The effect of labelling on infants' object exploration.

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Introduction

The present study aims to explore what influence infants' label learning of novel objects. Their vocabulary level and physical and non physical interactions with the novel objects will be examined as factors that can influence task's label learning. We expect that high vocabulary level and physical interaction will positively influence the labelling learning.

Background

◆ Young children **learn from their surroundings** and **collect information** during their everyday activities (Yu, Smith, Christensen, & Pereira, 2007).

◆ The **everyday visual world** offers many potential referents through a **dynamically complex environment** (Pereira, Smith, & Yu, 2014).

◆ Children are **intrinsically motivated and curious** (Twomey & Westermann, 2015) and **learn without any feedback** and autonomously (Mather, 2013).

◆ They learn object names by **associating words they hear with items they see** (Yurovsky, Smith, & Yu, 2013).

◆ Understanding the **processes** that help children **link words with objects** will offer important insight into cognitive development.

◆ The way in which children interact with objects is a significant component of learning **word-object associations**; however this has yet to be studied in detail.

◆ Children's **visual dynamics may be ordinary** and **subject ~~of~~to their everyday activities** (Kretch, Franchack, & Adolph, 2014).

◆ Investigating where exactly they look during **unconstrained and dynamic labelling tasks** closer to their **real-life events** is important (Franchack, Kretch, Soska, & Adolph, 2011).

Hypotheses:

◆ We hypothesize that **label** and **no-label** events will show different explorational styles towards to the novel objects.

◆ We hypothesize that **vocabulary level** and whether or not children are allowed to **interact with objects** will affect task's label learning.

Method

Participants:

24 participants:
◆ Two year-old children

Procedure:

◆ **2x2 within-subjects design:** *a physical interaction* group and *a non physical interaction* group

◆ **Training:** Both groups will experience two conditions: *a labelling* (e.g., *Look, a dodi!*) and a *non-labelling* condition.

◆ **Five minutes break** (Horst & Samuelson, 2008).

◆ **Testing:** The experimenter will test children's retention of label-object mappings by presenting three objects on a tray and asking children for each in turn (e.g., *Which one's the blicket?*).

Stimuli:

◆ 6 novel 3D objects paired with novel words (Pereira, et al., 2014), in **green**, **red** and **blue**.

◆ Novel words: Habble, Mapoo, Zeebee.

