

Dada, G., Feixas, G., Compañ, V. y Montesano, A. (2012). Self construction, cognitive conflicts and disordered eating attitudes in young women. *Journal of Constructivist Psychology*, 25, 70-89.

Pre-publication copy

Self Construction, Cognitive Conflicts and Disordered Eating Attitudes in Young Women

Gloria Dada, Guillem Feixas, Victoria Compañ, Adrián Montesano

Universitat de Barcelona, Barcelona, Spain

Author Note

This work has been supported by the *Departament d'Educació i Universitats de la Generalitat de Catalunya* and the European Social Fund by means of a fellowship given to the first author , and also by the *Ministerio de Ciencia e Innovación*. ref. PSI2008-00406

Correspondence should be addressed to Guillem Feixas, Facultat de Psicologia, Departament de Personalitat, Avaluació i Tractaments Psicològics, Universitat de Barcelona, Passeig de Vall d'Hebrón, 171, 08035, Barcelona, Spain. E-mail: gfeixas@ub.edu

Abstract

The aim of this study is to identify cognitive variables that predict disordered eating attitudes in a non-clinical sample composed by 50 women, university students. Repertory Grid Technique was used to assess cognitive features of self-construing and cognitive conflicts. "Drive for thinness" and "body dissatisfaction" scales from EDI-2 were used as dependent variables, since previous studies suggested that high scores on these scales are associated with the risk of developing or aggravating eating syndromes. Results suggest that drive for thinness can be associated to cognitive conflicts, while body dissatisfaction may be higher for those who construct themselves as inadequate and similar to others. In addition, both dependent variables were also predicted by being younger and having higher BMI.

Self Construction, Cognitive Conflicts and Disordered Eating Attitudes in Young Women

Eating disturbances are serious health problems that have generated strong social alarm in recent decades. Epidemiological studies indicate that the incidence of eating disorders (EDs) has progressively increased. In Spain, the estimated prevalence rates range between 1- 4.5% for bulimia, 0.5-1% for anorexia, and 1-4.5% for EDs not otherwise specified in the general population (Toro, 2003). Considering only women, prevalence for EDs ranges between 4% and 17.9%. Even if the emergence of symptoms is usually related to adolescence, the percentage of young women who suffer them has increased. Additionally, several studies have shown the occurrence of these problems in women who are older than adolescents (e.g. Kugu, Akyuz, Dogan, Ersan & Izgic, 2006). Considering that young women face many demands related to their entrance to adulthood, eating disturbances pose risks to their quality of life and generate serious social, family and professional maladjustment. According to one recent study published by the Spanish Ministry of Health and Consumers Affairs (2008), nearly 70% of Spanish women who are of normal weight declare feelings of dissatisfaction with their body.

In addition, many eating behaviours and dysfunctional attitudes have been observed, though they did not strictly fulfill the diagnostic criteria for neither anorexia nor bulimia (Sancho et al., 2007). The need to offer proper care to all people suffering from eating problems is clear. Negative attitudes toward one's body and excessive worry about being fat are a source of distress for women, even when they do not reach levels of clinical significance.

Today, health professionals practice preventive intervention in partial, subclinical and not-specified syndromes, which could evolve in insidious ways from very early stages. Such subclinical eating disturbances have increased alarmingly in the last few decades (12% for restrictive eating behaviours, 6% for overeating behaviours) and affected not only adolescents

but also young women (Sancho et al., 2007). This increase has generated the urgent need of early detection and the study of those factors that could predict various types of EDs.

Low self-esteem is one of the characteristics more commonly associated with EDs (Jacobi et al., 2004; Slade, 1982). In fact, several studies indicate that self-esteem also differentiates people who suffer EDs, not only from normal controls, but also from people who diet to lose weight (Gismero, 2001; Williams, 1993). Watson and Watts (2001) indicated that one's sense of personal value is based on the similarity between the perception of one's "present self" and "ideal self" in terms of the attributes important to the person. Based in Higgins's theory of self-discrepancies (1987), Strauman et al. (1991) studied the relevance of the self-discrepancy in relation to body dissatisfaction and dysfunctional eating behaviours in college students, finding the discrepancy between the two self-images to be correlated to body dissatisfaction (independently of the participants' body mass index (BMI) and the number of beliefs about the self related to appearance). Other authors found the discrepancy between the present and ideal selves was greater in patients with anorexia (Fransella & Crisp, 1979), with bulimia (Feixas, Montebruno, Dada, del Castillo & Compañ, 2010; Izu, 2007) and in women with subclinical restrictive behaviours (Neimeyer & Khouzam, 1985) compared to women without eating problems.

