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Towards investigating
Gaze and laughter coordination in socially interactive agents

We hypothesise that theoretical models of laughter and gaze in human dialogue extend to virtual entities.

RQ1 How are agents perceived in two conditions – reproduced behaviour vs. modified behaviour?

RQ2 How are pragmatic functions of laughter perceived in a socially interactive agent (SIA) compared to ground truth?
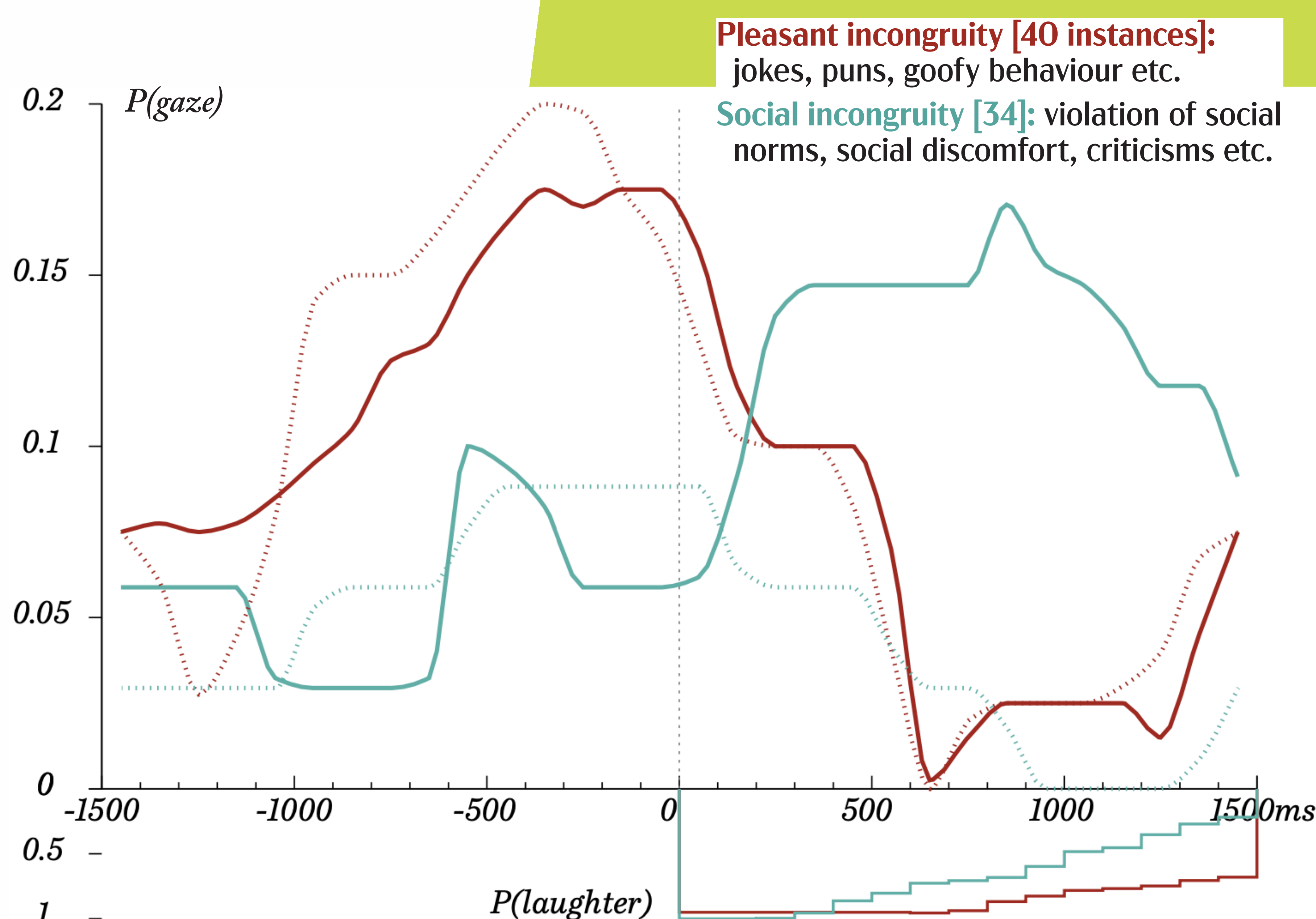
Perception study

We will use the GRETA platform to generate stimuli based on the 'ground truth'.

a replace human in the dyad by a SIA.

b modify gaze pattern with an alternative to ground truth.

c measure the perception of a SIA (naturalness, warmth, competence) and annotate pragmatic functions of laughs.

'Ground truth'

23 minutes from three dyadic interactions from the Good Housekeeping Institute (GHI) Corpus annotated laughter following Mazzocconi et al. (2020) and gaze according to Somashekarappa et al. (2020).

Laughs, performing different pragmatic functions, are related to different gaze patterns.

Pleasant incongruity [40 instances]: jokes, puns, goofy behaviour etc.
Social incongruity [34]: violation of social norms, social discomfort, criticisms etc.

Probability of gaze at the interlocutor around the onset of laughter depending on laughable incongruity type. **Line code: solid line – laugher; dashed line – partner.** The probability of laughter duration is shown at the bottom of the figure.