What's Special about Trauma Memory?

Dr R A Davies

for the

Complex Trauma Institute Webinar Series

(12 September 2020)

#DreamsWithoutDreaming

Issues addressed in the talk

I'd like to consider the following questions

- Why is trauma memory (TM) of interest?
- What common assumptions are there about TM?
- In what ways might TM be different or special?

And raise some issues for discussion and reflection

- What is the clinical relevance of views on trauma memory?
- Might different views affect interactions with trauma-recovery clients?
- Might they affect or limit our choice of therapeutic interventions?
- What are your intuitions about trauma memory?

Why talk about trauma memory?

Trauma memory is a central topic in several disciplines:

- Psychotherapy (of course!)
- Clinical-Cognitive Psychology
- Cultural/Political Memory Studies (e.g. dealing with Holocaust; Apartheid)
- Philosophy?
  - Highly relevant but very little detailed work, especially as it relates to individuals. (This is also the context in which it is most relevant to psychotherapy).
  - Memory itself has only recently become an area of research in its own right*

Why talk about trauma memory?

Philosophical & clinical interest in trauma memory converge on a number of issues:

- **Theories of trauma memory** are likely to influence psychotherapeutic practice
  - If one's theory of trauma memory is implausible, practices based on that theory won't have a solid (theoretical) basis.*

- Considering the **ethics of trauma memory** is likely to inform interactions with trauma-recovery clients.
  - Is a therapeutic request for detailed information about traumatic experiences *different* from a non-therapeutic (e.g. compensation) request? And if so, how?
  - If divulging detailed information about trauma experiences can be 'difficult' or 'disturbing' (or lead to re-traumatization and dropout) there might be ethical considerations for when it is appropriate to do request such information.

Why is trauma memory of interest?

Trauma memory has long been a topic of curiosity:

- A number of literatures tend to claim (or just assume) that TM is different or unusual when compared to other forms of memory.
- These claims or assumptions tend to to focus on its distinctive features.
- And it is sometimes suggested that TM is a *completely different* kind of memory.

Huge if true! If TM is different, has unusual features, or is a wholly unique kind of memory, then there is a urgent need to understand it.

- Trauma is staggeringly widespread (so trauma memory will be too)
- Between 59-83% of people have 'Adverse Childhood Experiences' (ACEs)
- 70% worldwide will experience at least one DSM5 traumatic life event.
- ~12.5% of the population have their lives negatively impacted by trauma.
- And trauma is *contagious* (e.g. vicarious traumatisation)

Traumatic memory in diagnostic criteria

Trauma memory features in key diagnostic criteria for PTSD:

DSM-5:

B. Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:

1**. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s).** Note: In children older than 6 years, **repetitive play** may occur in which themes or aspects of the traumatic event(s) are expressed.

2. **Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s).** Note: In children, there may be frightening dreams without recognizable content. (APA 2013, p. 271)

Traumatic memory in diagnostic criteria

ICD-11

Post-traumatic stress disorder (PTSD) is a disorder that may develop following exposure to an extremely threatening or horrific event or series of events. It is characterized by all of the following: re-experiencing the traumatic event or events in the present in the form of vivid **intrusive memories, flashbacks, or nightmares. These are typically accompanied by strong or overwhelming emotions, particularly fear or horror, and strong physical sensations. (2) avoidance of thoughts and memories of the event or events, or avoidance of activities, situations, or people reminiscent of the event or events**; and (3) persistent perceptions of heightened current threat, for example as indicated by hypervigilance or an enhanced startle reaction to stimuli such as unexpected noises.