Besides dissatisfaction with oneself, unpleasant social relationships have been widely related to EDs in both literature and research. Generally, social maladjustment and fear of others' negative evaluation have been linked to a lack of self-confidence, poor self-esteem and perceived inadequacy of the self (Fairburn et al., 1990; Striegel-Moore, Silberstein & Rodin, 1993). Less attention has been paid to how others are perceived by people affected by EDs (Quiles, Terol & Quiles, 2003). However, previous studies have shown differences in perceived support from

family and peers between ED patients and controls. According to Tiller et al. (1997), bulimic patients showed disturbances in perceived adequacy of social relationships and Grissett and Norvell (1992) have suggested that bulimics perceived less social support from friends and family, and were less socially competent. Cunha, Relvas and Soares (2009) found that the group of young women with anorexia nervosa showed more alienation and detachment from mothers, fathers and peers when compared to the control group.

Within Personal Construct Theory (PCT), the construction of self is intrinsically related to the construction of others (Feixas & Cornejo, 1996). Greater differentiation between self and others, taken as an index of perceived social isolation, has been associated to other psychological problems, such as depression (Neimeyer, 1985), and to the negative consequences of sexual abuse (Harter, Neimeyer & Alexander, 1988). Feixas et al (2010) suggested that women with longer histories of bulimia nervosa show greater perceived social isolation.

Other studies with ED patients showed that their system of constructs was more restricted, or in other words, less multidimensional if compared to non-clinical samples (Button, 1983; 1993). This suggests that these patients use just a few constructs for interpreting their interpersonal relationships.

Inspired by PCT, our research group has promoted a line of research focused on the view of some psychological symptoms as personal dilemmas. Methodologically, it is based on the study of cognitive conflicts using the Repertory Grid Technique (RGT) (see Feixas, Saúl & Ávila-Espada, 2009) which has already been applied to several clinical problems (Benasayag, Feixas, Mearin, Saúl & Laso, 2004; Carretero, Feixas, Pelligrini & Saúl, 2001; Compañ et al., 2011; Feixas, Cipriano & Varlotta-Domínguez, 2007; Feixas, Montebruno, Dada, del Castillo & Compañ, 2010; Feixas, Saúl & Ávila-Espada, 2009; Montesano, Feixas & Varlotta, 2009) and

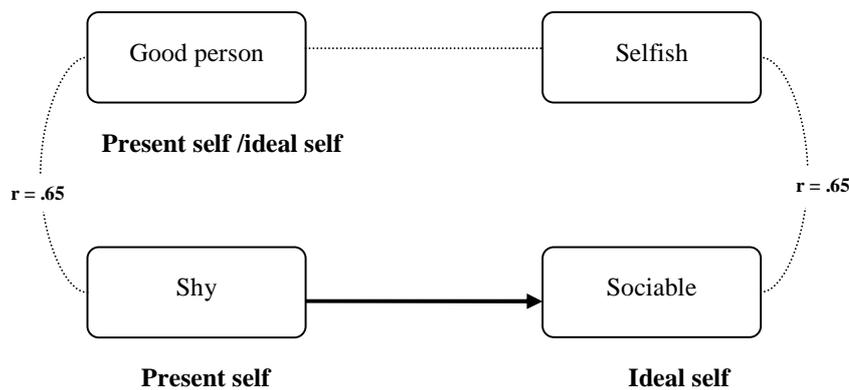
has led us to the elaboration of a treatment manual (Feixas & Saúl, 2005; Serna, Feixas & Fernandes, 2005). In our proposal we consider two types of cognitive conflicts that might reflect personal dilemma: dilemmatic constructs and implicative dilemmas. For the former, we take Kelly's (1955) view of constructs as unique and personal distinctions derived from experience. On these bipolar dimensions of meaning the person often gives different values to each pole of the construct, and orients his behaviour by choosing the desirable alternative. Using the RGT, the desirable pole of each construct can be identified by looking at the scores given to the "ideal self". According to Feixas and Saul (2004) a conflict could arise when both poles of the construct are deemed undesirable by the respondent, and neither one offers a clear-cut course of action. These constructs could be considered dilemmatic if they promote ambivalence because both poles would offer both advantages and disadvantages. Although it is quite common that people have a few of these constructs, a large proportion of dilemmatic constructs in a grid may indicate that the person's constructions are not useful for choosing which direction to take. This situation may result in feelings of insecurity and hesitation and the action could be blocked as a tentative avoidance of the disadvantages perceived in both of the alternatives. However, as Winter, Bell and Watson (2010) suggest, the placement of the ideal self in a midpoint of a construct might have different interpretations, some of which not necessarily related to conflict.

Another type of conflict arises due to a peculiar association between constructs, according to which acquiring the desirable characteristics would imply giving up those that the person would like to keep. An *implicative dilemma* can be understood as a strong entailment between a construct in which the person wishes to change (discrepant construct) and another construct in which changing is not desirable (congruent construct). Because of this particular association,

giving in to the undesired characteristics could imply a threat for the system, and for identity (Feixas et al., 2009).

