

Outcome Measure	Social Attribution Task-MC/ The Animation task
Sensitivity to Change	Not known
Population	Adult
How to obtain	Available from the authors
Domain	Social Cognition
Type of Measure	Objective test
Time to administer	10 minutes
Description	<p>The Social Attribution Task (SAT)</p> <p>The SAT (A. Klin, 2000; Ami Klin & Jones, 2006) is an adaption of the original Himmel and Siedler cartoons. The participant is shown the full video (approx. 60 seconds) twice, asked for a verbal explanation and then six segments sequentially and asked for 6 further explanations. The responses are rated according to a detailed scoring system developed by the authors that provides a range of indices (Pertinence, Saliency, ToM, ToM affective, Animation, Person and Problem solving). Bell (Bell, Fiszdon, Greig, & Wexler, 2010) reports the use of a SAT- Multiple choice format (SAT-MC) also attributed to Klin and colleagues. In this the same presentation format is followed but participants are asked 19 multiple choice questions. (e.g. What is the little triangle trying to do? (a) help the little circle, (b) help the big triangle, (c) play with the circle and triangle, (4) lock the door. According to (Pinkham, Harvey, & Penn, 2018) there are two parallel versions of the task.</p> <p>The Animation Task (AT) (Abell, Happe, & Frith, 2000) was developed based on the original Himmel and Seidler movie. It comprises 15 video clips 34-54 seconds long, with three types (4 exemplars each): physical movement, random movement and mentalising. The participant is asked "What happened" and their verbal responses are transcribed and rated according to 3 dimensions (see (Lugnegard, Unenge Hallerback, Hjarthag, & Gillberg, 2013) for complete explanation.</p> <p><u>Appropriateness</u> (0-3) 0=no answer or "I don't know"; 1=inappropriate answer, i.e. wrong type of interaction or focus on minor aspect; 2=partial description; 3= precise description of the actions).</p> <p><u>Intentionality</u> (0-5) which categorises whether verbs correctly match the actions (0=non-deliberate action; 1=deliberate solitary action; 2 =deliberate action with somebody else; 3=deliberate action in response to others actions; 4=deliberate action with reference to mental states; 5=deliberate action with explicit goal of effecting other's mental state.</p> <p><u>Length</u> (0-4): The scripts are also rated for length from) to 4 (for four or more clauses).</p> <p>An alternate scoring system (White, Coniston, Rogers, & Frith, 2011) provides a score of 1-12 for correct categorisation of story as (1) no interaction; (2) physical interaction or (3) mental interaction. For those ToM vignettes answered correctly, categories there were two additional "feeling" questions with multiple choice answers. Thus, the score ranged from 0-12 (category) + 0-8 (feeling questions).</p>
Properties	<p>The SAT</p> <p><u>Internal consistency</u></p> <p>There is no published data on internal consistency for the subjective rating system. The MC version has reported coefficient alpha between .74 (Pinkham et al., 2018) and .83 (Bell et al., 2010).</p> <p><u>Inter-rater reliability</u>: ICCs for 2 raters for rating the free verbal response has been reported to be .76-.90 across all the indices (A. Klin, 2000) and between .87-.90 for the Saliency index specifically (A. Klin, 2000; Ami Klin & Jones, 2006).</p>

	<p><u>Test-retest reliability:</u> Reported to be .55 for approx. 2-week interval for the MC version (Pinkham et al., 2018). Note this is based on the presentation of two parallel versions of the task. There was also a difference found between the versions (ES = .49).</p> <p><u>Construct validity:</u> The SAT-MC is significantly correlated with the BLERT ($r = .47$) and the Hinting task ($r = .37$). It was reportedly not associated with IQ in combined samples of healthy adults and adolescents/adults with ASD (A. Klin, 2000; Ami Klin & Jones, 2006) but was found to be significantly associated with a range of neuropsychological test scores in a sample of people with schizophrenia (Bell et al., 2010).</p> <p><u>Discriminant validity:</u> The original SAT discriminates between people with ASD and demographically matched control participants (A. Klin, 2000; Ami Klin & Jones, 2006). The MC version also differentiates people with schizophrenia from healthy adults (Bell et al., 2010; Pinkham et al., 2018)</p> <p><u>Concurrent validity:</u> The SAC-MC was found to be significantly correlated with financial and communication skills (the UPS A-B: $r = -.265$) and social skills (the SSPA: $r = .329$ in people with schizophrenia. It did not correlate with a measure of real-world function (the SLOF)(Pinkham et al., 2018).</p> <p><u>Normative data:</u> Norms for the MC version are provided for 154 adults (Pinkham et al., 2018) and 85 adults (Bell et al., 2010).</p> <p>The Animations Task</p> <p><u>Internal consistency</u></p> <p>There is no published data on internal consistency</p> <p><u>Inter-rater reliability:</u> ICCs for 2 raters rating intentionality and appropriate ness responses were .83 and .70 respectively i.e. (96% and 76% of responses rated as identical or 1 point different on a 6-point scale) (White et al., 2011). Kappas have been reported for intentionality and appropriateness as between .74 (Eddy & Cavanna, 2015) and .92 (Castelli, Frith, Happe, & Frith, 2002).</p> <p><u>Test-retest</u></p> <p>There is no published data on test-retest reliability.</p> <p><u>Construct validity</u></p> <p>There is very little evidence for the convergent validity of the AT. It correlates significantly with phonemic fluency in people with HD but not with other neuropsychological measures (Eddy & Rickards, 2015). Few studies have reported its relationship with other ToM measures.</p> <p><u>Discriminant validity</u></p> <p>The AT reportedly differentiates adults and children with ASD from demographically matched controls (Abell et al., 2000; Castelli et al., 2002; Lugnegard et al., 2013; White et al., 2011) and also people with schizophrenia (Abell et al., 2000) and Huntington’s Disease (Eddy & Rickards, 2015). People with Tourette’s have been found to hyper-mentalise, i.e. see mentalising in random interactions (White et al., 2011).</p> <p><u>Concurrent validity</u></p> <p>The AT is related to burden of pathology in people with HD (Eddy & Cavanna, 2015).</p> <p><u>Normative data</u></p> <p>Normative data for the rating of verbal responses is available in several of the experimental studies including (White et al., 2011) (N = 15) (Abell et al., 2000) (N = 14 adults and 15 children), (Castelli et al., 2002) (N=10), (Eddy & Rickards, 2015) (N = 30) and (Lugnegard et al., 2013) (N =50).</p>
Advantages	<ul style="list-style-type: none"> • Both tasks have minimal verbal comprehension requirements

	<ul style="list-style-type: none"> • Both tasks have a free response and also a multiple-choice version with detailed scoring procedures. • High IRR is reported for both scoring systems.
Disadvantages	<ul style="list-style-type: none"> • Psychometrics are not well established for either task • The free response scorings systems are detailed and complex. • Little normative information for the AT.

References

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