The **Neurodivergent Scale for Interacting with Robots (NSIR)** can be applied to the work of Allan & Gilbert's 1997 paper by providing a user-centric way to measure the outcomes of social conflict and submissive behavior dynamics within human-robot interactions.

The paper, titled "*Submissive behaviour and psychopathology*", focuses on developing and refining the **Submissive Behavior Scale (SBS)** and the **Conflict De-escalation Strategies (CDS)** scale. The research found that specific forms of submissive behavior, especially passive withdrawal and inhibition, were linked to various psychological problems. The NSIR's dimensions are highly relevant for assessing these dynamics when applied to robot design:

Anthropomorphic Connection/Kinship

- The paper explores how social behaviors like submission function within human relationships and link to identity and psychopathology.
- The NSIR can measure if embedding these specific rank-related or conflict-avoidant behaviors in a robot makes it more or less relatable. Items like **"The robot is more like me than anyone else I know"** (Item 1) would quantify how a neurodivergent individual perceives the robot's social identity based on these cues.

Social Comfort/Trust

- Allan & Gilbert found that submissive behavior is an appeasing strategy to avoid threat. This behavior aims to manage social conflict to maintain a degree of safety and comfort.
- The NSIR's **social comfort/trust** dimension could assess if a neurodivergent user feels comfortable and trusting with a robot designed with "submissive" or "passive/withdrawal" behaviors. Measuring items such as **"I believe that my robot is the same with me as it is with anyone"** (Item 8) could also ensure that the robot's conflict-avoidant strategy is perceived as a consistent and fair design feature rather than a form of unpredictable manipulation.

Safety

- The original research found strong links between submissive behavior, feelings of inferiority, and psychopathology, highlighting a vulnerability. In HRI, this translates directly to user well-being and safety.

- The NSIR's **safety** dimension (e.g., the item about undressing in front of the robot, Item 7) provides a crucial user-reported measure that ensures the design of social robots with complex social behaviors does not compromise the fundamental physical and psychological safety of the user.

The NSIR translates the psychometric and social dynamics theories of Allan & Gilbert into measurable, user-centric data for evaluating modern human-robot interaction in a specific population.
Would you like to examine how the scale applies to another article from the document, or perhaps compare the **Submissive Behavior Scale** with the **Conflict De-escalation Strategies** scale?