For example, if the person changes position in the problematic (discrepant) construct moving from the actual pole (“shy”) to the desired pole (“sociable”), this change would imply, according to his/her point of view, a similar change in the congruent construct (good person); thus, to avoid an undesired change (becoming “selfish”) the person also avoids the desired change (see Figure 1). Therefore, renouncing the symptom could carry negative implications for the person’s self-construction.

FIGURE 1. Example of implicative dilemma



Feixas, et al (2010) explored the cognitive indicators derived from the RGT in a sample of young women with bulimia nervosa compared to a group of young asymptomatic age-matched women. The authors found that the presence of implicative dilemmas was more frequent in BN patients’ RGT than in controls’ RGT. These data are confirmed by the results obtained by Izu (2007) with another sample of bulimic women of the same age. As far as we know, there are no previous studies focusing on the role of cognitive conflicts in terms of dilemmatic construing and its relation with disordered eating attitudes in non-clinical samples.

The aim of this study is to explore the relationship between patterns of construing self and others (including cognitive conflicts) and eating problems in women from a non-clinical sample, and to study if those variables are useful for predicting eating attitudes, such as drive for thinness and body dissatisfaction. Previous studies suggest that these attitude scales are associated with the risk of developing or worsening partial eating syndromes, or even full EDs (Leon, Fulkerson, Perry & Early-Zald, 1995; Killen et al., 1996; Cooley & Toray, 2001).

Method

Participants

The sample was composed of 50 women, undergraduate or graduate students, between the ages of 18 and 45 years ($M = 25.14$; $SD = 5.58$).

Instruments and measures

Eating Disorder Inventory EDI-2 (Garner, 1991, Spanish adaptation by Corral, González, Pereña and Seisdedos, 1998) was used for the evaluation of characteristics and symptoms considered relevant in EDs. It consists of 91 items forming 11 scales. Only the scales evaluating attitudes related to food, weight and figure (drive for thinness, DT; and body dissatisfaction, BD) were used for the purposes of this study. This inventory also collects age, weight and height data.

Repertory Grid Technique (RGT). In the grid format used in this study, the interviewer elicited elements by asking for significant others: parents (or other very significant relatives), siblings, present partner (and past significant partners) and close friends. Participants varied in the number of elements provided under these roles. Also, *persona non grata*, self and ideal self elements were included in the grid. The number of elements ranged between 12 and 25 ($M = 16.02$; $SD = 3.32$) across participants. These elements were considered in dyads to elicit

constructs by describing similarities and differences between them. For each similarity or difference described, an opposite construct pole was also elicited. This process continued until “saturation point” when participants were unable to generate additional constructs (i. e., when they began to repeat and/or did not find new constructs or showed obvious signs of fatigue). The number of constructs elicited from each participant ranged between 17 and 50 ($M = 33.34$; $SD = 8.87$). Following elicitation of constructs, the interviewer asked participants to rate all the elements on each construct using a Likert scale format: 1 means “very” of the emergent pole (i.e., “very brave”) and 7 mean “very” of the implicit pole (i.e., “very cowardly”). A series of indexes and measures were computed for each grid:

- *Self-Ideal Discrepancy*: This measure is obtained from the chi-squared distance between the present and ideal self elements. High distances are usually related to low self-esteem.

- *Perceived Social Isolation*. This index is calculated using the product-moment correlation between the scores of the present self and the mean scores of the other elements included in the grid. It reflects the degree of similarity to others perceived by the respondent. A z transformation was performed in order to convert the nonlinear correlation into a linear variable.

- *Percentage of Implicative Dilemmas (PID)*: The identification of implicative dilemmas (Feixas et al., 2009; Feixas, Saúl & Sánchez, 2000) is based on the relations between congruent constructs (those in which there are no differences between the present and ideal self elements) and discrepant constructs (those in which there are relevant differences between the two).

Implicative dilemmas were considered to exist if the Pearson’s correlation between the scores of congruent and discrepant constructs is positive and equal to or bigger than 0.35. That is, the desirable pole of the discrepant construct is correlated to the undesirable pole of the congruent construct. We use the PID in order to take into account the size of the grid; it is calculated by

dividing the number of ID by the total number of possible combinations of constructs if taken two at a time, and then multiplied by 100 (Feixas et al., 2009).

- *Percentage of Dilemmatic Constructs (PDC)*: Those constructs for which the ideal self received a midpoint rating (4) were taken as dilemmatic constructs following Feixas and Saul's (2004) suggestion. PDC is calculated simply by dividing the number of dilemmatic constructs by the total number of constructs in the grid, and then multiplying by 100.

