The **Neurodivergent Scale for Interacting with Robots (NSIR)** can be applied to the work of **Watson, Clark, & Tellegen (1988)** by providing a user-centric measure of the quality of human-robot interaction (HRI) within the framework of their established **Positive and Negative Affect Schedule (PANAS)**.
The PANAS is a widely used scale that measures general positive affect (PA, e.g., feeling "excited", "strong") and negative affect (NA, e.g., feeling "stressed", "nervous") as two independent dimensions. The NSIR's dimensions can be correlated with the PANAS scores to assess the emotional outcomes of HRI for neurodivergent users:

Anthropomorphic Connection/Kinship

- The NSIR measures the personal bond and perceived similarity with a robot. Users who score high on the PANAS's Positive Affect subscale might be more inclined to form a strong connection and "humanize" the robot.
- NSIR items like **"The robot is more like me than anyone else I know"** (Item 1) and **"I gave my robot a name"** (Item 6) could be correlated with PA scores to understand if a positive emotional state enhances the sense of kinship.

Social Comfort/Trust

- A core aspect of the PANAS is measuring states of general distress (NA) versus calmness and serenity (low NA). The NSIR's **social comfort/trust** dimension directly relates to these emotional states.
- Users experiencing lower NA would likely report higher social comfort and trust. Items such as **"My robot can tell what I am feeling, when I am sad, it can tell I am sad"**(Item 5) and **"I believe that my robot is the same with me as it is with anyone"**(Item 8) can be used to assess how a reliable and consistent robot interaction contributes to a user's sense of calmness (low NA) and pleasurable engagement (high PA).

Safety

- High negative affect is associated with feelings of fear, nervousness, and general distress. The NSIR's **safety** dimension provides a user-reported measure of security.
- NSIR items related to safety (Item 7: **"I feel comfortable undressing in front of my robot"**) would likely correlate with lower scores on the NA subscale of the PANAS, indicating that a safe interaction environment leads to reduced fear and anxiety.

The NSIR allows researchers to use the well-established PANAS framework to measure the *emotional consequences* of specific robot interactions for a neurodivergent population, moving beyond general attitudes to specific affective states.

Would you like to explore another article from the document, or perhaps a deeper dive into the specific **adjectives** used in the PANAS scale?

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Positive and Negative Affect Schedule (PANAS) scale can be correlated with the NSIR items to measure the user's emotional state resulting from the human-robot interaction.

Positive Affect (PA) Adjectives and the NSIR

PA adjectives like **interested, excited, strong, enthusiastic, proud, alert, inspired, determined, attentive**, and **active** reflect a user's pleasurable engagement with the robot.

- **Anthropomorphic Connection/Kinship**: High scores on PA (e.g., feeling **enthusiastic**or **excited**) would likely correlate with higher scores on connection items like **"The robot is more like me than anyone else I know"** or **"I gave my robot a name"**, indicating an engaging and enjoyable bond is forming.

- **Social Comfort/Trust**: Feeling **attentive** or **alert** might be associated with a healthy, engaged interaction that builds comfort. This would likely correlate with items like **"My robot can tell what I am feeling, when I am sad, it can tell I am sad"**, showing a positive perception of the robot's social skills.

Negative Affect (NA) Adjectives and the NSIR

NA adjectives such as **distressed, upset, guilty, scared, hostile, irritable, ashamed, nervous, jittery**, and **afraid** indicate general distress and unpleasant emotional engagement.

- **Anthropomorphic Connection/Kinship**: High scores on NA (e.g., feeling **hostile** or **irritable**) would likely correlate with lower scores on connection items, as a negative emotional state hinders the formation of a positive bond.

- **Social Comfort/Trust**: Feelings of being **nervous**, **scared**, or **jittery** would directly impact perceived comfort and trust. This would correlate negatively with items like **"I believe that my robot is the same with me as it is with anyone"**, as the user's anxiety suggests a lack of trust and a feeling of being upset by the interaction.
- **Safety**: An underlying feeling of being **afraid** or **scared** would directly translate to a low score on the safety dimension, such as the item **"I feel comfortable undressing in front of my robot"**.

The NSIR can effectively measure the subjective experience of the interaction, providing data that can be validated against the established PANAS scale to ensure the emotional outcomes for neurodivergent users are positive.
Would you like to explore another article from the document, or perhaps a deeper dive into the specific **mechanisms** by which these emotions are triggered in HRI?