Pergamon

0005-7967(94)E0011-7

HOW DOES COGNITIVE THERAPY PREVENT DEPRESSIVE RELAPSE AND WHY SHOULD ATTENTIONAL CONTROL (MINDFULNESS) TRAINING HELP?

JOHN D. TEASDALE,[1] ZINDEL SEGAL[2] and J. MARK G. WILLIAMS[3]

[1]MRC Applied Psychology Unit, 15 Chaucer Road, Cambridge CB2 2EF, England,
[2]Clark Institute of Psychiatry, Departments of Psychiatry and Psychology, University of Toronto,
[3]Department of Psychology, University College of North Wales

Summary—There is encouraging evidence that structured psychological treatments for depression, in particular cognitive therapy, can reduce subsequent relapse after the period of initial treatment has been completed. However, there is a continuing need for prophylactic psychological approaches that can be administered to recovered patients in euthymic mood. An information-processing analysis of depressive maintenance and relapse is used to define the requirements for effective prevention, and to propose mechanisms through which cognitive therapy achieves its prophylactic effects. This analysis suggests that similar effects can be achieved using techniques of stress-reduction based on the skills of attentional control taught in mindfulness meditation. An information-processing analysis is presented of mindfulness and mindlessness, and of their relevance to preventing depressive relapse. This analysis provides the basis for the development of Attentional Control Training, a new approach to preventing relapse that integrates features of cognitive therapy and mindfulness training and is applicable to recovered depressed patients.

INTRODUCTION

The prevention of relapse, recurrence, and chronicity constitutes a major problem in the treatment of depression. Recent evidence suggests that psychological treatments may be superior to anti-depressant medication in preventing relapse after active treatment has been withdrawn; at least four treatment trials have found cognitive therapy for depression superior to pharmacotherapy in reducing relapse, or the need for further treatment, in the follow-up period (Blackburn, Eunson & Bishop, 1986; Simons, Murphy, Levine & Wetzel, 1986; Evans, Hollon, De Rubeis, Piasecki, Grove, Garves & Tuason, 1992; Shea, Elkin, Imber, Sotsky, Watkins, Collins, Pilkonis, Leber, Krupnick, Dolan & Parloff, 1992).

How are these prophylactic effects to be explained? Can we use an understanding of the way these effects are achieved to improve the effectiveness and efficiency of psychological approaches to the prevention of relapse in depression? In particular, can this understanding help us develop cost-effective methods of prevention applicable in the euthymic state (Hollon, Shelton & Davis, 1993, p. 273)?

In this paper we present an information-processing analysis of depressive relapse and its prevention by cognitive therapy. Our analysis suggests that preventive interventions operate through their effects in changing the patterns of cognitive processing that become active in states of mild negative affect. From this perspective, training in the re-deployment of attention, as in methods of stress-reduction based on techniques of mindfulness meditation (Kabat-Zinn, 1990), is highly relevant to prevention of depressive relapse. We describe mindfulness training and present an information-processing analysis of its therapeutic effects. Finally, we summarise the essentials of Attentional Control Training (ACT) (Segal, Williams & Teasdale, in preparation), a relapse prevention programme that integrates elements of mindfulness training with more traditional elements of cognitive therapy (Beck, Rush, Shaw & Emery, 1979). The goal of this treatment is to reduce relapse and recurrence in patients who have recovered following a range of initial treatments for depression.

The information-processing analysis we present has been developed within the Interacting

Cognitive Subsystems conceptual framework (ICS) (Barnard & Teasdale, 1991; Teasdale, 1993; Teasdale & Barnard, 1993). We begin by describing the essential features of this approach.

THE INTERACTING COGNITIVE SUBSYSTEMS (ICS) FRAMEWORK

ICS is a comprehensive conceptual framework within which accounts of all aspects of information-processing may be developed. Teasdale and Barnard (1993) provide a comprehensive description of ICS and describe its application to maintenance, vulnerability, relapse and treatment in depression. Teasdale (1993) discusses aspects of ICS relevant to understanding depression and its treatment by cognitive therapy. Here, we provide a summary of those aspects of this approach directly relevant to its application to depression.

Distinct types of information

Within ICS, different aspects of experience are represented in patterns of qualitatively different kinds of information, or mental codes. The relations between these types of information are shown in Fig. 1. At the most superficial level there are three sensory codes representing, respectively, basic features of *Visual, Acoustic* and proprioceptive (*Body-state*) sensory input. For example, *Acoustic* code represents basic features of sound stimuli such as pitch, timbre and loudness.

At a 'deeper' level, recurring regularities in patterns of sensory codes are represented in intermediate codes. For example, the essential 'core' patterns common to the sounds of the same word spoken with different accents, pitch, or loudness are represented in a speech-level (*Mor-phonolexical, MPL*) code. Analogously, recurring patterns common to the visual input from similar objects seen from different perspectives and orientations are represented in *Object* code.

At an even 'deeper' level there are mental codes related to meaning. ICS recognises two distinct kinds of meaning, one specific, the other more generic. *Propositional* code represents specific meanings. Meaning at this level can be grasped relatively easily as there is a fairly direct relationship between language and concepts at this level; a sentence conveys one or more specific meanings.

Patterns of *Implicational* code represent a more generic, holistic, level of meaning. This generic level represents 'deep' recurring regularities across all the other information codes. Meaning at this level is difficult to convey because it does not map directly onto language. ICS proposes that only this generic level of meaning is directly linked to emotion.

The level of analysis represented by *Implicational* meaning can be illustrated by the analogy between a sentence and a poem. A sentence conveys specific meanings by appropriate arrangements
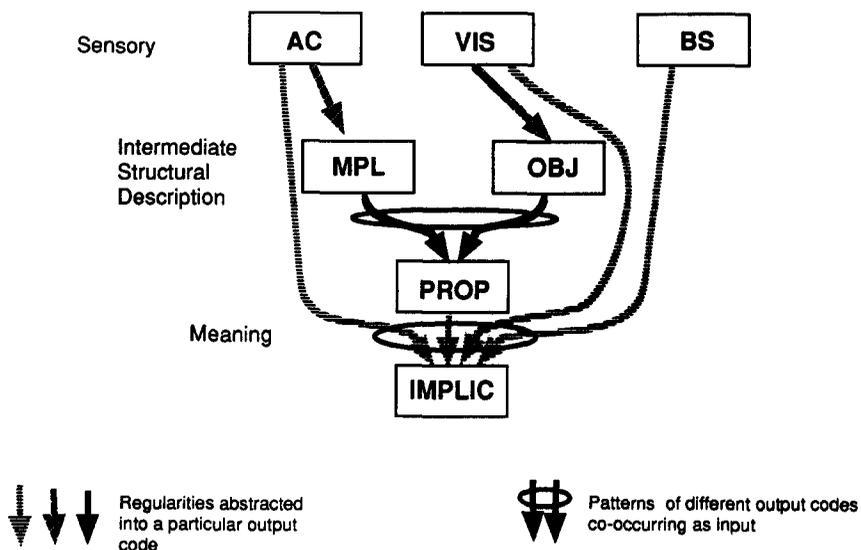

Fig. 1. Interacting Cognitive Subsystems (ICS): the relationship between sensory, intermediate, and meaning codes (AC, *Acoustic*; VIS, *Visual*; BS, *Body-state*; MPL, *Morphonolexical*; OBJ, *Object*; PROP, *Propositional*; IMPLIC, *Implicational*). (From Teasdale & Barnard, 1993.)