Recurrent involuntary imagery in people who stutter and people who do not stutter

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ABSTRACT

Objective: To compare intrusive memories in groups of people who do (PWS), and who do not (PWNS), stutter.
Method: Twenty-one participants who stuttered and 21 matched controls were given a semi-structured interview which explored imagery in speaking situations. The data were analyzed using a Content Analysis approach. Other outcome measures were the Beck Anxiety Inventory, the Beck Depression Inventory, the Post Traumatic Stress Disorder, PTSD, Symptom Scale: Self-Report Version.
Results: Significantly more stuttering participants than control participants indicated both recurrent imagery and associated memories. Content Analysis revealed themes of disfluency, anxiety, negative social evaluation, self-focus and pressure to speak that were common to both groups' reports. Additional themes of helplessness, shame, sadness and frustration were found only in the images and memories of the stuttering group. No group differences were evident for the number of sensory modalities involved in images and memories, or for ratings of their vividness or strength of associated emotions, or on self-reports of depression, anxiety and trauma.
Conclusions: Recurrent imagery about events in childhood is a potent factor in the memories of PWS. It is worth modifying interventions that have been successfully applied for treating social anxiety for use with people who stutter.

Educational objectives: After reading this article, participants will be able to: (a) identify the role of intrusive memories in psychiatric disorders and stuttering; (b) investigate how DSM criteria can be employed with people who stutter; (c) employ anxiety instruments used for assessing psychiatric disorders for stuttering; (d) distinguish between the intrusive memories experienced by people who stutter, and people who do not stutter; (e) apply treatments for intrusive memories in psychiatric disorders to work with people who stutter.

1. Introduction

Repetitive, involuntary imagery of traumatic events, often triggered by situations containing reminders of these events, is a symptom of posttraumatic stress disorder. It is now known, however, that similar involuntary (spontaneously occurring) imagery of frightening, humiliating, or distressing events is a common feature of many other psychiatric conditions

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including depression and anxiety disorders (Brewin, Gregory, Lipton, & Burgess, 2010). Since people who stutter (PWS) have been reported to experience fear and distress in relation to their communication (Hancock et al., 1998) it is possible that images related to past embarrassing or painful events, particularly those involving speaking in social situations, may lead PWS to experience anxiety about speaking. This may lead to an increased effort not to stutter which, in turn, would make fluent speech more difficult (Johnson, 1972). Alternatively, involuntary imagery may motivate avoidance behavior (Van Riper, 1971). Consistent with these views, research with PWS has revealed experiences that include negative reactions to their speech, insensitivity of listeners (such as others being impatient, completing their sentences, laughing and imitating their speech), exclusion of the individual (being ignored and overlooked in school and the workplace) and poor self-image (Corcoran & Stewart, 1998; Crichton-Smith, 2002; Klompas & Ross, 2004). However, direct evidence about the possible role of involuntary imagery and its consequences has not been reported in PWS.

Research has shown that people with social anxiety report experiencing images of themselves performing poorly and exhibiting symptoms of anxiety in social situations (Hackmann, Surawy, & Clark, 1998). Such spontaneous, negatively distorted images have been shown to occur in a number of sensory modalities and to be linked to aversive social experiences that often occur around the onset of social anxiety (Hackmann, Clark, & McManus, 2000). Individuals experience the imagery as if it is both happening in the 'here and now' and is a true representation of how they appear to others. Hackmann et al. (2000) suggested that in persons with social anxiety, early unpleasant memories may lead to the development of excessively negative images of their social selves, that are repeatedly activated in subsequent social situations, and which fail to be altered by later positive experiences. The images seem to encapsulate the person's feared outcomes and as such are likely to provoke anxiety. Therefore, the negative self-imagery experiences are thought to contribute to the maintenance of social anxiety and suggest an area to be addressed in treatment (Wild & Clark, 2011).

Hirsch, Meynen, and Clark (2004) found that when socially-anxious individuals held a negative self-image during a conversation they became increasingly apprehensive, reported greater use of safety behaviors, believed they performed more poorly and overestimated how poorly they came across, compared to when they held a less negative image in mind. The social interaction appeared to have been tainted by the presence of negative imagery since both the socially-anxious person and their non-socially-anxious conversational partner rated the quality of conversation as poorer in the negative image condition.

Given both the inherent social nature of speech and the involuntary disruption that stuttering has for speaking, it is perhaps unsurprising that high rates of social anxiety have been found amongst PWS (Schneier, Wexler, & Liebowitz, 1997). Social anxiety is characterized by the persistent fear of embarrassment and humiliation, with sufferers avoiding participating in situations they think may be potentially distressing, such as public speaking and social occasions. The high level of associated anxiety results in severe distress and/or impairment of functioning. However, a diagnosis of social anxiety disorder is permitted only in the absence of a disease or condition (such as stuttering) that causes the anxiety (American Psychiatric Association, 1994). Stein, Baird, and Walker (1996) found that 75% of adult clients seeking treatment for stuttering met DSM-IV criteria for social anxiety disorder. However, when severity of stuttering was taken into account, 44% warranted a comorbid diagnosis of social anxiety disorder, since their social anxiety was found to be clearly excessive for the severity of their stuttering.

As would be expected given these high reported rates of social anxiety, it has been shown that PWS differ from control subjects in their expectation of negative social evaluation. The anticipation of social harm appears to be central, since the anxiety of PWS was found to be restricted to the social domain (Messenger, Onslow, Packman, & Menzies, 2004). Research also demonstrates that concerns about speaking begin early in PWS. Hancock et al. (1998) showed that children who stutter experience higher communication fears than children who do not stutter, and that these fears increase with age. This is in line with other longitudinal research revealing increased rates of anxiety disorders (mostly social anxiety) in adults who have experienced speech or language disorders (including stuttering) since childhood, compared to other psychiatric disorders such as schizophrenia (Beitchman et al., 2001). Findings of elevated levels of distress and negative mood states in PWS compared to people who do not stutter (PWNS) has added weight to the hypothesis that living with stuttering could result in these types of difficulties (Tran, Blumgart, & Craig, 2011). It has also been suggested that there are significantly higher rates of all types of personality disorder in PWS, compared to matched controls (Iverach et al., 2009); although the methodological weakness of this particular research limits the conclusions (Manning & Beck, 2011).

Furthermore, anxiety-provoking social situations, such as speaking to an audience, an authority figure, or an impatient or critical listener, have been shown to be associated with increased stuttering (Bloodstein, 1949, 1950). This pattern is reversed in non-anxiety provoking situations, such as talking to a familiar person.

There has been a surge of interest into the role of imagery in disorders relevant to stuttering such as depression and social anxiety (Hackmann, Clark, & McManus, 2000; Patel et al., 2007). Involuntary imagery may occur in a variety of sensory modalities, including sound and smell, but is predominantly visual. Imagery is a prominent feature of autobiographical memory, that subset of a person's memory that is concerned with their own experienced events. The content of involuntary imagery often consists of such events, particularly those that are of personal significance, but in other cases imagery may represent memories that are distorted, such as faces without any background, or scenes that have not necessarily taken place, such as dreaded outcomes (Patel et al., 2007; Reynolds & Brewin, 1998).

Although the occurrence of involuntary memories is a normal phenomenon (Brewin, Christodoulides, & Hutchinson, 1996), the frequency is higher when clinical disorders are present and the memories focus on a small number of distressing scenes (Brewin et al., 2010).