

PDF hosted at the Radboud Repository of the Radboud University Nijmegen

The following full text is an author's version which may differ from the publisher's version.

For additional information about this publication click this link.

<http://hdl.handle.net/2066/89951>

Please be advised that this information was generated on 2021-04-17 and may be subject to change.

Editorial: Intrusive imagery in psychopathology

Introduction to the Special Issue

Intrusive imagery in psychopathology:

New research findings, implications for theory and treatment, and future directions

Julie Krans

Department of Clinical Psychology, Behavioural Science Institute, Radboud University

Nijmegen, the Netherlands

Author posting. © 2011 International Journal of Cognitive Therapy. This is the author's version of the work. It is posted here for personal use, not for redistribution.

The definitive version was published as
Krans, J. (2011). Intrusive imagery in psychopathology: New research findings, implications for theory and treatment, and future directions. *International Journal of Cognitive Therapy*, 4(2), 117-121.

Correspondence should be addressed to: Julie Krans, Department of Clinical Psychology, Radboud University Nijmegen, Montessorilaan 3, 6525 HE Nijmegen, the Netherlands. Tel.: + 31 24 3613030. Fax: +31 24 3615594. Email: J.Krans@psych.ru.nl.

Intrusive images of a traumatic event are a main feature of posttraumatic stress disorder (PTSD; American Psychiatric Association, 2000). These mental images are sensory ‘flashbacks’ to the time of the trauma during which the survivor relives the sights, sounds, smells, bodily sensations, and/or emotional state of that moment. Experiencing these intrusive images can be very stressful and it is therefore highly important to investigate their development and maintenance. In PTSD, intrusive images are rather striking and are, perhaps for this reason, a key diagnostic criterion according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, APA, 2000). Cognitive models of PTSD provide relatively detailed accounts of intrusion development (e.g., Ehlers & Clark, 2000; Brewin, Dalgleish, & Joseph, 1996) and experimental paradigms are available to induce intrusions in order to study them under controlled circumstances (e.g. Holmes & Bourne, 2008). It is therefore not surprising that much of the research on mental imagery in psychopathology has focused on intrusive images in PTSD. This trend is reflected in this special issue as the first part provides new research findings on intrusive images specifically in the context of PTSD.

Intrusive images that originate from the memory of a direct experience, such as flashbacks in PTSD, are one form of the broader concept of mental imagery. Other examples include events that have not happened in reality such as fantasies, (day)dreams, distorted memories and hallucinations. Different forms of mental imagery have in common that the imagery is not a result of direct sensory input at that moment, but is brought to life from memory or imagination (Hackmann & Holmes, 2004). *Intrusive* mental imagery, then, is defined as images that pop into consciousness involuntarily and uncontrollably. This is in contrast to *deliberate* memory, which refers to the retrieval from autobiographical memory more or less at will. The study of mental imagery within a clinical context is highly interesting for psychology as a discipline. Until recently, mental imagery was primarily studied by cognitive psychologists, who investigated “normal” (i.e., non-clinical) and

deliberately generated imagery (e.g., Kosslyn, Thompson, & Ganis, 2006). Clinical psychology, however, has a strong tradition of focusing primarily on verbal processes, e.g., as in cognitive therapy (Beck, 1976; Hackmann & Holmes, 2004). Only recently, a rapidly growing research interest in imagery in psychopathology has started to combine these fields of research. This shift may be considered intuitive, as mental imagery has been shown to have a powerful link with emotion (Holmes & Mathews, 2005, 2010; Holmes, Mathews, Mackintosh, & Dalgleish, 2008) and some commentators have suggested that imagery provides a doorway to the ‘meanings’ that are central to cognitive therapy (Beck, 1976; Hackmann & Holmes, 2004). Clinically, innovative treatment methods have been developed that address imagery directly, such as imagery rescripting techniques (Arntz & Weertman, 1999; Holmes, Arntz, & Smucker, 2007; Wheatley, Hackmann, & Brewin, 2009).