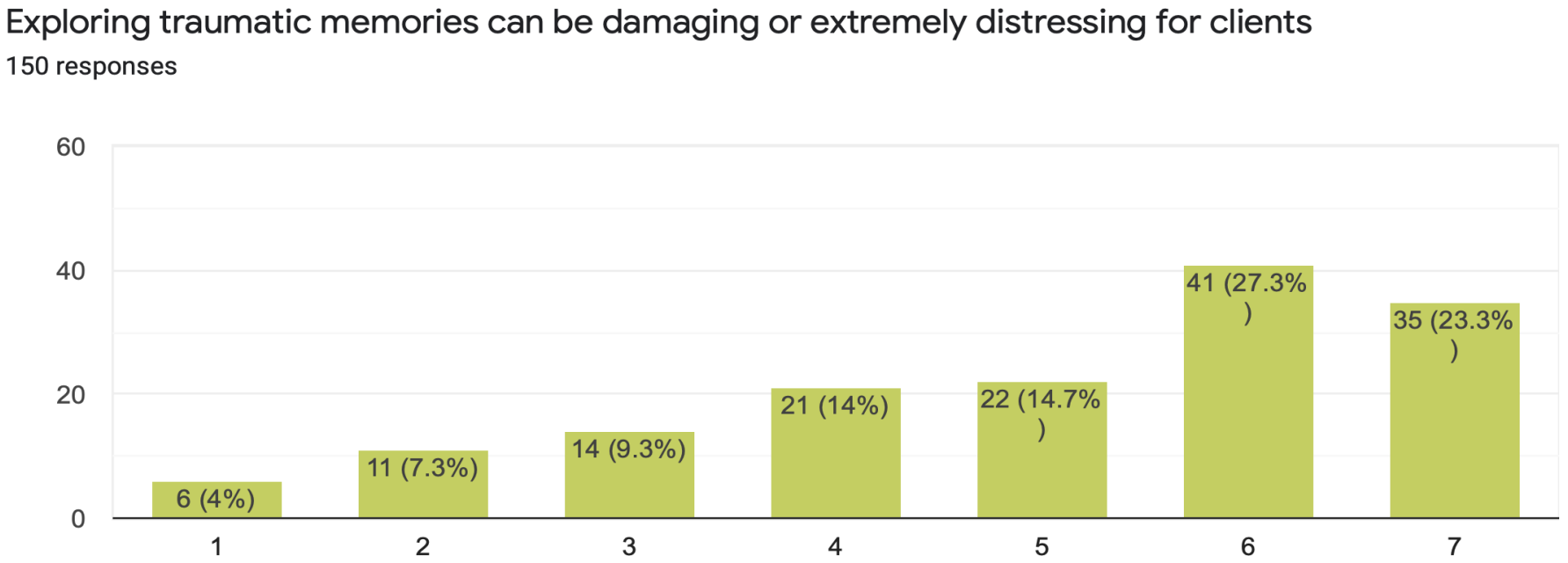
Note: all three (and three additional criteria) characterize complex PTSD in ICD-11.

Question 1: your intuitions about trauma memories

Can exploring traumatic memories be damaging or extremely distressing for clients?

Yes/No/Don't know?

Exploring trauma memories



65.3% agreed in a 2019 survey of clinicians*

A short history of trauma memory

Studies relating to the unusualness of trauma memory go back at least 150 years:

- Jean-Martin Charcot (in the 1870s) was fascinated with the cause of paralyses, jerky movements, sudden collapses, frenzied laughter, dramatic weeping, etc.
- He took these phenomena to be the physical imprints of trauma
- Pierre Janet (late 1880s) suggested:

> "Trauma is held in procedural memory—in automatic actions and reactions, sensations and attitudes, and that trauma is replayed and reenacted as visceral sensations (anxiety and panic), body movements, or visual images (nightmares and flashbacks)" (Ibid.)

Question 2: your intuitions about trauma memory

Is trauma held in procedural memory?

(Yes/No/Don't Know)

A short history of trauma memory

When faced with victims of trauma ("war neuroses") from WW1, Freud had to revisit his theory of dreams:

> "Dreams occurring in traumatic neuroses have the characteristic of repeatedly bringing the patient back into the situation of his accident, a situation from which he wakes up in another fright. This astonishes people far too little … Anyone who accepts it as something self-evident that dreams should put them back at night into the situation that caused them to fall ill has misunderstood the nature of dreams." (SE 18:13; cf. Caruth 1995)

Memory of traumatic material, then, makes its way 'directly' into dream content.

Why is this a problem for Freud?

- Traumatic dream contents aren't symbols and aren't wishes.
- They are 'just history' (Caruth 1995)

Question 3: your intuitions about trauma memory

If trauma-related nightmares are intrusive memories (not symbols or wishes) does it makes sense to try to interpret them?

Yes/No/Don't Know

A short history of trauma memory

Some observations about TM have developed into specific and independent claims:

- The differences between trauma memory and other forms of memory are not merely a matter of *degree*, but a matter of *kind.* Two examples:
  - Memories of traumatic events have *special properties* (cf. Shobe and Kihlstrom 1997)
  - Trauma memory is a *wholly unique kind* of memory

This latter view is in currency psychotherapy literature:

> "Most importantly, traumatic memory differs *fundamentally* from other types of memory, creating the potential for great confusion and the misapplication of therapeutic techniques." (Levine 2015, p. xx)*

Question 4: Your intuitions about trauma memory

Is trauma memory "fundamentally different' (a unique kind of) memory?

