

## Defense Mechanisms and Gender: An Examination of Two Models of Defensive Functioning Derived from the Defense Style Questionnaire

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### ABSTRACT

Different models have been developed to capture an individual's defensive functioning, including the DSM-IV Defensive Functioning Scale (DFS). These different models are often used to distinguish between psychologically healthy individuals and individuals presenting with a mental disorder, or to demonstrate change in patients over the course of and following treatment. Yet, despite evidence that men and women rely on different defence mechanisms, most if not all studies into defences rely on the same model for both genders. Using samples of 517 women and 124 men, this study aimed to examine the extent to which a proxy of the DFS model of defence mechanisms, and the model underlying the Defense Style Questionnaire, can be adequately applied to men and women. Confirmatory factor analyses indicated that neither model accurately reflects men or women's defensive functioning. Implications of this for research and practice are discussed.

*Key words:* defense mechanisms, gender.

### RESUMEN

Se han desarrollado diferentes modelos para explicar el funcionamiento defensivo individual, incluyendo la Escala de Funcionamiento Defensivo DSM-IV. Estos modelos se emplean para distinguir entre individuos psicológicamente sanos e individuos que presentan un desorden mental, o para demostrar el cambio terapéutico en pacientes en tratamiento. Aunque existen evidencias de que hombres y mujeres difieren en sus mecanismos de defensa la mayoría, si no todos, de los estudios emplean el mismo modelo para ambos sexos. Este estudio examina en una muestra de 517 mujeres y 124 hombres hasta qué punto un sustituto del modelo DFS de mecanismos de defensa y el modelo subyacente al *Defense Style Questionnaire* pueden aplicarse adecuadamente con hombres y mujeres. El análisis factorial indica que ninguno de los dos modelos refleja adecuadamente el funcionamiento defensivo de hombres y mujeres. Se discuten las implicaciones para la investigación y la práctica clínica de estos hallazgos.

*Palabras clave:* mecanismos de defensa, género.

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Defense mechanisms can be defined as “regulatory processes that allow individuals to reduce cognitive dissonance and to minimize sudden changes in internal and external environments by altering how these events are perceived” (Vaillant, 1993, p. 44). Originally associated with psychoanalytic psychotherapy, the concept of defense mechanisms has long made its way into mainstream psychology and psychiatry, as suggested by the inclusion of the Defensive Functioning Scale (DFS) in the DSM-IV (APA, 1994).

Studies generally tend to support the overall validity of the DFS and of others similar to it (for a review, see Bond, 2004, or Despland, Drapeau & de Roten, 2001). The DFS model, which includes a total of 31 defense mechanisms divided into 7 levels organized hierarchically based on defensive maturity, is also presumed to be indicative of defensive functioning and adequate regardless of gender. Indeed, existing models and conceptualizations of defensive functioning, including the assignment of individual defenses to levels of defenses, were generally devised and validated using mixed samples of men and women, and as such reflect an “average” or an “asexual” conceptualization of defenses. This is somewhat surprising given that research strongly suggests that there are significant differences in the use of defense mechanisms by men and women (e.g. Cramer, 1991, 2006; Hibbard & Porcerelli, 1998; Mahalik *et al.*, 1998; Petraglia *et al.*, 2009; Watson, 2002; Watson & Sinha, 1998).

Because models of defensive functioning are used to establish the distinction between psychologically healthy individuals and individuals presenting with a mental disorder, to match defensive functioning to other variables of interest in clinical research, to track changes in patients, and to evaluate therapeutic outcomes, the creation and use of a common template or model of defensive functioning for men and women is potentially inadequate. It is thus imperative to determine if models of defensive functioning are indeed equally applicable to both men and women. Whereas previous research has established differences between men and women in regards to the use of individual defenses, this study does not seek to document such differences. Rather, it aims to examine the extent to which a proxy of the DFS model of defense mechanisms, and another related model underlying a widely used scale, the Defense Style Questionnaire (Trijsburg, et al., 2003a), can be adequately applied to men and women.

## METHOD

### *Participants*

The data for this project were collected from participants attending two large universities in Quebec, one French speaking and the other English speaking. A total of 664 participants completed a package containing a consent form, the French or English DSQ-60 (see below), and a brief demographics survey. Participation was confidential and voluntary, and no compensation was allocated; the questionnaires were filled out during class time.

Twenty three questionnaires were rejected due to incomplete data, by such leaving a final sample of 517 women and 124 men, with a mean age of 22 ( $SD= 3.97$ ). 38% of the participants were majoring in Psychology, 34% were majoring in Education,

with the remaining 28% studying in a variety of Social Science, Arts, and Business fields. With the exception of sample size (English university: 382 women and 91 men; French university: 135 women and 33 men), there was no significant difference between participants from the two universities in regards to age and areas of study.

