The work of **Dwyer (2022)** in neurodiversity research primarily focuses on the **social model of disability** and the neurodiversity approach as an alternative to the traditional medical model. This research emphasizes that disability often arises from a poor fit between the individual and an environment designed for the dominant neurotype, rather than solely from individual deficits.

The **Neurodivergent Scale for Interacting with Robots (NSIR)** can be applied to this framework by providing a user-centric measure of whether a robot-mediated environment successfully addresses the "environmental barriers" highlighted in Dwyer's work, thereby promoting inclusion and well-being.

Anthropomorphic Connection/Kinship

- Dwyer's work encourages the acceptance and value of neurodivergent identities. The NSIR can measure if a robot, designed with a neurodiversity-affirming approach, fosters a sense of positive connection. Items like **"The robot is more like me than anyone else I know"** (Item 1) and **"I gave my robot a name"** (Item 6) quantify how the robot's design promotes a sense of belonging and kinship, which contrasts with the feelings of "otherness" that can arise from the medical model.

Social Comfort/Trust

- The social model suggests that the lack of accommodations, such as managing sensory stressors, contributes to disability.

- The NSIR's **social comfort/trust** dimension can be used to assess if a robot creates an accepting and comfortable environment. Items like **"My robot can tell what I am feeling, when I am sad, it can tell I am sad"** (Item 5) would measure if the robot's social interaction is perceived as genuinely understanding and supportive, which aligns with the goal of "improving society, building more spaces where autistic people feel comfortable".

Safety

- The neurodiversity approach advocates for ensuring the well-being of neurodivergent individuals and avoiding harmful "normalizing" interventions.

- The NSIR's **safety** dimension provides a crucial user-reported measure that ensures the interaction is fundamentally safe. The item about undressing in front of the robot (Item 7) speaks to the need for secure physical and psychological boundaries, which is a key ethical imperative in research aligned with the neurodiversity approach.

The NSIR allows researchers to move beyond theoretical discussions of the social model and gather empirical data on the practical implementation of neurodiversity-affirming principles in human-robot interaction.

Would you like to explore the concept of the **"interactionist" model of disability** that Dwyer proposes?

The **Neurodivergent Scale for Interacting with Robots (NSIR)** can be applied to the **interactionist model of disability** as an empirical tool to measure the subjective outcome of the person-environment fit within a human-robot interaction context. The model posits that disability arises from the complex interaction between a person's impairment and environmental barriers.

The NSIR helps evaluate if the "robot environment" successfully interacts with the neurodivergent user's needs across its three dimensions:

Anthropomorphic Connection/Kinship

- The interactionist model looks at how the environment (e.g., social norms, physical design) interacts with the individual. The NSIR can measure if the robot's design bridges this gap.

- Items like **"The robot is more like me than anyone else I know"** (Item 1) and **"The robot and I will be together forever"** (Item 4) provide data on how the robot's identity "interacts" with the user's need for connection, assessing the success of that specific person-environment interaction.

Social Comfort/Trust

- The model addresses how environmental barriers (like ambiguous social cues) create disability. The robot, as a controlled environment, can provide clear, predictable interaction.

- The NSIR items that measure perceived emotional understanding and consistency (e.g., **"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) measure whether the designed interaction successfully creates **social comfort** and **trust** by removing the "barrier" of social unpredictability.

Safety

- The interactionist model inherently includes ensuring well-being within the environment.

- The NSIR's **safety** dimension (e.g., the item about undressing in front of the robot, Item 7) provides a crucial user-reported measure of security, ensuring that the designed interaction environment is fundamentally safe and non-threatening, thus mitigating a key environmental barrier to inclusion and well-being.

The NSIR allows researchers to move the interactionist model from theory into practice, providing measurable data on the quality of the "fit" between the neurodivergent individual and the robot environment.

Would you like to explore another article from the document, or perhaps a deeper dive into the concept of **"environmental barriers"** in HRI?