

Concurrent transfer of suppression and escape functions of pain-related verbal stimuli via same and opposite relations

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Introduction

Thought suppression is a strategy often used to manage pain, but research indicates that it can be counterproductive (Wegner et al., 1987). Previous RFT studies have revealed a 'transfer' of thought suppression functions via multiple derived relations ('same' and 'opposite')(Stewart et al. 2015). The current work extended the latter by investigating transfer of thought suppression alongside transformation of escape functions in the context of a pain-related verbal stimulus.

Methods

At first, participants were given training and testing of same and opposite relational responding in a five-member relational network (figure 1). During a subsequent conditioned fear-of-movement task, participants learned to associate an aversive electrocutaneous stimulus with a verbal stimulus (Exp 1: 100 % and Exp 2: 75% contingency). Next, they were randomly assigned to engage in either a suppression task or control task. During final testing, in which they continued with their assigned task, they could choose to remove various visually presented verbal stimuli (by pressing the spacebar). [frequencies and latencies were measured].

Methods

Procedure

6 phases:

- (1) Same Opposite non-arbitrary relational testing
- (2) Same Opposite Arbitrary relational training and testing
- (3) Conditioned fear-of-movement and avoidance task (joystick task)
- (4) Suppression induction
- (5) Cognitive load induction
- (6) Suppression transfer test

Experiment 1: **100% CS-US contingency**

N = 50 (34 female; 16 male) (age M = 21,28, SD = 0,77)

2 conditions: Suppression: n = 27; Control: n = 23

Experiment 2: **75% CS-US contingency**

N = 37 (25 female; 12 male) (age M = 22,95, SD = 0,77)