### *Instruments*

The Defense Style Questionnaire is the most widely used self report questionnaire for the assessment of defences (see Bond, 2004 for a review). The 60 item version of the scale assesses 30 defense mechanisms (Trijsburg *et al.*, 2003a; see Table 1). This 60 item version was derived from previous versions of the Defense Style Questionnaire (e.g., Andrews *et al.*, 1989; Bond *et al.*, 1983; Trijsburg *et al.*, 2000); it was developed in response to the weak psychometric properties of previous versions of the scale (see Thygesen *et al.*, 2008, for a review) and to assess the defenses described in the DSM-IV Defensive Functioning Scale (APA, 1994). As such, the DSQ-60 is identical to the Defensive Functioning Scale (DFS), with the exception that the three defences of the Defensive deregulation level contained in the DFS (psychotic defenses: delusional projection, psychotic denial, and psychotic distortion), which indicate a pronounced break with objective reality, are not assessed in the questionnaire. The psychometric properties of this measure have been reported elsewhere (e.g., Thygesen *et al.*, 2008; Trijsburg *et al.*, 2003b).

### *Models of defenses*

Because the DSQ was designed specifically to assess the defenses described in the DSM-IV Defensive Functioning Scale (DFS), with the exception of the three defenses related to a pronounced break with objective reality (see Table 1), the 6 remaining levels of the DFS were tested first. However, the DSQ-60 also includes its own model of defensive functioning which was derived using factor analytic procedures. The factors in this model represent the factor structure developed by Thygesen and her colleagues (2008; see Table 2) whereby an individual's defensive functioning can be described by three defensive levels, referred to as styles, each consisting of a unique set of defense mechanisms. Each of the two models was independently tested using confirmatory factor analyses calculated with AMOS on a first sample of men, then a second sample of women.

## **RESULTS**

*Model 1: the DSM-IV Defensive Functioning Scale (DFS) levels of functioning.* A confirmatory factor analysis of the DFS factor structure using the male sample resulted in a  $\chi^2/df$  ratio of 2.0 which suggests that the model has an acceptable fit. However the  $\chi^2$  value for the male sample was 825.40 with a  $p$  value  $<.05$ , which indicates that the model does not adequately fit the data. The RMSEA (Root Mean Square Error of Approximation) value was 0.11 which suggests that the model is not an acceptable fit.

The Jöreskog-Sörbom Goodness of Fit Index (GFI; .62), Comparative Fit Index (CFI; .34) and Non-Normed Fit Index (NNFI; .33) all failed to demonstrate an acceptable level of fit.

A confirmatory factor analysis of the DFS factor structure using the female sample resulted in a  $\chi^2/df$  ratio of 3.8, by such indicating that the model is not an acceptable fit. The  $\chi^2$  value for the female sample failed to exceed the chosen alpha level of .05. The RMSEA value was 0.09 which suggests that the model is a mediocre fit at best.

Table 1. Model 1: the Defensive Functioning Scale\* (APA, 1994).

<b>Factor 1</b> <i>Action Defenses</i>	Acting out Withdrawal	Help rejecting complaining Passive aggression
<b>Factor 2</b> <i>Major Image Distorting Defenses</i>	Fantasy Projective Identification	Splitting (other/self)
<b>Factor 3</b> <i>Disavowal Defenses</i>	Denial Projection	Rationalization
<b>Factor 4</b> <i>Minor Image Distorting Defenses</i>	Devaluation (self/other) Omnipotence	Idealization
<b>Factor 5</b> <i>Mental Inhibition Defenses</i>	Displacement Dissociation Intellectualization Isolation	Reaction formation Repression Undoing
<b>Factor 6</b> <i>High Adaptive Defenses</i>	Anticipation Affiliation Altruism Humor	Self assertion Self observation Sublimation Suppression

\* The least mature level of defensive functioning, referred to as *Defensive deregulation*, includes delusional projection, psychotic denial, and psychotic distortion, and indicates a pronounced break with objective reality. This level of functioning and the associated defenses are not presented in the table. They were not used in this study because the Defense Style Questionnaire does not assess them.

Table 2. Model 2: the DSQ-60 (Thygesen *et al.*, 2008).

<b>Factor 1</b> <i>Image Distorting Defenses</i>	Displacement Undoing Acting out Passive aggression Help rejecting complaining	Projective Identification Splitting (other/self) Projection Idealization
<b>Factor 2</b> <i>Affect Regulating Defenses</i>	Isolation Dissociation Affiliation Intellectualization Suppression	Fantasy Devaluation (other/self) Denial Withdrawal Repression
<b>Factor 3</b> <i>Adaptive Defenses</i>	Rationalization Humor Anticipation Self assertion Omnipotence	Sublimation Altruism Self observation Reaction formation

With a GFI of 0.76, a CFI of 0.50, and a NNFI of 0.47, the model does not accurately map women's defensive functioning.

