Thoughts on suppression

James Erskine and George Georgiou look at how trying not to think of an action might lead you down that very path

How many times have you resisted thinking about something because you were afraid you might do it? Something perhaps unthinkably, or merely mildly wanted. For example, you may try not to think about an attractive co-worker in an effort to avoid difficult entanglements, or you may try not to think about crème brûlée when on a diet. But what are the consequences of these avoidance? Do they work, or do they somehow propel us towards the very act we are attempting to avoid?

This question has been posed before in the guise of classic literature. For example Dostoyevsky's work is replete with examples of ordinary people who felt the urge to act in a certain way – the young man walking in the city centre alone at night entertaining thoughts of visiting a prostitute that he finds abhorrent. He suppresses these thoughts in an effort to avoid the act, yet moments later he finds himself at the coquette’s door. These phenomena form the focus of this article: we will review how thought suppression may lead us to become our own worst enemies.

Early work on thought suppression

Thought suppression commonly refers to the act of deliberately trying to rid the mind of unwanted thoughts (Wegner, 1989). In early investigations researchers demonstrated that the suppression of a particular thought often resulted in the subsequent increased return of the unwanted thought, a phenomenon termed the ‘rebound effect’ (Wegner et al., 1987). This basic effect has been replicated on many occasions, and a more recent meta-analysis suggests the rebound effect is robust (Abramowitz et al., 2001; Wenzlaff & Wegner, 2000). Therefore, there is currently a general acceptance of the view that thought suppression does not work as a strategy for controlling one’s mind, and if anything makes one more susceptible to unwanted intrusive thoughts. For example, after watching a disturbing news item, I may attempt to suppress thoughts about this disturbing footage. However, the likely outcome of this will be that I will think about the footage more not less, and I may even begin to feel obsessed (Markowitz & Purdon, 2008). Indeed, because of the frequent intrusiveness of formally suppressed thoughts, suppression has been implicated in the potential maintenance and causes of a wide variety of mental health issues such as post-traumatic stress disorder, obsessive compulsive disorder, anxiety and depression (Erskine et al., 2007; Purdon, 1999; Wegner & Zanakos, 1994).

In a related vein, Freud (1901/1990) in his classic book The Psychopathology of Everyday Life described moments when people blurt out things that they are trying to suppress. Critically he noticed that the suppression (or repression in his terminology) was heavily implicated in these later acts of vocal impulsivity.

Thought suppression and behaviour

Previous work has typically focused on the effects of thought suppression on later levels of intrusion. However, few studies have investigated what happens when someone suppresses a thought with an associated behaviour, for example, thoughts about resisting another glass of wine or spilling the hot coffee one is carrying. Critically, Baumeister and colleagues have suggested that thought suppression is frequently used to avoid behaviours as well as thoughts.

References


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(Baumeister et al., 1994). The key question concerns whether a person suppressing thoughts about a behaviour will paradoxically become more likely to engage in that behaviour later. This question is important as many instances of the use of thought suppression may be in the service of behavioural goals rather than mental goals. For example, I suppress thoughts of my attractive co-worker not to avoid thinking of her but to avoid acting on these thoughts. Furthermore, thinking of crème brûlée is not in and of itself dangerous; we suppress the crème brûlée to avoid coping with the difficult act of not eating it. This question is significant because the proposed mechanism responsible for the return of formerly suppressed thoughts should also make the behaviour (if there is an associated behaviour) more likely.

Wegner's (1994) ironic process theory suggests that when people try to suppress thoughts this activates two distinct processes. First, it sets up an operating process that tries to create the state of mind one wants. It therefore acts to seek out contents that are in agreement with the desired state (i.e. anything other than the suppressed item). This process is deemed to be conscious and effortful, and it appears why thought suppression feels like hard work. For example when suppressing thoughts of highly craved snack food, we seek out other less dangerous thoughts to distract ourselves. However, Wegner (1994) suggests that thought suppression also sets in operation another more automatic process that he terms the monitoring process. This searches continually for thoughts indicating that one has failed the suppression task. Therefore, this process looks for the presence of the suppressed thought. This has the paradoxical effect of sensitising the mind to the very thought one is seeking to avoid, or in more cognitive terms it raises the activation level of the suppressed thought. This is problematic because many studies have now indicated that raising the accessibility of a concept by a variety of means makes it more likely that that concept will spring to mind more frequently (Bargh, 1997) and potentially be enacted (Bargh et al., 1996). Furthermore, several studies have now indicated that thought suppression directly leads the suppressed item to gain activation (Klein, 2007; Wegner & Erber, 1992).

