses in each alliance contract

## Construct operationalization: “Good faith” contingency planning



## Measure development

- No extant measure available
- Decided to identify and count number of “good faith” clauses in contract
- Developed coding scheme with legal experts

## Measurement process in sample

- Used two trained coders
- Manually coded 8,892 clauses in 843 alliance contracts
- Excluded irrelevant cases of “good faith”

# We develop a measure of cognitive frame similarity based on organizations' mission statements

## Construct operationalization: Cognitive frame similarity

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**Cognitive Frame Similarity**

$$\frac{1}{f} \times \sum_{j=1}^f \frac{\sum_{i=1}^{n_j} x_{ij} y_{ij}}{\sqrt{\sum_{i=1}^{n_j} x_{ij}^2} \sqrt{\sum_{i=1}^{n_j} y_{ij}^2}}$$

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- **Cognitive frames are reflected in the words that organization members use** and codified in artifacts (Cho & Hambrick, 2006; Huff, 1990)
- **We use mission statements** because they ...
  - ... describe organizations' philosophy and priorities (Babnik et al., 2014, Campbell & Yeung, 1991)
  - ... reflect stable, agreed-upon, cognitive orientations shared by entire organization (Alegre et al., 2018)
  - ... direct interpretations and actions of organizational members (Shapiro & Naughton, 2015)
- **We content-analyze 1,686 mission statements** and determine the similarity of these documents (Duriau et al., 2007)

Manual qualitative analysis:  
Identify frames

Computer-aided text analysis:  
Identify and count frame-related words

Calculation of similarity:  
Cosine similarity of mission statements

# We measure the moderators in line with prior literature

Construct operationalization: Technological uncertainty and alliance experience

## Transactional Uncertainty

Binary indicator of “Early Stage” of focal R&D project

- 1 if preclinical stage
- 0 if molecule clinically tested or approved

(Ozmel et al. 2017)

## Alliance Experience

Sum of number of alliances each organization had entered before entering focal alliance (logged)

(Hoang & Rothaermel, 2005)

# We control for a host of potentially confounding variables

## Control variables

### Transaction cost econ. controls

- **Technological overlap** (spillover concerns): Jaffe's (1986) patent-similarity measure (Reuer & Devarakonda, 2016; Sampson, 2007)
- **Deal size** (relationship-specific investments): Sum of upfront and maximum milestones payments (logged) (Reuer & Devarakonda, 2016)
- **Prior ties** (frequency of exchange): Binary indicator of prior alliance between partners (Reuer & Ariño, 2007; Reuer & Devarakonda, 2016; Sampson, 2007)
- **Level of interdependence**: Share of activities performed jointly by partners of total number of activities defined in contract (Pisano, 1991)

### Alliance controls

- **Partner asymmetry**: Difference in partners' number of employees divided by number of employees of larger partner (Lavie et al., 2012)
- **Equity stakes**: Binary indicator of overlap in equity ownership (Reuer & Ariño, 2007)
- **Cross-border alliance**: Binary indicator of international alliance (Reuer & Devarakonda, 2016)
- **Biotech-biotech alliance**: Binary indicator of both partners' biotech status (Reuer & Devarakonda, 2016)

### Time and firm controls

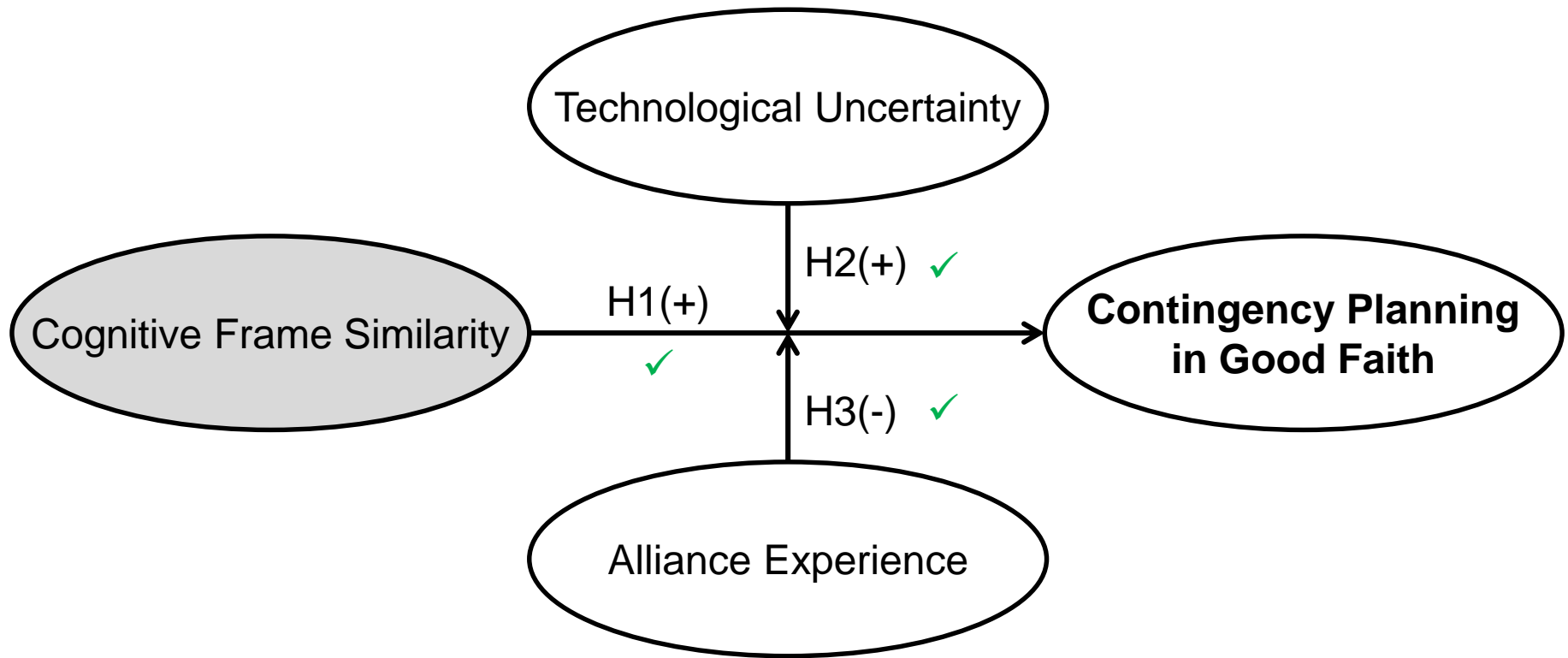
- **Contract length**: Total number of words in contract
- **Year dummies** (Reuer & Devarakonda, 2016)
- **Firm fixed-effects** (only in robustness checks)



## 4. RESULTS

# Regression estimates support our theoretical predications

## Empirical results







## 5. DISCUSSION

# **We contribute to theory and practice and open up opportunities for future research**

## **Contributions and opportunities for research**

### **Contributions to theory and method**

- We highlight socio-cognitive aspects of inter-organizational relations
- We introduce cognitive frame similarity and demonstrate its effect on contingency planning
- We offer an operationalization of cognitive frame similarity and a measure of “good faith” contingency planning

### **Practical implications**

- Consequential contracting decisions may be (unconsciously) made based on (perceived) cognitive similarity – a dangerous strategy if you cannot afford to lose the legal battle!

### **Limitations and future research**

- Study micro-processes within individuals/teams
- Explicitly account for cultural aspects
- Research earlier and later stages of alliance process





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