

# Concern-Alignment Analysis of Consultation Dialogues

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## Abstract

‘Concern Alignment in Conversations’ project aims, through empirical examinations of real-life consensus-building conversations, to investigate the interrelationship between rational processes of agreement seeking and affective processes of trust management in conversational interactions. We analyzed a series of venture consultation sessions between prospective business start-up candidates and venture incubation consultants within the *concern alignment* model. We argue the concern alignment model provides us with a conceptual frame to examine consultation interaction as a process in which participants collaboratively explore the space of potential concerns to identify and examine relevant concerns to be addressed, which enable them to expand and elaborate their business proposals.

## 1 Concern alignment

Concern align model (Katagiri et al., 2013a; Katagiri et al., 2013b) conceptualize dialogue processes in consensus decision-making as consisting of two functional parts, concern alignment and proposal exchange, as shown in Figure 1. When a group of people engage in a conversation to find a joint course of actions among themselves on certain objectives (*issues*), they start by expressing what they deem relevant on the properties and criteria on the actions to be settled on (*concerns*). When they find that sufficient level of alignment of their concerns is attained, they proceed to propose and negotiate on concrete choice of actions (*proposals*) to form a joint action plan. Expanding on the works to establish a comprehensible set of dialogue acts (Bunt, 2006) for speech acts performed by utterances, we stipulate a set of discourse acts at the level of concern alignment in terms of functions a discourse segment perform in consensus-building, as shown in Table 1.

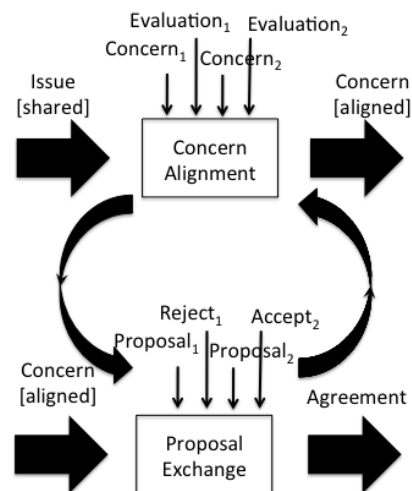


Figure 1: A concern alignment model for dialogue structures in consensus-building conversations.

## 2 Collaborative exploration of concern space in consultation conversations

### Concern introduction as criticism to proposals:

In consultation-type conversations, proposals often put on the table for discussion before relevant concerns are raised and examined. Depending on who raised those concerns following the proposal, they can work either as a support or a criticism of the proposal. Figure 2 shows an example in which the concern introduced by the consultant *A*, which follows the initial proposal by the business start-up candidate *C*, effectively works as a criticism

Table 1: Discourse acts in concern alignment

Concern alignment	
C-solicit	solicit relevant concerns from partner
C-introduce	introduce your concern
C-eval/positive	positive evaluation to introduced concern
C-eval/negative	negative evaluation to introduced concern
C-elaborate	elaborate on the concern introduced
Proposal exchange	
P-solicit	provide relevant proposal from partner
P-introduce	introduce your proposal
P-accept	provide affirmation to introduced proposal
P-reject	indicate rejection to introduced proposal
P-elaborate	modify the proposal introduced

C:	P-introduce:	<i>provide service to estimate market value of user skills</i>
A:	C-introduce	<i>how to justify method/criteria of estimation</i>
D:	P-introduce:	<i>provide assessment at skill category level</i>
A:	(ack)	
D:	P-introduce:	<i>leave room for variation based on peer estimation</i>
A:	(ack)	

Figure 2: C-introduce as criticism.

C:	P-introduce:	<i>web site for providing service to match up people with needs and people with skills</i>
B:	C-introduce	<i>how to find ways to attract users</i>
C:	(ack)	
B:	P-introduce:	<i>provide the matching service as mixi App.</i>
C:	(req-clarify)	<i>our proposal does not have the functionality?</i>
B:	C-introduce:	<i>how to find ways to attract users /mixi already has rich user base</i>
C:	(ack)	

Figure 3: P-introduce as concern foregrounding.

by presenting a potential difficulty in the proposal, which, in turn, can invite the candidate to abandon and pursue alternative proposals, or, as in this case, to elaborate on the present proposal to add details to circumvent the difficulties.

**Proposal introduction as foregrounding concerns:** Proposals, even when they are presented as hypothetical examples, can be used to highlight relevant concerns to be seriously entertained. Figure 3 shows an example in which an initial business proposal presented by the start-up candidate *C* was countered by an alternative proposal by the consultant *B*, which effectively focus attention to the significance of developing an idea to secure large enough user base to develop a promising business plan.

A:		<i>lost the grasp of what you really want to do in your business</i>
D:	(ack)	
A:	C-introduce:	<i>would you pursue ways to realize a market place for people to do whatever they want to do</i>
D:	(ack)	
A:	C-introduce	<i>Or would you pursue ways to realize a community for people to get satisfaction through their face-to-face social interactions</i>
D:	(ack)	

Figure 4: Parallel C-introduce for concern space exploration.

**Parallel concern introduction for concern space exploration:** A set of parallel concerns can be contrastingly introduced. Figure 4 shows an example in which the consultant *A*, after indicating his frustration on not getting a clear idea on the goals of the start-up candidates, indicated, in the form of two parallel concerns: matching for business or place for social interaction, two alternative directions they might pursue. Parallel concerns give structures to the potential space of concerns to be considered, come up with alternative lines of proposals to be pursued and force participants to make a choice among those alternatives.

Sequential patterns identified here capture strategies employed in conversations in which participants jointly push forward to explore, to motivate and to organize their thinking to eventually develop a concrete proposal to be presented and evaluated by venture capitalists.

### 3 Conclusions

We conducted an analysis of consultation conversations based on the *concern alignment* model. We identified several sequential organization patterns of the exchange of concerns and proposals, which successfully capture some of the strategies adopted in the process of collaborative development of consensus proposals. The notion of concern alignment provides us with a promising descriptive framework to elucidate both the processes and strategies in a wide range of consensus-building conversations.

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### References

- Harry Bunt. 2006. Dimensions in dialogue act annotation. In *the 5th International Conference on Language Resources and Evaluation (LREC 2006)*.
- Yasuhiro Katagiri, Katsuya Takanashi, Masato Ishizaki, Yasuharu Den, and Mika Enomoto. 2013a. Concern alignment and trust in consensus-building dialogues. *Procedia - Social and Behavioral Sciences*, 97:422–428.
- Yasuhiro Katagiri, Katsuya Takanashi, Masato Ishizaki, Mika Enomoto, Yasuharu Den, and Shogo Okada. 2013b. Analysis and modeling of concern alignment in consensus-building. In *Proceedings of the 17th Workshop on the Semantics and Pragmatics of Dialogue (SemDial2013)*, pages 202–203.