

# Generalization of Thought Suppression Functions Via Same and Opposite Relations

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# Daniel M. Wegner (1948–2013)



# Thought Suppression

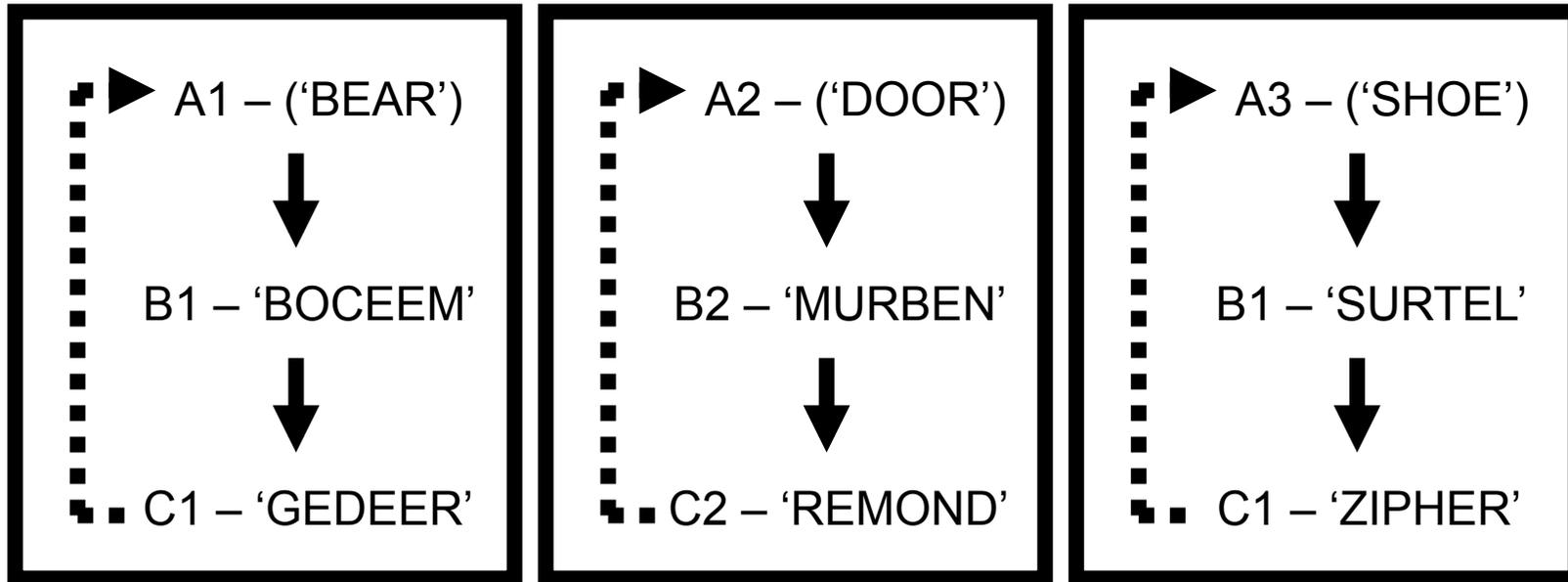
- It is described as a very common response to unwanted thoughts
  - (Rachman & Da Silva, 1978)
- Attempts at thought suppression are often found to be futile and counter-productive
  - (Wegner, Carter, Schneider & White, 1987)

# Hooper, Saunders & McHugh (2010)

Used the RFT conceptualization of thinking as derived relational responding to model a process that explains the counter productive nature of TS

- The core procedure involved
  - 1: Training and testing for formation of 3 3-member derived equivalence relations
  - 2: Five minute 'thought suppression' phase
  - 3: 'Cognitive load' induction
  - 4: Final Suppression phase

# 1: Training and testing for formation of 3 3-member derived equivalence relations



-Standard conditional discrimination procedures

-3 AB and 3 BC trial-types presented in quasi random order until training criterion met