Procedure

Students were recruited after asking for their voluntary participation in their classes. A date was fixed for an individual assessment session, which usually lasted approximately two hours. The interviewers were doctoral students with extensive training in repertory grid administration. The RGT was administered using a pencil and paper format and analyzed using the GRIDCOR 4.0 software (Feixas & Cornejo, 2002). SPSS version 15.0 was used to perform statistical analyses. Pearson's correlations were calculated between EDI-2 scales, age, BMI and RGT variables. The sample was divided into three groups based on percentile scores in the EDI-2 attitude scales (DT and BT) since standards for Spanish adult women without eating disorders were not available. Values beneath the second quartile were considered low (34 participants for DT and 28 for BD) while those above the third quartile (13 participants for DT and 16 for BD) were taken as high values. To focus on the comparison between subjects of a potential risk group (high values in the scales of the EDI-2) and those without dysfunctional eating attitudes, participants falling within the second and third quartiles (3 participants for DT and 6 for BD) were excluded from further analyses.

A logistic regression with forward variable selection was performed to predict high values on DT and BD, introducing BMI, age, self-ideal discrepancy, perceived social isolation, number

of constructs, proportion of dilemmatic constructs, and proportion of implicative dilemmas as the independent variables. In order to avoid the effect derived from size differences between both groups (given the low prevalence in the group with a high level of symptoms), the probability cut-off points were adjusted, maximizing the false positive to false negative ratio (see below). Finally, receiver operating characteristic (ROC) curves were constructed to test the accuracy of the regression models in correctly predicting high values on DT and BD scales.

Results

Sample description

The BMI of the participants oscillated between 16.69 and 30.38 with a mean of 21.7 ($SD=3.18$). According to the international cut-off points indicated by the World Health Organization (1995; 2000), normal BMI was displayed by 82% of the sample, and no cases of severe thinness ($BMI < 16.00$) or obesity class II/III ($BMI > 35.00$) were found.

TABLE 1. Descriptive statistics for the DT and BD EDI-2 scales.

	Students sample ($n = 50$)				Spanish clinical sample ^a ($n = 302$)		Female university students ^a ($n = 205$)	
	Mean	SD	Minimum	Maximum	Mean	SD	Mean	SD
Drive for thinness	3.5	4.7	0	18	11.7	7.0	5.6	5.5
Body dissatisfaction	5.1	6.3	0	23	13.76	8.8	12.2	8.3

a: Data extracted from the Spanish adaptation of the *Eating Disorder Inventory-2 manual*. (Corral, González, Pereña & Seisdedos, 1998).

The mean scores in EDI-2 scales were low and similar to those expected for female graduate students according to American standards. However, as can be observed in Table 1, we found 4% of scores on DT and 8% of scores on BD above the mean from the Spanish clinical sample. Descriptive statistics for the grid measures are shown in table 2.

TABLE 2. Descriptive statistics for the Repertory Grid measures of the group ($n = 50$)

	Self-Ideal Discrepancy	Perceived Social Isolation	Percentage of Implicative Dilemmas	Percentage of Dilemmatic Constructs
<i>M</i>	.203	.317	1.290	8.9
<i>SD</i>	.132	.216	1.996	8.4
Min.	.020	-.293	0	0
Max.	.630	.737	9.661	.31

Correlational Analysis

DT was significantly and negatively related to age ($r = -.312$, $p = .028$) and number of constructs ($r = -.325$, $p = .021$), while BD was significantly related to BMI ($r = .404$, $p = .004$) and negatively to age ($r = -.293$, $p = .039$). Correlations between other RGT variables and EDI-2 scales did not reach significance.

Logistic regression for Drive for Thinness

The overall regression model for Drive for Thinness (see Table 3), contained four variables: proportion of dilemmatic constructs, percentage of implicative dilemmas, BMI and age. The full model was statistically significant: $\chi^2(4) = 25.78$, $p < .001$, indicating that it was able to distinguish between participants presenting low or high scores on this scale.

TABLE 3. Summary of Logistic Regression Analysis for variables predicting High Values in Drive for Thinness.

	Variable	<i>B</i>	<i>SE B</i>	<i>p</i>	β
Step 1					
	Age	-.260	.115	.024	.771
Step 2					
	Body mass index	.413	.178	.020	1.512
	Age	-.341	.126	.007	.711
Step 3					
	Body mass index	.502	.197	.011	1.652
	Percentage of implicative dilemmas	.367	.181	.043	1.443
	Age	-.388	.146	.008	.678
Step 4					
	Body mass index	.658	.251	.009	1.931
	Percentage of implicative dilemmas	.512	.217	.018	1.668
	Age	-.416	.158	.008	.660
	Percentage of dilemmatic constructs	.148	.072	.039	1.160

Age and BMI were the first two variables which entered into the equation by the logistic regression procedure used. Results indicate that younger and heavier women were more likely to show higher scores on DT. Nevertheless, considering only those variables as predictors, 38.5% of false negatives were obtained (see Table 4).

