Sorry, I'm Not Wired to Take Your Nonsense: Coherent Other-representation as Condition for Swift Perspective Shifting Advantages

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Can you read what she's feeling?

Anger? **Disgust?**

A Little Bit of Both?

Introduction

- The ability to flexibly shift between a self-perspective and an other-perspective elicits mental alignment such that it is easier to represent the mental contents of another person's mind in empathy
- However, findings on the association between **swift perspective shifting** and the **heighted ability to simulate and represent another's mind are inconsistent,** as the association was only found in emotion sharing (vicarious experiencing of another's emotion), but not with emotion ascription (understanding another's emotional state)
- Considering that distinction between a self-representation and an other-representation of perspectives is critical for successful empathic simulation, it is proposed that **the advantage might be modulated by coherence of other-representation**, which is critical during the swift task-switching involved in simulation.

Key Hypothesis

Swift perspective shifting would be associated with higher emotion ascription accuracy only in **coherent-representation condition** (i.e., when there is no conflict between the information making up the representation); In an incongruent condition, this association would disappear as the advantage would also disappear

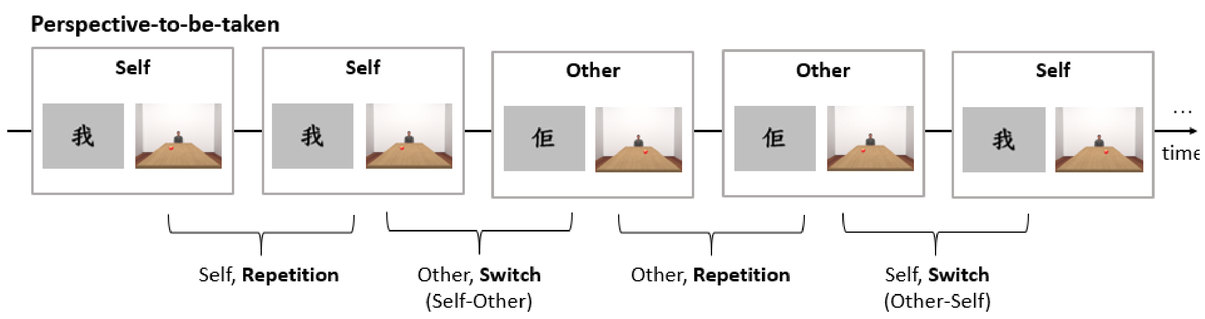
Method

Emotion Ascription Task

- **Systematic Manipulation** of Other-Representation Coherence using basic emotions of the same valence
- Anger and Disgust faces are paired with either congruent (e.g., anger face anger context), no-context (e.g. just anger face), or incongruent context (e.g. anger face disgust context)
- "What is this person feeling?" - anger/ disgust/ sadness/ fear

Visuospatial Perspective Shifting Task

- Paradigm from Chiu and Yeh (2018)
- 2 control processes: Self-to-Other Shift and Other-to-Self Shift, are distinguished due to different level of control required
- Shift Cost is calculated by subtracting the intertrial response latency in the repetition condition from the switch conditions (refer to figure below for examples of switch and repetition trials)
- Low switch cost = more flexible perspective shifting



Key Results

Emotion Ascription Accuracy		Perspective Shift Cost (RT)					
		Self-to-Other			Other-To-Self		
		r	*t*	*p*	*r*	*t*	*p*
Face-Context Congruence	Congruent	– .06	– 0.72	.471	– .26*	– 3.17	.002
	No-context	– .10	– 1.14	.256	– .26*	– 3.27	.001
	Incongruent	.13	1.59	.144	.05	0.55	.580

1. In **no-conflict condition (i.e., congruent and no-context**), swift perspective shifting (lower shift cost) significantly correlate with emotion ascription accuracy
2. The correlation became insignificant in the **incongruent condition**, where a coherent representation of another's emotional state cannot be formed
3. The moderating role was specifically between **other-to-self shift cost** and emotion ascription, but not in self-to-other shift

Discussion

1. Coherent Other-Representation is Important

- To ensure sufficient cognitive resources during the release of strong control (other-representation), internal coherence of other-representation is crucial

2. Double-edged Sword?

- Quick reconfiguration of representations at the point of perspective shifting requires stable and coherent representations because of little processing time
- Larger working memory capacity of swift perspective shifters enables the flexible shift between perspectives;
- However, in incongruent situations, swifter shifting may result in higher demands for flexible perspective shifters, and their tendency to bind task features together might hinder their swift perspective shifting's advantage in aligning perspectives for simulation

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