2 conditions: Suppression: n = 20; Control: n = 17

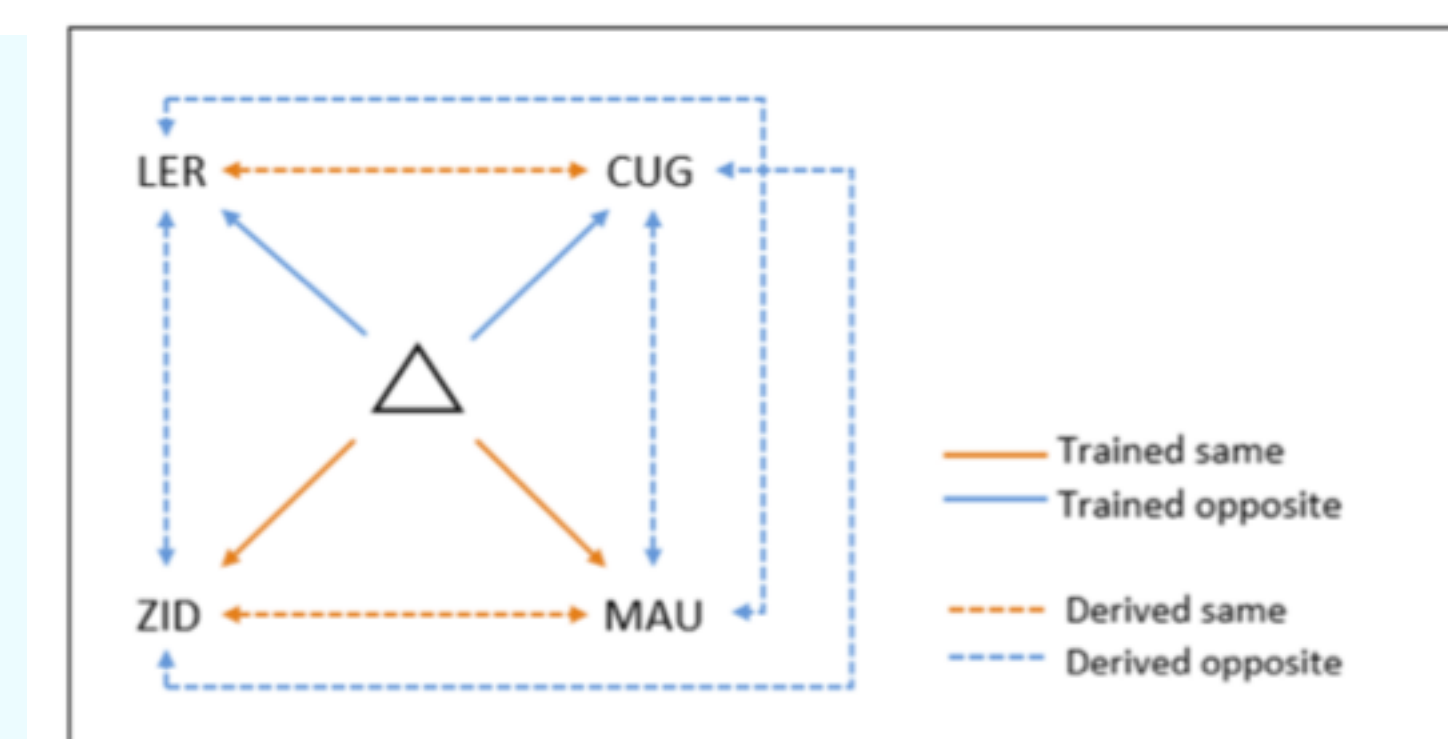


Figure 1: Relational network trained using RCP: Experiment 1 & Experiment 2

Results

Experiment 1 revealed a weak but significant 'transfer' of suppression functions via 'same' as well as 'opposite' relations in the suppression condition, though not an expected transformation of escape functions via 'same' and 'opposite' relations in the control condition.

Experiment 2 showed a significant 'transfer' of suppression functions via 'same' and a weak but significant transfer of suppression functions via 'opposite' relations in the suppression condition, and a transformation of escape functions via 'same' and 'opposite' relations in the control condition.

(see graphs; only frequencies shown, latencies revealed similar data)

Discussion

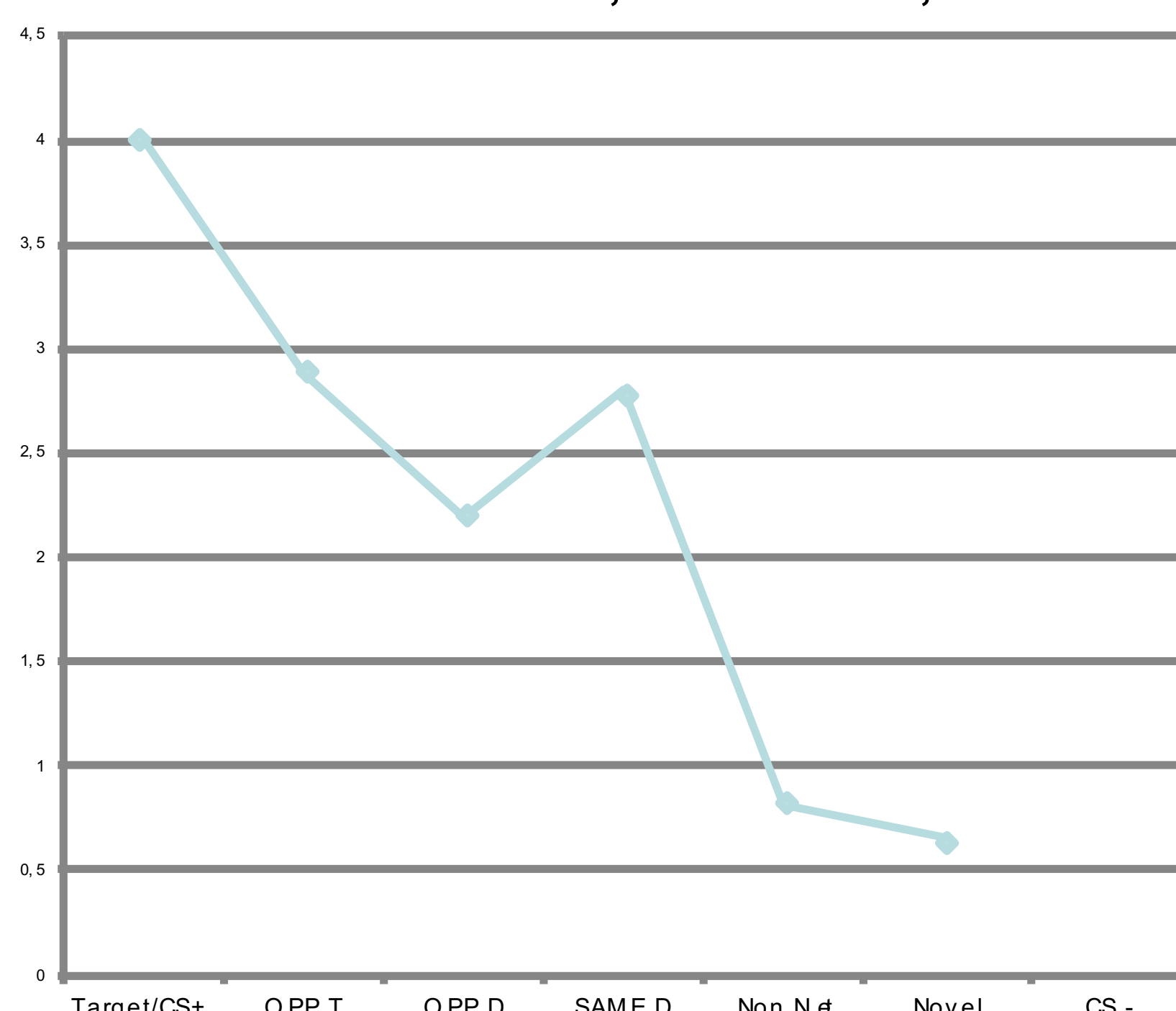
Suppression condition:
Concurrent effects of suppression and escape functions during suppression transfer test.