TABLE 4. Drive for thinness regression model: classification table.

	Observed	Predicted		Correct Percentage	
		DT			
		Low	High		
Step 1					
	DT	Low	24	10	70.6
		High	5	8	61.5
	Overall Percentage				68.1

Step 2					
DT	Low	29	5	85.3	
	High	5	8	61.5	
Overall Percentage				78.7	
Step 3					
DT	Low	28	6	82.4	
	High	4	9	69.2	
Overall Percentage				78.7	
Step 4					
DT	Low	31	3	91.2	
	High	1	12	92.3	
Overall Percentage				91.5	

Cut-off point is .380

The whole model resulting at step 4 included Proportion of Implicative Dilemmas and Percentage of Dilemmatic constructs. This model showed Pseudo R squared indexes of 42.2% (Cox and Snell R squared) and 61% (Nagelkerke R squared) for presenting low or high DT values, and correctly classified 91.5 % of participants. False negatives were reduced from 38.5% in step 1 to 7.7% in step 4.

Logistic regression for Body Dissatisfaction

The overall regression model for Body Dissatisfaction (see table 5), also contained four variables: self-ideal discrepancy, perceived social isolation, BMI and age. The full model was statistically significant: $\chi^2(4) = 29.64$, $p < .001$, indicating that it was able to distinguish between subjects presenting low or high scores in Body Dissatisfaction.

As for DT, age and BMI were the first variables to be introduced in the regression model, indicating that the probability of obtaining high scores on BD increased as BMI was higher and age was lower (see Table 5).

TABLE 5. Summary of Logistic Regression Analysis for variables predicting High Values in Body Dissatisfaction.

Variable	<i>B</i>	<i>SE B</i>	<i>p</i>	β
Step 1				
Body mass index	.396	.152	.009	1.49
Step 2				
Body mass index	.535	.191	.005	1.71
Age	-.288	.124	.020	.75
Step 3				
Body mass index	.678	.226	.003	1.97
Self-others mean correlations	4.740	2.191	.030	114.38
Age	-.386	.156	.013	.68
Step 4				
Body mass index	.714	.275	.009	2.04
Present Self-Ideal Self distance	9.864	4.771	.039	19217.63
Self- others mean correlations	6.266	2.664	.019	526.61
Age	-.539	.214	.012	.58

Using only these two variables as predictors 100% of participants with high values were correctly classified, but the model was very imprecise when classifying participants with low BD. In this sample, 53.6% of false positives were found when using only BMI and age as predictors (see Table 6). The whole model showed that an increase of BMI, self-ideal discrepancy, self-others correlation, and younger age increase the probability of showing high BD values. This model showed Pseudo R squared indexes between 49% (Cox and Snell R squared) and 67.1% (Nagelkerke R squared), and correctly classified 81.8% of participants (71.4% of low scores and 100% of high scores).

TABLE 6. Body Dissatisfaction logistic regression: Classification table.

		Observed	Predicted		Correct Percentage
			DT		
			Low	High	
Step 1	DT	Low	5	23	17.9
		High	0	16	100.0
	Overall Percentage				47.7
Step 2	DT	Low	13	15	46.4
		High	0	16	100.0
	Overall Percentage				65.9
Step 3	DT	Low	17	11	60.7
		High	1	15	93.8
	Overall Percentage				72.8
Step 4	DT	Low	20	8	71.4
		High	0	16	100.0
	Overall Percentage				81.8

Cut-off point is .15

Regression model accuracy

For DT and BD, the areas under the curve (AUC) equalled .93 ($SE = .04$, $p < .001$) with 95% confidence interval (CI) = .85 – 1.00, $p < .001$. The AUCs indicated that both regression models were accurate, and that prediction was significantly different from random assignment. Fixing the cut-off point at .38 for DT and at .15 for BD, thus maximizing the false positive to false negative ratio, the regression models showed 92.3% sensitivity and 91.2% specificity for DT prediction, and 71.4% sensitivity and 100% specificity for BD prediction (see Figures 2 and 3).

Discussion

Eating symptoms have been commonly associated with adolescence, and it seems clear that heavier people tend to be more worried about their body shape; therefore, it is not surprising to find strong negative correlations between age and attitude scales, in addition to positive correlations between BD and BMI. Moreover, lower age and higher BMI were included as predictors of high values on the EDI-2 attitude scales at the first steps of the analyses. Nevertheless, regression models including only BMI and age as predictors were less accurate compared to the complete models including cognitive conflicts (for DT) or self-construction (for BD) variables. Specifically, if the variables regarding cognitive and self construction were not taken into account, almost 40% of women from this sample seeking thinness would be wrongly classified as if they showed low values in DT (38.5% of false negatives), and more than 50% of women who are actually satisfied with their bodies would be classified as dissatisfied (53.6% of false positives).

