

Using pupillometry to investigate object concepts in infancy

Wednesday, September 25, 2024 10:00 AM (20 minutes)

Since the ontogeny of object permanence was proclaimed an important developmental milestone in Piaget's seminal work on cognitive development (Piaget, 1954), much research has been dedicated to investigating the emergence of object concepts. The growing interest gave rise to a variety of methods that were developed or adapted to measure different aspects of object understanding in preverbal infants. However, sustained criticism of popular methods such as classical manual search tasks and looking-time based violation-of-expectation designs (Munakata, 1997; Charles & Rivera, 2009) has inspired the use of novel neuro- and psychophysiological measures in recent years. These include EEG (Kaufman et al., 2003; 2005), fNIRS (Baird et al., 2002), and crucially, pupillometry (Jackson & Sirois, 2009; Pätzold & Liszkowski, 2020). In this talk, I will discuss the suitability of employing pupillometric paradigms to investigate object concepts in infancy. To do so, I will draw on our own experiences in conducting a series of cross-sectional studies on object permanence, object identity, object absence and object categorization in infants aged 6 to 14 months. The talk will illustrate the unique opportunities and challenges the pupillometric approach presents in the case of studying object concepts in infancy. Implications will be considered with respect to the different experimental design stages (i.e. stimuli design, implementation, processing and analysis).

If you're submitting a poster, would you be interested in giving a blitz talk?

If you're submitting a symposium talk, what's the symposium title?

Breaking into the attentional mechanisms underlying cognition via the science of pupil

If you're submitting a symposium, or a talk that is part of a symposium, is this a junior symposium?

Yes

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