Agenda: Cognitive Processes

• Announcements
• Motivation (Why): Betrayal trauma theory
• Institutional Betrayal
• Process (How): Dissociation
Announcements

• Research questions due today
  – include your section day/time
  – come to section prepared to discuss your question

• Midterm in 2 weeks
  – will cover all lectures/readings through 4/26
  – turn in DRC forms today
Announcements

• Upcoming guest speaker Gitta Ryle: Tues 5/17
  – Holocaust survivor
  – An additional reading for this day is possible
  – Probable extra credit opportunity associated with her talk
Take Back the Night @ UCSC

- Thurs
- Rally, 5:30-6:00
  Quarry Plaza
- March 6:00-6:30
- Speak Out 7:00-9:00
  Oakes Learning Center
- Fri 12-2: Teach-in
  on transformative justice
  U. Center, Alumni Room
Motivation and Mechanisms

• Phenomenon of recovered memories seems real (covered in last lecture)
• What motivates this amnesia?
  – "Why" question
• What mechanisms or processes are involved?
  – "How" question
I. Why? Betrayal Trauma Theory

• Classic explanation: we forget what's too painful to remember
• BTT argues that we forget in order to protect an important attachment bond
• Evolutionary argument
• Jennifer Freyd
  – http://dynamic.uoregon.edu/~jjf/defineBT.html
Function of Pain

• Function of pain is to change your behavior so as to improve survival chances
  – usually, leads to action (pull hand away from stove, eat food)
  – sometimes, leads to inaction (lie still so body can heal from sickness)
Suppressing response

• When does pain response get suppressed?
  – when it would get in way of survival
  – e.g. lying still to heal from sickness, but a lion attacks

• Should apply to psychological as well as physical pain
Cheater Detection

• One type of psychological pain is pain from being cheated or betrayed
  – Cosmides argues we have "cheater detectors" to recognize when this happens
  – when it does, we get angry (psychological pain) and take action (break off relationship with cheater)
Betrayal by caregiver

• Sometimes it might be dangerous to survival to break off the relationship
• Example: a child who is dependent on a caregiver being sexually abused by that caregiver
Catch-22 for abused child

• Noticing the betrayal/abuse will trigger cheater-detector mechanisms: anger and pulling away
  – if this breaks the attachment bond with the caregiver, death may result
• Not noticing (denying, repressing) the abuse means it is likely to continue
  – this could also result in death, and almost surely will result in psychological and/or physical harm
Attachment dominates

• Psychological and biochemical bases of attachment are very strong
• Evolutionary function of attachment is highly important
• Need for attachment with caregiver usually trumps all else
• Better to be abused and alive than abandoned (and therefore dead)
Betrayal by caregiver

• Abused child is the prototypical example
• May be analogies in other situations
  – a soldier who is totally dependent on the military structure for survival (Shay)
  – a victim of domestic abuse (Herman)
Strategies

• Need to find a way to stop psychological processes associated with being victim of betrayal
• Maybe can consciously halt actions
  – feel angry, but don't do anything about it
  – carefully plan an escape
  – easier for adults than kids
• May need an unconscious strategy
  – especially kids
Repression/Amnesia

- Dissociate, forget about, or don't notice the abuse
- Anger, etc. is not triggered
- Attachment bond is preserved
- Note: important prediction of BTT
  - memory impairment associated with closeness w/perpetrator
  - memory impairment not (or weakly) associated with pain, terror, or fear during trauma
Freyd, DePrince, Zurbriggen (2001)

- Is memory impairment greater for abuse by caregivers?
- 202 college students
- Results hold even when adjusting for age at first abuse and duration of abuse
II. Institutional Betrayal

• BTT recently expanded to incorporate “institutional betrayal”
  – trauma occurring in context where one’s trust is betrayed by an institution
  – e.g., university, organized religion, the military
  – more precisely: “Institutional betrayal occurs when an institution causes harm to an individual who trusts or depends upon that institution.” (Smith & Freyd, 2014)
Types/Examples

Varieties of Institutional Betrayal

Examples:
- A government cover-up of administrator wrong doing
- A punishing response to report of sexual assault