Previous research within PCT (Button, 1983; 1993) has shown that ED patients used fewer constructs than controls. In this study DT was correlated with providing fewer constructs, suggesting that a lower number of dimensions in the construct system might facilitate concentration on the idea of thinness even for women without an eating disorder diagnosis. Besides this finding, RGT indexes did not show other significant linear correlations with DT or BD when taken one by one. However, by differentiating participants with potential risk from those with healthy eating attitudes, more sophisticated and complex interrelationships among variables were found when performing logistic regressions. The resultant regression models showed that, besides higher BMI and lower age, a larger proportion of dilemmatic constructs and a higher percentage of implicative dilemmas were good predictors for drive for thinness. While implicative dilemmas have been formerly associated with several psychological problems

(Feixas, Saul & Ávila-Espada, 2009), and specifically with eating disorders (Feixas et al., 2010; Izu, 2007), the assumption that the so called “dilemmatic constructs” are indicative of cognitive conflict has not been consistently supported by previous research. The use of midpoint ratings for the ideal self element has received diverse interpretations within the personal construct literature (e.g., Winter, Bell and Watson, 2010) and its association to psychopathology or any other forms of malfunctioning is not clear, and it is controversial. The results of this study might, however, provide some support for such an association because they indicate that a higher proportion of midpoint ratings on the ideal self is useful for predicting some risky eating attitudes (DT). Furthermore, in order to illustrate this result, PDC values from both groups were compared, showing that this proportion for the high DT group was almost twice as high ($M = 12.5$, $SD = 7.8$) as for the low DT group ($M = 7.4$, $SD = 8.1$), a significant difference ($U = 133$, $z = 2.11$, $p = .035$, $r = .31$). Nevertheless, the support for the association between a high proportion of midpoint ratings for the ideal self obtained for DT was not replicated for BD. Therefore, the debate around the meaning and clinical implications of dilemmatic constructs remains open, and further research should clarify the implications of our findings.

Being younger and heavier, considering oneself as inadequate, and perceiving others as similar were predictors of body dissatisfaction. These findings are consistent with research showing that a negative self-esteem is related to dysfunctional eating attitudes. Compared with traditional measures of self-esteem, the RGT allows for the assessment of the satisfaction with oneself in terms of those attributes that are meaningful for the person (i.e., personal constructs). In addition to the construction of self, it is possible to assess the construction of others and the perceived similarities or differences between self and others. Our results suggest that perceived similarity with others predicts greater body dissatisfaction. The above may seem inconsistent

with previous research relating the differentiation between self and others to psychological suffering. But this finding could be understood if the views of those with high BD have a negative view of others so that this negative view also includes the self, an issue that also deserves further research.

Conclusions

Being younger and having a higher body mass index seem to be related to the possibility of developing disordered eating attitudes, but those variables are not accurate enough for distinguishing women highly worried about their body shape from those who are not. This study has shown that cognitive and self-construing variables that can be assessed using the RGT are useful for the prediction of these negative attitudes. Specifically, the impulse to seek thinness (or the fear of being fat) can be related to more dilemmatic ways of construing (in terms of both implicative dilemmas and dilemmatic constructs), and to a system with fewer constructs than that of those without DT. Driving for thinness can thus be associated to a construct system presenting various forms of conflicts in construing self and others so that it does not produce anticipations useful for orientating behaviour in social interactions. In this context, thinness would be pursued because it could be perceived as a safe route to success in social relationships.

Previous studies provided strong support for the relation between low self-esteem and disordered eating attitudes. Our findings suggest that being dissatisfied with one's body can be associated with the negative perception not only of one's self, but also of others.

There are some limitations that need to be acknowledged and taken into account when considering this study and its contributions. We had a relatively small sample size for a complex subject with multiple variables; additionally, all women included were undergraduate students. Therefore, even though the results were statistically significant, they should be viewed as

preliminary. Moreover, the data collected for this study were examined at just one point in time, and it is, as such, provided only a description of the relationships between variables. Further research with longitudinal studies would be necessary to explore whether those associations observed in the present study are maintained over time.

Although requiring further exploration in a large scale investigation, the findings of this study suggest that personal construction is relevant for the understanding of disordered eating attitudes.