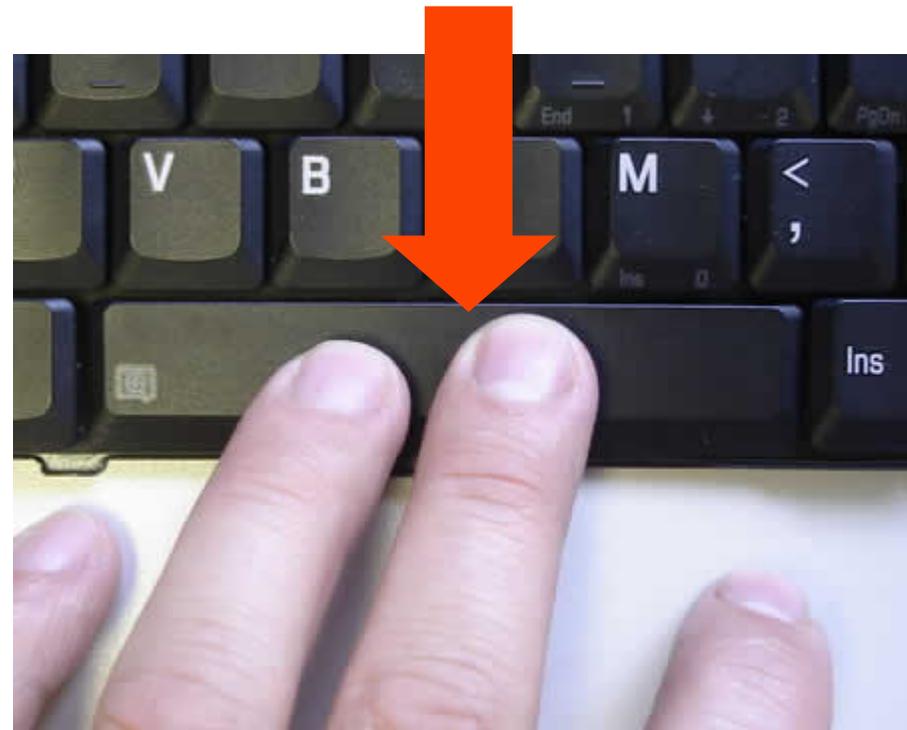
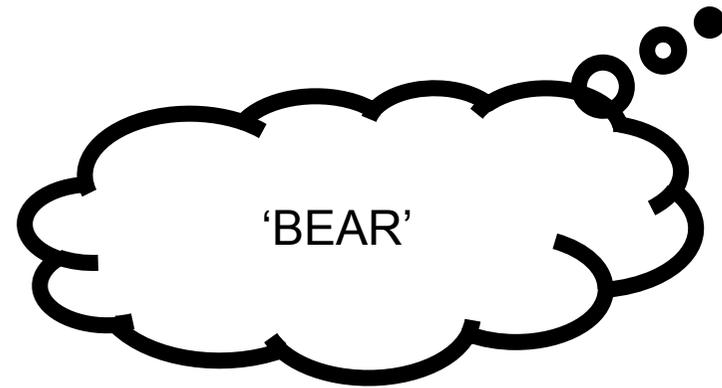
-Test phase involved quasi-random presentation of 3 CA equivalence trial types

## 2: Suppression of the word 'BEAR' for 5 minutes

This procedure was adapted from Wegner & Erber (1992)

*For the following 5 minute period, try not to think of the word 'BEAR'. If you do think of the word 'BEAR' during this time then press the space bar.*

The purpose of this phase was to familiarise participants with the suppression task.



### 3: Cognitive Load Induction

*Participants were presented with a 9 digit number and were told to remember it as they would be asked to write it down at the end of the experiment.*

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This procedure was used because it has been a relatively standard feature in Wegner's work. It has been shown to increase the likelihood of the 'ironic' effect of TS.

#### 4: 'Suppression' Condition

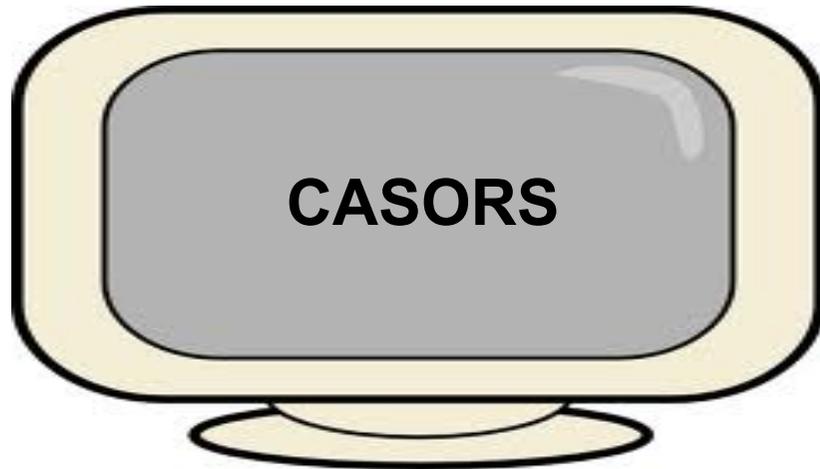


*Participants in this condition were required to suppress thoughts of the target word 'Bear' as they watched a variety of words appear on the the computer screen. They were also told that they could remove any word from the screen as they watched it by pressing the space bar.*

