# Proposal

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Speech turns and alignment of speech turns can be an avenue of exploration. We understand the usefulness (maybe even intuitively if not demonstrated from the paper already) regarding speech turns and alignment of these turns, and how they can be used to foster collaboration. Speech “turns” can perhaps be thought about as critical points, re-write rules, and alignment of turns can be thought about in regards to automation or confluence/termination.

### Useful Snippets

#### Treating the user (or collective user)’s state of minds, which is part of the identified key processes, mutual modeling, that involves speech turns and alignment of turns (perhaps automatically) will provide additional help in assessments.

Guillaume Chanel, Mireille Bétrancourt, Thierry Pun, Donato Cereghetti, Gaëlle Molinari, 2013 (“Assessment of Computer-Supported Collaborative Processes using Interpersonal Physiological and Eye- Movement Coupling” :)

“Results show that the two coupling measures can be used to predict collaborative processes such as emotion management and convergence.”

“a machine should be able to understand nonverbal behaviors such as smiles and emblematic gestures (e.g. the “peace and love” finger gesture), and to infer user’s state of mind.”

“Several processes have been identified as playing a key role in successful collaboration such as: sustaining mutual understanding (grounding); building a representation of the collaborative partners (mutual modeling); information pooling; confronting points of view; co-constructing knowledge; building upon partner’s reasoning (transactivity); elaborating and resolving conflicts; reaching consensus and convergence; coordinating the joint efforts; regulating the interaction, etc.”

“Results showed the importance of coupling features for the assessment of collaborative processes, thus validating our hypothesis.”

“The computation of facial expression coupling as well as speech turns and alignment of turns will certainly provide interesting features for a better assessment of collaboration.”

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“mutual modeling process through which collaborators build a representation of what their partners know, believe and intend to do.”

“The EAT had a positive effect on the perceived amount of time spent by the dyad confronting and arguing points of view, building up on the other’s ideas – or in other words, on the perceived degree of transactivity”