

Formula (simplified conceptual form):

$$\text{RRI} = 1 - \frac{|\Delta_{\text{tempo}} + \Delta_{\text{pause}}|}{\text{Total}_{\text{cycles}}}$$

This normalizes variance in turn-taking rhythm to produce a score between 0 and 1.

Interpretation:

A sustained RRI ≥ 0.82 indicates mutual regulation; below 0.6 suggests manipulation, fatigue, or emotional coercion.

2.

LSS — Language Symmetry Score

Definition:

A linguistic balance index measuring reciprocity in semantic weight, sentence length, and emotional polarity across turns.

Purpose:

LSS quantifies ethical symmetry in language. It exposes asymmetries of power in discourse — for example, when one speaker consistently dominates or emotionally burdens the other.

Formula (conceptual):

$$\text{LSS} = 1 - \frac{|\Sigma_{\text{valence}_{\text{A}}} - \Sigma_{\text{valence}_{\text{B}}}| + |\Sigma_{\text{complexity}_{\text{A}}} - \Sigma_{\text{complexity}_{\text{B}}|}{N}$$

Like RRI, it's scaled 0–1.

- High LSS = linguistic fairness.
- Low LSS = extraction or distortion.

Interpretation:

LSS ≥ 0.75 reflects mutual comprehension and fairness.

A drop below 0.5 signals that language is being used to control, not connect.

3.

Turning Ethics into Compliance

Together, RRI and LSS form the Relational Health Dashboard — a compliance metric for dialogue ethics.

They transform abstract ideals (respect, empathy, consent) into measurable values.

By monitoring these in real time, systems can audit whether communication remains sovereign, balanced, and non-exploitative.