These are the words that appeared on the screen in a quasi random order. Each word appeared for a period of ten seconds before being replaced by another word. Each word appeared five times.

Target Word	Trained Word	Derived Word	Other Equivalence Words	Control Words
Bear	Boceem	Gedeer	Shoe Surtel Cipher Door Murben Remond	Wollof Sinald Drager Matser Desund Casors Table Bird Chair

#### 4: 'Instruction' Condition



*Participants in this condition were required simply to remove the target word 'Bear' as they watched words appear on the screen. The purpose of this control condition was to show that removal of non-target words was a function of the suppression context and not simply a result of the equivalence training and testing alone*

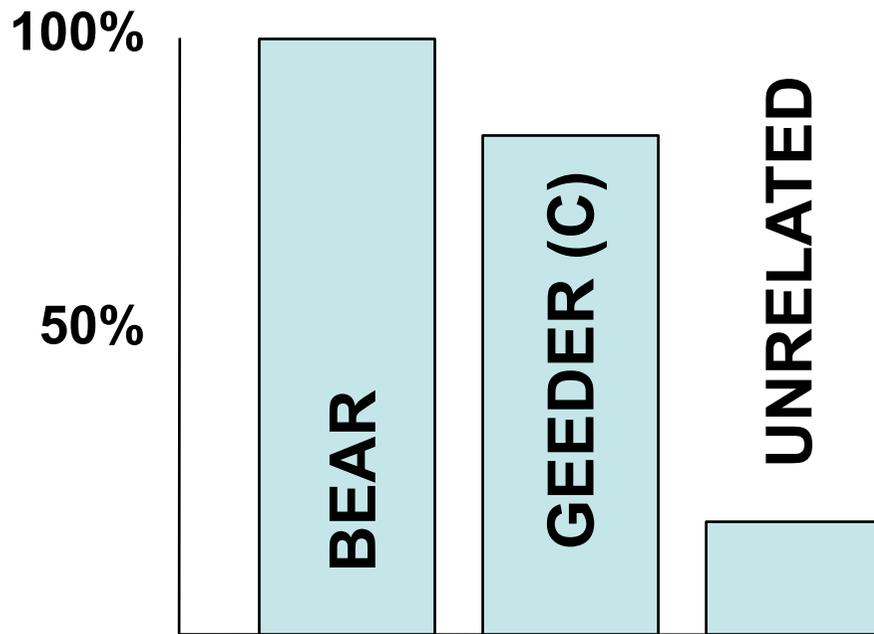
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Target Word	Trained Word	Derived Word	Other Equivalence Words	Control Words
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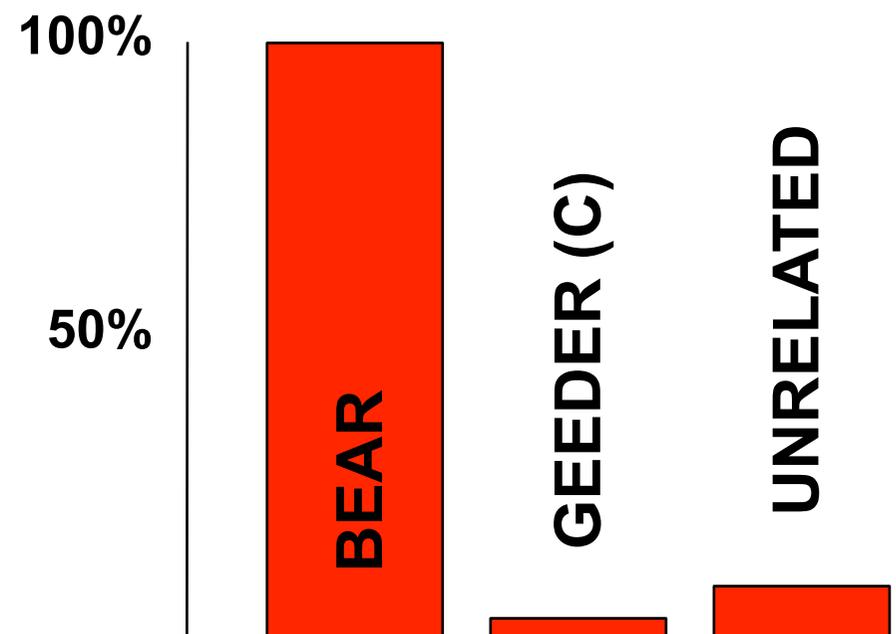
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Results

