

# 1 The extracted features

Modality	Features names	Description	Details
Linguistic features	Speech Activity	Is the interlocutor speaking?	Based on time-aligned IPU transcript.
	Overlap	Both interlocutors speaking?	idem.
	Laughter	Laughter occurrences	Based on word-level time-aligned transcripts
	Filled pauses	Filledpauses occurrences	Based on word-level time-aligned transcripts : 'euh', 'heu', 'hum', 'mh'
	Feedback	Conversational Feedback occurrences	Based on word-level time-aligned transcripts : 'oui' (yes), 'ouais' (yeah, 'non'(no), 'ah', 'd'accord'(right), 'ok' + Laughters
	Discourse Markers	Occurrence of words used to keep speech organized	Based on word-level time-aligned transcripts : 'alors'(so), 'mais'(but), 'donc'(therefore), et('and'), 'puis'(then), 'enfin'(finally), 'parceque'(because), 'ensuite'(after)
	Spoken Particles	Occurrence of (final) spoken particle items	Based on word-level time-aligned transcripts : 'quoi', 'hein', 'ben', 'bon'(well), mais (but), 'bref' (in short)]
	Interpersonal	Merge of inter-personal linguistic features	Merge of (Filled-pauses, Feedback, Discourse Markers, Spoken Particles and Laughter)
	Turn Latency	Time to take the turn	Based on time-aligned IPU transcript.
	Type-Token Ratio	Lexical richness measure	Based on time-aligned transcript: (number of different tokens) / (total number of tokens).
	Lexical Richness	Lexical richness measure	Based on time-aligned transcript: (number of adjectives + number of adverbs) / (total number of tokens).
	Polarity and Subjectivity	Sentiment analysis metrics	Based on time-aligned transcript.
Facial features	Head-Tx, Head-Ty	Head movement	Based on head pose estimated using Openface.
	Head-Rx, Head-Ry	Head rotation	-
	Head-translation-energy	Kinetic energy of head translation	-
	Head-rotation-energy	Kinetic energy of head rotation	-
	AU-mouth	Facial movements related to mouth: Sum (AU10r, AU12r, AU14r, AU15r, AU17r, AU20r, AU23r, AU25r, AU26r)	Based on Facial Action Units (AUs) existence detected by Openface.
	AU-eyes	Facial movements related to eyes : Sum (AU01r, AU02r, AU04r, AU05r, AU06r, AU07r, AU09r)	-
	AU-all	Global representation of all facial movements: sum of all action units.	-
	Direct-gaze	Percentage of direct gaze direction of the conversant.	-
	Emotions	('Happiness', 'Sadness', 'Surprise', 'Fear', 'Anger', 'Disgust')	Probabilities detected from conversant video frame by frame.
	Smiles	Smile's probability estimation.	idem.
Eyetracking features	Saccades	Occurence of Saccades	Based on gaze coordinates of the participant, recorded using the Eyelink1000 system.
	Gaze-speed	Speed of the gaze coordinates.	-
	Gaze-movement-energy	Kinetic energy of the gaze movements.	-
	Face-looks	Occurrences of looks on the face.	-
	Eye-looks	Occurrences of looks on the eye.	-
	Mouth-looks	Occurrences of looks on the mouth.	-

## 2 Meta-features

Groups	Original features
Head-movement-I	'Head-Rx-I', 'Head-Rz-I', 'Head-Ry-I', 'Head-Tx-I', 'Head-Ty-I', 'Head-Tz-I', 'Head-translation-energy-I' 'Head-rotation-energy-I'
Facial-movement-I	'AU-all-I', 'AU-mouth-I', 'AU-eyes-I', 'Neutral-I'
Emotions-I	'Angry-I', 'Disgust-I', 'Fear-I', 'Happy-I', 'Sad-I', 'Surprise-I', 'Smiles-I'
Eyetracking-P	'Gaze-speed-P', 'Gaze-movement-energy-P', 'Saccades-P'
Social-gaze	'Face-looks-P', 'Mouth-looks-P', 'Eyes-looks-P', 'Direct-gaze-I'
Interpersonal-I	'FilledBreaks-I', 'Feedbacks-I', 'Discourses-I', 'Particles-I', 'Laughters-I', 'Interpersonal-I', 'Polarity-I', 'Subjectivity-I', 'ReactionTime-I'
Interpersonal-P	'FilledBreaks-P', 'Feedbacks-P', 'Discourses-P', 'Particles-P', 'Laughters-P', 'Interpersonal-P', 'Polarity-P', 'Subjectivity-P', 'ReactionTime-P'
SpeechActivity-I	'SpeechActivity-I', 'Overlap-I', 'SpeechRate-I'
SpeechActivity-P	'SpeechActivity-P', 'Overlap-P', 'SpeechRate-P'
Linguistic-Complexity-I	'LexicalRichness-I', 'TypeToken-Ratio-I'
Linguistic-Complexity-P	'LexicalRichness-P', 'TypeToken-Ratio-P'