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Exposure to Social Anxiety Words: Treatment for Social Phobia Based on the Stroop Paradigm

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Research on the emotional Stroop task and language conditioning has demonstrated that words can acquire emotion-eliciting functions. For example, social anxiety words (e.g., speech, conversation) can elicit anxiety in individuals diagnosed with social phobia, suggesting that these words may be useful as exposure stimuli. This article presents exposure to social anxiety words, using a Stroop paradigm, as a language-based procedure for reducing anxiety. This procedure is similar to imaginal exposure, as patients are not placed in actual feared situations, but are exposed to stimuli that have become associated with the fearful environmental situation. Exposure to social anxiety words may be useful as an initial or adjunctive treatment to reduce the anxiety of social phobia patients before they enter group therapy or perform in vivo exposure exercises. Initial pilot data and clinical implications are presented.

with social phobia often fear social or performance situations such as public speaking, initiating or maintaining conversations, meeting strangers, speaking to authority figures, and eating, drinking, or writing in front of others (Holt, Heimberg, Hope, & Liebowitz, 1992; Markway, Carmin, Pollard, & Flynn, 1993; Pollard & Henderson, 1988). According to the APA's *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; 1994)*, the specification of a generalized subtype can also be assigned if the fears include most social situations (APA, 1994). Circumscribed and nongeneralized social phobia subtypes have also been suggested (see Boone et al., 1999; Heimberg, Holt, Schneier, Spitzer, & Liebowitz, 1993). The lifetime prevalence of social phobia has been estimated to be approximately 13% (Kessler et al., 1994), making social phobia more common than panic disorder. This high prevalence of social phobia is particularly troubling as it is associated with serious social and occupational impairment (e.g., difficulty making and maintaining friends, poor social support, underemployment, financial dependence, difficulty interviewing for jobs, and hindered career advancement), limiting or eliminating personal and professional development (APA; Davidson, 1991; Ross, 1991).

This paper describes the use of Stroop social anxiety words as a treatment for reducing anxiety in social phobia patients. The first section presents the rationale for utilizing social anxiety words as exposure stimuli, including a discussion of exposure treatment, Stroop literature, and language conditioning. The second section describes the exposure-based treatment and provides initial results from two studies.

What Is Exposure?

Description of Exposure

Several approaches have been taken in the treatment of social phobia, including behavior therapy, cognitive behavioral procedures, interpersonal therapy, and pharmacological approaches (Masia & Schneier, 1999). Multi-component social phobia treatment programs, such as Heimberg's (1991) cognitive behavioral group treatment (CBGT) and Social Effectiveness Therapy (SET; Turner, Beidel, Cooley, Woody, & Messer, 1994), have been widely adopted. A main component of both programs is exposure. A substantial amount of evidence supports the fact that exposure to feared stimuli is a necessary component of treatment for anxiety disorders (Barlow & Wolfe, 1981; Marks, 1987).

Exposure can be conducted imaginally or in vivo, depending on the needs of individual patients, as well as practical considerations. For instance, imaginal exposure may be used initially when patients refuse to enter into feared situations or when feared situations are not easy to

mimic in an office setting (e.g., a party). More commonly, however, social phobia patients are placed in anxiety-provoking situations simulated during the therapy session and then assigned exposure exercises (e.g., going to a party) to be conducted in the natural environment (Hope, Heimberg, & Bruch, 1995; Newman, Hofmann, Trabert, Roth, & Taylor, 1994).

This procedure is often performed by first exposing the individual to a mildly aversive situation and gradually moving to more challenging situations (Masters, Burish, Hollon, & Rimm, 1987). The therapeutic utility of exposure for the treatment of social phobia and associated behaviors (e.g., blushing, trembling) has been well-established (Biran, Augusto, & Wilson, 1981; Butler, Cullington, Munby, Amies, & Gelder, 1984; Mattick & Peters, 1988; Mattick, Peters, & Clarke, 1989; Mersch, 1995; Scholing & Emmelkamp, 1993; Wlazlo, Schroeder-Hartwig, Hand, Kaiser, & Munchau, 1990).

Mechanism of Exposure

The processes of habituation and extinction, observed in laboratory work on classical conditioning, have been used to account for the efficacy of exposure (Barlow, 1988). Habituation, however, is not an accurate explanation of exposure treatment. Habituation refers to decreases in responding to novel stimuli; neither the stimuli nor the responses are conditioned (Domjan, 1993). For example, when a bell sounds, a person will most likely make an orienting response (e.g., turn toward the bell). If the bell continues to ring, the person will probably not continue turning toward the bell. One would say that habituation to the sound of the bell has occurred. Alternately, extinction is a decrement in a conditioned response following multiple presentations of the conditioned stimulus without the unconditioned stimulus. For instance, if a person with social phobia is repeatedly placed in a conversation without the occurrence of aversive consequences, anxious responding should decrease. Because most feared situations are conditioned stimuli, extinction is a more appropriate explanation of exposure.

Foa and Kozak (1986) use the notion of cognitive schemata to explain the efficacy of exposure. According to Foa and Kozak, fear is represented in those memory structures that control fear behavior (e.g., avoidance or escape). Exposure reduces anxiety via the modification of these fear structures through emotional processing. In

Exposure treatment requires patients to remain in the presence of anxiety-provoking stimuli or situations until anxiety reduction occurs.

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