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Psychometric properties of the Spanish version of the Experiencing of Self Scale (EOSS) for assessment in Functional Analytic Psychotherapy

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Abstract

Background: The Experiencing of Self Scale (EOSS) was created to evaluate the experience of the personal self, within the field of Functional Analytic Psychotherapy. This paper presents a study of the reliability and validity of the EOSS in a Spanish sample. **Method:** The study sample, chosen from 24 different centres, comprised 1,040 participants aged between 18-75, of whom 32% were men and 68% women. The clinical sample was made up of 32.7%, whereas 67.3% had no known problem. To obtain evidence of convergent validity, other questionnaires related to the self (EPQ-R, DES, RSES) were used for comparison. **Results:** The EOSS showed high internal consistency (Cronbach's α = .941) and significantly high correlations with the EPQ-R Neuroticism scale and the DES Dissociation scale, while showing negative correlations with the Rosenberg Self-Esteem Scale (RSES). The EOSS revealed 4 principal factors: a self in close relationships, a self with casual social relationships, a self in general and a positive self-concept. Significant statistical differences were found between the clinical and standard sample, the former showing a higher average. **Conclusions:** The EOSS had high internal consistency, showing evidence of convergent validity with similar scales and proving useful for the assessment of people with psychological problems related to the self.

Keywords: Functional Analytic Psychotherapy, Experiencing of Self Scale, EOSS, reliability, validity, questionnaire, clinical participants.

Resumen

Propiedades psicométricas de la versión española del cuestionario EOSS para la evaluación en la Psicoterapia Analítico Funcional. **Antecedentes:** el Experiencing of Self Scale (EOSS) se creó para evaluar el concepto y la experiencia del yo dentro de la Psicoterapia Analítica Funcional. Se presenta un estudio sobre fiabilidad y evidencias de validez del EOSS en una muestra española. **Método:** hubo 1.040 participantes, edad entre 18 y 75 años, con 32% de hombres y 68% de mujeres, recogidos de 24 centros. La muestra clínica fue del 32,7% y del 67,3% con personas sin problemas. Para obtener evidencias de validez convergente se utilizaron otros cuestionarios relacionados con el concepto de yo (EPQ-R, DES, RSES). **Resultados:** el EOSS mostró una alta consistencia interna (α = .941) y altas correlaciones significativas con la escala de "neuroticismo" de EPQ-R, "disociación" del DES, y negativas con la escala de autoestima RSES. El EOSS reveló 4 factores principales: el yo en relaciones íntimas, un yo en relaciones sociales, un yo general y un concepto positivo del yo. Se encuentran diferencias significativas en las puntuaciones totales y parciales del EOSS entre la muestra clínica y la estándar. **Conclusiones:** el EOSS tiene una alta consistencia interna, muestra validez convergente con escalas similares, y también es útil para la evaluación de personas con problemas psicológicos del yo.

Palabras clave: Psicoterapia Analítica Funcional, Escala de Experiencia del Yo, EOSS, fiabilidad, validez, cuestionario, muestra clínica.

The "experience of self" is a private, subjective experience. There have been many attempts to define and operationalize it. The sense of self is what distinguishes one person from another and what makes each one of us a person. Although the concept of self-esteems from psychodynamic theory (Kohut, 1971), other authors (Coopersmith, 1977; Rosenberg, 1979; Marx & Winne 1978) define the self as a global construct, a one-dimensional self-concept with inseparable contents. Approximately 37 different theories have been published regarding the self (Robins, Noem, & Check, 1999).