Yes/No/Don't Know

A puzzle concerning trauma memory

Understanding trauma memory is important for theoretically sound therapeutic practice and the potentially staggering numbers of people affected by trauma.

But it is not an easy phenomenon to understand:

- It caught Freud off guard*
- Observations about TM appear to pull us in different directions (they can imply very different things about TM)

For example:

- Janet's thought trauma is held in the *procedural* memory.
- Levine (2015) thinks trauma memory is *fundamentally different* to other forms of memory.
- But *procedural* memory is a standard form of memory (it appears in traditional memory hierarchies). On the face of it, Janet and Levine disagree.*

A puzzle concerning trauma memory

One problem is that many competing claims about TM have a *"ring of truth"* about them:

- TM can appear so unusual (flashbacks; re-traumatization; intrusions) that is natural to think of it as alien when compared to 'normal' memory.
- Trauma victims can find it difficult to talk about their ordeals, so perhaps memories of those ordeals are stored somehow *differently* to 'normal' memory.
- So we need to be especially careful about exactly what is being claimed about the unusualness of TM.
- The puzzle about TM, then, is how to assess multiple and competing—often initially plausible-sounding*—claims about TM's nature or its characteristics.

Does trauma memory fit with what we know?

One way to categorize TM claims is to compare them to existing research into memory.

We can do this in two steps:

- Step 1: Whether or how views of TM fit within existing models of memory.

- Step 2: Whether there is evidential support for claims about TM.

Step 1 sees views of trauma memory falling into three broad categories:

1. Views that are *continuous* with predominant thinking of memory*
2. Views that would *modify* predominant thinking of memory
3. Views that are discontinuous with predominant thinking on memory

We can briefly explain and illustrate what is meant in each case.

