

The study by **Chojnicka and Wawer (2025)** and the **Neurodivergent Scale for Interacting with Robots (NSIR)** represent two parallel advancements in the "objective" versus "subjective" evaluation of autism. While Chojnicka and Wawer use deep neural networks (DNNs) to decode autism from **written narratives**, the NSIR evaluates the **social-emotional bond** an individual forms with a technological agent.

The application of the NSIR to the Chojnicka and Wawer study can be understood through the following three frameworks:

## 1. Narrative Content vs. Social Bond

Chojnicka and Wawer's research demonstrates that DNN models can achieve over 85% accuracy in identifying autistic students based on their exam essays.

- **The Scale's Application:** The NSIR measures the *quality* of interaction that might produce such narratives. For instance, **Item 3** ("I think I can share my thinking with the robot without speaking") and **Item 5** ("My robot can tell what I am feeling") highlight the "inner world" that Chojnicka and Wawer's AI is attempting to analyze through text.
- **Refining the AI:** If the AI models from the 2025 study were trained on texts describing the user's relationship with a robot, the NSIR factors (Anthropomorphic Connection vs. Social Comfort) could serve as **labels** to help the AI understand *why* certain linguistic patterns emerge in neurodivergent writing.

## 2. Pragmatic Language and "Social Comfort"

A core finding of the Chojnicka and Wawer study is that challenges in the **pragmatic (social) use of speech** remain consistent markers of autism, even in written form.

- **Bridging the Gap:** The NSIR's **Factor 1 (Social Comfort/Trust Safety)** measures the user's relief from these very social challenges. **Item 8** ("I believe that my robot is the same with me as it is with anyone") suggests that the robot provides a "judgment-free" social environment.
- **Linguistic Implications:** The "lower level of language abstraction" often found in autistic narratives might be mitigated if the individual feels the high level of "kinship" measured by the NSIR. In this way, the scale helps explain the **environmental context** that shapes the data Chojnicka and Wawer are analyzing.

## 3. Towards a "First-Person" AI Diagnostic

Chojnicka and Wawer argue that their work paves the way for "large-scale and cost-effective epidemiological studies". However, the NSIR acts as a critical **ethical counterpoint**:

- **Subjectivity vs. Objectivity:** While Chojnicka and Wawer focus on the *objective* ability of an AI to "spot" autism, the NSIR prioritizes the *subjective* comfort of the individual.
- **Integrated Care:** Future diagnostic tools could use the DNNs from Chojnicka and Wawer to screen narratives, while simultaneously using the NSIR to ensure the screening

process (or the AI agent conducting it) is maintaining a safe and trusting bond with the user.

Chojnicka & Wawer (2025) Study

**Focus:** Identifying ASD via "written narratives" (essays).

**AI Role:** An objective classifier of communication deficits.

**Goal:** Cost-effective, large-scale screening.

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NSIR Scale (2025) Application

**Focus:** Measuring "Social Comfort" and "Kinship" with AI.

**AI Role:** A "safe" social partner that can tell what a user is feeling (Item 5).

**Goal:** Ensuring technology respects neurodivergent social preferences.

In summary, the NSIR provides the **human-centric context** for the linguistic patterns that Chojnicka and Wawer's deep learning models are trained to detect. It suggests that a neurodivergent individual's written narrative may be a reflection of their level of "Trust Safety" with the world around them.