

Expressivity of Second Person Pronouns: Mandarin Chinese T/V Exchanges

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BACKGROUND

- Second-person pronouns convey indexical meaning, which maps onto the expressive dimension in Kaplanian use-conditional semantics to capture social meaning.
- T/V distinction** is the pervasive morphological distinction between informal and formal second-person pronouns that is named after Latin *tu* and *vos*.

EXPRESSIVES

- We preserve Potts (2007) multidimensional tuple architecture but expand the expressive "indices" (c_e) from tracking static speaker-states to tracking relative interactive dimensions: $\langle \text{Power, Solidarity, Formality} \rangle$, combining intuitions from Brown and Gilman (1960)'s dyadic model with later critiques concerning social context (Cinque, 2019).

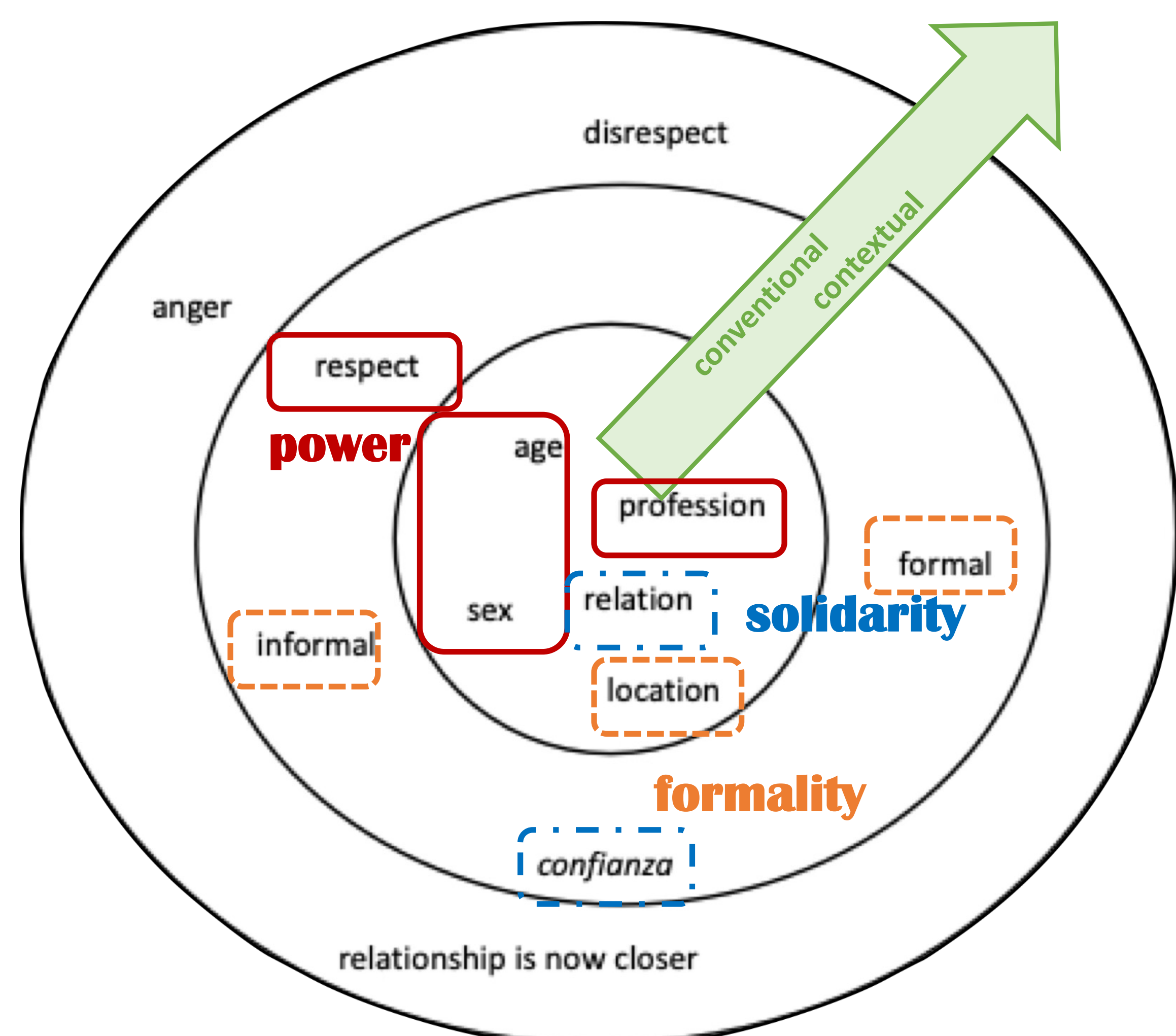


Figure 1: Sinnott (2013), p. 58: The Hierarchical Indexical Field of Address Forms

- Potts (2007) defines T/V forms as non-descriptive, conventional expressives:

$$\begin{aligned} \llbracket \text{FORMAL}(a) \rrbracket^c &= c', \text{ where } c \approx_{c_j, \llbracket V \rrbracket}^\dagger c' \\ \llbracket \text{FAMILIAR}(a) \rrbracket^c &= c', \text{ where } c \approx_{c_j, \llbracket T \rrbracket}^\ell c' \end{aligned}$$

- $\dagger$ represents the formal object; and
- ℓ represents the familiar object.