**Don't Think  
"Bear"**



**Remove "Bear"**





~~BOCEEM~~

~~GEDFER~~

~~BEAR~~



# Stewart, Hooper, Walsh & McHugh (In preparation)

- RFT suggests that human language is based on a variety of derived relations including non-equivalence relations
- The current study is an extension of Hooper et al. to non-equivalence and specifically opposition relations

# Opposition Relations and TS

- Opposition relations seem particularly interesting in this context
- When a person is trying to suppress a thought then one strategy may be to think of something that is very different or opposite along some dimension
  - E.g., if I am trying not to think of something sad or depressing then I may think of something happy or uplifting

# Experiment 1

Adapted from Whelan, Cullinan, O' Donovan, & Valverde (2005)

- 11\* pts (3f) 22 – 30 years old (m = 25.3)
- The phases of the protocol included
  - 1: Training & testing non arbitrary SAME and OPPOSITE relations
  - 2: Training and testing arbitrary SAME and OPPOSITE relations
  - 3: Five minute 'thought suppression' phase
  - 4: 'Cognitive load' induction
  - 5: Final suppression phase

Identical to Hooper et al. (2010)

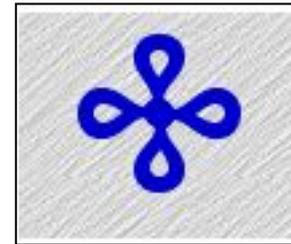
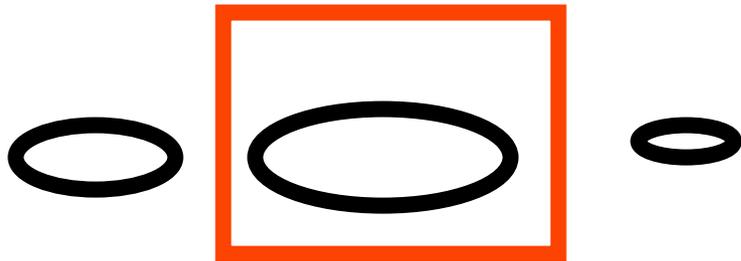
\*1 pt failed SAME OPP TRAINING & TESTING and did not participate in further phases

# SAME and OPPOSITE

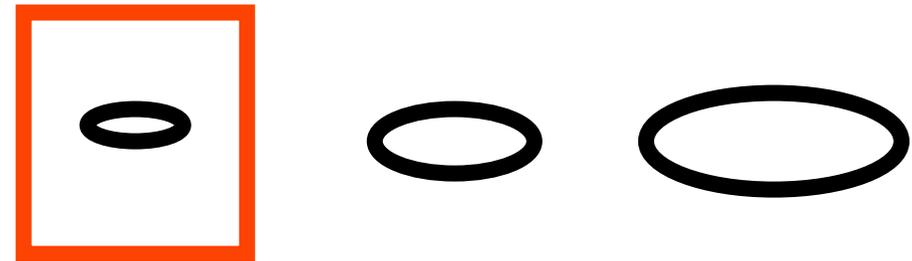
- Non Arbitrary Relational Training and Testing to establish two abstract symbols as cues for SAME and OPPOSITE