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From a behavioral standpoint, Skinner (1957, 1974) gave a definition of the experience of self as a private behavior that can be explained by the same processes of learning as any public behavior. He defined the self as an organized system of responses, with the capacity to change one's behavior. During childhood, it is reinforced and shaped by other people. Kohlenberg and Tsai (1991, 1995) developed a theory on the forming of the self based on Skinner's theory, when self-referenced phrases are reinforced in the child *(I, me, I want, I've got*, the child's own name, etc.). Following many experiences of this kind, a child acquires a verbal concept of the self. In this process, experiences have public reference points that parents and others use to reinforce, maintain, or extinguish them. The sense of self emerges as a functional unit from the acquisition of longer units, in the same way as a concept is acquired after multiple exemplary training using different stimuli with a common property. Similarly, the concept of self is learned through three stages of development. During the

first stage, children learn to name small functional units (such as *"mom", "water", "hot")* and progressively begin to use longer units learned as a complete stimuli (e.g. *"I love mom", "I want water", "I am hot")*. During the second stage, smaller functional units emerge, which include verbs addressing personal private activities (such as "*I get"*, "*I see"* and "*I want"*). Finally, during a third stage, a single and more general unit emerges, the smallest verbal unit *"I x*" arises together with the experience of self, a private experience that introduces this perspective. The essential key to the development of self is how control is transferred from public control and public experiences to private control and private experiences. The degree of difficulty that individuals can have with this experience of self may vary depending on the degree of private control that external stimulus have over their private responses *"I x*". In general, the fewer the number of self-referred responses that are subject to private control, the greater the degree of confusion between private and public context of self, and the more difficulty is experienced in answering questions that have to do with personal preferences, desires, values, etc. Based on this theory, authors have also explained the problems of self, the so-called problems of personality (Kohlenberg & Tsai, 1991, 1995; Kohlenberg, Tsai, Kanter, & Parker, 2009).

Various instruments have been created for the assessment of the concept of self. The *Tennessee Self-Concept Scale* (Fitts & Warren, 1996) arises from humanistic psychology and includes an *ethical-moral* self-concept scale and another scale related to *one's personal self*. It contains 18 items on a five-point Likert scale and shows high correlations with constructs such as personality traits, emotional stability and personal adjustment. Briere and Runtz (2002) created the *Inventory of Altered Self-Capacities*, devised for the evaluation of the self in relation to others in people with borderline personality disorder. It contains 63 items grouped into 7 subscales, such as: Interpersonal conflict, Idealization-disappointment, Fear of abandonment, Identity problems, Susceptibility to influence, Emotional deregulation and Activities to reduce stress. The questionnaire proved to be highly consistent internally (α = .89) and also to have high correlations with other measurements of self-reporting and questionnaires on depression, personality, suicidal ideation, substance abuse or problematic sexual behavior, which are often features of personality disorders. In addition, Flury and Ickes (2007) created the *The Sense of Self Scale* to assess the strength of the sense of self. It has high internal consistency (α = .86) and test-retest reliability (r = 0.83) plus high correlations with fear of rejection, neuroticism and borderline symptomatology. Its aim was to discriminate the weakness in the sense of self that occurs in diverse clinical cases of personality disorders related to emotional changes, instability, dichotomous thinking, self-harm, etc. These scales have not been used with clinical populations.

From the standpoint of Functional Analytic Psychotherapy (Kohlenberg & Tsai, 1991; Tsai et al., 2009), the *Experiencing of Self Scale* (EOSS) assesses the experience of self. Unlike other instruments, the EOSS specifically measures the degree of public versus private control over the experience of self. Moreover, the EOSS defines items from verbal self-descriptions concerning: feelings, needs, attitudes, opinions and actions. They all are different as regards casual social relationships versus close relationships, and also as regards when they occur (i.e., in company vs. when alone). As such, this scale differentiates public and private aspects of the concept of self socially and verbally constructed in the personal history. The EOSS aims to measure the degree of public versus private control over the experience of self that is not measured explicitly by other questionnaires. The original authors first presented the questionnaire at a congress of the *Association of Behavior Analysis* (Parker, Beitz, & Kohlenberg, 1996) and subsequently published reliability and validity data with regard to North American participants (Kanter, Kohlenberg, & Parker, 2001). A version of the scale with 20 items was used that scored the degree of occurrence of experiences on a 7-point Likert scale. The participants included 284 students (average age of 19.2 years and 59% women), but the clinical participants only included 14 people diagnosed with borderline personality disorder. The internal consistency found was α = .91, and for the subscales between .83 and .93. A confirmatory factor analysis of these subscales was carried out, according to the previous theory of social control: casual relationships with others and being alone, close relationships with others and being alone. The findings showed that scores increased with social control, so a person with higher scores also had higher social control of self. Furthermore, it was found that positive correlations increased with experiences of dissociation (r = .34) and negative correlations increased with self-esteem (r = - .26). There were also significant differences in the highest scores achieved by people with borderline personality disorder.