Examples:
- Requiring extra hours without compensation
- Posting sexually violent imagery in dorms

Apparent Isolated

Requiring extra hours without compensation
Posting sexually violent imagery in dorms

Apparent Systemic

Failure to notify pregnant worker of FMLA protection
Failure to respond to report of sexual assault

Examples:
- Not providing sick leave to workers
- Lack of civil rights for oppressed groups

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Characteristics

• Some aspects of institutions make them more at risk to commit IB
• Strict membership requirements
  – loss of membership would be costly
• High prestige
• Priorities
  – reputation of institution
Impact of IB

- Increases “normal” impact of interpersonal trauma
Impact of IB

• Also had a direct effect among female soldiers
  – PTSD symptoms
  – depressive symptoms
  – suicide attempt (after a military sexual trauma)
III. How? Dissociation

- Dissociation may be the mechanism or process that allows a memory to be repressed, denied, or forgotten
- DES (dissociation) often related to memory problems
- Dissociation related to changes in basic cognitive processes
DePrince & Freyd (1999)

- Looks at basic attentional and memory processes
  - attention: Stroop task
  - memory: recall
- Are there differences for people high vs. low in dissociation (DES)?
  - recall that DES is correlated with trauma exposure
  - therefore, DES can be considered a proxy for traumatic experience
Stroop Task

• Instructions: Name the color of the ink, as quickly and accurately as possible

  word: red
  word: blue
  word: white
Stroop Task

word

word

word
red

green

blue

white

yellow

black

orange
Stroop Task: Congruent

red

green

blue

white

yellow

black

orange
Stroop Task

• Do it again
• Name the color of the ink, as quickly and accurately as possible
red

green

blue

white

yellow

black

orange
Stroop Task: Incongruent

- red
- green
- blue
- white
- yellow
- black
- orange
Stroop Task: Baseline

xxxxxx
xxxxxx
xxxxxx
xxxxxx
xxxxxx
xxxxxx
xxxxxx
xxxxxx

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Stroop Task: Neutral

book
niece
kitchen
tiger
planet
river
cat
Stroop Task: Emotional

victim
abuse
shame
incest
rape
assault
grenade
Deprince & Freyd: Method

• Participants: college students
  – 54 high DES; 54 low DES

• Two conditions:
  – selective attention: Stroop
  – divided attention: Stroop + memorize words

• Stimuli: all 5 categories

• Assessed trauma history

• Measured Stroop interference and memory for the words in both conditions
# DES and Trauma History

Number of "yes" responses

<table>
<thead>
<tr>
<th>Category</th>
<th>Low DES</th>
<th>High DES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Abuse (before age 14)</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Uncomfortable Touching</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Emotional Abuse</td>
<td>0</td>
<td>21</td>
</tr>
<tr>
<td>Sexual Assault (after age 14)</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Trauma Not Specified</td>
<td>19</td>
<td>34</td>
</tr>
</tbody>
</table>

Conclusion: high DES group more traumatized
Two Conditions

• Selective attention
  – just doing the Stroop task
• Divided attention (dual-task)
  – also trying to remember the words
• Which do you think is harder?
Results: Stroop Interference

- Subtract baseline from incongruent
Results: Stroop Interference

- Subtract baseline from incongruent

- low DES: faster in selective attention
- high DES: faster in dual-task
- which condition is harder? It depends on your DES level (trauma history)
Results: Stroop Interference

- Subtract baseline from incongruent

- low DES: better doing one thing at a time
- high DES: can better ignore word meaning when trying to remember the words
Results: Memory

% of words recalled

- Neutral
- Charged

Low
High

25
20
15
10
5
0
Results: Summary

• High DES = more trauma
• Stroop: interaction between DES and attention condition
  – for low DES, selective attention better
  – for high DES, divided attention better
• Memory: interaction between DES and word type
  – no diff in memory for neutral words
  – high DES had worse memory for trauma words
Overall Message

• Trauma can lead to cognitive deficits
• But, trauma victims may be better at some cognitive tasks
  – DePrince & Freyd: high dissociators have better performance under divided attention or dual-task conditions
  – May be better at multi-tasking
    • because they can separate the two tasks better?
Literature searches

– Tips in psycinfo