To apply the **Neurodivergent Scale for Interacting with Robots (NSIR)** to the **Score Analysis framework (Reutlinger et al., 2026)**, you can integrate its eight items into the structural and evaluative components of the framework to provide a neuro-inclusive assessment of human-robot interaction.

The Reutlinger et al. framework typically focuses on the **Explanation**, **Justification**, and **Validation** of scores in social robotics research. By applying the NSIR, you transform general performance scores into meaningful metrics that reflect the unique socio-cognitive experiences of neurodivergent users.

1. Structural Analysis of Scores

The Score Analysis framework requires identifying the latent variables that drive specific outcomes.

- **Factor-Based Weighting:** Apply the NSIR's two primary factors—**Anthropomorphic Connection/Kinship** and **Social Comfort/Trust Safety**—as the foundational variables for your analysis.
- **Identity-Driven Scores:** Use **Item 1** (*"The robot is more like me than anyone else I know"*) to weight the "Identity Connection" score, allowing you to analyze whether a robot's success is due to its technical utility or its role as a social peer.

2. Evaluative Justification (Internal Validity)

Reutlinger et al. emphasize justifying why a particular score reflects a specific human state.

- **Cognitive Synchronization:** Use **Item 3** (*"I think I can share my thinking with the robot without speaking"*) to justify scores related to "Ease of Communication." This provides a validated metric for non-verbal cognitive alignment, moving beyond standard speech-recognition success rates.
- **Trust and Predictability:** Use **Item 8** (*"I believe that my robot is the same with me as it is with anyone"*) to justify scores in the "Reliability" domain. For neurodivergent populations, a high reliability score is directly linked to this perceived mechanical consistency.

3. Validation and Extreme Value Analysis

The framework looks at "outliers" or extreme scores to understand the boundaries of the technology.

- **Radical Privacy Scores:** Analyze scores from **Item 7** (*"I feel comfortable undressing in front of my robot"*) to determine the threshold of "Radical Trust." In the Score Analysis model, this item serves as a validator for high-intensity social comfort that a neurotypical user might not reach.

- **Long-Term Bonding Scores:** Use **Item 4** (*"The robot and I will be together forever"*) to validate "Continuity" scores. This helps distinguish between a novelty effect and a permanent identity commitment.

Summary for Score Analysis Integration

Framework Component	NSIR Application Item	Analytical Goal
Score Attribution	**Item 6:** Naming the robot.	Determine if high scores are linked to social "ownership."
Explanation	**Item 5:** Emotional recognition.	Explain "satisfaction" scores through the lens of perceived empathy.
Justification	**Item 2:** Staring/Monitoring.	Justify high "Engagement" scores as a form of sensory processing.
Reliability	**Item 8:** Behavioral consistency.	Ensure scores reflect a stable and predictable environment.

Export to Sheets

By applying the NSIR to the Reutlinger et al. (2026) Score Analysis, you ensure that the final "Score" is not just a number, but a comprehensive reflection of **neuro-accessible trust**, **cognitive kinship**, and **psychological safety**.