Intrusive images are likely to develop in the aftermath of a traumatic experience. A traumatic experience is defined as a direct personal experience involving actual or threatened death or injury, witnessing such an event happening to another person or learning about such an unexpected event happening to someone who is close to you (APA, 2000). The lifetime prevalence for exposure to such a traumatic event is high (i.e., 28% to 89.6% depending on the country; Hepp et al., 2006; Breslau et al., 1996). Therefore, the factors involved in the initial development of intrusive images need to be understood. According to cognitive models of PTSD (Ehlers & Clark, 2000; Brewin et al., 1996), such factors consist of, amongst others, encoding processes involving working memory (Pearson & Sawyer, 2010, this issue), pre-existing individual differences, and peri-traumatic factors (e.g., trait and state dissociation; see Hagedaars & Krans, 2010, this issue). Although lifetime risk for a traumatic event is high, the occurrence of full-blown PTSD, fortunately, is not. For example, Hepp et al. (2006) found a 12-month prevalence of 1.30%, although prevalence rates vary according to trauma type (e.g., up to 50% for rape; Lee & Young, 2001). The wide variation in the rates of PTSD both

between individuals and across trauma types indicates that there may be specific factors involved in the maintenance of key symptoms that vary. The hallmark symptom of PTSD is intrusive images – flashbacks – and this is the focus of the current special issue. Avoidance is a notorious maintaining factor in anxiety in general (Beck, 1976) and PTSD specifically (Ehlers & Clark, 2000; Brewin et al., 1996). Cognitive avoidance via the suppression of intrusive images has been suggested as a key factor in intrusion maintenance (Nixon, Wilksch, & Hosking, 2010, this issue). In sum, the goal of better understanding the underlying mechanisms of intrusion development and maintenance is an important one for both clinical psychology and our theoretical understanding of human memory more broadly. The first aim of this special issue is to provide the reader with the latest fundamental research findings of basic mechanisms underlying intrusion development and maintenance. The contributions by Pearson and Sawyer (2010), Nixon, Wilksch, and Hosking (2010), and Hagenars and Krans (2010) have made use of a long tradition of studying stress symptoms under controlled settings: the trauma film paradigm (Horowitz, 1969; Holmes & Bourne, 2008). Within this paradigm, healthy participants view aversive film clips or pictures as an analogue trauma that induces negative emotion and, most importantly, intrusions. In this controlled laboratory environment many theoretical hypotheses may be addressed that cannot be tested in actual PTSD patients for ethical and practical reasons. For example, theoretical hypotheses regarding variables that influence the encoding of trauma cannot be tested in individuals who have already experienced a trauma.

By studying intrusion development using analogue trauma stressors, it is assumed that intrusive images can be placed on a continuum from everyday occurrences to highly emotional flashbacks reported by PTSD patients. That is, although intensity may vary, the underlying processes are the same. Support for this notion has been reviewed by Holmes (2004). Krans, Näring, Speckens and Becker (2010, this issue) report a study of self-

generated traumatic intrusive imagery showing striking similarities with intrusive images developed from direct visual input from a trauma film (see also Krans, Näring, Holmes, & Becker, 2009). This study addresses intrusive images resulting from self-generated imagery in contrast to resulting from direct visual input. Even in PTSD patients some intrusions may be distorted memories or fantasies related to the traumatic event (Holmes, Grey, & Young, 2005).

In order to verify the generalisability of laboratory findings similar studies need to be conducted within the target clinical populations. The second aim of this special issue is to promote translational research on intrusive experiences. The contribution by Ehring, Kleim and Ehlers (2010) addresses this issue by providing a guideline for translational research in this area.