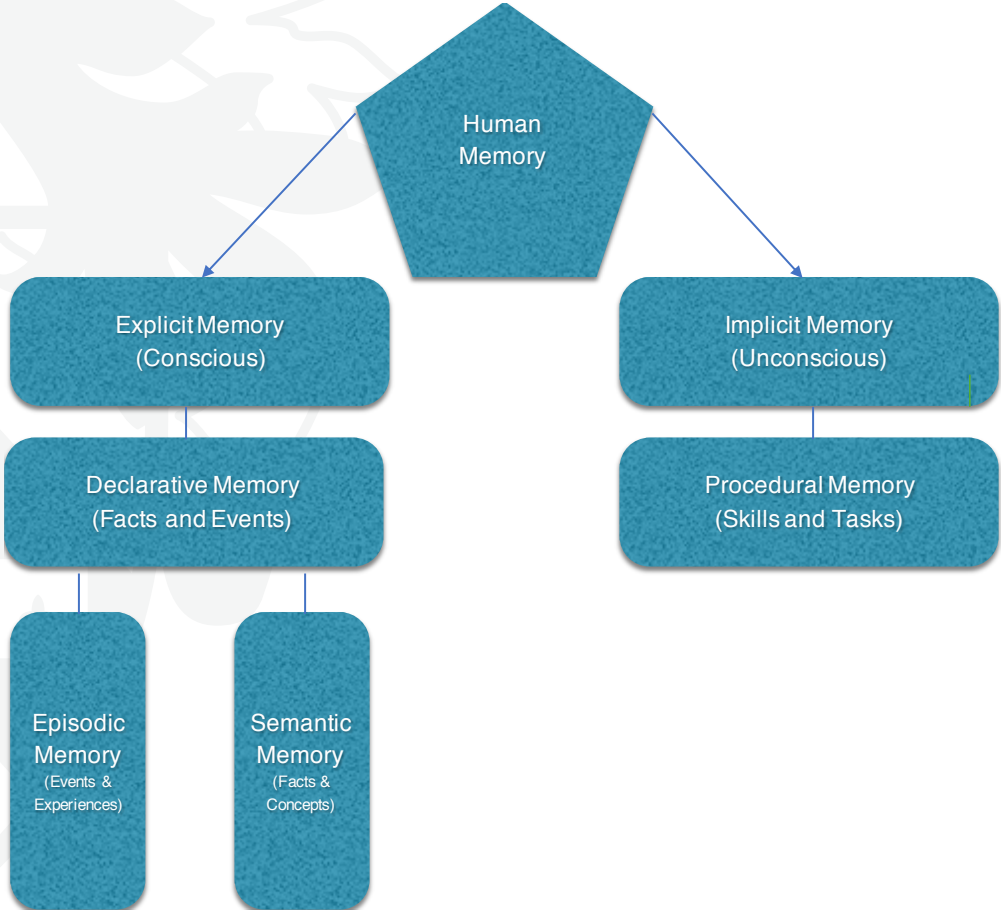
Views of trauma memory—1: Continuity

1. **Trauma Continuity**

Views of TM that are continuous with predominant thinking on memory fit within the 'traditional' memory hierarchy

- Any difference is a difference of *degree,* not of *kind*
- For example, TM content (or feelings about it) might be especially intense or emotionally charged, but they are not fundamentally different.
- So TM is explained by 'standard' forms of memory
- The traditional memory hierarchy looks like this:

1. Continuity with the 'traditional' hierarchy of memory



Views of trauma memory—2: Modification

2. Trauma Modification

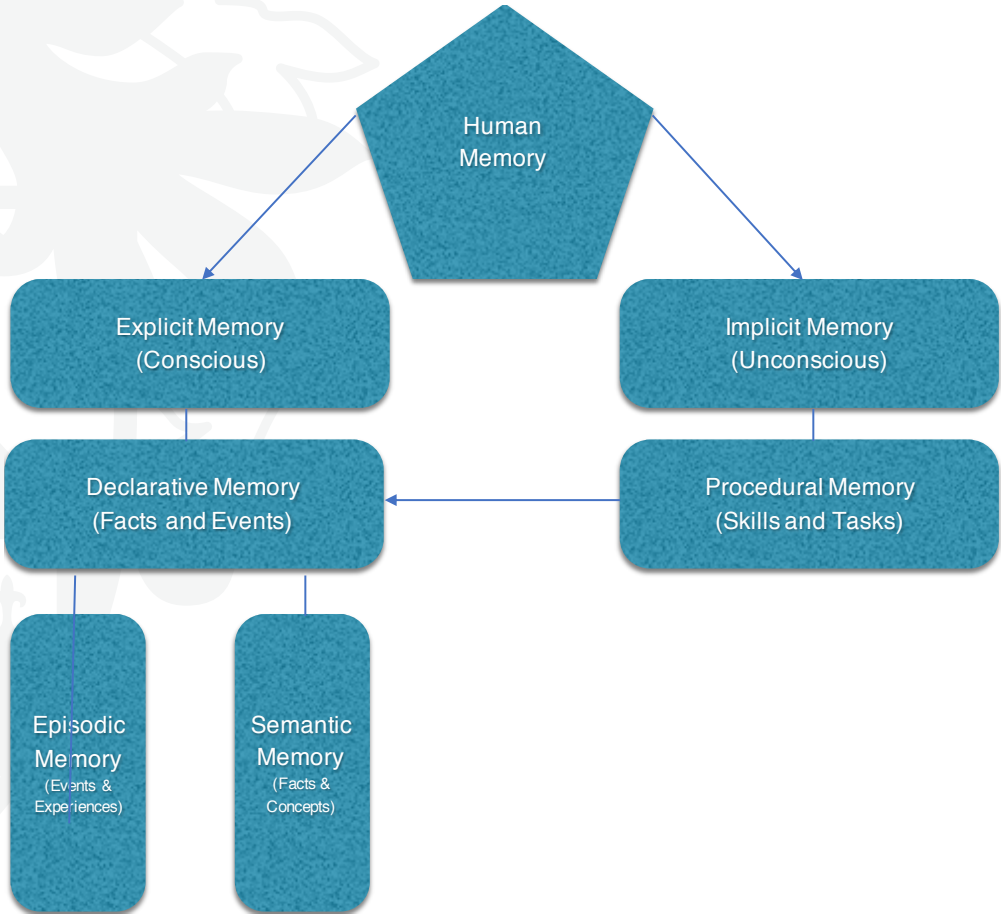
Views of TM that modify predominant thinking on memory might:

- Alter one or more feature of the traditional hierarchy.
- Alter (or make additional claims about) relationships between kinds of memory within that hierarchy.

