



College of Information Sciences & Technology

Conflict Management in Organizations A Conceptual Model

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About Myself

Guangxuan Zhang (Guang)

- PhD Candidate, IST @ Penn State
- Research Interest
 - Managing organizational conflicts
 - System modeling, designing, and programming
- Research Method
 - Design Science Research
- Relevant Publications
 - Zhang, G., and S. Purao. 2014. CM2: A Case-Based Conflict Management System. DESRIST 2014.
 - Zhang, G., and Purao, S. 2013. Using Vignettes to Study Conflict Management Practices in Enterprise Architecture Initiative, in *iConference 2013 Proceedings*.

Background

Conflicting goals



**Conflicting ways
of working**

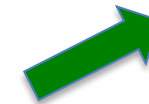


**Interpersonal
dissonance**



**An interactive process
caused by incompatibilities
between team members.**

**Creativity
Team Cohesion
Information Sharing**



**Poor performance
Stress and Burnout
Distrust and Dissonance**

A Motivational Scenario

“Properties” context menu is a function provided in Firefox version 3.0 that displays some meta-information when users right click on an item, such as a link or an image. The developers decide not to include the menu in the new release of Firefox because the menu seems to be useless in most situations, but it accounts for thousands of lines of code. When the decision is posed on bugzilla.mozilla.org, an online community for reporting and fixing bugs in Firefox, a conflict arises between the developers and some users who frequently use and thus value the menu. In order to solve the conflict, the developers propose a solution that they will continue to get rid of the menu. At the meanwhile, they will develop some add-ons to supply the same function.

Challenges and Opportunities

Conflicts in modern projects

- Geographically dispersed teams
- Parallel projects
- Concurrent, prolonged, and diverse conflicts
- Recency bias and Affect bias
- Communication data is captured and archived
- Communication data is rich in interaction, opinion, and emotional information

Research Goals

- Design (a type of) conflict management systems to assist people
 - Capture and manage conflict data
 - Understand conflict situations
 - Make effective conflict management choices

Prior Research

Contemporary Conflict Management Systems

- **Communication-driven (GDSS/NSS)**
 - Anonymous messaging, Procedural support, Voting
- **Resolution-driven**
 - Solutions for well-understood situations, e.g. resource division
- **Deficiencies**
 - Factional and static view of conflict
 - No conceptual model to represent conflict actions and events
 - Limited application scope

