

Thought Suppression and Mental Control

Advanced article

Daniel M Wegner, Harvard University, Cambridge, Massachusetts, USA

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Consciously attempting not to think about something is a mental control strategy known as thought suppression. This strategy can be successful under certain conditions, but it often promotes an increase in the accessibility of the thought to consciousness, and along with this, a number of ironic processes and unwanted effects.

from research on this topic to date is that thought suppression is sometimes possible, but that it can produce a host of side effects that are sometimes more damaging, and certainly more far-reaching, than the pain the person may experience on allowing the unwanted thought to dwell in the conscious mind.

INTRODUCTION

In the fifth act of *Macbeth*, the king is distraught over his wife's apparent mental illness. He asks the doctor:

Canst thou not minister to a mind diseased,
 Pluck from the memory a rooted sorrow,
 Raze out the written troubles of the brain
 And with some sweet oblivious antidote
 Cleanse the stuff'd bosom of that perilous stuff
 Which weighs upon the heart?

The doctor replies:

Therein the patient
 Must minister to himself.

Shakespeare's observation in the voice of this doctor still holds true some four centuries after it was written. In the matter of unwanted memories, sorrows, troubles, and weights upon the heart, we are often alone in life – left with no one who can clear our minds and solve our problems for us. Instead, we must somehow deal with these things by ourselves.

When unwanted thoughts arrive, people often minister to themselves by trying not to think about them. They attempt to exert mental control. The realization that everyone does this led to much of Freud's insight into human psychology, and more recently has led to a number of inquiries into the nature and effectiveness of people's attempts to control their own minds (Wegner, 1989; Wenzlaff and Wegner, 2000). The general finding

UNWANTED THOUGHTS

What are the thoughts that people want to keep out of their minds? The thought of an old love affair that went wrong, the thought of a cake that will break one's diet, the thought of a feared event in the future, the thought of a secret one is hoping not to divulge: these are all examples of thoughts that normal individuals might not want. And people who are suffering from psychopathological disorders such as depression, anxiety, phobia, or obsessive-compulsive disorder, often find that the central feature of their psychological problem is the struggle to avoid a particular set of thoughts.

One approach to avoiding such thoughts is simply to try not to think of them. People who are asked to suppress a thought in the laboratory while they report their stream of consciousness usually mention selecting distractor thoughts to think about instead.

REBOUND AND HYPERACCESSIBILITY

In many laboratory studies, people have been asked to suppress thoughts in just this way. Individuals were prompted not to think about a white bear (something once mentioned by Dostoevsky as impossible to keep out of mind) (e.g. Wegner *et al.*, 1987). In think-aloud recordings taken over the course of five minutes, people continued to mention white bears about once per minute. These participants were then asked to go ahead and think

about a white bear for a subsequent five-minute session. Their reports of the thought became more frequent over this expression period, but in a pattern radically unlike that of other participants who had been asked to think about a white bear without prior suppression. Those who were invited to express the thought after suppression appeared to become preoccupied with it – exhibiting a post-suppression rebound effect. This effect has since been observed when people are asked to suppress thoughts of pain, to suppress unhappy thoughts that are spoiling their mood, or to suppress thoughts of a lost love whose absence they grieve. In each case, initial suppression increases the frequency of return of the thought once suppression is discontinued.

Suppression appears to yield even more intense levels of preoccupation with a thought than does concentration. This is apparent not only after suppression is released, but even during suppression when the person is working under stress or mental load. People trying not to think about a target thought show hyperaccessibility – the tendency for the thought to come to mind more readily even than a thought that is the focus of intentional concentration – when they are put under an added mental load or stress. Trying not to think about a target word under conditions of mental load (while rehearsing a long phone number, for instance) makes people unusually slow at identifying the color in which the target word is presented (e.g. Wegner and Erber, 1992). The word seems to jump into the mind before the color, and interferes with the task of naming it. By this measure, unwanted thoughts are more accessible even than thoughts on which a person is intentionally concentrating.

IRONIC PROCESSES OF THOUGHT

These observations can be explained by a theory of ironic processes. The attempt to suppress a thought seems to conjure up an ironic psychological process which then works automatically against the very intention that set it in motion. The suppressed thought is brought to mind in sporadic intrusions because of this sensitivity. Later, when suppression is over, the automatic and intrusive return of the thought apparently continues, in a post-suppression rebound.

