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# Assessing Joint Engagement in Toddlers: Observations and Ratings Compared

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## Systematic Observation Takes Time

Observation of children's social behavior—asking trained and reliable observers to assign behavioral codes to events or time intervals—is a common measurement strategy among behavioral scientists.

### Observation Pro

Its proponents claim greater **objectivity** (than narrative reports) and more **naturalness** (than manipulated experiments)—as well as the ability to produce moment-by-moment coding that can address questions of **sequential process**,

### Observation Con

Its detractors note the **resources and time required** (e.g., 10 minutes of observation may take more than 100 minutes to code).

## Rating Is Quicker

Using ratings items—asking trained and reliable observers to assign ratings to a number of items after an observational session—provides a potentially **time-saving** alternative (e.g., 10 minutes of observation may take only a few additional minutes to rate, even if several items are rated).

## But are observational and rating data of similar quality?

To address this question, we asked observers to rate several items related to caregiver-child interactions. Four of those items rated the child's joint engagement. These items corresponded to observational codes used earlier. This allowed us to assess the validity of the rating items.

## Participants and Procedure

56 **TD** typically developing 18-mo olds,  
23 **AU** 30-mo olds with autism, and  
29 **DS** 30-mo olds with Down syndrome  
were video recorded with their caregiver during the **Communication Play Protocol**, a semi-structured series of six 5-min scenes that facilitate communication (e.g., interacting, requesting, commenting).

Items reliably rated 1-7 included:

- **Total joint engagement** (child shares object with caregiver)
- **Supported joint engagement** (child shares object without acknowledging caregiver)
- **Coordinated joint engagement** (child actively attends to both caregiver and shared object)
- **Symbol-infused joint engagement** (child's joint engagement includes attention to symbols such as language)

## Results

Scores derived from ratings correlated strongly ( $p < .001$ ) with the corresponding percentages derived from observation, both for the total sample and separately for each diagnostic group (see table).

## Correlations Between Corresponding Rating Scale Items and Observational Codes

Corresponding item and code	By diagnostic group			
	Total	TD	AU	DS
Total joint engagement	.75	.75	.86	.54
Supported joint engagement	.67	.63	.71	.73
Coordinated engagement	.86	.77	.70	.79
Symbol-infused joint eng.	.89	.85	.97	.85

## Conclusions

Observation and rating **can provide comparable data** about toddlers' engagement states during social interactions, although each has different strengths. (Analyses of engagement state ratings replicated analyses of observational percentages.)

**Systematic coding** is required to explore the structure of social interactions, but less time-consuming **rating scales** can facilitate the relatively rapid capture of broader, potentially more nuanced summary information.

In our current study of joint engagement, the use of rating items allows us to broaden our data capture to include, e.g., ratings of affect, caregiver scaffolding, and topic scope.



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## Reference

For details of observational study see: Adamson, Bakeman, Deckner, & Ronski (2009). Joint engagement and the emergence of language in children with autism and Down syndrome, *Journal of Autism and Developmental Disorders*, 39, 84–96

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