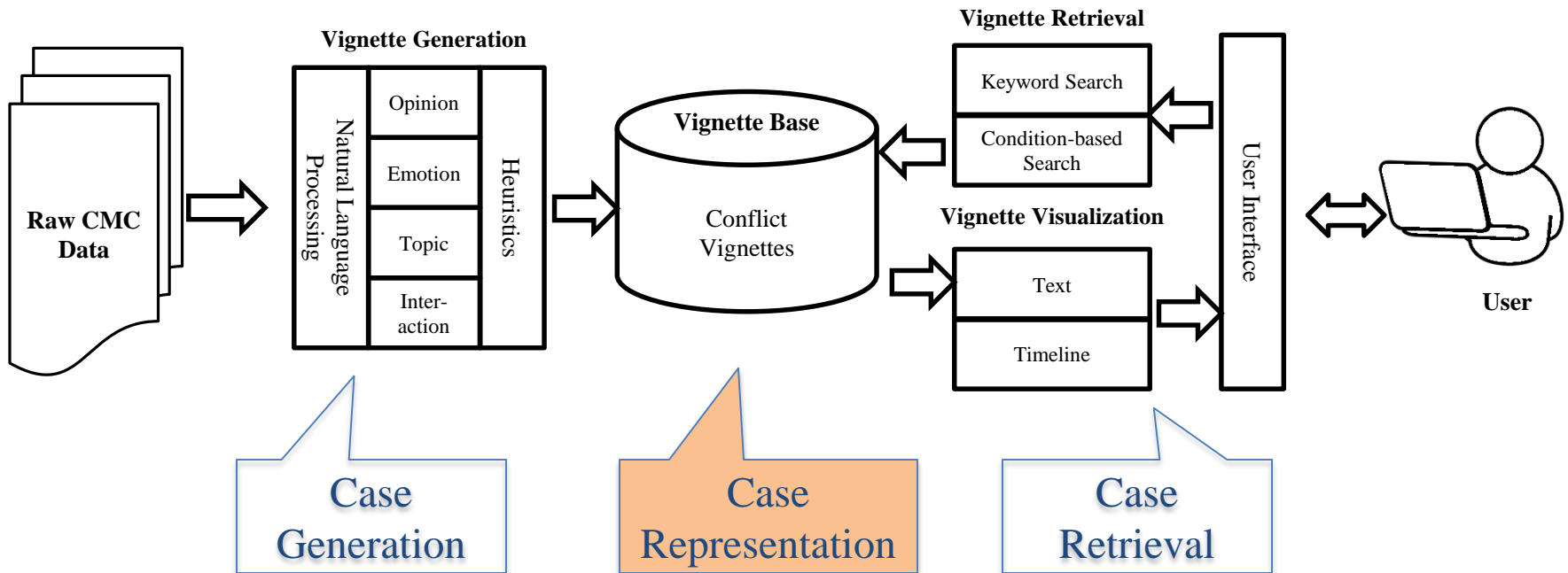
Research Method

A Design Science Research Approach

- A Class of Problems
 - Conflict is challenging to manage in modern projects
- Kernel Theories
 - Conflict and conflict management theories
- Artifact
 - CM2: Conflict Management System based on Computer-Mediated Communication Data

A CBR System - CM2

- Case-based Reasoning
 - CBR: A problem-solving strategy based on previous experience
 - Good for situations that lack unambiguous rules



A Conflict ‘Case’

Conflict: Get rid of “properties” context menu

Problem description: “Properties” context menu is a function provided in Firefox version 3.0 which displays some meta-information when users right click on an item, such as a link or an image. The developers decide not to include the menu in the new release of Firefox because the menu seems to be useless in most situations while accounts for thousand lines of codes. When they post the decision, a conflict arises between the developers and some users who frequently use and thus value the menu.

Resolution: The developers consist to get rid of the menu. As a makeup, they develop some add-ons that provide similar function.