In line with this argument, studies have reported that thought suppression can have behavioural consequences. Thus, Macrae et al. (1994) demonstrated that participants suppressing thoughts about a skinhead subsequently chose to sit further away from a skinhead when offered a free choice of seats relative to participants that had not previously suppressed. In addition, in line with the ironic process theory, Wegner and colleagues have demonstrated that trying to fall asleep quickly or relax under stress results in these processes taking longer or one becoming more anxious (Ansfield et al., 1996; Wegner et al., 1997). Furthermore, participants suppressing the urge to move a pendulum in a certain direction reliably moved the pendulum in that precise direction. In a related study, participants suppressing thoughts of over-putting a golf ball made that error more often if also under simultaneous mental load (Wegner et al., 1998).

These phenomena are not uncommon in everyday life. How many times have you carried a tray of food or drink thinking whatever happens I must not spill this, only to then redecorate the living room with it? These errors seem to plague us and chastise us all the more so because we knew exactly what we shouldn’t have done ahead of time. Thereby, it seems that the act of trying not to, or suppressing invites people to engage in the very behaviour they are trying not to engage in.

Although the studies discussed are useful behavioural demonstrations of the phenomenon, the actions implicated were not highly consequential (unless one is a golf professional). With this in mind, Erskine and colleagues set out to investigate whether similar behavioural effects of thought suppression might be found with highly consequential behaviours such as eating, smoking and drinking. Would suppressing thoughts of food, smoking or drinking result in greater subsequent enactment of these particular behaviours? Across four studies these phenomena were reported. Thus, Erskine (2008) had participants suppress thoughts of chocolate and then take part in a supposedly unrelated taste preference task. Importantly participants that had previously suppressed chocolate thoughts went on to consume significantly more chocolate than the control group that had not previously suppressed. Erskine and Georgiou (2010) replicated these findings, while showing that participants high on

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restrained eating (commensurate with a chronic tendency to diet) demonstrated the behavioural rebound whereas participants low on restraint did not. Thus, the very participants likely to use thought suppression (chronic dieters) were also those most susceptible to behavioural rebound effects.

In a more recent study Erskine et al. (2010) examined the effects of trying not to think about smoking on the number of cigarettes subsequently consumed. Participants kept a diary for three weeks of the number of cigarettes smoked per day. During weeks 1 and 3 all participants merely monitored their intake. In week 2 one third suppressed thoughts of cigarettes, one third actively thought about smoking (expression group) and the final third just monitored without suppressing or expressing. Critically all participants were told not to attempt to alter their behaviour during any week but to smoke as they normally would. Results showed that for the expression and control group the number of cigarettes smoked did not vary across the weeks. For the suppression group the number of cigarettes smoked rose significantly in the week following suppression. Importantly, we also have preliminary data showing a similar naturalistic effect of suppressing thoughts of alcohol.

In a related study examining the links between different types of behaviour, Palfai and colleagues (1997) examined the effects of suppressing thoughts of alcohol on later smoking behaviour, as these behaviours are frequently linked. Results indicated that suppressing alcohol resulted in participants smoking more intensively – taking greater puffs and of a longer duration, relative to participants that had not suppressed. This shows that suppression of a particular thought can also result in an increase in the enacting of an associated behaviour.

Other studies indicate that the effects of thought suppression may also affect sexual behaviour. Thus, Johnston et al. (1997) investigated the suppression of sexual thoughts in sex offenders of two types – preferential child molesters and situational child molesters. Preferential child molesters are those that show a definite preference for sexual relations with children, while situational child molesters are those that do not necessarily prefer children but who engage in sexual relations with minors for other reasons. Critically, Johnston, Hudson and Ward (1997) showed that preferential sexual offenders that suppressed sexual thoughts demonstrated post-suppression hyperaccessibility of thoughts relating to child molestation, whereas situational child molesters or non-molesters did not. This is important because as we have already seen hyperaccessibility following thought suppression can make thinking and acting more likely. These findings may explain the often surprising incidence of sexual offending among people least suspected of behaving in this way, for example priests. They have generally spent years suppressing sexual urges and thoughts and this may in part explain some of the incidents of sexual offending.

In a further article Johnston Ward and Hudson (1997) argue that using thought suppression in the treatment of sexual offenders may not be appropriate.