Examples include 'recovered memory' (RM) views:

  - *RM: trauma memory needs to be recovered from one form of memory (e.g. procedural) to another form (e.g. episodic, semantic)*
- These kinds of views require minor modifications to standard views of memory
- If they are true, we might have to revise our views of one or more kinds of memory slightly
- But they don't require major structural changes, or additional kinds of memory.

2. Modification (example): Recovery from procedural to declarative memory



Views of trauma memory—3: Discontinuity with the 'traditional' memory hierarchy

3. Trauma Discontinuity

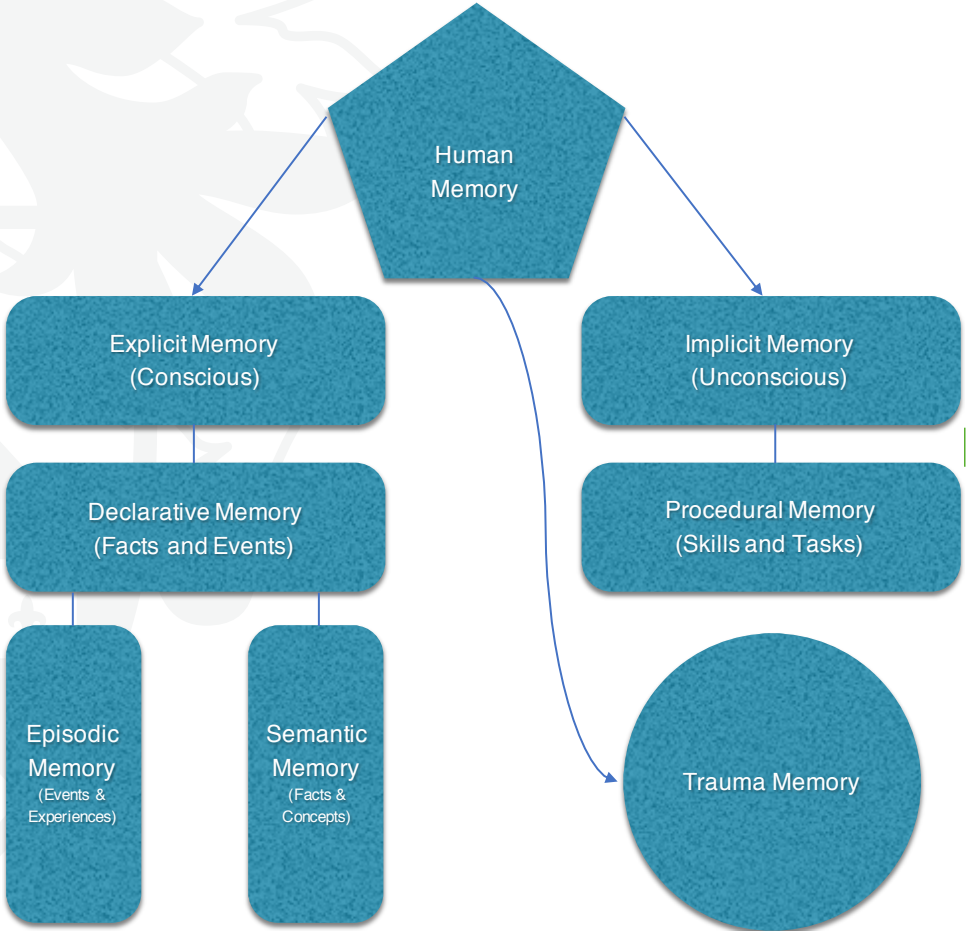
Views of TM that are discontinuous with predominant thinking on memory might suggest that:

- TM fundamentally different from other forms of memory
- TM is a *wholly unique* form of memory
- TM is 'of its own kind'

If true, these views would require a fairly radical reworking of our understanding.

- They would suggest that current thinking is at the very least worryingly incomplete
- And, at least in some cases, that our thinking about memory is badly wrong
- They would require that traditional hierarchies of memory be revised (not just tweaked!)

Discontinuity: Trauma is ‘sui generis’ memory



Question 5: your intuitions about trauma memory

Does trauma memory:

A. *Probably fit with what we already know about memory?*
B. *Broadly fit, but require minor modifications to our understanding?*
C. *Or is it totally different?*

What's supposedly special about trauma memory?

We can briefly look at the kinds of things that people believe about trauma memory (gathered from various literatures).