The aim of this study is to obtain evidence of the reliability and validity of the EOSS questionnaire (an extended version drawn up by the original authors with 37 items), comparing clinical and non-clinical Spanish populations. A study on this questionnaire has previously been carried out, although with limited participants (Valero, Ferro, López, & Selva, 2011, 2012). Therefore, the current aim is to resolve these limitations and present broader reliability and evidence of validity, and also to compare clinical and non-clinical populations in order to identify people with problems of self, through the EOSS.

Method

Participants

The participants were chosen from a total of 24 different centers, including colleges and private clinics. All the participants were Spanish, from six different cities. Data was gathered from a total of 1,040 participants, with ages ranging from 18 to 75 years (M = 31, SD = 10.3). There were 707 women (68%) and 333 men (32%). The majority of participants were women, under 35, single, university-educated, and living in the family home. Of the total participants, 32.8% were receiving some form of psychiatric or psychological treatment, or both at the same time. We detail the samples because other clinical studies related to the questionnaire use only academic or sub-clinical samples.

Instruments

The *Experiencing of Self Scale* (Kanter, Parker, & Kohlenberg, 2001) is a questionnaire made up of 37 items, which are measured with a 7-point Likert scale ranging from 1 (*never*) to 7 (*always*). It has 4 sections as regards the type of relationship (casual or closer relationships and the presence or absence of other people). In Section 1, the general experience of the self is assessed. Section 2 assesses the expression of needs, opinions, attitudes and

actions when with people of coincidental or casual contact. Section 3 assesses the same concepts when faced with more intimate or close relationships. Section 4 assesses spontaneity, creativity, dissociation and sensitivity to criticism. In the authors' first publication, the internal consistency was α = .91, and for each section, alpha was .87, .83, .93, and .88, respectively. The participants were mainly from a student population, and only some participants had clinical problems. The original scale contained 20 items, but the authors subsequently drew up a new version (unpublished), adding the concept of self in general, dissociation of self, and some positive considerations of self. They maintained the 4 sections of initial scale. The new questionnaire with 37 items was provided directly by the original authors. It was then translated into Spanish, and reviewed by two clinicians before being applied to a small sample of students.

The *Eysenck Personality Questionnaire-Revised* (Eysenck, Eysenck, & Barrett, 1985) is made up of 100 items. It has different subscales such as: Hardness-Psychoticism, Extraversion, Neuroticism-Emotion and Mendacity-Cunning. The revision of this questionnaire improved its reliability. It now has an alpha between .71 and .92, and test-retest reliability between .73 and .94. The Spanish version used here is that of Aguilar, Tous, and Pueyo (1990).

The Rosenberg Self-Esteem Questionnaire (Rosenberg, 1965, 1979) is made up of 10 items describing how an individual sees him/herself, how a person would like to see him/herself, and how he/she appear or would like to appear to others. Items are rated on a scale of 1-4 according to the degree of agreement with the statement of each item. This scale has been used in several studies in various countries, both with college students and with clinical and non-clinical populations. In all these studies, it proved to have a high internal consistency and to be test-retest reliable. In this study, we used the Spanish version by Martín, Núñez Grijalvo, and Navarro (2007).

The *Dissociative Experiences Scale* (Bernstein & Putman, 1986) is a questionnaire made up of 28 items that are assessed on a Likert scale (from 0 to 100) according to the extent to which the person has experienced what is described in each item. It has been applied to clinical populations with high rates of reliability (α = .93) and test-retest reliability (r = .78 between r = .96). It has also been applied to student populations, clinical populations and even to those diagnosed with schizophrenia, who generally obtain higher scores than those of the non-clinical population. In this study, we used the Spanish version by Icara, Colom, and Orengo (1996).