- Gradation via Ordinal Scales:** Indexical meanings vary in degrees of conventionality (Silverstein, 2003). While Potts (2007) originally suggested expressives' gradient nature via real-number interval updating, we model this variation on an **ordinal scale** rather than a binary or interval scale. This captures ordered, ranked degrees of social distance/deference without assigning arbitrary numerical values:

- $nín : \langle e, t \rangle \rightarrow \epsilon$
- $\llbracket nín \rrbracket^c$ is the function f such that $f(\llbracket a \rrbracket^c)(c) = c'$, where
 - $c' \approx_{c_j, \llbracket a \rrbracket^c}^\omega c'$;
 - ω represents an ordered honorific rank Ω ; and
 - $\omega_T < \omega_N < \omega_V$, capturing the ordinal step-up in expressivity.

- Projectivity via Predictability:** The degree to which an expressive projects depends on interpretations. T/V exchanges thus predict the possible meanings generated.

METHODOLOGY

Research question: How do Mandarin Chinese T/V forms shape hearers' inferences about social relations and contexts?

Experiment: Rating task

Participants (pilot N = 48) rated how likely it was that the two speakers:

- exhibit job rank asymmetry,
- are acquaintances, and
- are in an institutional setting.

These social attributes are summarized from a prior experiment where participants (N = 30) read conversations with different T/V exchanges and generated these interpretations as the most robust and conventionally decoded ones.

RESULTS

Data Preprocessing:

Pilot data showed a non-normal bimodal distribution (clusters at 25 and 75). Continuous 1–100 ratings were converted to a 5-point scale to match categorical perception.

Exchange	Power (β)	Solidarity (β)	Formality (β)
T-V	0.80 [0.44, 1.18]	-0.56 [-0.93, -0.20]	0.56 [0.17, 0.94]
V-T	0.36 [-0.01, 0.73]	-0.33 [-0.70, 0.04]	0.39 [0.01, 0.78]
V-V	0.31 [-0.06, 0.69]	-0.77 [-0.14, -0.40]	0.54 [0.16, 0.92]

Table 1: Bayesian Ordinal Regression Results (β with 95% Credible Intervals)