Intrusive images, as noted, are highly striking in PTSD, and also in acute stress disorder (ASD; APA, 2000). However, there is growing a consensus that intrusions are actually a transdiagnostic symptom. That is, a process that occurs across a range of psychological disorders. For example, intrusive images have been reported in social phobia (Hackmann, Clark, & McManus, 2000), bipolar disorder (Holmes, Geddes, Colom, & Goodwin, 2008), depressive disorder (Newby & Moulds, in press), obsessive compulsive disorder (de Silva, 1986), and other disorders (see for reviews Hackmann & Holmes, 2004; Clark, 2005; Holmes & Mathews, 2010). The third aim of this special issue is to inspire innovative ideas for future research on mental imagery in psychopathology as a transdiagnostic phenomenon. Newby and Moulds (2010, this issue) present exciting new data on the predictive value of negative appraisals in regard to having intrusive memories on depression over time. This study is one of the first to approach intrusive memories as a transdiagnostic phenomenon using an elegant research design in a depressed population. Also from a transdiagnostic perspective, Deepröse, Malik, and Holmes (2010) present a new

measure of intrusive imagery of future events within the context of bipolar disorder. This contribution provides a potential clinical tool to assess prospective intrusive imagery. The emphasis on prospection, that is future thinking, is a new direction which complements the main focus to date on intrusive images of / from past events.

To summarise, this special issue provides the reader with (1) new research findings on the factors that underlie intrusion development and maintenance within the context of PTSD, (2) a guideline for translational research in this area, and (3) studies with a broader perspective on intrusive mental imagery in psychopathology - in line with increasing evidence that images of the future as well as the past are transdiagnostic phenomena. By including a broad scope of contributions, we believe that this special issue presents studies that are both interesting and relevant to both fundamental researchers and research-minded clinicians. Experts Michelle L. Moulds and Emily A. Holmes (2010, this issue) provide an excellent commentary that reviews the findings presented in this special issue according to three highly interesting and relevant questions: Must an event be experienced in order for it to become intrusive? Are some people more prone to developing intrusions? And can we reduce the likelihood of developing intrusions by manipulating processing at encoding? To proceed, please engage in this brief imagery exercise: Imagine yourself with a free diary and the entire afternoon to retreat to your favourite library to read these new and exciting papers.

References

- American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders* (4th ed. TR). Washington, D.C.: APA.
- Arntz, A., & Weertman, A. (1999). Treatment of childhood memories: Theory and practice. *Behaviour Research and Therapy*, 37(8), 715-740.
- Beck, A.T. (1976). *Cognitive therapy and the emotional disorders*. New York, NY: International Universities Press.
- Brewin, C.R., Dalgleish, T., & Joseph, S. (1996). A dual representation theory of post traumatic stress disorder. *Psychological Review*, 103, 670–686.
- Clark, D.A. (Ed.). (2005). *Intrusive thoughts in clinical disorders: Theory, research, and treatment*. New York, NY: Guilford Press.
- de Silva, P. (1986). Obsessional-compulsive imagery. *Behaviour Research and Therapy*, 24(3), 333-350.
- Deepröse, C., Malik, A., & Holmes, E.A. (2010). Measuring intrusive prospective imagery using the Impact of Future Events Scale (IFES): Psychometric properties and relation to risk for Bipolar Disorder. *International Journal of Cognitive Therapy*.
- Ehlers, A., & Clark, D.M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, 38, 319–345.
- Ehring, T., Kleim, B., & Ehlers, A. (2010). Combining clinical studies and analogue experiments to investigate cognitive mechanisms in posttraumatic stress disorder. *International Journal of Cognitive Therapy*.
- Hackmann, A., Clark, D.M., & McManus, F. (2000). Recurrent images and early memories in social phobia. *Behaviour Research and Therapy*, 38(6), 601-610.