Procedure

To prepare the EOSS questionnaire, a Spanish translation was produced from the original of 37 items provided to us by the authors. A revision of the translation was carried out by two clinical experts (authors of this article), after a bilingual English-Spanish speaker had translated the questionnaire from Spanish to English, in order to observe the coincidences. A trial was then conducted with 20 students to correct any potential errors, any difficulties in the interpretation of the items, or in its application. The items were renumbered 1 to 37 in the final Spanish version to facilitate all subsequent data analyses. Thus, the EOSS Section 1, with items referring to the self in general, includes items 1 to 7. Section 2, with items regarding acquaintances, includes items 8 to 17. Section 3, which refers to close or more intimate relationships, covers items from 18 to 27. Section 4, with items regarding the self in relation to others, covers items 28 to 37. Thus, a score is obtained in each section as well as a total final score. Participants respond to all items on a Likert scale ranging from 1 (*never*) to 7 (*always*) according to the frequency with which the events described happen to them and or they think or feel what is described in the items. The total score of the questionnaire is obtained by adding all the item points, although the score of Items 5, 6, 30, 31, 35 and 36 must be reversed.

In order to collect the data questionnaires and make the sample as large as possible, the collaboration of several centers and services was needed. There were a total of 24 centers (university faculties, university psychological and counseling centers, associations of users with psychological problems and private mental health clinics). After having the purpose of the research explained to them and giving their informed consent, the participants were handed all the questionnaires together with no indication on the pages of the name of the instrument. The questionnaires were completed anonymously and no personal information or medical history was included that might identify any participant, although on the first page some socio-demographic data such as marital status, education, employment status and residence was requested. In addition, the participants were asked whether they were under any kind of treatment and if that was the case, what was the nature of the problem. Each questionnaire was individual and separate and the data were treated anonymously. Each participant was identified only by initials and a number. The questionnaires took between 20 and 30 minutes to complete.

Data analysis

The data was then filed on a computer using SPSS 21 for Mac. In order to obtain the reliability of questionnaire, an analysis of internal consistency with Combach Alpha was used, and a test-retest with a reduced sample of participants. To carry out a factor analysis, an exploratory analysis of the principal components was used which showed seven factors explaining the total of 71.22% of the variance. However, they proved difficult to cluster in concept. There was a great dispersion of items, and each had only a low percentage of explained variance. Subsequently, an analysis was carried out applying a Varimax-Kaiser rotation, which sought only the four factors found by original authors. The adjustment of data sample was high (KMO = .932, χ^2 = 30993, gl = 666, p<.0001). Moreover, these factors saturated in 60.59% of the variance, and are therefore explained below. For indications of validity, a convergent correlation with similar questionnaires was used. In addition, in order to use the EOSS for discrimination between different characteristics of the sample, such as non-clinical and clinical participants, a Student's t-test was used.

Results

Due to the disparity of the participants as regards the ratio of men to women, other socio-demographic variables show significant differences. As such, there are more single women than single men, (χ^2 = 23.76, gl = 5, p<.001), there are more students (χ^2 = 54.10, gl = 5, p<.001), of college/university level (χ^2 = 43.67, gl = 5, p<.001) and participants aged under 35, although there are no differences concerning place of residence. Regarding

whether or not the participants were under treatment also revealed significant differences in the total participants, as 32.7% were receiving treatment. Therefore, they were considered to be the clinical participants, compared to 67.3% who did not have any psychological problems and were not receiving any treatment. Within the clinical population there were also proportionately more women (61.2%) than men (38.8%) ($\chi^2 = 13.45$, gl = 4, $p<.01$), most of whom were receiving psychological treatment (45.4%). Those receiving medical and psychiatric treatment made up 30.2%, and those who received both, 24.4%. The clinical sample received a different kind of treatment and the psychopathologies showed a range of problems. In the majority of cases, they had not received a formal diagnosis and were therefore all considered as a common group under clinical treatment.

