**Proper Artifact Use: The Action-Protest Paradigm**

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**Method**

Participants:
23 children aged between 3 and 5 years (mean = 3.5 years; range = 3.1 – 5.2), 9 males, 14 females were observed in a testing session which took place in a nursery or school setting.

Procedure:
Children were randomly allocated to 1 of 3 conditions in which three familiar objects, toothbrush, baby bottle and crayon, had a different function.

Each condition consisted of a familiarisation phase followed by a test phase. Within each condition, the familiarisation function and test function were counterbalanced. All demonstrations were carried out by two puppets ‘Sam’ and ‘Sally’.

Function knowledge check: At the end of each trial children were asked, “What is a toothbrush used for? What is a bottle used for? What is a crayon used for?” All sessions were videotaped for coding.

**Measures:**

Scores for expressions of normative protest:
- **Overt protest (2 points):** E.g., explicit telling off, “No! It’s not for that!”
- **Implicit protest (1 point):** E.g., laughing at Sally’s use of the objects, scrutinising Sally’s behaviour by looking quizzically at what she was doing with the objects.

**Predictions:**

1. If Casler and colleagues are correct then toddlers should only protest when the conventional function is violated.
2. However, if toddlers are simply protesting against a violation of the artifact’s use ‘in this context’, then it would appear that whilst children do have a normative awareness regarding conventional function they are quite flexible in terms of the use of an object across different function contexts.

**References:**


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**Background**

- Research suggests that there is shared agreement among a community about the conventionalised functions of artifacts based upon how a community uses that object (German, Truxaw & Defeyter, 2007; Seston, Kelemen, & DiYanni, submitted).
- Casler, Terziyan & Greene (2009) used Rakoczy, Warneken & Tomasello, (2008) action-protest paradigm and suggest that toddlers demonstrate a normatively defined awareness that there are right and wrong ways to act upon objects.
- However, Casler and colleagues always demonstrated the conventional function during the familiarisation phase, followed by a puppet demonstrating an alternate function during the test phase.

**Instrumental Function**

- Jabbing - Cleaning teeth
- Drawing circles - Drinking
- Tapping - Drawing

**Idiosyncratic Function**

- Brushing hair - Cleaning teeth
- Rolling dough - Drinking
- Stirring mixture - Drawing

**Conventional Function**

- Jabbing - Brushing hair
- Drawing circles - Rolling dough
- Tapping - Stirring mixture

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**Idiosyncratic- Conventional**

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<th>Idiosyncratic- Conventional</th>
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<th>Rolling dough - Drinking</th>
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