Available online at www.sciencedirect.com
SCIENCE DIRECT®
Behaviour Research and Therapy 44 (2006) 1091–1104
BEHAVIOUR RESEARCH AND THERAPY
www.elsevier.com/locate/brat

Metacognitions in patients with hallucinations and obsessive-compulsive disorder: The superstition factor

José M. García-Montes[a,*], Marino Pérez-Álvarez[b], Cristina Soto Balbuena[c], Salvador Perona Garcelán[b], Adolfo J. Cangas[d]

[a]*Departamento de Personalidad, evaluación y tratamientos psicológicos, Universidad de Almería, La Cañada de San Urbano s/n, 04120-Almería, Spain*
[b]*University of Oviedo, Spain*
[c]*Hospital Virgen del Rocío, Sevilla, Spain*
[d]*University of Almería, Spain*

Received 25 January 2005; received in revised form 4 April 2005; accepted 29 July 2005

Abstract

On the basis of the analogy between intrusive thoughts and auditory hallucinations established by Morrison et al. [(1995). Intrusive thoughts and auditory hallucinations: a cognitive approach. *Behavioural and Cognitive Psychotherapy*, 23, 265–280], the present work compares the metacognitive beliefs and processes of five groups of patients (current hallucinators, never-hallucinated people with a diagnosis of schizophrenia, recovered hallucinators, obsessive-compulsive disorder (OCD) patients, and a clinical control group) and a non-clinical group. The results show that of the five metacognitive factors considered in this study, two were found to be different in the current hallucinators group in comparison to any other group in the design. Likewise, it is found that the metacognitive beliefs of the current hallucinators coincide with those of the OCD patients in various factors, particularly that relating to superstition, and this is interpreted as lending support to the model of Morrison et al. (1995). Furthermore, the results are discussed in the light of existing research on Thought–Action Fusion, stressing the role that may be played by superstitious beliefs and magical thinking in auditory hallucinations and OCD.

Keywords: Auditory hallucinations; Obsessive-compulsive disorder; Metacognitive beliefs; Self-consciousness; Thought–action fusion; Schizotypy

Introduction

Metacognitions and psychopathology

Metacognition has been defined as beliefs and attitudes held about cognition—for example "cognition about cognition" (Flavell & Ross, 1981). Flavell and Wellman (1977) distinguish metacognitive knowledge

*Corresponding author. Tel.: +34 950 01 58 81; fax: +34 950 01 54 71.
E-mail address: jgmontes@ual.es (J.M. García-Montes).

0005-7967/$ - see front matter © 2005 Elsevier Ltd. All rights reserved.
doi:10.1016/j.brat.2005.07.008

(the knowledge that one has about one's own cognitions) from metacognitive experience, that is, the ongoing monitoring and regulation of cognitive experience. Metacognitions have been widely studied in relation to diverse aspects of cognitive development, and it was Flavell (1979) who warned that problems of various kinds could result from the abuse of certain metacognitive processes. In the area of abnormal psychology in adults, the study of this type of variable is associated with certain information-processing models. In particular, the model known as "Self-Regulatory Executive Function (S-REF)" (Wells, 2000; Wells & Matthews, 1994, 1996) offers a detailed analysis of how metacognitions would play a determining role in the maintenance and development of psychological disorders. According to the S-REF model, certain types of metacognition would lead people to develop a response pattern to thoughts or other private events characterized by heightened self-focused attention, activation of dysfunctional beliefs and the use of self-regulation strategies that fail to restructure maladaptive beliefs. From the model it emerges that metacognitive variables would be a generic factor of vulnerability to psychopathology. In line with this prediction, it has been found that metacognitive variables are influential in problems as diverse as generalized anxiety (Wells & Carter, 2001), obsessions (Wells & Papageorgiou, 1998), hypochondriasis (Bouman & Meijer, 1999), post-traumatic stress disorder (Holeva, Tarrier, & Wells, 2001) or depression (Papageorgiou & Wells, 2003).

Metacognitions and auditory hallucinations: a proposal based on the model of Morrison et al. (1995)

As regards auditory hallucinations, Morrison, Haddock, and Tarrier (1995) were the first authors to propose a model dealing explicitly with this type of metacognitive factor. Although these authors do not initially refer expressly to the S-REF model to account for the importance of metacognitive factors in the field of hallucinations, they find significant parallels and concomitances between their theoretical proposal and the S-REF model (Morrison, 2001). Moreover, a part of their research results have been discussed as consistent with that model (Ensum & Morrison, 2003; Morrison, Nothard, Bowe, & Wells, 2004; Morrison & Wells, 2003). According to the proposal of Morrison et al. (1995), the origin of hallucinations resides in the appearance of certain types of thought that entail, for that person, a high degree of cognitive dissonance. Such dissonance would arise from the incompatibility between a person's thoughts and their metacognitive beliefs about the control of private events. When one of these intrusive thoughts appears, it generates a state of unease that the person tries to reduce by attributing it to an external source. For instance, based on Morrison et al.'s (1995) view, a person who believes that one should control all thoughts and at the same time frequently experiences uncontrollable thoughts would tend to attribute these thoughts as stemming from something other than him- or herself (Larøi & Van der Linden, 2005). This attribution would mean, then, that the person apprehends his or her thought as though it were spoken by a voice from outside. And the person does not remain indifferent to the hallucination, but rather assesses it in a particular way. Such assessment is determined by both the content of the voices and the implications of the experience of hearing voices itself. In general, it is understood that the person considers the hallucinations to constitute a threat to his or her physical or psychological well-being (Morrison, 1998). This interpretation would produce, in turn, a series of avoidance responses that would increase the probability of the self-discrepant thoughts returning, so that the person enters a sort of "vicious circle".

Empirical studies on metacognitions and hallucinatory experiences

Basing themselves on this model, Baker and Morrison (1998) used the Metacognitions Questionnaire (Cartwright-Hatton & Wells, 1997) to compare the metacognitions of a group of schizophrenic patients with hallucinations, another group of schizophrenic patients without hallucinations and a third group from a non-psychiatric population. The patients who reported some type of hallucinatory experience scored higher than the other two groups in their beliefs about the uncontrollability and danger of their cognitions, as well as in their beliefs about the positive effects of worry. This result is interpreted by the authors as confirmation of their model, insofar as it maintains that patients with auditory hallucinations, on having simultaneously positive and negative beliefs about worry, experience greater dissonance than patients without this symptom. Subsequently, Morrison, Wells, and Nothard (2000) adapted the Launay–Slade Hallucination Scale (LSHS; Launay, & Slade, 1981), with the aim of measuring predisposition to hallucinations in a non-clinical sample