

# [Research Plan] Individual differences in curiosity: an ontological framework

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## How is curiosity measured?

### 1. Lab-based curiosity-induction tasks

#### Trivia paradigm<sup>1,2</sup>

|  |   |
|--|---|
| What does the term "dinosaur" actually mean? | How curious are you about the answer?<br>1 2 3 4 5 <b>6</b> 7 |
| Answer: <input type="text"/>                 | Answer: <input type="text" value="terrible lizard"/>          |

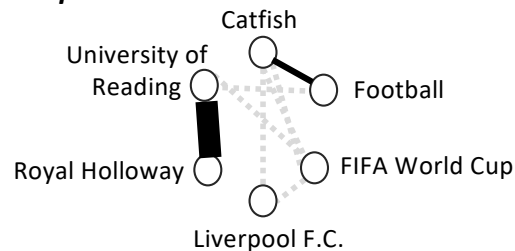
### 2. Questionnaires

#### Five-Dimensional Curiosity Scale<sup>3</sup>

Joyous exploration, **Deprivation sensitivity**,  
Stress tolerance, Thrill seeking, Social curiosity

### 3. Naturalistic information-search tasks

#### Wikipedia task<sup>4</sup>

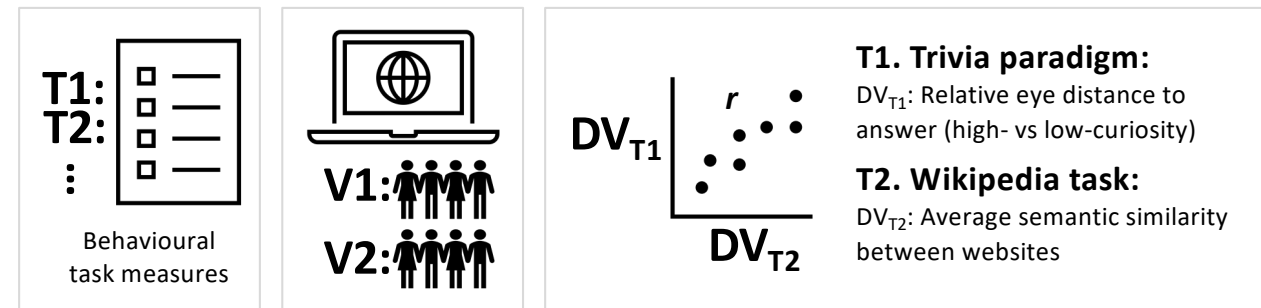


## Research gaps

- need a good theory: characterize curiosity reliably and precisely using formal models<sup>5,6</sup>
- single definition/theoretical **framework of curiosity is lacking**<sup>7</sup>
- **disparate methods** for eliciting and measuring curiosity<sup>8</sup>
- questionnaires systematically assessed<sup>9</sup>, but not **behavioural measures**

## Research aims

**Part A.** To *assess* and *describe* relationships between disparate behavioural measures of individual differences in curiosity



**Part B.** To *integrate* curiosity measures and generate latent factors to characterize an ontological framework of curiosity