- Differential effect of CS-US contingency in the 2 experiments
- Although dominance of suppression functions due to 'thought suppression' task during the suppression transfer test,
- escape functions (acquired during conditioning) has concurrent effects on removal responses to the target stimulus ("LER"),
- therefore a decrease transfer of suppression functions to the other stimuli of the target network.

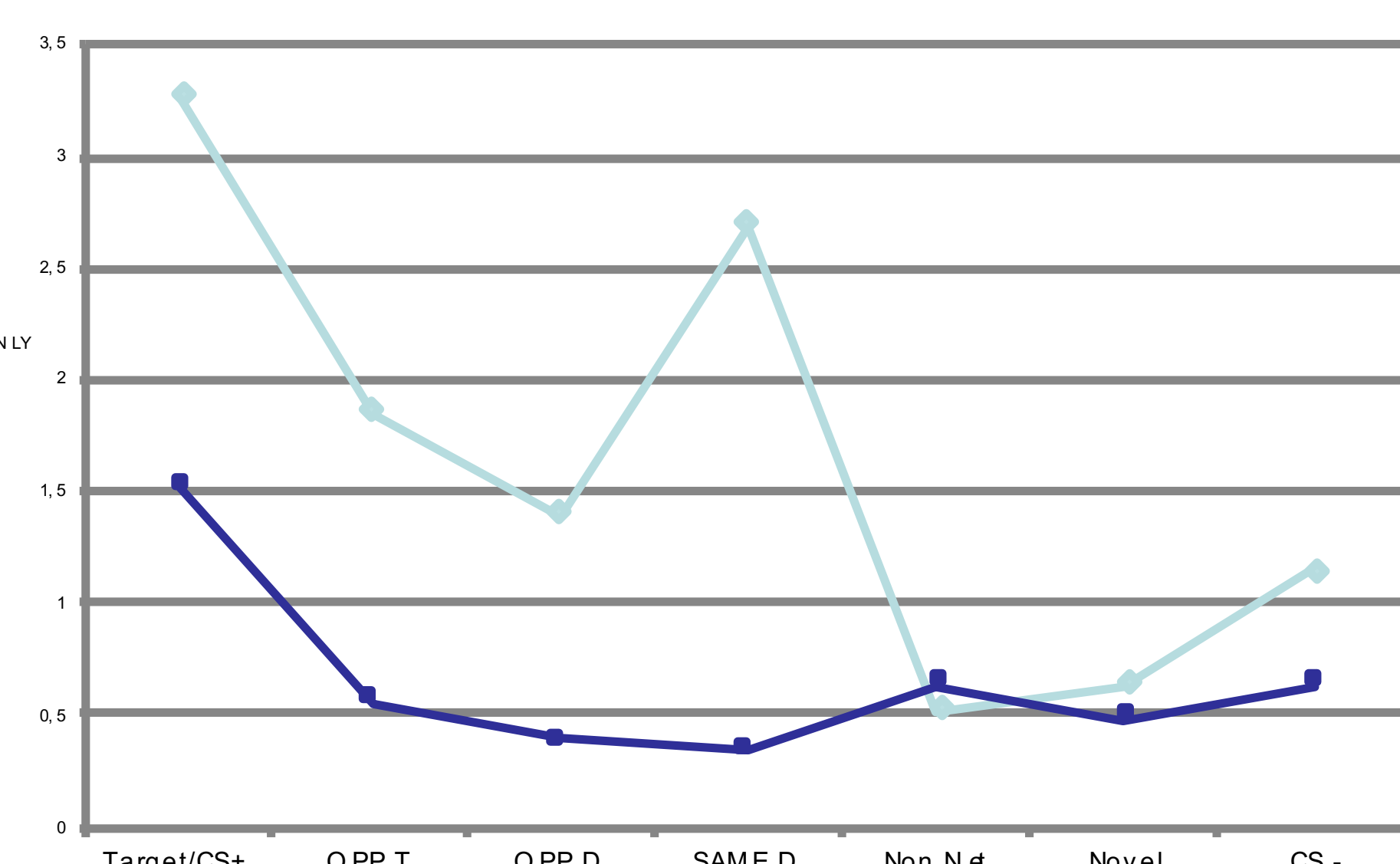
Control condition:

- Only escape functions at play.
- But contingency rate leading to fast extinction during suppression transfer test,
- hence, no transfer nor transformation of escape functions to stimuli in a same resp. opposite relation to target (**EXP 1, 100%**) and
- only a (partial) transfer of escape functions to stimuli in a same relation to target and a transformation of stimuli in an opposite relation to target (**EXP 2; 75%**).

