**The Impact of Extinction on Evaluative Learning via Intersecting Regularities.**

Intersecting Regularities is a new route for changing liking. In a typical IR procedure, individuals perform a task in which they learn that valenced and neutral stimuli are related to each other via one (or more) elements in operant contingencies that intersecting with one another. For instance, a first operant contingency might consist in pressing a red button (R1) in the presence of a positively valenced source stimulus (S1) that leads to the presentation of a neutral outcome (O1). Then in a second contingency, pressing a yellow button (R2) when a neutral target stimulus is present (T1) leads to the exact same outcome (O1). Participants may evaluate neutral target stimulus (T1) more positively than they used to do due to the fact that the two operant contingencies intersect each other in terms of a common outcome (i.e., positive source (S1)🡪 red button (R1) 🡪 neutral outcome (O1); Neutral target (T1) 🡪 yellow button (R2) 🡪 neutral outcome (O1)). The effectiveness of evaluative learning via IR has been demonstrated on both implicit and explicit attitudes (Hughes, De Houwer & Perugini, 2016). So far IR studies have only focused on forming evaluations. However, an important aspect of (evaluative) learning is how to change evaluations once they’ve been formed. In Evaluative Conditioning (EC), one way of altering evaluative responses is via *extinction*. The aim of the present contribution is to investigate whether extinction can also change recently formed evaluative responses in an IR context.

**IR and Extinction**

In EC, extinction refers to an experimental procedure containing two sequential phases. In the first phase (acquisition), the individual is exposed to a contingency between two stimuli - a conditioned stimulus (CS) and an unconditioned stimulus (US). The second phase (extinction) consists of the mere presentation of the CS, without contingent presentation of the US. Previous work indicates that, compared to Pavlovian conditioning, EC is less susceptible to extinction (e.g., Baeyens, Crombez, Van den Bergh, & Eelen, 1988; Díaz, Ruiz, & Baeyens, 2005; Dwyer, Jarrat, & Dick, 2007; Vansteenwegen, Francken, Vervliet, De Clercq, & Eelen, 2006; Gawronski, Gast, & De Houwer, 2015). We explore if changes in liking also decrease in magnitude once the intersection between regularities is put into extinction. Note that extinction in learning via intersecting regularities requires that the intersection itself be extinguished.

**Extinction through the removal of stimuli**

**Study 3**

This study is identical to Studies 1-2 with a single exception: the intersection will be extinguished in a third way. In the previous studies we extinguished the intersection by no longer reinforcing responding in the presence of either *valenced* sources (Study 1) or *neutral* targets (Study 2). Yet extinction in other procedures (e.g., EC) never maintains stimulus (US) presentations during the extinction phase (i.e., only the CS and never the US is presented). In the above studies one element of the intersection is still presented. Thus, people might be more inclined to see the absence of O1 after R1[R2] as a disconfirmation of the R1[R2]-O1 relation. Based on the idea that extinction depend on the disconfirmation of an expected event, such a procedure might increase the chance to observe an extinction effect on IR. Therefore, while in the previous two studies we aimed at extinguish intersections by removing the outcome in response of either the valenced (Study 1) or the neutral (Study 2) stimuli, here we simply eliminate any outcome after stimuli responses (i.e., S1🡪R1🡪***Nothing***; S2🡪R2🡪***Nothing*** and S3🡪R3🡪***Nothing***; S4🡪R4🡪***Nothing***).

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| **ACQUISITION** | | | **EXINCTION** | | |
| **STIMULUS** | **RESPONSE** | **OUTCOME** | **STIMULUS** | **RESPONSE** | **OUTCOME** |
| Positive source (S1) | Press D (R1) | **Neutral outcome (O1)** | Positive source (S1) | Press D (R1) | **/** |
| Neutral target (T1) | Press C (R2) | **Neutral outcome (O1)** | Neutral target (T1) | Press C (R2) | **/** |
| Negative source (S2) | Press J (R3) | **Neutral outcome (O2)** | Negative source (S2) | Press J (R3) | **/** |
| Neutral target (T2) | Press N (R4) | **Neutral outcome (O2)** | Neutral target (T2) | Press N (R4) | **/** |