Why might such ironic processes occur? One explanation is that ironic processes are part of the machinery of mental control (Wegner, 1994). It may be that in any attempt to control our minds, two processes are instituted: an 'operating' process that

works consciously and effortfully to carry out our desire, and an 'ironic' process that works unconsciously and automatically to check whether the operating process is failing and needs renewal. In the case of thought suppression, the operating process involves the conscious and effortful search for distractors (as we try to fasten our minds on anything other than the unwanted thought), whereas the ironic process is an automatic search for the unwanted thought itself. The ironic process is a sort of monitor, which determines whether the operating process is needed, but which also has a tendency to influence the accessibility of conscious mental contents. It ironically enhances the sensitivity of the mind to the very thought that is being suppressed.

An ironic process theory can explain more than the paradox of thought suppression. Such processes may be involved in almost everything we try to do with our minds. If an ironic process is inherent in the control system whereby we secure whatever mental control we do enjoy, then it ought to be evident across many domains in which we do have some success in controlling our minds. Because the operating process requires conscious effort and mental resources, it can be undermined by distraction, and evidence of ironic processes will then arise. When people undertake to control their minds while they are burdened by mental loads – such as distractors, stress, or time pressure – the result should, according to this model, often be the opposite of what they intend. Studies have uncovered evidence of many ironic effects. Ironic mood effects occur, for example, when people attempt to control their moods while they are under mental load. Individuals following instructions to try to make themselves happy become sad, whereas those trying to make themselves sad actually experience a happier mood.

Ironic effects occur in the self-control of anxiety. People trying to relax under load show psychophysiological indications of anxiousness, whereas those not trying to relax show fewer indications.

Ironic effects occur in the control of sleep. People who are encouraged to 'fall asleep as quickly as you can' as they listen to raucous, distracting music stay awake for longer than those who are not given such encouragement.

Ironic effects occur in the control of movement, arising when people try to keep a handheld pendulum from moving in a certain direction, or when they try to keep from overshooting a golf putt. In both cases, an imposition of mental load makes individuals more likely to commit exactly the unwanted action.

Ironic effects also arise from thoughts of death. After people have been asked to reflect for a while on their own death, they spontaneously suppress the thought. Those who are then distracted with stressful tasks show high levels of accessibility of death-related thoughts.

Ironic effects have also been observed in person perception. When people are put under mental load while they are forming impressions of a person, they project a personality trait onto the target when they are suppressing thoughts of that trait – whether they are suppressing in response to suppression instructions, or spontaneously because they dislike the trait in themselves.

Ironic effects also occur when people try to control their prejudices. Bodenhausen and Macrae (1998) report, for example, that people who are trying not to stereotype a skinhead as they form an impression of him show greater stereotyping under mental load. Individuals in this circumstance have been found to avoid even sitting near the skinhead. And people under mental load who are specifically trying to forget the stereotypical characteristics of a person (in a directed forgetting study) have been found to be more likely to recall those characteristics than people without such load.

THE ABILITY TO CONTROL ONE'S MIND

These studies illustrate how things can go awry when we 'minister to ourselves'. People often begin on the path towards ironic effects when they try to exercise good intentions – to behave effectively, to avoid prejudice, to be happy, to relax, to clear their minds of negative thoughts or thoughts of personal shortcomings, or even just to sleep. The intention is to minister to oneself, but it may be the first step towards ironic effects.

The next step towards ironic effects is the pursuit of such goals in the face of a shortage of mental resources. When there is insufficient time and thought available to achieve the intention, people do not merely fail to produce the mental control they desire. Rather, the ironic process goes beyond 'no change' to produce an actual reversal. The opposite of the desire happens. Ironic effects are precipitated when we try to do more than we can with our minds.

Why would we do this? At the extreme, we do this when we are desperate: we will try to achieve a particular sort of mental control even though we

are mentally exhausted. These circumstances are very reminiscent of the circumstances of many people suffering from various forms of psychological disorder. People who are anxious, depressed, traumatized, obsessed, or suffering from disorders of sleep, eating, movement, and so on, might frequently try to overcome their symptoms – and might be inclined to attempt such control even under adverse conditions of stress or distraction. Evidence from correlational studies suggests a possible role for ironic processes in several such forms of psychopathology.

Another line of evidence suggesting a role for ironic processes in the beginnings of some disorders comes from studies of what happens when mental control is rescinded. When people are encouraged to express their deepest thoughts and feelings aloud or in writing, and so to suspend any suppression of these thoughts, they experience subsequent improvements in psychological and physical health (Pennebaker, 1997). Expressing oneself in this way involves relinquishing the pursuit of mental control, and so eliminates a basic requirement for the production of ironic effects. The motive to keep one's thoughts and personal characteristics secret is strongly linked with mental control. Disclosing these things to others, or even in writing to oneself, is a first step towards abandoning what may be a futile quest to control one's own thoughts and emotions. In the pursuit of mental control, we may sometimes be most successful when we choose not to minister to ourselves.

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