

Dissociation and psychosis: An examination of the cognitive experimental literature

Martin J Dorahy

1. Trauma Resource Centre

Belfast HSC Trust

2. School of Psychology

The Queen's University of Belfast



Threat, psychosis & dissociation

- ◆ Both psychotic and dissociative experiences (related to trauma), associated with frightening memories, thoughts, beliefs
- ◆ Internally- and externally-derived perceptions of threat may be reinforced in individuals with dissociative and psychotic disorders by cognitive biases
- ◆ Yet, cognitive research designed to understand threat processing is different in the dissociation and psychosis fields.

Cognitive research & psychosis

- ◆ Cognitive experimental work in psychosis tends to focus on specific *symptoms* as a state or outcome of abnormal threat-related cognitive processes.
- ◆ Abn threat-related cog processes \implies Psychotic symptoms
- ◆ Generic question: “What cognitive processes create or lead to psychotic symptoms?”

Cognitive research & dissociation

- ◆ Dissociation generally has not been viewed as an outcome of cognitive processing anomalies,
- ◆ But as a *process* in itself that reduces the impact of threat.
- ◆ Dissociation research has thus attempted to examine what cognitive processes are associated with, or assist, this threat management process.

Cognitive research & dissociation

◆ Dissociation



Threat management

◆ Cognitive processes

◆ Generic question: “What cognitive processes are associated with the process of dissociation?”



Threat, psychosis & dissociation

- ◆ Studies exploring the relationship between threat and cognition in dissociation and in psychosis have examined the functioning of putative cognitive processes in response to external threat cues.
- ◆ Broadly, two groups:
 - ❖ a) those examining encoding and retrieval (memory) processes
 - ❖ b) those examining attention and working memory processes (e.g., cognitive inhibition).



Memory studies in short

- ◆ Psychosis: evidence of biased recall of material associated with personal threat,
- ◆ ∴ ? long-term expectancy biases regarding future negative and personally-threatening life events, e.g., paranoia (Bentall, Kaney, & Bowen-Jones, 1995; Kaney, Bowen-Jones, Dewey, & Bentall, 1997).
- ◆ How cognitive processes lead to psychotic symptoms.

Memory studies in short

- ◆ Dissociative disorders: memory studies largely focused on amnesia between identities (i.e., 'interidentity amnesia') and information transfer across amnesic identities in DID (e.g., Elzinga, Phaf, Ardon & Van Dyck, 2003; Huntjens et al., 2005; Nissen et al., 1988; for reviews see Allen & Iacono, 2001; Dorahy, 2001).
- ◆ Preliminary research; emotional content per se (i.e., objective threat rating) less influential on retrieval failure than the higher order associations binding with the stimulus during encoding (e.g., the cognition 'I'm going to die, lose control or be overwhelmed' during a traumatic event).
- ◆ Focused on whether 'amnesia' is obj. and/or subj. true (what are features of amnesia). Some effort on cog processes associated with amnesia (e.g., state-dependent learning).



Attentional processes- Dissociation

- ◆ High dissociative capacity creates a “cognitive environment” where multiple streams of information can be more easily processed (DePrince & Freyd, 1999, 2004).
- ◆ Research support: A processing advantage for high dissociators over low dissociators when engaged in dual attention tasks, but a disadvantage when selective attention tasks are administered (DePrince & Freyd, 1999, 2001; De Ruiter et al., 2003, 2004, 2006; Veltman et al., 2005).

Attentional processes- Dissociation

- ◆ Clinical support: Less interference compared to comparison groups in a DD sample (N = 46, primarily depersonalisation disorder) for neutral, dissociation and threat words during a divided attention (modified Emotional Stroop) task (Simeon, Knutelska, Putnam, Schmeidler, & Smith, 2005)
- ◆ Which cognitive processes (e.g., divided attention) are associated with the dissociative ability to manage threat (e.g., divided attention advantage may prevent threatening information reaching conscious awareness in high dissociators)

Attentional processes- Psychosis

- ◆ Symptom focused
- ◆ Delusional individuals show pre-attentional bias (slower responding) to threat and delusional words (Stroop; Fear et al., 1996)
- ◆ Delusion-prone non-clinical Ss slower to disengage attention from threat (slower to respond to dots presented in *different* spatial locations to angry (versus happy))
- ◆ Thus controlled/conscious bias towards threat.

Attentional processes- Psychosis

- ◆ Such extended processing of threat may plausibly result in deeper encoding of threat-related information in long-term memory stores, coinciding with heightened recall of threatening material and a higher expectation of negative events in paranoid schizophrenia (Bentall et al., 1995; Kaney et al., 1992).
- ◆ Cognitive mechanisms which lead to psychotic symptoms (delusions)

Cognitive inhibition

- ◆ One of the few cognitive variables systematically assessed in psychosis and dissociation
- ◆ In psychosis literature threat impact not examined
- ◆ The focus has been on:
 - ❖ *Whether* inhibitory deficits are present in psychosis,
 - ❖ *Where* they are evident (e.g., automatic or controlled level of processing)
 - ❖ *What* symptoms are associated with them (i.e., how they may explain specific symptoms)
- ◆ How does this cognitive process give rise to symptoms

Cognitive inhibition

- ◆ In dissociation literature threat has been examined
- ◆ Moreover, there has been limited attempts to compare those with dissociative and psychotic disorders
- ◆ Some evidence of different cognitive inhibitory functioning, but still unclear with reference to threat
- ◆ Are there cognitive markers for dissociation; what are characteristics of inhibitory functioning in DDs

Conclusion

- ◆ Studies in dissociation have adopted a standpoint of dissociation as intimately related to threat, especially as a threat-reduction strategy.
- ◆ What cog processes are associated with threat reduction and the process of dissociation
- ◆ Less attention has been given to how cognitive processes might explain dissociation when viewed as an outcome or symptom variable.

Conclusion

- ◆ In psychosis literature, psychotic outcomes in the form of symptoms have been isolated and studies have examined the cognitive processes that may give rise to and explain them.
- ◆ Thus, efforts to experimentally explore and understand cognitive processes in dissociation and psychosis have been more divergent than convergent in their initial aims.
- ◆ Future work should examine if the cognitive mechanisms associated with dissociation can account for the symptoms (e.g., hall., del.,) of psychosis.