- Hackmann, A., & Holmes, E.A. (2004). Reflecting on Imagery: a Clinical Perspective and Overview of the Special Edition on Mental Imagery and Memory in Psychopathology. *Memory*, 12(4), 389-402.
- Hagenaars, M.A., & Krans, J. (2010). Trait and state dissociation in the prediction of intrusive images. *International Journal of Cognitive Therapy*.
- Hepp, U., Gamma, A., Milos, G., Eich, D., Ajdadic-Gross, V., Rössler, W., Angst, J., & Schnyder, U. Prevalence of exposure to potentially traumatic events and PTSD. *European Archives of Psychiatry and Clinical Neuroscience*, 256, 151-158.
- Holmes, E.A. (2004). Intrusive, emotional mental imagery and trauma: Experimental and clinical clues. *Imagination, Cognition and Personality*, 23(2-3), 147-154.
- Holmes, E.A., Arntz, A., & Smucker, M.R. (2007). Imagery rescripting in cognitive behaviour therapy: Images, treatment techniques and outcomes. *Journal of Behavior Therapy and Experimental Psychiatry*, 38(4), 297-305.
- Holmes, E.A., & Bourne, C. (2008). Inducing and modulating intrusive emotional memories: A review of the trauma film paradigm. *Acta Psychologica*, 127(3), 553-566.
- Holmes, E.A., Geddes, J.R., Colom, F., & Goodwin, G.M. (2008). Mental imagery as an emotional amplifier: Application to bipolar disorder. *Behaviour Research and Therapy*, 46(12), 1251-1258.
- Holmes, E.A., & Hackmann, A. (2004). A healthy imagination? Editorial for the special issue of memory: Mental imagery and memory in psychopathology. *Memory*, 12(4), 387-388.
- Holmes, E.A., & Mathews, A. (2005). Mental imagery and emotion: A special relationship? *Emotion*, 5(4), 489-497.
- Holmes, E.A., & Mathews, A. (2010). Mental imagery in emotion and emotional disorders. *Clinical Psychology Review*, 30(3), 349-362.

Editorial: Intrusive imagery in psychopathology

- Holmes, E.A., Mathews, A., Mackintosh, B., & Dalgleish, T. (2008). The causal effect of mental imagery on emotion assessed using picture-word cues. *Emotion, 8*(3), 395-409.
- Horowitz, M.J. (1969). Psychic trauma: Return of images after a stress film. *Archives of General Psychiatry, 20*, 552-559.
- Kosslyn, S.M., Thompson, W.L., & Ganis, G. (2006). *The case for mental imagery*. New York, NY: Oxford University Press.
- Krans, J., Näring, G., Holmes, E.A., & Becker, E.S. (2009b). "I see what you're saying": Intrusive images from listening to a traumatic verbal report. *Journal of Anxiety Disorders, 24*, 134-140.
- Krans, J., Näring, G., Speckens, A., & Becker, E.S. (2010). Eyewitness or earwitness: The role of mental imagery in intrusion development. *International Journal of Cognitive Therapy*.
- Lee, D.A., & Young, K. (2001). Post-traumatic stress disorder: Diagnostic issues and epidemiology in adult survivors of traumatic events. *International Review of Psychiatry, 13*(3), 150-158.
- Moulds, M.L., & Holmes, E.A. (2010). Intrusive imagery in psychopathology: A commentary. *International Journal of Cognitive Therapy*.
- Newby, J.M., & Moulds, M.L. (in press). Negative intrusive memories in depression: The role of maladaptive appraisals and safety behaviours. *Journal of Affective Disorders*.
- Nixon, R.D.V., Wilksch, S.R., & Hosking, J. (2010). Intrusive memory: What factors differentiate successful from unsuccessful suppressors? *International Journal of Cognitive Therapy*.
- Pearson, D.G., & Sawyer, T. (2010). Effects of dual task interference on memory intrusions for affective images. *International Journal of Cognitive Therapy*.

Editorial: Intrusive imagery in psychopathology

Wheatley, J., Hackmann, A., & Brewin, C.R. (2009). Imagery rescripting for intrusive sensory memories in major depression following traumatic experiences. In N. Grey (Ed.), *A casebook of cognitive therapy for traumatic stress reactions* (pp.78-92). New York, NY: Routledge/Taylor & Francis Group.