**CORRECT**

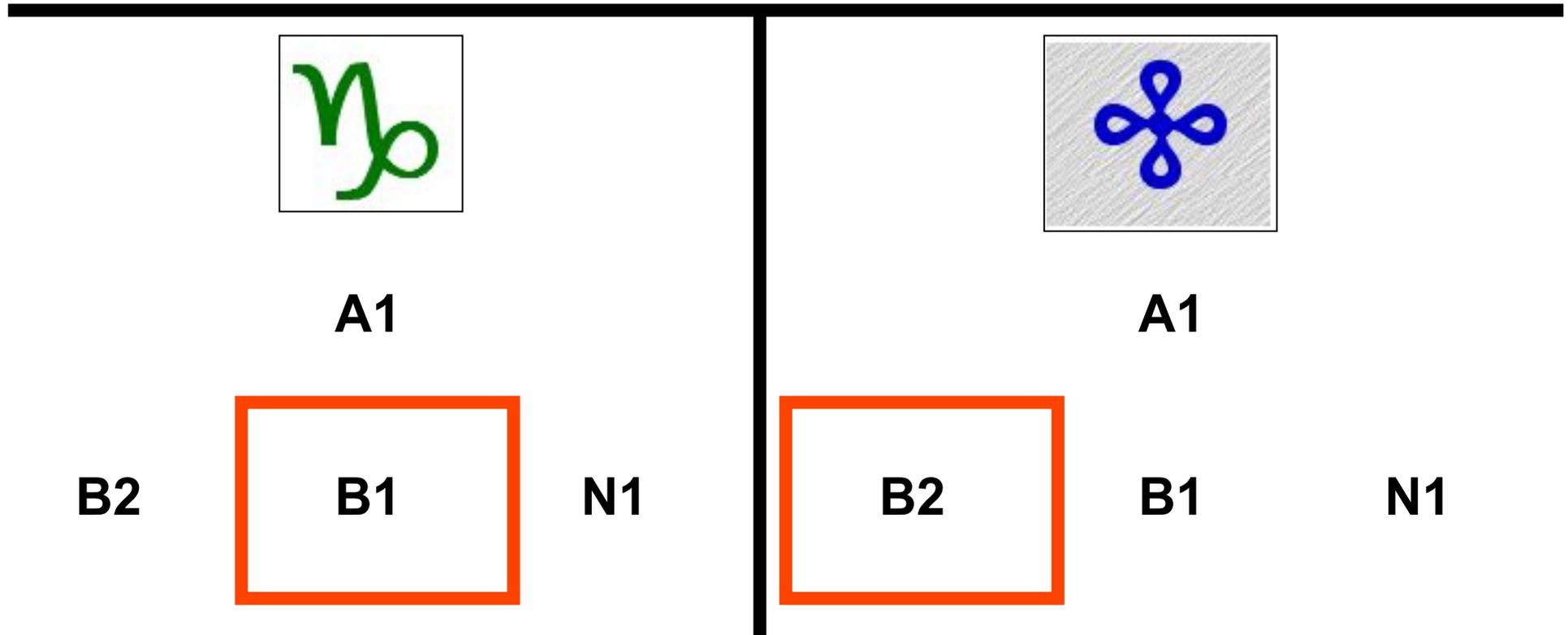


**CORRECT**

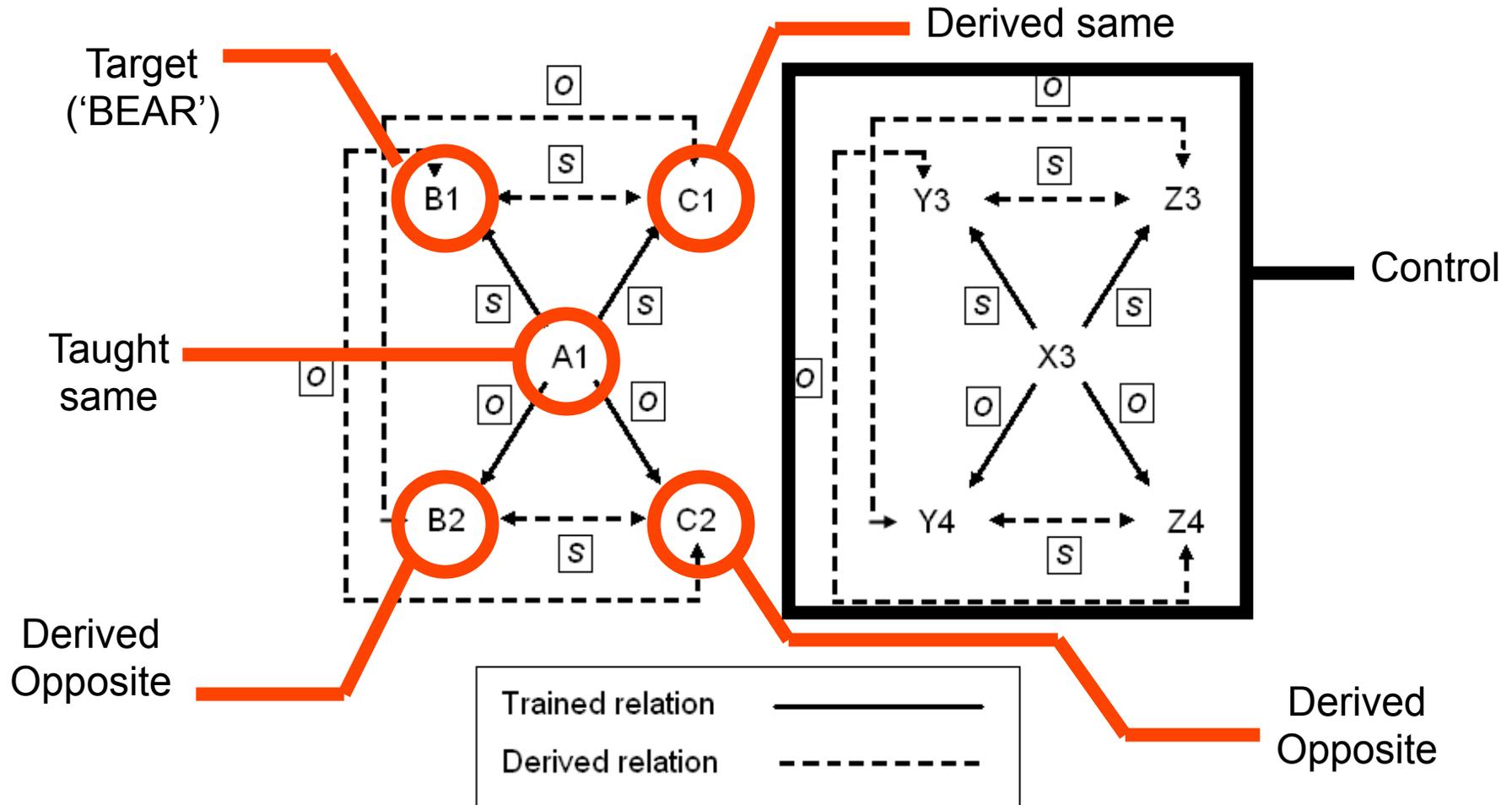


