Effects of Exposure Therapy Conducted in Multiple Contexts on the Return of Fear

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ABSTRACT

The anxiety disorders are a collection of disorders characterized by psychological fear and anxiety and somatic manifestations of fear and anxiety (4th ed., text rev.; DSM-IV-TR; *Diagnostic and Statistical Manual of Mental Disorders*; American Psychiatric Association, 2000). Anxiety disorders can significantly impair a sufferer's overall wellbeing and result in significant individual and societal economic burden. Exposure therapy has been proposed to be a core component of anxiety disorder treatment. However, up to 50% of those who are successfully treated experience return of fear after therapy, which may act as a precursor of complete clinical relapse. Spontaneous recovery, reacquisition, reinstatement, and renewal may be four contextually driven mechanisms that can predict return of fear. Renewal, the most widely studied of these mechanisms, was the predominant focus of the current thesis. Renewal of fear occurs when post-therapy encounters with feared stimuli take place in contexts that are different to the treatment context.

The current thesis had two major aims. Firstly, it aimed to narrow the gap between laboratory-based renewal research and clinical work on relapse. This major aim was addressed by applying a transformation research approach using a laboratory-based experiment, a clinical-analogue experiment, and an $N=1$ case study. Secondly, the current thesis aimed to determine whether conducting extinction treatment in multiple contexts can attenuate renewal of fear. To investigate this, the current thesis initially used a laboratory-based experiment with 68 non fearful participants. Using self-reported expectancy of shock and startle blink responses, the results showed that re-encounters with an aversive stimuli resulted in renewal of extinguished conditioned behaviour when extinction treatment was conducted in only one context. However, renewal was attenuated when extinction treatment was conducted in three contexts. No renewal was
found for the control group that received the test trial in the same context as during extinction. The first experiment provided laboratory-based evidence that extinction treatment in multiple contexts can attenuate renewal.

In the second experiment, 46 moderate to high spider fearful individuals received exposure to a real-life golden orb spider in either one-real life context or across three real-life contexts. Follow-up testing was conducted one week and four weeks after exposure. No renewal was found for the control group that received follow-up tests in the same context as during exposure treatment. However, three different measures (self-report of fear, heart rate, and behavioural avoidance) showed that renewal of fear had occurred for the group that received treatment in one context and follow-up tests in novel contexts. Moreover, renewal of fear was attenuated for the group that received treatment in multiple contexts. Again, the results indicated that conducting exposure therapy in multiple contexts may enhance the generalisability of exposure therapy and thereby enhance its long-term effectiveness.

In the third and final study (N = 1 case study), a toad phobic individual received an individually tailored exposure session in four different contexts. Follow-up testing was conducted again one week, five weeks, and 1.8 years after treatment. Verbal self-report of fear and behavioural avoidance measures showed no increases from post-treatment to follow-up. This outcome was important because it firstly validated the applicability of laboratory-based research and clinical-analogue experiments to the clinical use of exposure therapy. Secondly, the case study provided clinicians with a precedent of how to incorporate multiple extinction context findings with exposure therapy to enhance the long-term effectiveness of treatment.

In summary, exposure therapy is a central component of contemporary anxiety disorder treatment. However, many sufferers experience return of fear after treatment
has been concluded. A widely investigated mechanism of return of fear is renewal. The current thesis used a series of transformational studies to show that conducting exposure therapy in multiple contexts attenuates renewal of fear. The findings in this thesis are important because they show that the generalisability of exposure therapy can be enhanced by making a relatively simple but important change to the treatment protocol. Moreover, the current thesis discusses that multiple extinction contexts alone or in combination with other methods can be applied not only in the treatment of phobias, but also other primarily anxiety related and non-anxiety related disorders in adults and children. Finally, it is concluded that while much remains to be done in return of fear research, the field is currently on a promising path towards developing effective approaches that may abolish return of fear post exposure therapy.
STATEMENT OF ORIGINALITY

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

(Signed)______________________________________

Siavash Bandarian Balooch

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LIST OF PUBLICATIONS and SUBMITTED ARTICLES FROM DOCTORAL RESEARCH

Papers listed in order of appearance in thesis


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   Exposure Treatment in Multiple Contexts Attenuates Renewal of Fear.
   Australian Association for Cognitive and Behaviour Therapy 35th National Conference. Gold Coast Australia.

   Return of Fear: Can we stop it? Annual Behavioural Basis of Health Mid-Year Conference. Gold Coast, Australia.

   Exposure Treatment in Multiple Contexts Attenuates Return of Fear via Renewal in Spider Fearful Individuals. Australian Association for Cognitive and Behaviour Therapy 36th National Conference. Adelaide, Australia.