Multimodal face-managing: "Be polite by all means!"

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In our interactions we try to be polite (most of the time). Politeness Theory (Brown & Levinson, 1987) argues that politeness is a universal aspect of language and that people use different strategies to communicate politely, depending on the situation and the social relationship between speakers. The goal of such polite "attention" is to preserve (or enhance) *face* during social interaction: i.e. a person's public self-image. The theory proposes two main types of public self-image: positive face, which is the desire to be liked and appreciated, and negative face, which is the desire to be free from imposition and to have autonomy. Any action (verbal or non-verbal) that might threaten the face of the speaker or their partner (e.g., criticism, or demanding an action), is called a face-threatening act (FTA). People use various politeness strategies to mitigate the potential effects of FTAs during interactions, such as indirectness, hedging, and the use of honorifics.

Laughter is a non-verbal vocalisation crucial in managing social interactions at multiple levels: from managing turn-taking and topic-change, to showing affiliation and smoothing potentially uncomfortable situations. Laughter can function as a face-saving device to minimise criticism, accompany asking for a favour, present opposing opinions and soften trouble-tellings (Garcia, 1989; Jefferson, 1985; Partington, 2006; Raclaw & Ford, 2017). At the same time, laughter itself can be a FTA, as it can be produced with derisive intentions (e.g. malicious mockery; Reed & Castro, 2021). However, other aspects of non-verbal behaviour, such as gaze, are less well understood in politeness terms (though see Brown & Prieto, 2017; Mesh et al., 2023). While Brown and Levinson (1987) suggest that their framework can be applied to all modalities which constitute our communicative exchanges, most previous work has been devoted to its application in the study of verbal utterances with few studies focussing on gestural non-verbal behaviour (e.g. Brown et al., 2023; Brown & Prieto, 2021). Here, we investigate how speech, laughter and visual cues, in the form of gaze to the partner (or its absence), interact in managing face-saving in social interactions thus avoiding face-threatening situations for both interlocutors.

Our data consists of 23 minutes from a multimodal corpus of dyadic taste-testing interactions (Somashekarappa et al., 2020) annotated manually using ELAN. Laughter was annotated following Mazzocconi et al's, (2020) framework (with 84 instances of laughter annotated). In the current work, we are interested in the *type* of incongruity present in the *laughable* (the entity the laughter is related to) focusing on the two most common types of laughable: (1) Pleasant incongruity (**PI**, N=40) – where a clash between the laughable and certain background information is perceived as witty, rewarding and/or pleasant (e.g. jokes, conversational humour); (2) Social incongruity (**SI**, N=34) – a clash between the laughable and social norms and/or comfort (e.g. embarrassment, asking a favour, criticism). Inter-annotator agreement was 82%, (Krippendorff's $\alpha = 0.69$). For gaze, we focus on *gaze directed at the partner*. We treated this as a dichotomous dependent variable (present or not present) for each 100ms bin of the time window of interest – 3000ms centred around the onset of each laughter event.

Our analysis (using a mixed-effects logistic regression) shows that participants are significantly less likely to look at their partner while producing laughs related to a PI (mirroring data reported in Gironzetti (2017) during humorous exchanges), whereas laughs related to a SI are accompanied by gaze at the partner (Fig. 1). On the other hand, the interlocutor aligns to the person producing the laughter (the laugher) when the laughter is related to a PI, but shows the opposite pattern (i.e. they are less likely to look at the laugher) if the laughter is related to a SI.

A Politeness Theory perspective helps us to elucidate the patterns observed. We observe that laughter is used to smooth a FTA (SI) 40.5% of the time. Interestingly in these cases we observe a high probability of gaze at the partner from the *laugher* themselves, potentially having the function of checking on the effect of the laughter and their partner's reaction. On the other hand, the *partner* is less likely to look at the laugher, if the laughter is related to a FTA, potentially signalling the intention to not put extra pressure on the laugher – who in this case already signalled the perception of their dialogue act as potentially face-threatening by laughing. On the other hand, for laughs related to PI (which can be considered as roughly equivalent to humour) we observe the opposite pattern for the *laugher*: there is a lower probability that the laugher will look at their partner while laughing. We claim that laughter (in relation to a PI) can be a FTA in itself, as in the case of mockery, expressing a negative opinion on the partner's behaviour. We hypothesise that (avoiding) gaze in this context helps to disambiguate the laughter, reducing the potential disruption of the FTA. In line with our findings, Becker-Asano & Ishiguro (2009) show that laughter, when accompanied by direct gaze, is perceived negatively as directed *at* the interlocutor.