*Model 2: the DSQ-60 levels of defensive functioning.* A confirmatory factor analysis of the DSQ-60 three factor structure suggested by Thygesen and colleagues (2008) using the male sample resulted in a  $\chi^2$  and degrees of freedom ratio ( $\chi^2/df$ ) of 1.8 which suggests that the model has an acceptable fit. However, the  $\chi^2$  value for the male sample failed to exceed the chosen level of alpha of .05, which indicates that the model does not fit the data. Furthermore, the Root Mean Square Error of Approximation (RMSEA) value was 0.09 which suggests that the model is a mediocre fit. The Jöreskog-Sörbom Goodness of Fit Index (GFI) for this model was 0.66, the Comparative Fit Index (CFI) was 0.49, and the Non-Normed Fit Index (NNFI) was 0.47, values which fail to demonstrate an acceptable level of fit.

A confirmatory factor analysis of the DSQ-60 factor structure using the female sample resulted in a  $\chi^2/df$  ratio of 3.1, thus suggesting that the model is not an acceptable fit. The  $\chi^2$  value for the female sample also failed to exceed the chosen level of alpha of .05, which indicates that the model does not fit the data. The RMSEA value was .07, a value slightly below the conventional .08 cutoff. However, Hu and Bentler (1999) have suggested a RMSEA cutoff of .06 for a good model fit. Based on their criterion, results would tend to suggest a poor model fit. With a GFI of 0.81, a CFI of 0.63, and a NNFI of 0.61, the model does not appear to accurately map women's defensive functioning.

## DISCUSSION

With the exception of the  $\chi^2/df$  ratios for the male sample with both models which were marginally acceptable at best, the goodness of fit indicators overwhelmingly reveal that these factor structures are inadequate representations of the defensive styles of men and women when each gender is considered separately. Despite the widespread use of the DSQ-60 and the Defensive Functioning Scale in research and in clinical practice, neither appears to have a structure that accurately describes the defensive styles or factors of separate samples of men and women. Such failure to adequately reflect gender-specific defensive patterns is particularly glaring given the prevalence of research strongly suggesting that men and women differ in their defense use. Research has shown that men and women not only rely on different defense mechanisms (Petraglia *et al.*, 2009; Vaillant, 1993), they also often present entirely different defensive styles (Cramer, 1991, 2006; Mahalik *et al.*, 1998; Watson & Sinha, 1998). These findings are corroborated by clinicians who report that men and women report different problems in therapy and cope with stress in different ways (Ogrodniczuk, 2006; Ogrodniczuk, Piper, Joyce, & McCallum, 2001).

While modifications to these two models may need to be undertaken to reflect gender differences in defensive functioning, limitations of this study must be considered before definitive changes are suggested or made. Chief amongst these is that the data used to test the two models were derived from the DSQ-60. The Defense Style Question-

naire is certainly the most widely used questionnaire for defense measurement (Bond, 2004), as suggested by its inclusion in the American Psychiatric Association's Handbook of Psychiatric Measures (APA, 2000). Numerous versions (with 40, 42, 81, 88, or 60 items) of the scale are available, as the measure has undergone several revisions in an effort to increase its reliability and validity. Indeed, the DSQ-60 was created (Trijsburg et al., 2003a) to address the poor or questionable reliability of previous versions of the scale while making the defenses assessed and their operationalization congruent with the DSM-IV. However, despite this grounding of the DSQ-60 in the DFS, studies of that later version of the questionnaire failed to replicate the different levels or factors of the DFS (see Thygesen *et al.*, 2008). As such, this study is an imperfect test of the factor structure of the DFS. This, combined with our use of student participants, indicates that our findings regarding the DFS should be considered tentative.

Further research into models of defense mechanisms could offer the opportunity to develop and improve evidence-based practices and treatment manuals which are characterised by an emphasis on establishing effective therapeutic templates that encompass the goals and activities of psychotherapy (Roth & Fonagy, 2005). Such manuals frequently integrate research findings with clinical activities in the development of a scientifically supported treatment for combined groups of men and women. This practice may be problematic as clinicians frequently report that men and women deal with anxiety in different ways (DeWilde, Broekaert, & Rosseel, 2006), by such reinforcing the need to develop treatment plans that address the specific needs of each gender. Before this can be achieved, however, additional research needs to be conducted on possible differences between men and women, examining gender-related variations in key psychological constructs that reflect how individuals deal with various stressors. Although models such as the ones underlying the DSQ and the DFS have the potential to make important contributions to assessment and intervention practices, their current inability to adequately describe men's and women's unique defensive styles limits their value and significance.

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