The limitations of the effects of behavioural rebound

Whilst it seems that the effects of thought suppression on behaviour are widespread it is premature to conclude that these are general effects of thought suppression and that any suppressed thought linked to a behaviour may rebound. Several sources of evidence suggest that in order to obtain behavioural rebounds the suppressed thought must already be motivationally interesting to the individual. For example, Erskine and Georgiou (2010) found that behavioural rebounds with food-related thoughts may only occur in participants that have a pre-existing tendency towards restrained eating (indicating that they try to diet). Furthermore, although Erskine et al. (2010) obtained behavioural rebound with smoking behaviour, all of the
participants were regular smokers for over one year, it therefore remains an open question whether suppression of smoking thoughts in non-daily light social smokers would ‘cause’ the same post-suppression smoking increase.

Importantly, two studies examining post-suppression hyperaccessibility only demonstrated this in participants that reported previous motivational tendencies towards the behaviour in question. Thus, Klein (2007) found hyperaccessibility following suppression of alcohol thoughts in abstinent alcoholics but not in non-alcoholics. Furthermore, Johnston, Hudson and Ward (1997) reported hyperaccessibility to sexual and child-related concepts in preferential child molesters, but not in situational child molesters or non-sexual offenders. If the mechanism that causes behavioural rebound to occur is a result of the hyperaccessibility caused by prior suppression, the behaviour in question may therefore need to be motivational interesting to the individual before they suppress in order to cause behaviour rebounds. This is important as it suggests that the people most susceptible to behaviour rebounds may well be the people most likely to attempt to control themselves via these means, because they realise that they are attracted to things that they want to avoid.

**Effects of thought suppression on one’s perception of actions**

One final note needs to be made of thought suppression effects and time. Mostly, you suppress a thought, then get on with something else and the suppressed thought returns later. The results with behaviour mirror this pattern – you suppress a thought linked to a behaviour and the behaviour rebounds later. This is particularly pernicious, as it does not allow individuals to notice the causal significance of thought suppression in the later occurrence of the rebounded behaviour. For example, if I close a door and at the same time a light comes on in the room, I may perceive my closing of the door to have caused the light to go on, even though I know that the two objects are not usually causally related. Yet with thought suppression the return of the suppressed thought or behaviour happens after the suppression has finished, which does not allow me to see how my prior act of suppression has ‘caused’ the later return.

One other finding of note in the thought suppression literature suggests that thought suppression can also affect what people perceive as having caused the action that they have performed. Thus, Wegner and Erskine (2003) had participants perform simple everyday actions, such as lifting a brick, while either thinking about the action, suppressing thinking about the action, or thinking about anything they wished. Critically when participants thought about the action while doing it they felt like they had acted more wilfully and caused the action to a greater degree. When they suppressed thinking about what they were doing they reported feeling like the action was not caused by them but just happened. There lies the rub of thought suppression: it seems a particularly dangerous way to attempt to control yourself.

**Overcoming the behavioural effects of thought suppression**

Importantly, the research does suggest several promising avenues for minimising the potential negative behavioural effects of thought suppression. Firstly, one must avoid using thought suppression in instances where one is attempting to control a behaviour. This is especially pertinent when attempting to control behaviours such as smoking, excessive alcohol or food intake, as these are likely areas where thought suppression will feature as a control strategy. For example Erskine and Georgiou (2010) and Erskine et al. (2010) demonstrated that thinking about chocolate or smoking (respectively) did not lead to greater subsequent consumption, whereas suppression did. This suggests that contrary to intuition, thinking about an act might not be as dangerous as we feel. Secondly, the fact that suppression seems to interact with one’s pre-existing motivational tendencies seems to imply that one should become more aware of their danger areas. For example, the research from Klein (2007) and Johnston, Hudson and Ward (1997) suggests that only people who are motivationally predisposed to a particular behaviour will show hyperaccessibility following suppression. Therefore, it is vital that these findings are investigated further as they identify which individuals (and under what circumstances) are more susceptible to behavioural effects following thought suppression. Once one becomes aware of one’s danger areas it is important to again seek to avoid using suppression. Importantly, research is starting to examine potential ways to enable individuals to reduce their reliance on thought suppression as a coping strategy. Most promising among these methods is mindfulness meditation that focuses on accepting rather than avoiding certain thoughts. Studies have already demonstrated that using mindfulness meditation leads to reductions in the use of thought suppression and better control over certain behaviours (Bowen et al., 2007).

In summary, research is converging on the view that thought suppression can lead you to undertake actions that you were deliberately seeking to avoid. Worse still, it can make you feel as though the act happened without ‘you’ intending. We believe that this vital research domain needs further emphasis due to its high potential to explain the many occasions of everyday life where we seem to act against our own best interests.