In conclusion, our data highlight how multiple modalities are mobilised and evaluated in terms of their face-threatening potential, and corrected for it, multi-modally: A laugh can be used to smooth a face-threatening speech-utterance, but a laugh can itself constitute a face threatening act, with gaze helping to both disambiguate intention and/or smooth the potential FTA. In line with previous studies looking at the interaction of speech, prosody and gesture, our work supports Brown and Levinson's (1987) intuitions that multimodal resources should be considered in face-managing. We further offer specific evidence that laughter and visual cues such as gaze at the partner, should be considered in a complete theory of politeness.

Index Terms: Multimodal interaction; laughter; gaze; politeness theory; multimodal face-managing
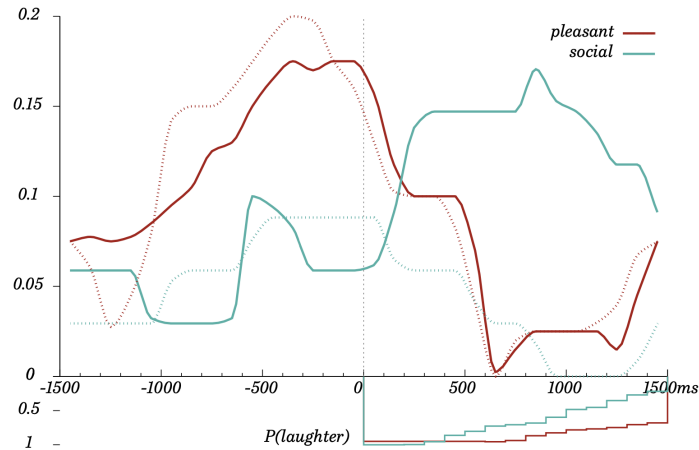

Figure 1: *Probability of gaze at the onset of laughter depending on laughable incongruity type (Red: Pleasant Incongruity; Blue: Social Incongruity). Line code: solid line – laugher; dashed line – partner. The probability of laughter duration is shown at the bottom of the figure. Figure adapted from (Mazzocconi et al. 2021).*

References

Becker-Asano, C., & Ishiguro, H. (2009). Laughter in social robotics-no laughing matter. *Intl. Workshop on Social Intelligence Design*, 287–300.

Brown, L., Kim, H., Hübscher, I., & Winter, B. (2023). Gestures are modulated by social context: A study of multimodal politeness across two cultures. *Gesture*.

Brown, L., & Prieto, P. (2017). (Im) politeness: Prosody and gesture. *The Palgrave Handbook of Linguistic (Im) Politeness*, 357–379.

Brown, L., & Prieto, P. (2021). Gesture and prosody in multimodal communication. In *The Cambridge handbook of sociopragmatics* (pp. 430–453). Cambridge University Press.

Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage* (Vol. 4). Cambridge university press.

Garcia, C. (1989). Apologizing in English: Politeness Strategies Used by Native and Non-Native Speakers. *Multilingua*, *8*(1), 3–20.

Gironzetti, E. (2017). Prosodic and multimodal markers of humor. In *The Routledge handbook of language and humor* (pp. 400–413). Routledge.

Jefferson, G. (1985). On the organization of laughter in talk about troubles. In J. M. Atkinson (Ed.), *Structures of Social Action* (pp. 346–369). Cambridge University Press.

Mazzocconi, C., Tian, Y., & Ginzburg, J. (2020). What's Your Laughter Doing There? A Taxonomy of the Pragmatic Functions of Laughter. *IEEE Transactions on Affective Computing*, *13*(3), 1302–1321. https://doi.org/10.1109/TAFFC.2020.2994533

Mazzocconi, C., Maraev, V., Somashekarappa, V., & Howes, C. (2021). Looking for laughs: Gaze interaction with laughter pragmatics and coordination. In *Proceedings of the 2021 international conference on multimodal interaction* (pp. 636-644).

Mesh, K., Cruz, E., & Gullberg, M. (2023). When attentional and politeness demands clash: The case of mutual gaze avoidance and chin pointing in Quiahije Chatino. *Journal of Nonverbal Behavior*, 1–33.

Partington, A. (2006). *The linguistics of laughter: A corpus-assisted study of laughter-talk*. Routledge.

Raclaw, J., & Ford, C. E. (2017). Laughter and the management of divergent positions in peer review interactions. *Journal of Pragmatics*, *113*, 1–15.

Reed, L. I., & Castro, E. (2021). Are you laughing at them or with them? Laughter as a signal of in-group affiliation. *Journal of Nonverbal Behavior*, 1–12.

Somashekarappa, V., Howes, C., & Sayeed, A. (2020). An annotation approach for social and referential gaze in dialogue. *Proceedings of the Twelfth Language Resources and Evaluation Conference*, 759–765.