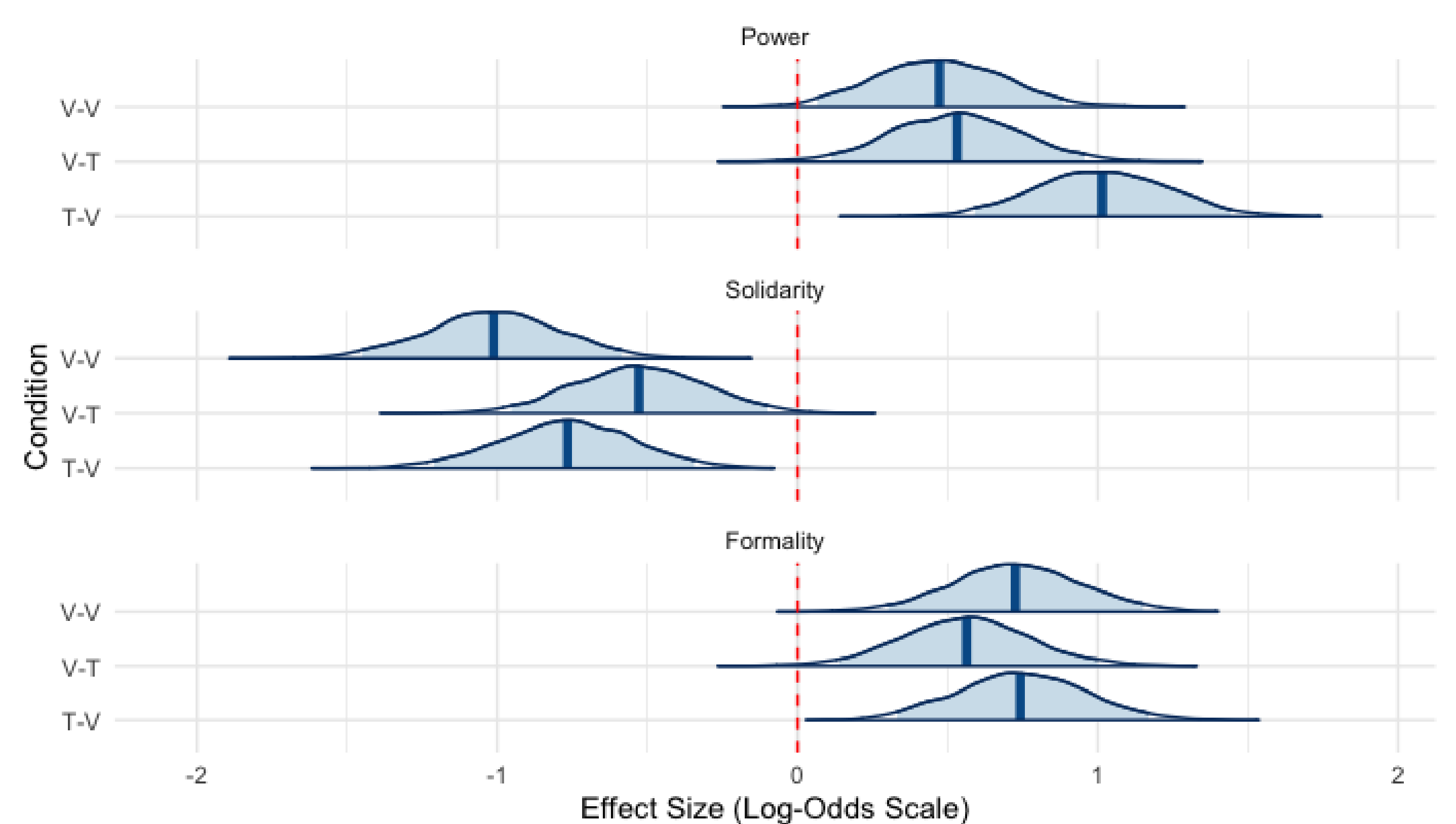


Figure 2: Ordinal model posterior predictions

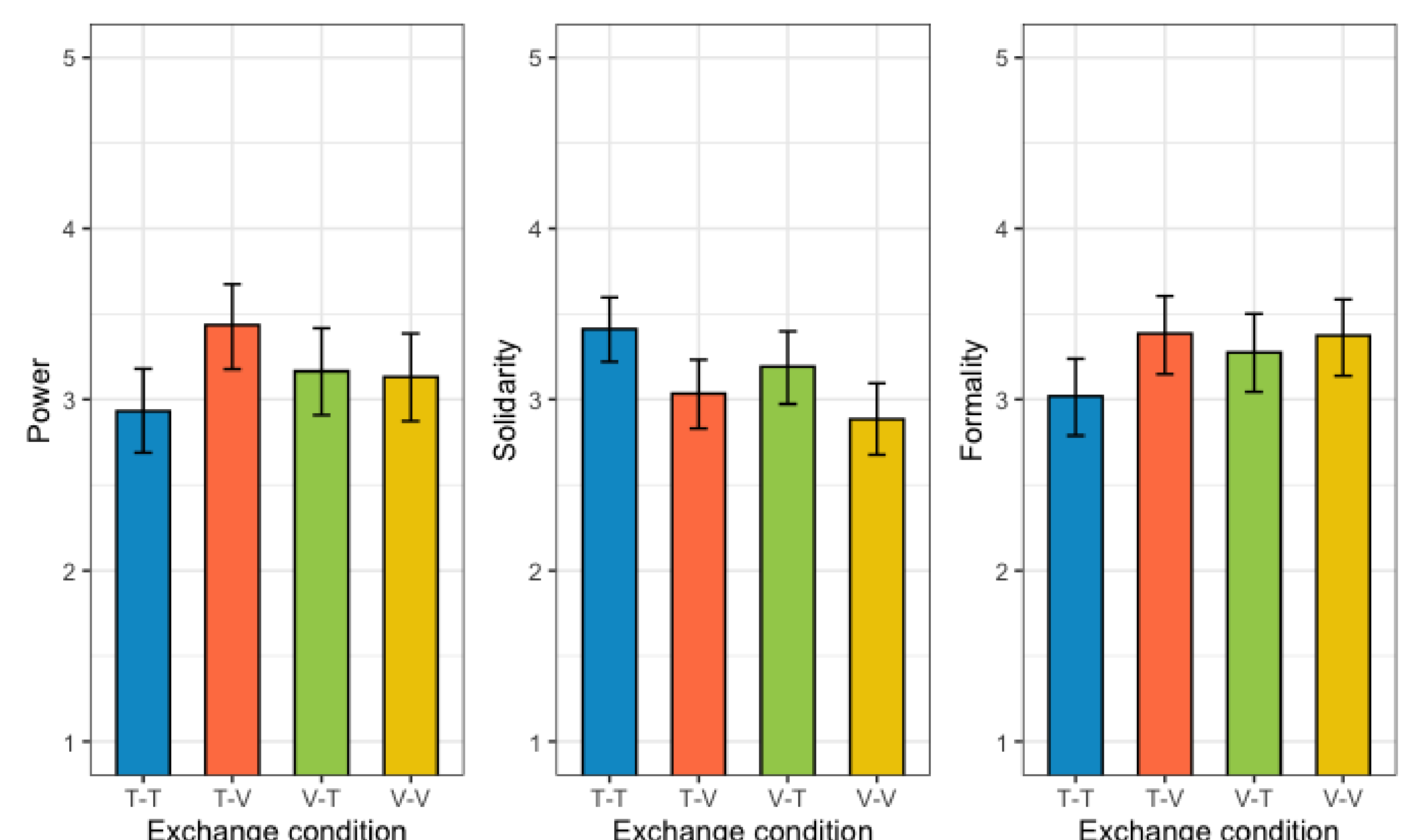


Figure 3: Indexical meanings across T/V exchanges

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