To ensure the internal consistency of the EOSS questionnaire, Cronbach's Alpha test was used and carried out for each section (Section 1 = .594, Section 2 = .935 Section 3 = .951, Section 4 = .720) and for the total questionnaire ($\alpha = .941$). Also, reliability is high if only the non-clinical participants are analyzed ($\alpha = .931$) or only the clinical participants ($\alpha = .939$). A test-retest correlation was also carried out with a small number of participants which acted as a control group for another piece of research (N = 113). The completion of the questionnaires was one week apart and it was r = .636 ($p<.001$).

Firstly, to obtain possible factors, a factor analysis on principal components was performed and seven factors were found, although four of them made up most of the variance, bearing a certain resemblance to the original four sections of the questionnaire carried out on a population in the U.S. The dispersion of items was extensive for each factor, and they did not have a common content. Therefore, to test the factor of the EOSS original, an exploratory analysis aiming to find four factors was carried out by means of Varimax-Kaiser rotation. These four factors explained 60.59% of the variance, where items had an inter-correlation greater than .44 on each factor. See Table 1 for the data of each item and translations of EOSS. The first factor, "*the self in close relationships*", includes all the items in Section 3 (items 18 to 27, percentage of explained variance = 19.27). The second factor, "*the self in social relations*" includes all the items in Section 2 (items 8 to 17, explained variance = 17.86). The third factor on "*the self in general*" includes most of the items in Sections 1 and 4 (items 1, 2, 3, 4, 7, 28, 29, 32, 33, 34 and 37, explained variance = 13.96), and a fourth factor on "*the positive self*" (items 5, 6, 30, 31, 35 and 36, explained variance = 9.49) includes positive concepts about one's self.

This factor analysis could show differences with the original EOSS because of the addition of 17 items, which are more specific about "the positive self" and "desrealization". Also, in order to confirm these factors, a new factor analysis was made separately for participants with clinical and no-clinical problems. Both analyses confirmed the same four factors with accuracy. In the case of the non-clinical sample, the explained variance was 19.09, 17.20, 11.47, 10.04 respectively, and in total amounted to 57.81%; while in the clinical sample, the explained variance was 20.53, 18.40, 13.80, 8.83, and in total amounted to 61.57%. The distribution of items in each factor was identical in both samples.

Subsequently, a new internal consistency analysis was carried out on all the participants, but including the new factors and according to the new distribution of items. The newly discovered factors had the following $\alpha = .952, .935, .844$ and $.845$. All were higher than the original analysis. Therefore, Sections 2 and 3 of the original EOSS are confirmed factors ("*the self in intimate relations*" and "*the self in casual relationships*"), and in Sections 1 and 4 there is only one factor regarding "*the self in general*". In addition, a fourth factor was found regarding "*the positive self*", an item not present in the original.

To evaluate the validity of the EOSS questionnaire, the scores were correlated with those obtained in other surveys of similar constructs such as the EPQ-R, DES and CSR. Table 2 shows the matrix of correlations of all the questionnaires and subscales. The EOSS, in total score and in different sections, has a positive and significant correlation with the EPQ-R neuroticism subscale (between .382 and .614, $p<.01$) and a negative correlation with the EPQ-R extraversion subscale (between - .171 and - .433, $p<.01$). A significant positive correlation also appears in all cases with the DES dissociation questionnaire (between .327 and .444, $p<.01$) and a negative correlation appears in all cases with the RSE self-esteem questionnaire (between - .268 and -.595, $p<.01$). It is highly probable that a person who scores highly in the EOSS will also score highly on the neurotic and dissociation subscales and have low scores on extraversion and self-esteem. Given that the content of the EOSS questionnaire has many negative items about one's self, high correlations with neuroticism and dissociation patterns were to be expected, while their scores are the inverse in relation to self-esteem.

