Towards the development of a coding scheme for the quantification of interpersonal empathic behaviour


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Towards the development of a coding scheme for the quantification of interpersonal empathic behaviour

**How can we examine empathetic behaviour at the interpersonal level?**

The phenomenon of empathy is a complex and ambiguous phenomenon, which is currently being defined in numerous different ways, resulting in the use of many different assessment approaches. However, as most approaches focus on the personal outcomes for the empathiser, there is a need for greater focus on the examination of empathic behaviour at the interpersonal level, in order to enhance our understanding of the temporal dynamics of the empathising process in a live, evolving interaction (Main, Wahi, Kho & Halpern, 2017).

**Study 1 OBJECTIVE:** To examine which behaviours are associated with observer perceptions of empathy.

**Method**

**Videotaped material**

- A naturally social interaction between English-speaking pairs of twins (UWA/EHEP database Mooney, 2017) reviewed for empathic behaviour.
- Limited experience of interpersonal interaction displayed in terms of checking, repair, or self-attention.
- Conversational dynamic: Friends engaged in daily day-to-day social interaction.
- Interventions operated to minimize conversational conflicts with a strict control of the empathic episode.
- 60-ft two-side clips selected to cover a range of empathic behaviour.

**Participants**

- Online participants recruited via Prolific Academic.
- Dyads from a range of backgrounds with differing empathic levels.
- Evaluated for the operationalisation and quantification of interpersonal empathic behaviour in a social interaction.

**Interpersonal nonverbal expressivity**

Interpersonal coding of empathy was developed for the operationalisation and quantification of interpersonal empathic behaviour in a social interaction.

**Results**

- Participants' empathic behaviour intensity ratings were highly reliable (ICC = 0.95).
- Dyadic conversational dynamic scores were significantly associated with observer perceptions of empathic empathy (ICC = 0.55, p < 0.01).
- Dyadic conversational dynamic scores were also positively associated with perceptions of dyadic empathy (ICC = 0.41, p < 0.01).

**Study 2 OBJECTIVE 1:** To replicate findings of Study 1

**OBJECTIVE 2:** To validate a coding scheme developed for the examination of interpersonal empathic behaviour across time.

**Method**

**Videotaped material**

- Sampled from UWA/EHEP and NoLi (Choi et al., 2017) databases.
- 60-ft two-side clips sampled at some timepoints in each interaction.
- Experimental manipulation: NoLi dyads “novice-expert” dynamic: Experienced dynamic, power-related versus non-power-contrast.

**Participants**

- Online participants recruited via Prolific Academic.
- Dyads from a range of backgrounds with differing empathic levels.
- Evaluated for the operationalisation and quantification of interpersonal empathic behaviour in a social interaction.

**Results**

- Comparison of coders' empathic behaviour ratings with online participants' "ground-truth" ratings.
- Interlocuters' levels of empathic behaviour strongly correlated with online participants' "ground-truth" ratings (r = 0.94, p < 0.01).

**Conclusion**

We present a validated, open-source, evidence-based approach for the coding and quantification of interpersonal empathic behaviour.

The scheme provides a relatively efficient means of determining empathic behaviour scores and duration values, allowing the real-time examination and quantification of empathic behaviour levels over the course of an interaction.

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