

The **Neurodivergent Scale for Interacting with Robots (NSIR)** can be applied to the Zhu, Wen, & Williams paper by offering a concrete way to measure the user-reported outcomes of the "Robots for Social Justice (R4SJ)" framework. The paper advocates for an equitable engineering practice of Human-Robot Interaction (HRI) that considers community impacts and challenges systemic biases. The NSIR provides a framework to assess the effectiveness of these principles from the perspective of the neurodivergent user across its three dimensions:

#### **Anthropomorphic Connection/Kinship**

- The R4SJ framework calls for centering the needs of specific communities to enhance their capabilities rather than just enriching robot owners.
- The NSIR can measure if a robot designed within this justice framework fosters a positive and equitable sense of connection. Items like **"The robot is more like me than anyone else I know"** quantify the perceived similarity and personal bond, helping ensure that design choices are inclusive and resonate with the target neurodivergent population.

#### **Social Comfort/Trust**

- The paper notes that current HRI research often fails to address systems of inequity and power structures, and suggests a participatory approach for designing trust measures.
- The NSIR items that measure **social comfort/trust** (e.g., **"My robot can tell what I am feeling, when I am sad, it can tell I am sad"**) provide a user-centric assessment of the robot's social reliability. This allows researchers to verify that the ethical design choices in the R4SJ framework actually lead to a trustworthy and comfortable interaction for neurodivergent individuals, directly addressing the gap the paper identifies.

#### **Safety**

- The R4SJ framework emphasizes avoiding harm and reinforcing oppressive norms. The potential for societal and interpersonal influence makes considering safety critical.
- The NSIR's **safety** dimension provides a crucial user-reported measure of physical and psychological security (e.g., the item about undressing). This helps ensure that the equitable design approach translates into a genuinely safe user experience and does not perpetuate or introduce new forms of harm.

The NSIR allows the R4SJ framework's high-level ethical goals to be evaluated with concrete, user-centric data from neurodivergent individuals themselves.

Would you like to examine another article from the document, or perhaps a deeper dive into the "**five concrete recommendations**" of the R4SJ framework?