References

- Benasayag, R., Feixas, G., Mearin, F., Saúl, L. A., & Laso, E. (2004). Conflictos cognitivos en el Síndrome del Intestino Irritable (SII): un estudio exploratorio. *International Journal of Clinical and Health Psychology, 4*(1), 105-119.
- Button, E.J. (1983). Construing the anorexic. In J. Addams-Webber and J. Mancuso, *Applications of personal construct theory* (pp. 305-329). Toronto: Academic.
- Button, E. J. (1993). *Eating Disorders. Personal Construct Therapy and Change*. Sussex, UK: Wiley.
- Carretero, F., Feixas, G., Pelligrini, I. and Saúl, L.A. (2001). Cuando relacionarse amenaza la identidad: la fobia social desde un enfoque constructivista. *Boletín de Psicología, 72*, 43-55.
- Compañ, V., Feixas, G., Varlotta, N., Torres, M., Aguilar, A., Dada, G. and Saúl, L. A. (2011). Cognitive factors in fibromyalgia: The role of self-concept and identity related conflicts. *Journal of Constructivist Psychology, 24*, 1-22.
- Cooley, E., and Toray, T. (2001, July). Body image and personality predictors of eating disorder symptoms during the college years. *International Journal of Eating Disorders, 30*, 28-36.
- Cunha, A., Relvas, A. and Soares, I. (2009). Anorexia nervosa and family relationships: Perceived family functioning, coping strategies, beliefs, and attachment to parents and peers. *International Journal of Clinical and Health Psychology, 9* (2), 229-240.
- Feixas, G., Bach, L., and Laso, E. (2004). Factors affecting interpersonal construct differentiation when measured using the Repertory Grid. *Journal of Constructivist Psychology, 17*, 297-311.

Feixas, G., Cipriano, D. and Varlotta-Domínguez, N. (2007). Somatización y conflictos cognitivos: estudio exploratorio con una muestra clínica. *Revista Argentina de Clínica Psicológica*, XVI (3), 197-203.

Feixas, G. and Cornejo, J.M. (2002). RECORD versión. 4.0 Análisis de correspondencias de constructos personales [Computer Software]. Available at:
www.terapiacognitiva.net/record

Feixas, G., Montebruno, C., Dada, G., del Castillo, M. and Compañ, V. (2010). Self construction, cognitive conflicts and polarization in Bulimia Nervosa. *International Journal of Clinical and Health Psychology*, 10, 445-457.

Feixas, G., Saúl, L. A. and Ávila-Espada, A. (2009). Viewing cognitive conflicts as dilemmas: implications for mental health. *Journal of Constructivist Psychology*, 22, 141-169.

Feixas, G., Saúl, L. A., and Sánchez, V. (2000). Detection and analysis of implicative dilemmas: Implications for the therapy process. In J.W. Scheer (Ed.), *The Person in Society. Challenges to a Constructivist Theory* (pp. 391-399). Giessen: Psychosozial-Verlag.

Feixas, G. and Villegas, M. (2000). *Constructivismo y psicoterapia*. Bilbao: DDB.

Fernandes, E., Senra, J. and Feixas, G. (2009) *Psicoterapia constructivista: Un modelo centrado em dilemas*. Braga, Portugal: Psiquilibros.

Fransella, F. and Crisp, H. (1979). Comparisons of weight concepts in groups of neurotic, normal and anorexia females. *British Journal of Psychiatry*, 134, 79-86.

Garner, D. (1991). *Eating Disorder Inventory-2 manual*. Odessa, FL: Psychological Assessment Resources. Spanish adaptation by Corral, S., González, M., Pereña, J. and Seisdedos, N. (1998) *Inventario de trastornos alimentarios EDI-2*, Madrid: TEA Ediciones.

- Gismero, E. (2001). Evaluación del autoconcepto, la satisfacción con el propio cuerpo y las habilidades sociales en la anorexia y la bulimia nerviosas. *Clínica y Salud, 12*, 289-304.
- Gismero, E. and Godoy, M.A. (2004). Una aproximación constructivista a la anorexia nerviosa: ¿Tienen sentido los síntomas? *Revista de Psicoterapia, 58/59*, 5-32.
- Grissett, N. and Norvell, N. (1992). Perceived social support, social skills, and quality of relationships in bulimic women. *Journal of Consulting and Clinical Psychology, 60* (2), 293-299.
- Harter, S., Alexander, P. and Neimeyer, R. A. (1988). Long-term effects of incestuous child abuse in college women: social adjustment, social cognition, and family characteristics. *Journal of Consulting and Clinical Psychology, 56*, 5-8.
- Higgins, E. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*, 319-340.
- Izu, S. (2007). *Disociación y factores cognitivos en la bulimia nerviosa*. Unpublished thesis, University of Barcelona, Spain.
- Jackson, S. R., & Bannister, D. (1985). Growing into self. In D. Bannister (Ed), *Issues and approaches in personal construct psychology* (pp. 67-82). London: Academic Press.
- Jacobi, C., Paul, T., de Zwaan, M., Nutzinger, D., and Dahme, B. (2004, March). Specificity of self-concept disturbances in eating disorders. *International Journal of Eating Disorders, 35*, 204-210.
- Kelly, G. (1955). *The psychology of personal constructs*. New York: Norton. Re-edited by Routledge, London, 1991.

