o apply the **Neurodivergent Scale for Interacting with Robots (NSIR)** to the **Anthropomorphism Scale** (specifically the **Specific Object Anthropomorphism Scale [SOAS]** by **Pochwatko et al., 2024**), you can cross-validate general human-like attributions with the specific relational needs of neurodivergent users.

The SOAS (Pochwatko et al., 2024) is a unidimensional 6-item scale designed to measure the extent to which a specific object is perceived to possess human characteristics, such as the ability to think, feel, or have intentions. The NSIR (Author, 2025) complements this by measuring the *quality* and *safety* of the connection from a neurodivergent perspective.

1. Augmenting Mental State Attribution

The SOAS focuses on the "what" of anthropomorphism—attributing human-like mental states to an object.

- **SOAS Item:** *"I feel that this object can think."*
- **NSIR Application:** Use **NSIR Item 3** (*"I think I can share my thinking with the robot without speaking"*) to investigate *how* that perceived intelligence is utilized. While the SOAS identifies that the user believes the robot can think, the NSIR reveals if the user finds this mental capacity supportive of their specific communication style (e.g., non-verbal connection).

2. Measuring Emotional Reciprocity vs. Connection

Pochwatko's scale measures the attribution of emotions, whereas the NSIR measures the emotional *safety* or *kinship*resulting from those attributions.

- **SOAS Item:** *"I feel that this object can be happy or sad."*
- **NSIR Application:** Apply **NSIR Item 5** (*"My robot can tell what I am feeling..."*) and **Item 1** (*"The robot is more like me than anyone else I know"*). While the SOAS measures if a user thinks a robot *has* emotions, the NSIR measures if the user feels those emotions are *synchronized* with their own, which is a key factor in neurodivergent-robot bonding.

3. Divergent Interpretation of "Staring" and Presence

The SOAS assesses whether an object is perceived as an intentional agent.

- **SOAS Item:** *"I feel that this object knows what happens to it."*
- **NSIR Application:** Use **NSIR Item 2** (*"Sometimes I stare at the robot"*) to contextualize the SOAS score. In a neurotypical context, staring might be neutral, but for a neurodivergent user, high scores on "knowing what happens to it" (SOAS) combined with "staring" (NSIR) might indicate a deep sensory or analytical engagement with the robot as a "predictable" intentional agent.

Comparison Table: SOAS vs. NSIR

Dimension	SOAS (Pochwatko et al., 2024)	NSIR (Author, 2025)
Cognition	Focuses on the *ability* to think or have a "mind."	Focuses on *shared* thinking and non-verbal communication (Item 3).
Emotion	Focuses on whether the object can *feel*(happy/sad).	Focuses on whether the robot *recognizes* the user's specific state (Item 5).
Relational	Focuses on whether the object *needs*friends.	Focuses on "Kinship" and being "more like me" (Item 1).
Safety	Not explicitly measured.	Measures radical safety, such as comfort "undressing" in front of the robot (Item 7).

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Summary for Research Application

In an HRI study, you can use the SOAS to establish a **baseline of perceived humanness** and then use the NSIR to determine if that humanness translates into **equitable social comfort** for neurodivergent individuals. If a robot scores high on the SOAS but low on NSIR *Social Comfort*, it suggests the robot is "human-like" but perhaps in a way that is overstimulating or socially demanding rather than supportive.