What's special, interesting, or unique about trauma memory is that it is characterised by:

1. Disruption of time experience (a lack of 'pastness'; 'temporal breakdown')
2. Different vantage point/perspective (usually in 'observer' perspective rather than 'field' perspective)
3. Deficit of memory (amnesia, repression, dissociation)
4. Surfeit of memory (involuntariness, invasiveness, preoccupation)
5. That it is stored in 'implicit' or '*procedural*' memory.*

Trauma memory and time disorders

Trauma is sometimes called “a disorder of time”. And extreme versions of this view describe trauma as “a total breakdown of temporal experience”.

If true, that would be a radical way in which trauma memory was unique.

- Not obviously true for *any* trauma victims.
- Definitely *not* true for *all* trauma victims.

There are more moderate ways in which temporal experience might seem different in TM :

- One suggestion is that trauma memories lack a “feeling of pastness”
- Trauma clients sometimes “relive” past events as though they are present
- “it’s like I’m on the beach right now”; “I was back on the operating table” …
- However, there are standard kinds of memory that lack this feeling (e.g. factual memory), so this is not a unique characteristic of TM.*

Memory perspectives

Another suggestion is that TM is characterized by a different vantage point, or different perspective to 'standard' forms of memory. What does that mean?

- Ordinary perceptual experience is in "field" (first-person) perspective
  - So it is generally assumed that memory has the same character
- But trauma memory is regularly reported as being in an "observer" perspective
  - Seeing oneself 'as another might' (i.e. from the outside) (Kenny et al. 2009)

- Field perspective has been associated with heightened emotionality (Mooren et al. 2019)
- And PTSD clients who adopt an observer perspective reported lower emotional distress (Mclsaac & Eich 2004) and reduced physiological reactivity (Wisco et al. 2015).
- So perhaps what is special or unique about trauma memory is that it has a different perspective than other memories (an observer perspective)

Memory perspectives

However, “observer” memory is a commonplace phenomenon.

- It is controversial because the events are not remembered *strictly* as experienced, and thus it suggests ‘error’ (mis-remembering; or imagining)
- But it’s relatively commonplace in that there familiar examples remembering from the outside:
  - Some sportspeople using observer memories to tweak their techniques
  - Reports of “seeing” oneself at the beach or swimming
  - Recalling making a fool of oneself

Observer perspective is not discontinuous with traditional memory hierarchies. It doesn’t make trauma memory unique (or particularly special)

However, it might clinically relevant: we might be able to *use* observer perspective to reduce emotionality and distress when dealing with trauma clients.

Is trauma a deficit or a surfeit of memory?

These views appear to be in tension, so can deal with them together.

- By deficit we mean “amnesia”, “repression”, and “dissociation”,
- There are differences between these, but they “all deny mental contents to conscious awareness and voluntary control” (Shobe and Kihlstrom 1997, p. 7)

One example of the memory deficit view relates to the “Recovery” thesis

- Some kinds of therapy have the aim of recovering *difficult-to-access* memories.
- These are usually associated with the claim that trauma memory is special (hence the need for specialist intervention)
- Origins of the view can be found in Janet (1880s); revived in 1990s

This seems relatively plausible, in part due to trauma having an observable effect on the body.

Question 6: your intuitions about trauma memory

Is trauma memory characterized by:

(A) A deficit of memory (e.g. forgetting, amnesia, inaccessibility)?
(B) A surfeit of memory (e.g. involuntariness, intrusiveness, preoccupation)?
(C) Both?
(D) Don't know?

Is trauma a deficit or a surfeit of memory?

Prominent variations of the deficit view include:

van der Kolk (1994)

- Traumatic stress interferes with the consolidation of a verbalizable explicit memory
- "The body keeps the score", i.e. unconsciously with regards to trauma (cf. Shobe and Kihlstrom 1997)

Herman (1992)

- "traumatic memories lack verbal narrative and context, and exist only as static, unverbalizable, but vivid sensations and images" (*Ibid*.)

Freyd (1996)

- "betrayal by a primary caregiver … evokes evolved coping mechanisms that block awareness" (*Ibid*.)

Is trauma a deficit or a surfeit of memory?

However, empirical support for a deficit of memory in trauma is relatively hard to find.

- Research on animals and humans indicates that “high levels of stress *enhance* rather than impair memory”
- And “explicit memory memory for emotionally arousing events is well-retained”
- The experimental research on memory makes it difficult to see how traumatic events are *hidden from the awareness*, and require *special treatment* to be recovered (Shobe and Kihlstrom 1997)

A plausible sounding response to these concerns is to say there are *two kinds* of trauma memory:

(Type 1) Single well-defined events that are well-remembered in good detail

(Type 2) Repeated traumas that invoke denial and dissociation that are poorly remembered. (Terr 1991, 1994)

Is trauma a deficit or a surfeit of memory?