# SAME and OPPOSITE

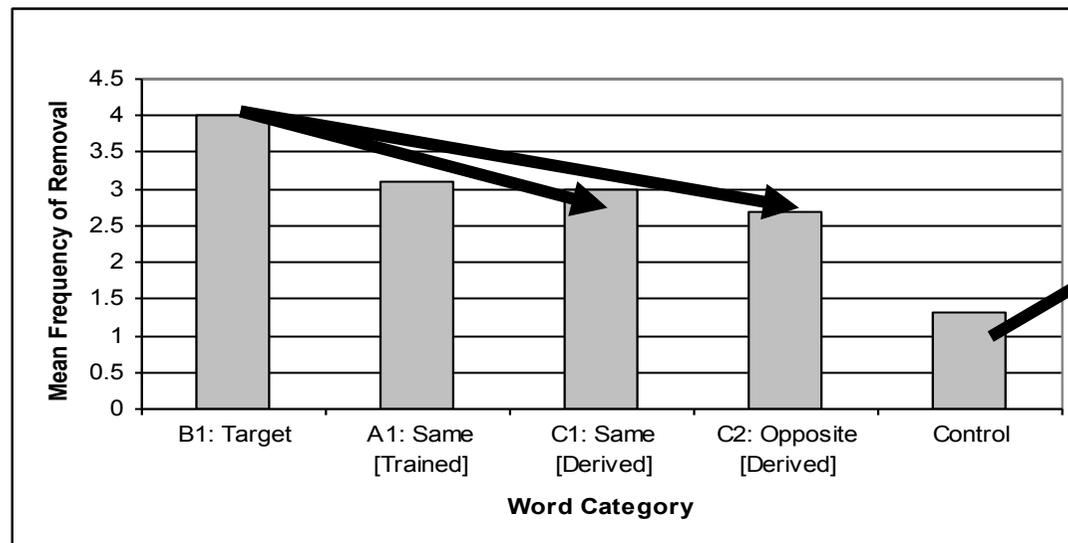
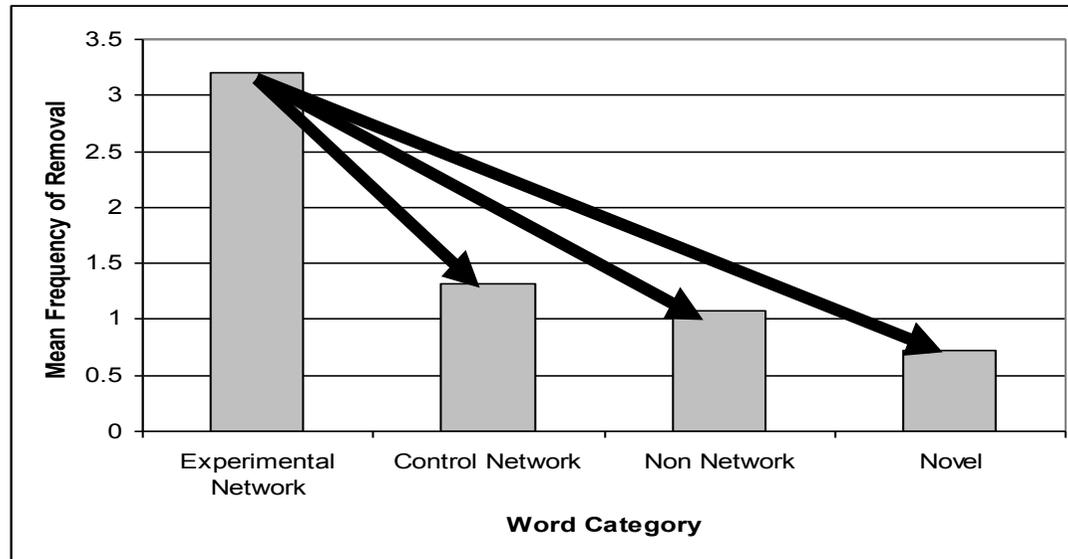
- Arbitrary Relational Training and Testing using the two abstract symbols previously established as cues for SAME and OPPOSITE