A Student's t-test analysis was also carried out to see the possible differences between men and women in each different section and also in the whole EOSS, but there are no statistically significant differences in any case. However, there are significant differences between the standard population (without psychological problems) and the clinical population who are in some form of treatment. In the clinical participants, the average scores are always higher in Factor 1, 2 and 3 about the self (t = -9.40, gl = 1038, $p<.001$), and, of course, lower in Factor 4 regarding "*the positive self*". All the differences are always significant (see Table 3). Therefore, we can say that the completed EOSS questionnaire can differentiate the clinical population and that the averages obtained can be used to compare a specific clinical case (average score = 90, and clinical score = 107). Thus, if the individual score of the EOSS is higher and near to the clinical score, we can conclude that he/she has a psychological problem of self, and perhaps treatment with *Functional Analytic Psychotherapy* would be appropriate. Moreover, the score obtained could be used as comparison data before and after such treatment, as has been used in some clinical cases.

Conclusions

A Spanish version of the EOSS questionnaire was used and reliability (as internal consistency) and validity (as convergent validity) was achieved with a sample of 1,040 participants. Internal consistency was very high ($\alpha = .941$), and similar results were obtained in the four sections of the questionnaire. As a result, we can make a possible analysis of four main factors that confirm only in part the sections that were originally created by the authors. The original sections of the EOSS, such as 2 and 3, are similar, although in Sections 1 and 4, there is only one factor regarding "*the self in general*", and a fourth factor should be added regarding "*the positive self*". These factors have an explicit content on experiences of the self: in close or intimate relations; in relations with acquaintances; regarding the concept of the self

Table 1
Items in Spanish and English and factor analysis of principal components with Varimax-Kaiser rotation

Items	Factors			
	1	*2*	*3*	*4*
SECCIÓN I. Respecto a sí mismo en general				
1. Me encuentro perdido cuando la gente me dice "*sé tú mismo*" *[I am at a loss when people say to me "Be yourself"]*	.191	.248	**.640**	-.157
2. Siento como si fuera diferente según con qué personas esté *[I feel I am different with some people than I am with others]*	.250	.280	**.572**	-.043
3. Tengo la sensación como de estar fuera de mi cuerpo, observándome a mí mismo *[I have the feeling that I am off somewhere watching myself]*	.034	.139	**.747**	.043
4. Me siento vacío *[I feel empty]*	.195	.197	**.692**	-.153
5. Soy creativo *[I am creative]*	-.034	-.010	.024	**.735**
6. Soy espontáneo *[I am spontaneous]*	-.034	-.080	-.128	**.657**
7. Soy sensible a la crítica *[I am sensitive to criticism]*	.267	.093	**.482**	.050
SECCIÓN II. Respecto a un conocido *(compañero/a, vecino/a, conocido de vista, etc.)*				
8. Estas personas influyen en la forma cómo me siento conmigo mismo cuando estoy con ellas *[They influence the way I feel about myself when I am with them]*	.261	**.514**	.246	.072
9. Mis necesidades o preferencias (lo que quiero hacer o conseguir) están influenciadas por estas personas cuando estoy con ellas *[My "wants"* are influenced by them when I am with them. (*by wants we mean what you want to do, want to have, etc.)]*	.293	**.657**	.244	.010
10. Mis opiniones están influencias por estas personas cuando estoy con ellas *[My opinions are influenced by them when I am with them]*	.237	**.747**	.235	.011
11. Mis actitudes están influenciadas por estas personas cuando estoy con ellas *[My attitudes are influenced by them when I am with them]*	.247	**.736**	.267	.010
12. Mis acciones están influenciadas por estas personas cuando estoy con ellas *[My actions are influenced by them when I am with them]*	.236	**.747**	.199	.002
13. Estas personas influyen en la forma cómo me siento conmigo mismo cuando estoy solo *[They influence the way I feel about myself when I am alone]*	.254	**.644**	.311	-.031
14. Mis necesidades o preferencias (lo que quiero hacer o conseguir) están influenciadas por estas personas cuando estoy solo *[My "wants"* are influenced by them when I am alone. (*by wants we mean what you want to do, want to have, etc.)]*	.246	**.773**	.235	-.040
15. Mis opiniones están influenciadas por estas personas cuando estoy solo *[My opinions are influenced by them when I am alone]*	.230	**.807**	.193	-.037
16. Mis actitudes están influenciadas por estas personas cuando estoy solo *[My attitudes are influenced by them when I am alone]*	.223	**.825**	.202	-.069
17. Mis acciones están influenciadas por estas personas cuando estoy solo *[My actions are influenced by them when I am alone]*	.213	**.800**	.206	-.067
SECCIÓN III. Respecto a una relación personal *(familiar, amigo/a íntimo, seres queridos)*				
18. Estas personas influyen en la forma cómo me siento conmigo mismo cuando estoy con ellas *[They influence the way I feel about myself when I am with them]*	**.689**	.125	.246	.087
19. Mis necesidades o preferencias (lo que quiero hacer o conseguir) están influenciadas por estas personas cuando estoy con ellas *[My "wants"* are influenced by them when I am with them. (*by wants we mean what you want to do, want to have, etc.)]*	**.766**	.221	.186	.066
20. Mis opiniones están influencias por estas personas cuando estoy con ellas *[My opinions are influenced by them when I am with them]*	**.713**	.385	.128	.028
21. Mis actitudes están influenciadas por estas personas cuando estoy con ellas *[My attitudes are influenced by them when I am with them]*	**.767**	.331	.163	.039
22. Mis acciones están influenciadas por estas personas cuando estoy con ellas *[My actions are influenced by them when I am with them]*	**.776**	.299	.160	.040
23. Estas personas influyen en la forma cómo me siento conmigo mismo cuando estoy solo *[They influence the way I feel about myself when I am alone]*	**.773**	.156	.235	.001