But the evidence for this claim makes use of two quite different age-groups:

- The age-group for Type I was 5-14
- The age-group used for Type II trauma under 5s
- And so the differences in recall are attributable to perfectly normal childhood amnesia in under 5s

- **What have we learnt?**
- Not a great deal of good empirical evidence that trauma is characterized by a deficit of memory.
- If anything it appears to be a surfeit (cf. DSM-5 & ICD-11).
- But heightened recall appears to be true of all emotionally charged memory, so it's not something peculiar to trauma memory.
- Neither deficit or surfeit are unique features of trauma memory worthy of special explanation. So neither view would be *discontinuous* with what we already know about memory.

Is trauma memory implicit or explicit?

Perhaps the salient distinction is between *implicit* memory and *explicit* memory. But this runs into a similar problem:

- High levels of stress and emotionality appear to enhance memory so empirical evidence would point to *good* not *poor*, explicit memory.
- Implicit memory is not an unusual category of memory, it's a perfectly mundane one.
- This is unlikely be the right way to characterize what is special about TM.

So, why might people think this this is a special feature of TM?

1. We can take a brief look at the genealogy of the claim
2. Point to a likely conceptual confusion

Is trauma memory implicit or explicit?

1. What is the genealogy of the claim?

    - Piere Janet's case of Irene.
    - Irene appears in Janet (e.g. 1904, 1919-25, 1928, 1929, 1935)
    - Revived by van der Kolk et al. (e.g. 1995-)
        - Also criticized for small samples
    - Is it not obviously "simply" traumatic memory.

    "If you insist on it, I will tell you: "My mother is dead". They tell me that it is so all day long, and I simply agree with them to get them off my back. But if you want my opinion, I don't believe it." (Janet, 1928, pp. 207–208; van der Kolk 1995)

Is trauma memory implicit or explicit?

2. Is there room for conceptual confusion?

Room at least for two plausible difficulties.

i. Possible confusion over two uses of the term “implicit”
ii. Possible confusion over the verb “to remember”.*

i. Implicitness: Two valid uses

- “Implicit” in memory hierarchies refers to memory for skills and procedures, which are *usually* deployed without conscious awareness.
- “Implicit” in another (more ordinary) sense, just means that one is not currently aware of (cf. “latent” or “tacit”).

- Most of our memories are implicit in the second sense, and for most of the time.
- And either use would not make TM unique

In what way is trauma memory special?

None of the views about TM make it unique or fundamentally different.*

- A few, if true, might require minor modifications in our understanding of memory
  - Although some of those views are controversial.
  - And the modifications might be quite minimal.
- The majority of claims about TM suggest TM would fit naturally into the traditional hierarchy of memory. (Although not all claims about TM have been discussed here.*)

- But even if it turns out that every purported feature of TM fits naturally into the traditional hierarchy of memory, that wouldn't mean TM isn't special or interesting.
  - One obvious way that it could be special without being unique or fundamentally different is by degree: more intense, more emotionally charged, etc.
  - But it is worth considering whether TM is special not because it is a particular kind of memory, but because of what trauma content do to other memory content, and to other cognitive capacities.

Cognitive impairment, attention, and event centrality

- TM can ‘tyrannise’ cognitive functioning:
  - PTSD can result in cognitive deficits, such as: problems with sustained attention; initial learning (Vasterling 2002); mental manipulation (1998), word fluency (1993); and bias (DePierro et al. 2013; Schindler 2019)

- TM can also ‘tynrannise’ non-trauma content:
  - Trauma memories form trauma form reference points for the organization of other experiences, meaning that:

“A highly negative, unpredictable, and probably rare event will influence the attribution of meaning to other more mundane events as well as the generation of expectations for future events. Ruminations, unnecessary worries, and compulsive attempts at avoiding similar events in the future are likely outcomes" (Bernstein and Rubin 2006, p. 219)

Thank you!

Acknowledgements

- Professor Tom Stoneham (University of York)
- Dzmitry Karpuk (CTTN)
- Research Champions Research Priming Fund (University of York)
- GCRF (Research Priming)
- CPD Department Pump Priming Fund (University of York)
- Department of Philosophy (University of York)