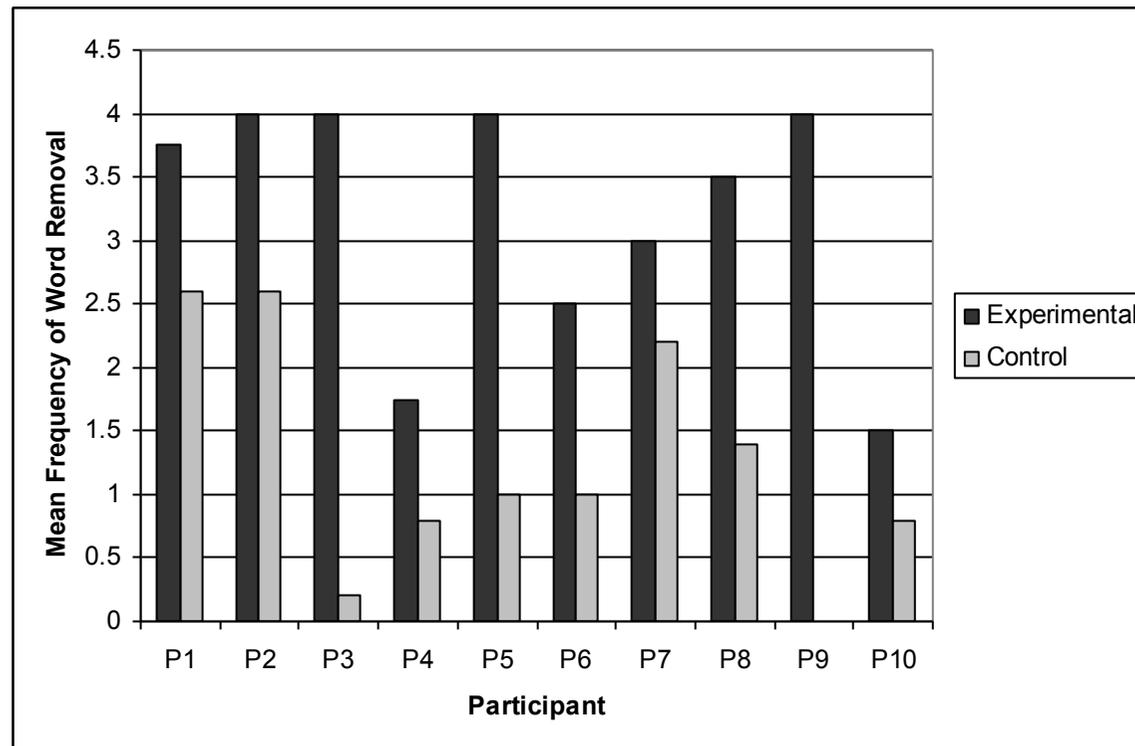
# Experiment 1: Relational Networks



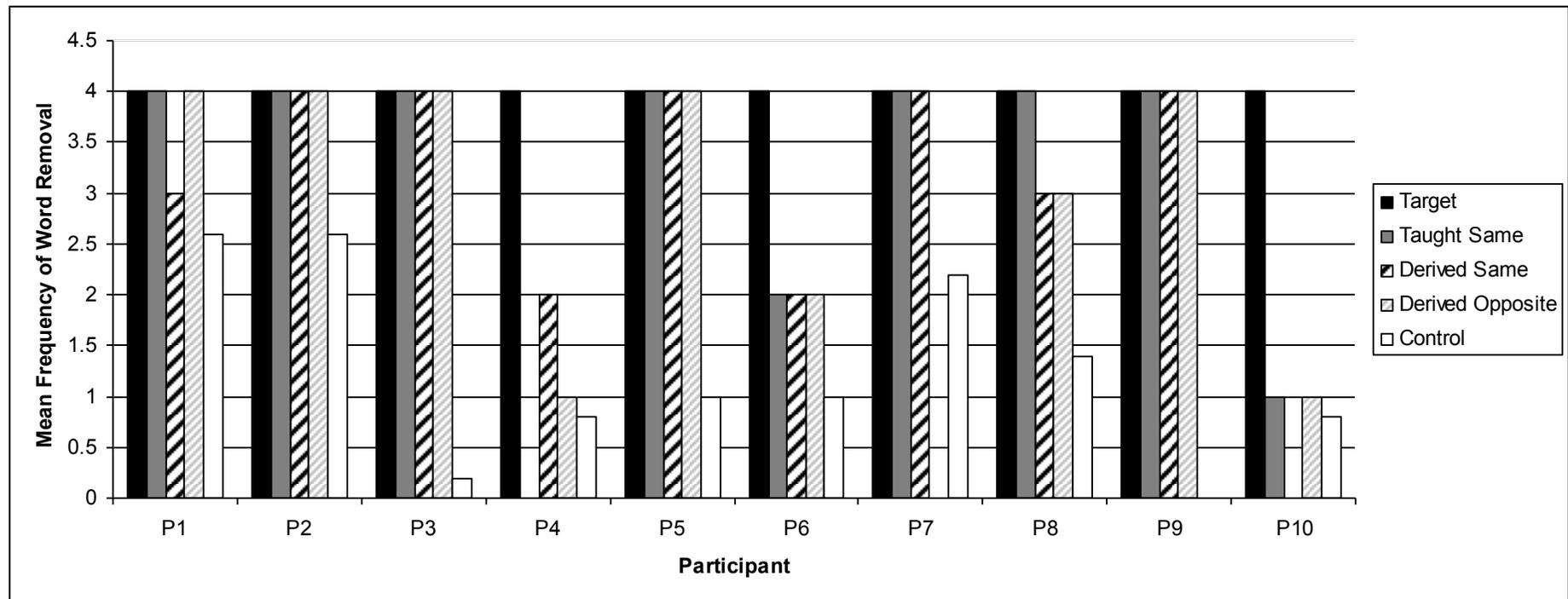
# Experiment 1: Results



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# Experiment 1: Discussion

- Pts tended to show
  - strongest responding to the target stimulus
  - stronger responding to members of the experimental network including stimuli in both same and opposite relations than to members of the control network
  - stronger responding to the trained same than to the derived same stimulus
    - Coheres with research showing stronger function acquisition for stimuli in directly trained than in derived relations (Barnes-Holmes et al., 2005)
  - stronger responding to either of the words in a same relation than to the word in an opposite relation
    - Coheres with research showing that same relations are established earlier and more strongly than opposite relations and yield faster and stronger transformation of function (Steele & Hayes, 1991; Cassidy, Roche & Hayes, 2011)

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