

Forgetting Trauma Stimuli In and Out of the Lab

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Memory Impairment for Trauma

- Laboratory experiments have been increasingly used to argue points about the validity of memory impairment for traumatic experiences.
- While laboratory memory experiments can contribute to models of memory for trauma, the constraints of these paradigms directly affect the external validity and generalizability of laboratory findings.
 - Forgetting inside and outside the lab
 - Mechanisms and Inferences

The Phenomenon: Reports of Forgetting Outside the Lab

- Child Abuse
 - Relationship between memory impairment and abuse by caregivers/close others.
 - Prospective: Williams, 1994, 1995
 - Retrospective: Cameron, 1993; Feldman-Summers & Pope, 1994; Sheiman, 1999; Edwards et al., 2001; Freyd, DePrince & Zurbriggen, 2001; Schultz, Passmore & Yoder, 2003; Stoler, 2003
- Other Traumas
 - Elliott, 1997

Forgetting inside the lab

- Research inside the lab
 - Under what conditions do people forget trauma-related stimuli?
 - Goal: To make inferences about mechanisms underlying forgetting
 - Goal is not: To establish the validity of forgetting outside the lab.

Questions Asked and Inferences: Real World ↔ Laboratory



Real World:
Bumblebees can and do fly

Laboratory:
What if they don't fly in the lab?
Bumblebees cannot fly (according to conventional aerodynamics)



"I'm sure no one, including the bees, seriously doubted that insects can fly"
- Dr. Z. Jane Wang.

Questions Asked and Inferences: Real World ↔ Laboratory



Real World:
Forgetting



Laboratory:
Conditions under which forgetting occurs

Conditions under which we see impaired recall for trauma-related stimuli in the lab

- Experimental Demands: **Attention**
- Psychological Factors: **Dissociation**
- Trauma History Type: **Intimate violence**

Psychological Factors: **Dissociation**

- Name ink colors for words printed in color.
TIGER
RAPE
- Results: High dissociators remember fewer trauma-related and more neutral words compared to low dissociators.

Condition	Low	High
Neutral	~18	~20
Charged	~19	~14

DePrince & Freyd, 1999

Psychological Factors: **Dissociation**

- Directed Forgetting, Item Method
- Moulds and Bryant (2002)
 - Participants diagnosed with Acute Stress Disorder (ASD) showed poor recall of to-be-forgotten (TBF) trauma-related words compared to non-traumatized controls
 - ASD participants had all been exposed to some form of physical threat.
 - Dissociative symptoms and forgetting

abuse FFFF
chair RRRR
house FFFF

Psychological Factors: **Dissociation**
Experimental Demands: **Attention**

Directed Forgetting – Item Method
Divided Attention, Remember Condition

Word Category	Low DES	High DES
Neutral	~18	~25
Trauma	~30	~18

DePrince & Freyd, 2001

Psychological Factors: **Dissociation**
Experimental Demands: **Attention**
Trauma History: **Intimate Violence**

Directed Forgetting, List Method
Divided Attention, Remember Condition

abuse
house
rape FFFF
cabinet
incest
table RRRR

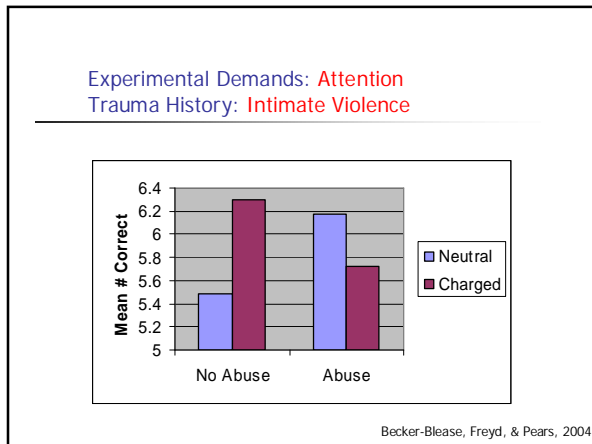
Word Category	Low DES	High DES
Trauma	~28	~18
Neutral	~18	~32

DePrince & Freyd, 2004

Experimental Demands: **Attention**
Trauma History: **Intimate Violence**

- 80 preschool children
- Measured memory for neutral and threat-related stimuli in preschoolers (Berenstain Bear Task).
 - Selective attention: Children looked at pictures.
 - Divided attention: Children looked at pictures and monitored string of auditory stimuli.

Becker-Blease, Freyd, & Pears, 2004



- Conditions under which impaired recall has not been found in the lab
- PTSD
 - Women diagnosed with PTSD who reported a history of childhood abuse did not demonstrate poorer recall for TBF trauma-related stimuli compared to control groups
 - McNally, Metzger, Lasko, Clancy, and Pitman (1998)
 - "Recovered Memory"
 - Women who reported "recovered" or "repressed memories" did not differ from controls.
 - McNally et al. (2001)
 - Borderline Personality Disorder (BPD)
 - Women diagnosed with BPD who reported a history of parent abuse did not demonstrate directed forgetting of words compared to control groups.
 - Cloitre, Camicione, Brodsky, Dulit, and Perry (1996)

- Looking Across Studies
- Reconciling Findings Across Studies
 - Pattern of findings points to dissociative processes (versus anxiety) and attention (e.g., divided)
 - Need more research disentangling anxiety and dissociation
- | | High Dissociation | Low Dissociation |
|--------------|-------------------|------------------|
| High Anxiety | | |
| Low Anxiety | | |

- Limitations of Studying Forgetting in the Lab
- Thinking Critically about Inferences
 - Underlying assumptions
 - Memory impairment for a particular autobiographical event → memory for trauma-related stimuli in the lab.
 - Ecological Validity
 - Are we tapping into the real world?
 - How fragile are these lab effects?
 - Undergraduate (naive) versus community samples
 - Experimental demands

- Benefits of Studying Memory in the Lab
- Experimental control allows us to evaluate conditions under which forgetting of trauma-related stimuli happens.
 - In turn, this will help us identify mechanisms of memory impairment.

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 - Please visit us at
 - www.du.edu/~adeprinc/lab.html
 - <http://dynamic.uoregon.edu/~jff/istss04/>
- Handouts available at: <http://dynamic.uoregon.edu/~jff/istss04/>