From Cases to Vignettes

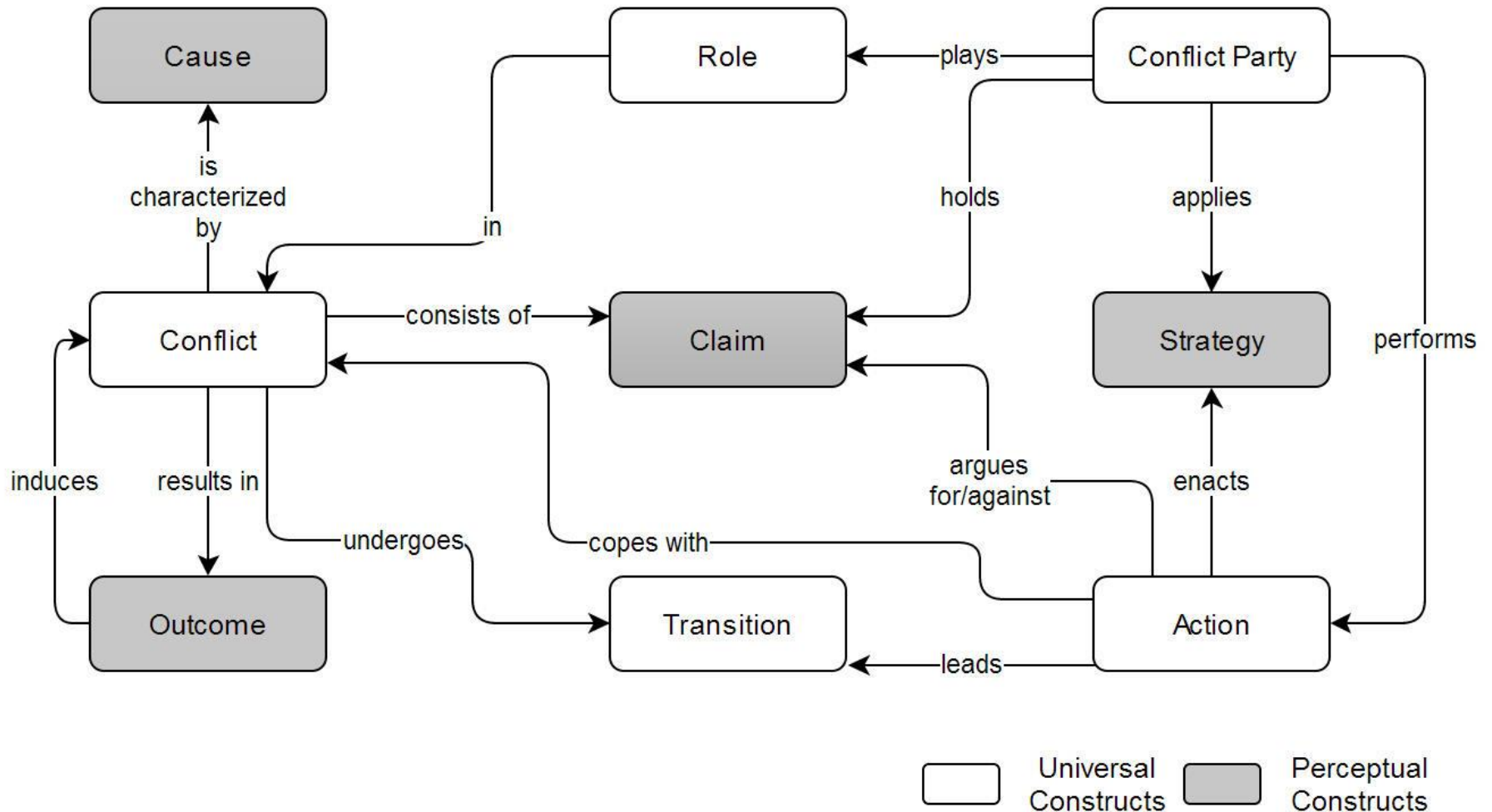
Case

- A description of previous knowledge
- Structured as a problem-solution pair
- *Single version of truth*
- Problem description is codified for case indexing
- Re-use solutions
- Format: Experience-based

Vignette

- An analytical narrative of practice
- Describes a series of events in prior practice
- *Multiple perspectives*
- Provide a “rich” description to inspire thinking
- Generate knowing
- Format: Theory-based

A Conceptual Model for Conflict



Constructs of Conflict Vignettes

Construct	Description	Type	Source
Conflict	Conflict is a process in which incompatibility between Claims from Conflict Parties surfaces, and may be resolved.	Universal	(Thomas, 1992)
Cause	Cause refers to the reasons for the incompatibility among Claims that is understood by Conflict Parties.	Perceptual	(Jehn and Mannix, 2001)
Claim	Claim represents an intrinsic interest, goal, or opinion of a Conflict Party.	Perceptual	(Thomas, 1992)
Transition	Transition refers to a moment when the nature of the Conflict shifts substantially.	Universal	(Putnam, 2004)
Conflict Party	Conflict party refers to individuals or groups who are engaged in a Conflict.	Universal	(Thomas, 1992)
Role	Role reflects the part that a Conflict Party has in a Conflict.	Universal	(Putnam and Poole, 1987)
Strategy	Strategy represents the generic intention and plan that Conflict Parties apply for coping with Conflict.	Perceptual	(Olekalns et al., 2008)
Action	Action is the behavior enacted by a Conflict Party.	Universal	(Rahim, 2010)
Outcome	Outcome represents the impact and aftermath caused by a Conflict.	Perceptual	(Jehn 1995)

Visualizing Conflict Vignette

Developers

Cause: **Task-related**
 My claim: Remove the menu
 Others' claim: **Keep the menu**
 My strategy: **Compromise**
 Others strategy: **Contend**



Cause: **Task&Process-related**
 My claim: **Keep the menu and request a vote**
 Others' claim: Remove the menu
 My strategy: **Collaborate**
 Others strategy: **Contend**

Users

Future Work

- Investigate better visualization approaches for presenting conflict vignettes
- Leverage NLP and data mining techniques to automate analysis of CMC data and synthesis of conflict vignettes
- System implementation and evaluation

Comments & Questions

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Example Conflict – Stage 1

Constructs	Views	
	The Developers	The Users
Conflict	Remove or keep “Properties” context menu	
Parties & Roles	The developers – Principal Party The users – Principal Party	
Cause	Task-related	Task-related
Claim		
The developers	Remove the menu	Remove the menu
The users	Keep the menu	Keep the menu
Transitions	N/A	
Action		
The developers	Argue for removing the menu Argue against the usefulness of the menu Propose alternative way to provide the function	
The users	Argue for keeping the menu Argue for the usefulness and value of the menu	
Strategy		
The developers	Compromise	Contend
The users	Contend	Contend
Outcomes	N/A	

Example Conflict – Stage 2

Constructs	Views	
	The Developers	The Users
Conflict	Remove or keep “Properties” context menu	
Parties & Roles	The developers – Principal Party The users – Principal Party	
Cause	Task-related	Task-related and Process-Related
Claim		
The developers	Remove the menu	Remove the menu
The users	Keep the menu	Keep the menu and request a more democratic decision making process
Transitions	Escalation	
Action		
The developers	Argue for removing the menu Argue against the usefulness of the menu Propose alternative way to provide the function	
The users	Argue for the usefulness and value of the menu Argue against the arbitrary decision made by the developers Propose to conduct a poll to before the decision	
Strategy		
The developers	Compromise	Contend
The users	Contend	Collaborate
Outcomes	N/A	

Example Conflict – Stage 3

Constructs	Views	
	The Developers	The Users
Conflict	Remove or keep “Properties” context menu	
Parties & Roles	The developers – Principal Party The users – Principal Party	
Cause	Task-related	Task-related and Process-Related
Claim		
The developers	Remove the menu	Remove the menu
The users	Keep the menu	Keep the menu
Transitions	De-escalation	
Action		
The developers	Remove the menu Provide add-ons	
The users	Withdraw from the negotiation	
Strategy		
The developers	Contend	Contend
The users	Withdraw	Withdraw
Outcomes	Integrative	Distributive