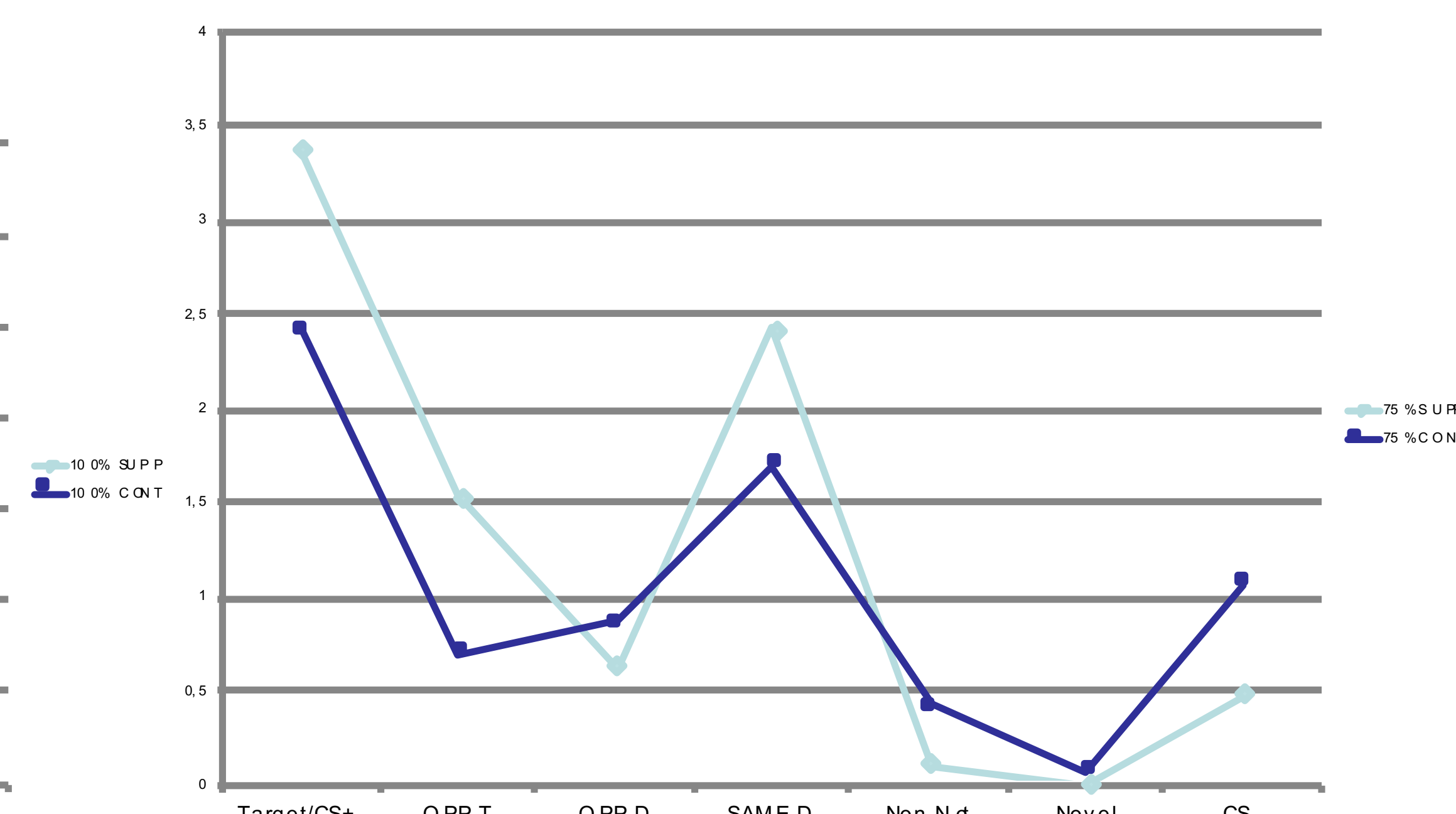
SUPP ONLY; Stewart et al, 2015



Experiment 1: 100% contingency



Experiment 2: 75% contingency



References

- Stewart, I., Hooper, N., Walsh, P., O'Keefe, R., Joyce, R., & McHugh, L. (2015). Transformation of thought suppression functions via same and opposite relations. *Psy. Rec.*, 65(2), 375-399.
- Wegner, D. M., Schneider, D. J., Carter, S. R., & White, T. L. (1987). Paradoxical effects of thought suppression. *Journal of personality and social psychology*, 53(1), 5-13.

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