- Killen, J., Taylor, C., Hayward, C., Haydel, K., Wilson, D., Hammer, L., et al. (1996). Weight concerns influence the development of eating disorders: A 4-year prospective study. *Journal of Consulting and Clinical Psychology, 64*, 936-940.
- Kugu, N., Akyuz, G., Dogan, O., Ersan, E., and Izgic, F. (2006) The prevalence of eating disorders among university students and the relationship with some individual characteristics. *Australian and New Zealand Journal of Psychiatry, 40*, 129-135.
- Leon, G., Fulkerson, J., Perry, C., and Early-Zald, M. (1995). Prospective analysis of personality and behavioral vulnerabilities and gender influences in the later development of disordered eating. *Journal of Abnormal Psychology, 104*, 140-149.
- Ministerio de Sanidad y Consumo (2008, 7 de febrero). *Estudio antropométrico de la población femenina*. Retrieved March 17, 2008, from <http://www.msc.es/novedades/estudioAntropometrico.htm>
- Montesano, A., Feixas, G. y Varlotta, N. (2009). Análisis de contenido de constructos personales en la depresión. *Salud Mental, 32*, 371-379.
- Neimeyer, R. A. (1985). Personal constructs and depression. In E. Button (Ed.), *Personal constructs and mental health*. London: Croom Helm.
- Neimeyer, G.R. and Khouzam, N. (1985). A repertory grid study of restrained eaters. *British Journal of Medical Psychology, 58*, 365-367.
- Quiles, Y., Terol, M. and Quiles, M. (2003). Evaluación y apoyo social en pacientes con trastorno de la conducta alimentaria: un estudio de revisión. *International Journal of Clinical and Health Psychology, 3* (2), 313-333.

- Sancho, C., Arija, M. V., Aosrey, O. and Canals, J. (2007) Epidemiology of eating disorders. A two year follow-up in an early adolescent school population. *European Child and Adolescent Psychiatry*, 16, 495-504.
- Serna, J; Feixas, G. and Fernandes, E. (2007): Manual de intervención en dilemas implicativos. *Revista de Psicoterapia*, 63/64, 179-202.
- Slade, P. (1982). Towards a functional analysis of anorexia nervosa and bulimia nervosa. *British Journal of Clinical Psychology*, 21, 167-179.
- Strauman, T.J., Vookles, J., Berenstein, V., Chaiken, S. and Higgins, E.T. (1991). Self-discrepancies and vulnerability of body dissatisfaction and disordered eating. *Journal of Personality and Social Psychology*, 61, 946-956.
- Striegel-Moore, R., Silberstein, L.R., Rodin, J. (1993). The Social Self in Bulimia Nervosa: Public Self-Consciousness, Social Anxiety, and Perceived Fraudulence. *Journal of Abnormal Psychology*, 102, 2, 297-303.
- Tiller, J., Sloane, G., Schmidt, U., Troop, N., Power, M., and Treasure, J. (1997). Social support in patients with anorexia nervosa and bulimia nervosa. *International Journal of Eating Disorders*, 21 (1), 31-38.
- Toro, J. (2003). Epidemiology of eating disorders and related questions in Spain. In G.M. Ruggiero (Ed.), *Eating Disorders in the Mediterranean area: An exploration in transcultural psychology* (pp.93-98). New York: Nova
- Watson, N. and Watts, R. (2001). The Predictive Strength of Personal Constructs Versus Conventional Constructs: Self-Image Disparity and Neuroticism. *Journal of Personality*, 69, 121-145.

Williams, G. J., Power, K. G., Millar, H. R., Freeman, C. P., Yellowlees, A., Dowds, T., et al.

(1993). Comparison of eating disorders and other dietary/weight groups on measures of perceived control, assertiveness, self-esteem, and self-directed hostility. *International Journal of Eating Disorders*, 14, 27-32.

Winter, D. A., Bell, R. C. & Watson, S. (2010). Midpoint Ratings on Personal Constructs:

Constriction or the Middle Way?. *Journal of Constructivist Psychology*, 23(4), 337-356.

World Health Organization (1995). *Physical status: the use and interpretation of*

anthropometry. Report of a WHO Expert Committee. WHO Technical Report Series 854.

Geneva: World Health Organization.

World Health Organization (2000). *Obesity: preventing and managing the global epidemic.*

Report of a WHO Consultation. WHO Technical Report Series 894. Geneva: World

Health Organization.