◆ The novel words are pseudorandomized between the 6 objects.
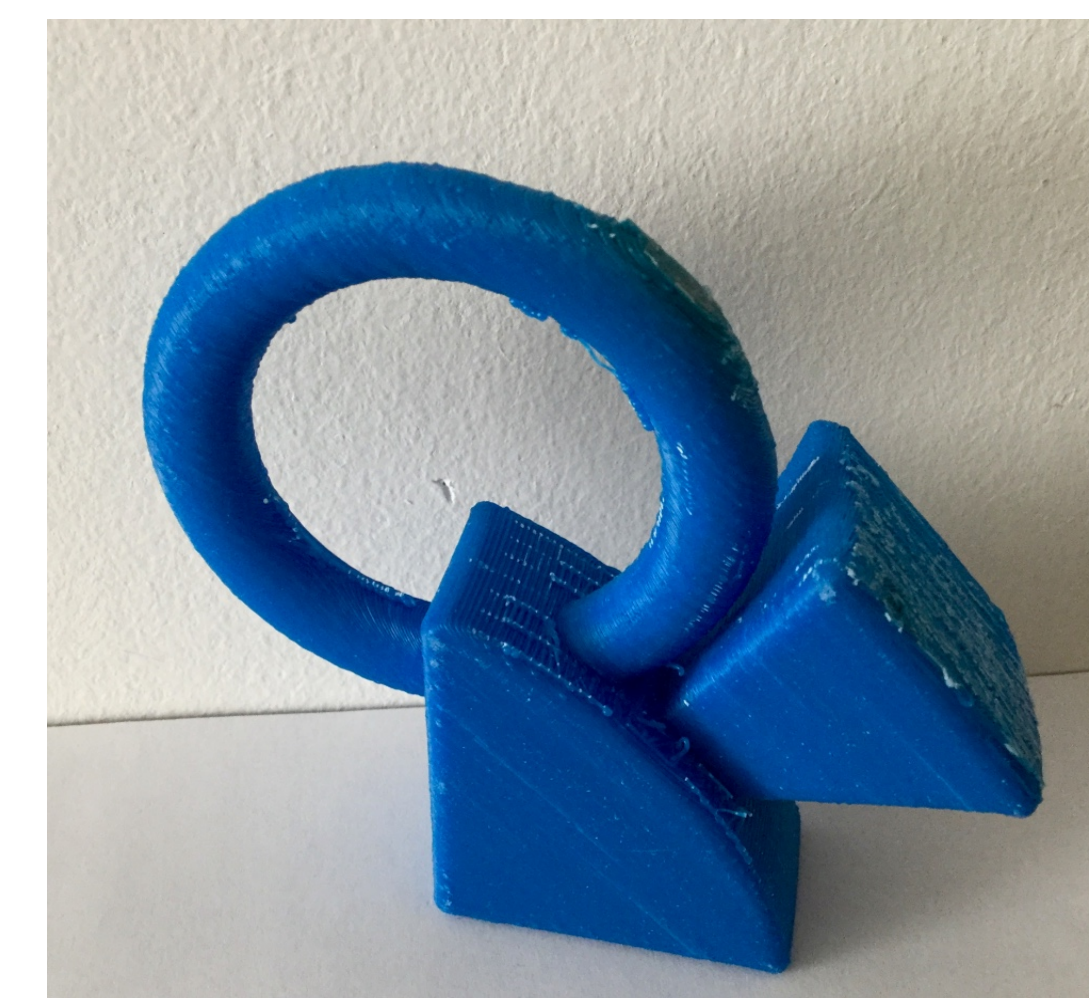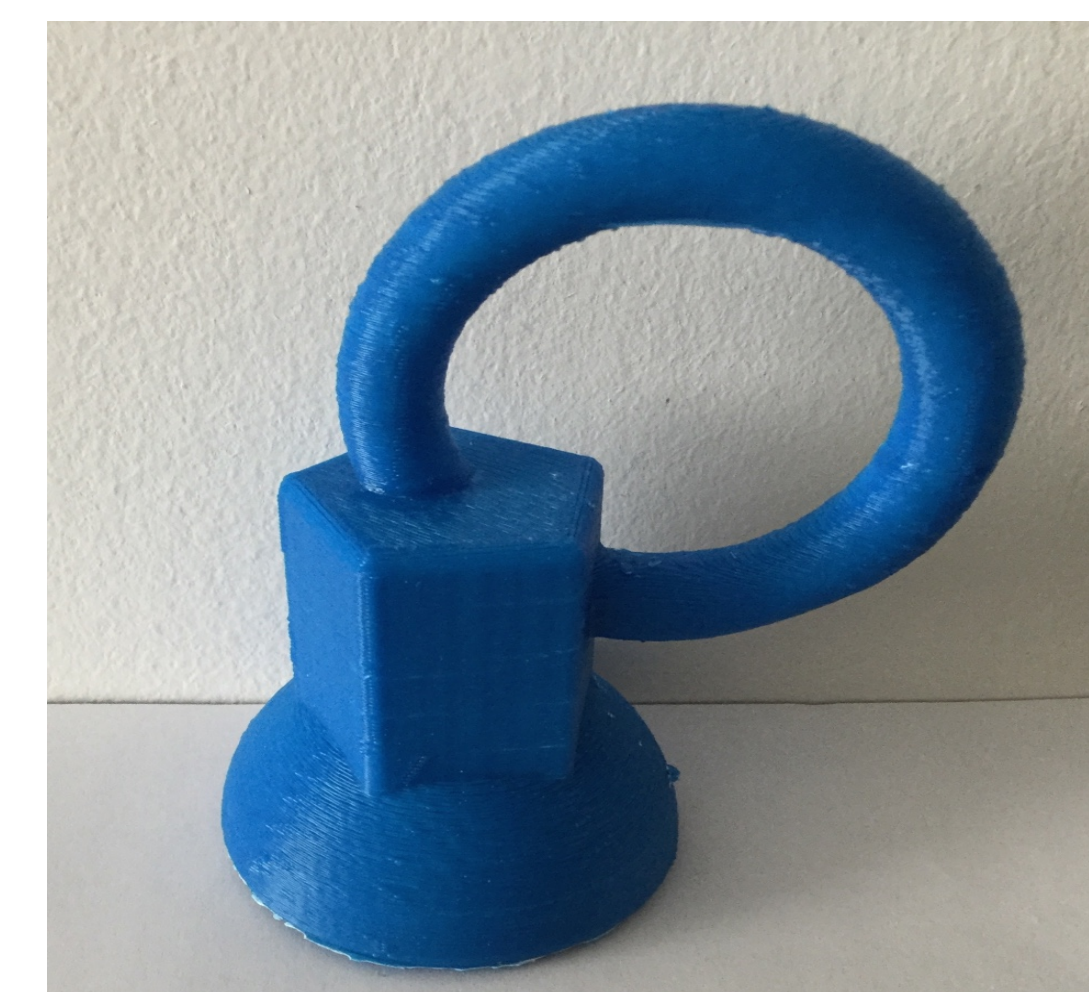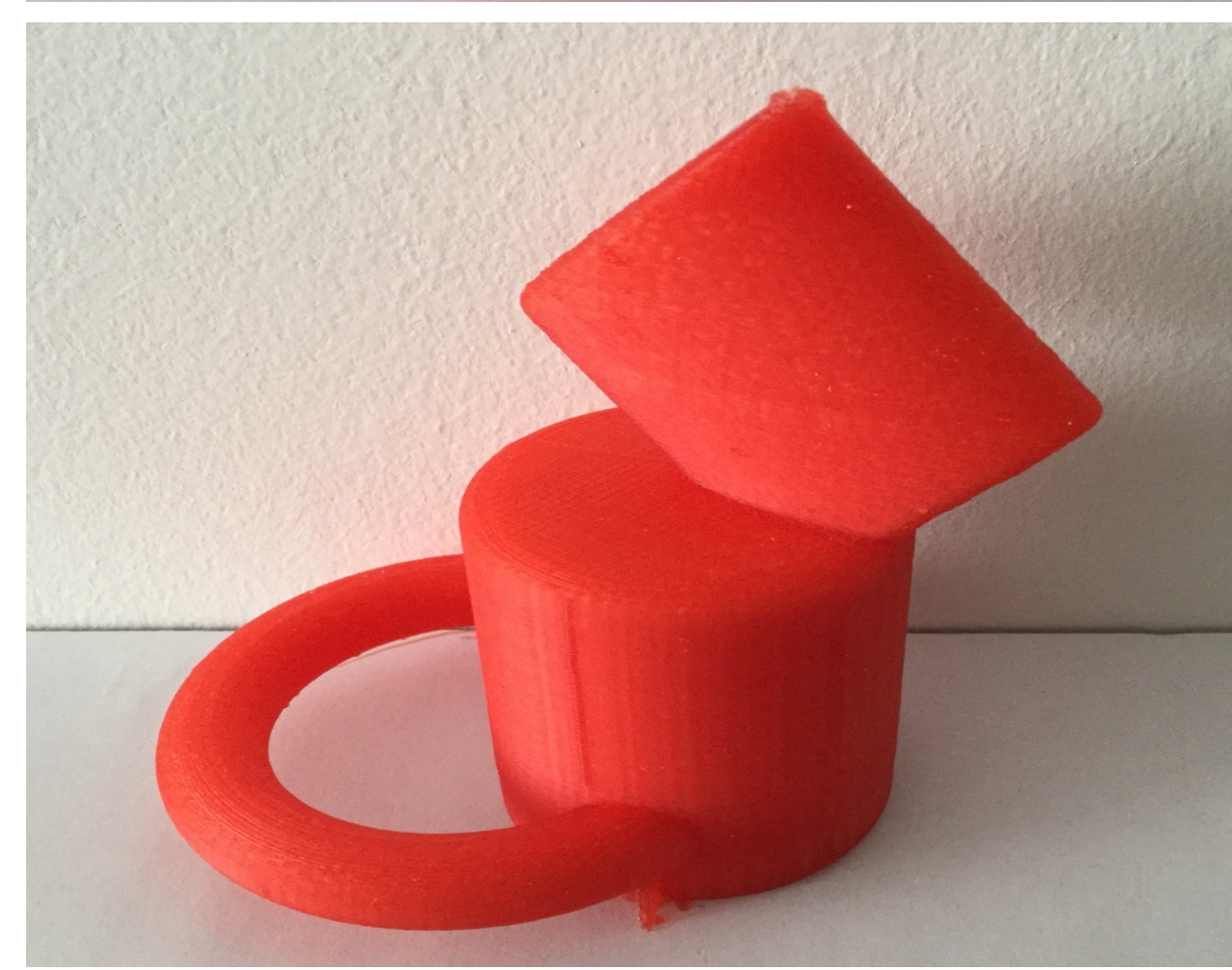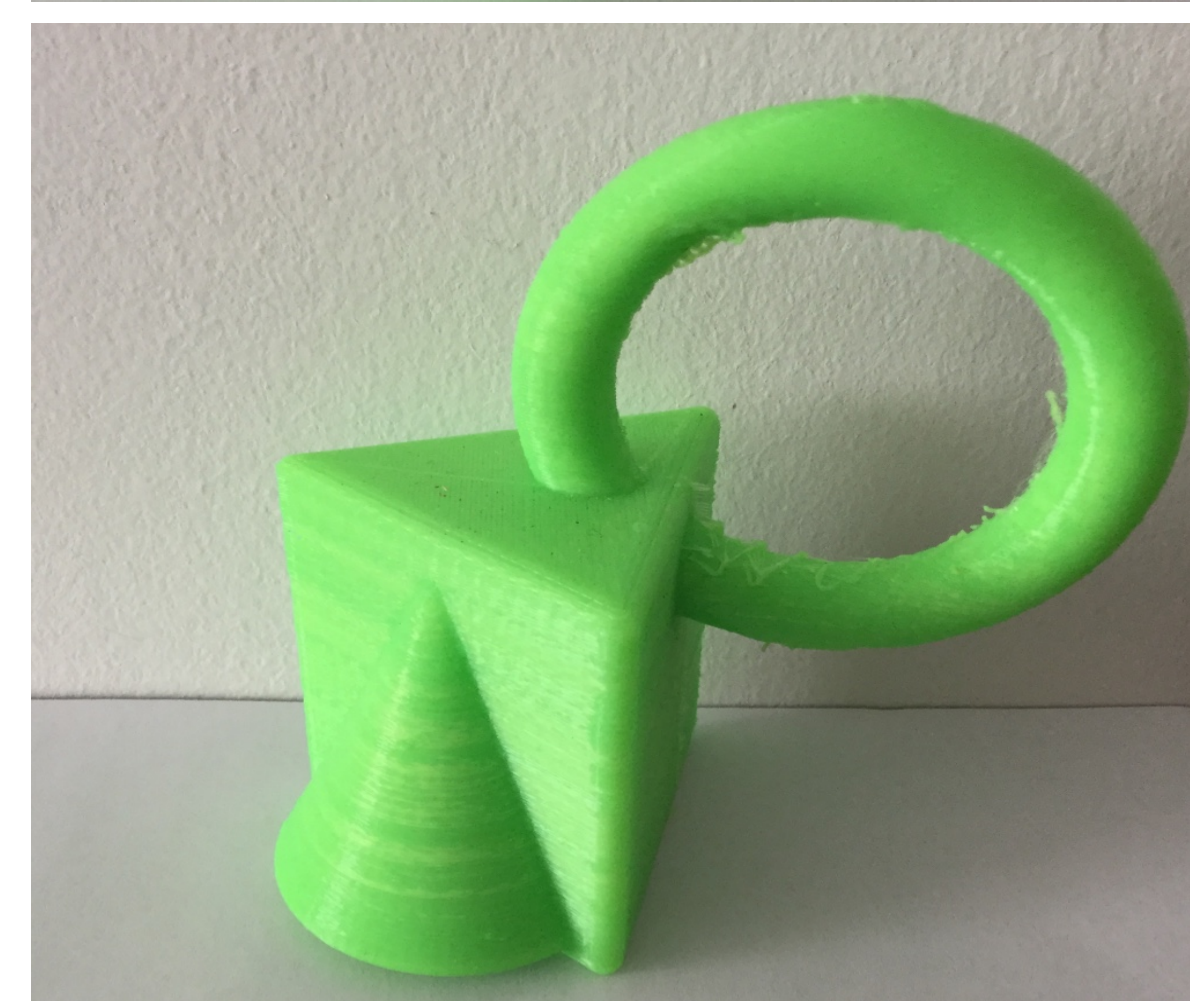
Equipment: Head-mounted Eye-trackers

◆ Record infants' everyday learning.

◆ Capture infants' visual experiences while they move around.

◆ A dynamic and largely unconstrained environment closer to everyday life experiences and settings of infants

Questionnaire:

◆ A vocabulary inventory (UK-CDI; Alcock et al., in prep) will be completed by the parent or the caregiver.

Predictions

Based on previous literature we expect the following findings from this study:

◆ Label and no-label events may show **different exploration styles**. Labelling an object was found to facilitate the formation of categories, while eye-gaze explores specific features on objects (Althaus & Mareschal, 2014).

◆ We expect that the **physical interaction** with the objects will **facilitate label learning** compared to the no physical interaction condition. A previous study has shown that successful labelling events are happening when an object is stable and close in the child's view (Pereira et al., 2014).

◆ Also, **vocabulary level** is expected to interact with **successful labelling events**, whereas children with high vocabulary level would be more likely to recall the correct labels during the testing session.

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