#### ORIGINAL RESEARCH

# Implicit and Explicit Associations with Erotic Stimuli in Sexually Functional and Dysfunctional Men

Jacques van Lankveld, PhD,\* Ingrid Odekerken, MSc,\* Lydia Kok-Verhoeven, MSc,\* Susan van Hooren, PhD,\* Peter de Vries, PhD,† Anja van den Hout, PhD,‡ and Peter Verboon, PhD\*

\*Faculty of Psychology and Educational Sciences, Open University of the Netherlands, Heerlen, The Netherlands; †Department of Urology, Atrium Medical Center, Heerlen, The Netherlands; †Department of Medical Psychology, Atrium Medical Center, Heerlen, The Netherlands

DOI: 10.1111/jsm.12930

#### ABSTRACT-

*Introduction.* Although conceptual models of sexual functioning have suggested a major role for implicit cognitive processing in sexual functioning, this has thus far, only been investigated in women.

Aim. The aim of this study was to investigate the role of implicit cognition in sexual functioning in men.

*Methods.* Men with (N = 29) and without sexual dysfunction (N = 31) were compared.

Main Outcome Measures. Participants performed two single-target implicit association tests (ST-IAT), measuring the implicit association of visual erotic stimuli with attributes representing, respectively, valence ('liking') and motivation ('wanting'). Participants also rated the erotic pictures that were shown in the ST-IAT on the dimensions of valence, attractiveness, and sexual excitement to assess their explicit associations with these erotic stimuli. Participants completed the International Index of Erectile Functioning for a continuous measure of sexual functioning.

**Results.** Unexpectedly, compared with sexually functional men, sexually dysfunctional men were found to show stronger implicit associations of erotic stimuli with positive valence than with negative valence. Level of sexual functioning, however, was not predicted by explicit nor implicit associations. Level of sexual distress was predicted by explicit valence ratings, with positive ratings predicting higher levels of sexual distress.

Conclusions. Men with and without sexual dysfunction differed significantly with regard to implicit liking. Research recommendations and implications are discussed. van Lankveld J, Odekerken I, Kok-Verhoeven L, van Hooren S, de Vries P, van den Hout A, and Verboon P. Implicit and explicit associations with erotic stimuli in sexually functional and dysfunctional men. J Sex Med 2015;12:1791–1804.

Key Words. Erectile Dysfunction; Implicit Cognition; Dual-Process Model; Implicit Association Test; Sexual Dysfunction

#### Introduction

Theoretic models of sexual dysfunction have proposed cognitive processes as important determinants of sexual arousal that can explain the dysfunctional genital response to erotic stimulation of—otherwise—physically healthy men [1,2]. Importantly, cognitive processing occurs at differ-

ent levels of awareness and regulatory control. Sigmund Freud was one of the first theoreticians who suggested that sexual dysfunction is governed by cognitive-emotional mechanisms that largely operate outside of the individual's conscious awareness and volitional control [3]. Probably only a limited part of the cognitive process is accessible for the individual in conscious awareness [4,5].

1792 van Lankveld et al.

Whereas early cognitive theory of sexual dysfunction (e.g., [1]) featured a central role for conscious dysfunctional cognizing, later models (e.g., [2]) have stressed, once more, that automatic cognitive processing occurring outside of awareness may also be involved in causing low sexual arousal. In the following paragraphs, we will briefly describe the recent models and the empiric support they received as the background against which our present study was developed.

In his model of sexual dysfunction, Barlow [1] proposed that cognitive interference at the conscious level is a major cause of dysfunctional erectile performance. He postulated that sexually dysfunctional men, compared with men without erectile problems, tend to be more preoccupied with thoughts about dysfunctional erectile performance, that they focus their attention less on the available erotic stimuli, and expect low personal efficacy in becoming sexually aroused. Subsequent dysfunctional sexual performance is experienced as a confirmation of the preceding expectations, thus reinforcing the vicious circle, and may result in chronic sexual dysfunction. Studies using selfreport measures of thought content have provided ample support for the involvement of conscious negative cognition in erectile dysfunction. Nobre, Pinto-Gouveia and Gomes [6] found that men who suffered from sexual dysfunction were characterized by a strong performance-oriented ("macho") ideal role model, when asked to which extent they endorsed statements such as "a real man is always ready for sex and must be capable of satisfying any woman." Moreover, sexually dysfunctional men were found to harbor more negative sexual self-schemas [7], characterized by internal and stable attributions of failure and personal incompetence [8–10]. Although these studies strongly suggest the involvement of specific negative conscious cognitions in the etiology of sexual dysfunction, the cross-sectional design of these studies cannot eliminate the possibility that the negative content of conscious thought is an effect rather than a cause of sexual dysfunction.

More than a decade after Barlow introduced his model, Janssen and colleagues [2] introduced flawed automatic cognition as an additional determinant of sexual arousal problems in their information-processing model of sexual responding. A central proposition in this model is that erotic stimuli can evoke both sexual and nonsexual meaning, and that this evaluation of stimuli as sexual vs. nonsexual crucially determines, respectively, the activation or inhibition of sexual arousal.

Sexual meaning will initiate and maintain the physiologic sexual response as well as the subjective experience of sexual arousal, whereas nonsexual meaning serves to inhibit sexual arousal. The model proposes that the evaluation of stimuli as either sexual or nonsexual occurs both at conscious and deliberate, and at unconscious and automatic levels of processing. The model also postulates that erotic stimuli, even when they are not consciously perceived, may automatically initiate the efferent physiologic process that underlies the genital response. Empiric support for Janssen et al.'s model with regard to the involvement of unconscious control over the genital response was provided by experimental research in men and women using a subliminal priming paradigm [11-13]. In this paradigm, trials consist of two stimuli that are subsequently presented. The first stimulus is the "prime," and the second is the target. The reaction time (RT) of a key press, following target stimulus onset, with which the respondent categorizes the target stimuli as, for instance, sexual or nonsexual, is used as dependent variable. The priming stimulus can be erotic or nonerotic. Although priming stimuli were made inaccessible to conscious cognitive elaboration by backward masking and very brief presentation duration, identification of sexual targets was, nevertheless, found to be enhanced after presentation of erotic primes, compared with neutral prime stimuli. These findings were interpreted as evidence that sexual representations in memory can be activated automatically and below the threshold of conscious awareness [14].

How can (conscious or unconscious) negative cognition impair erectile performance? A cognitive processing-capacity model of sexual arousal might explain why the harboring of certain thought content hinders the deployment and maintenance of the genital sexual response [15– 17]. The capacity of the brain to simultaneously process bits of information is considered to be fundamentally limited [18,19]. The sharing of processing capacity with nonerotic thought content diminishes the capacity that is required for the processing of erotic stimuli. Several experimental studies using a double-task paradigm have provided support for the processing-capacity model by demonstrating that the genital response during erotic stimulation becomes progressively lower when a concurrent cognitive task captures increasingly more processing capacity. This was demonstrated for sexual arousal responses in both men and women [20-25], although some other studies

### Download English Version:

## https://daneshyari.com/en/article/4269425

Download Persian Version:

https://daneshyari.com/article/4269425

<u>Daneshyari.com</u>