Table 1 (continuated)
Items in Spanish and English and factor analysis of principal components with Varimax-Kaiser rotation

Items	Factors			
	1	*2*	*3*	*4*
24. Mis necesidades o preferencias (lo que quiero hacer o conseguir) están influenciadas por estas personas cuando estoy solo *[My "wants"* are influenced by them when I am alone. (*by wants we mean what you want to do, want to have, etc.)]*	**.808**	.218	.215	-.018
25. Mis opiniones están influenciadas por estas personas cuando estoy solo *[My opinions are influenced by them when I am alone]*	**.772**	.341	.115	-.012
26. Mis actitudes están influenciadas por estas personas cuando estoy solo *[My attitudes are influenced by them when I am alone]*	**.834**	.259	.161	-.025
27. Mis acciones están influenciadas por estas personas cuando estoy solo *[My actions are influenced by them when I am alone]*	**.816**	.253	.142	-.007
SECCIÓN IV. Respecto a sí mismo en relación a los demás				
28. Tengo la sensación como de estar fuera de mi cuerpo, observándome a mí mismo, cuando estoy con otras personas *[I have the feeling that I am off somewhere watching myself when I am with others]*	.080	.222	**.740**	.027
29. Me siento vacío cuando estoy con otras personas *[I feel empty when I am with others]*	.175	.263	**.656**	-.108
30. Soy creativo cuando estoy con otras personas *[I am creative when I am with others]*	.050	.041	-.044	**.794**
31. Soy espontáneo cuando estoy con otras personas *[I am spontaneous when I am with others]*	.050	-.031	-.091	**.742**
32. Soy sensible a las críticas de alguien con quien tengo una relación superficial *[I am sensitive to criticism from someone with whom I have a casual acquaintance]*	.255	.256	**.448**	.072
33. Tengo la sensación como de estar fuera de mi cuerpo, observándome a mí mismo, cuando estoy solo *[I have the feeling that I am off somewhere watching myself when I am alone]*	.045	.284	**.668**	.039
34. Me siento vacío cuando estoy solo *[I feel empty when I am alone]*	.247	.240	**.643**	-.103
35. Soy creativo cuando estoy solo *[I am creative when I am alone]*	.070	.044	.069	**.784**
36. Soy espontáneo cuando estoy solo *[I am spontaneous when I am alone]*	.063	-.032	.051	**.760**
37. Soy sensible a las críticas de alguien con quien tengo una relación estrecha *[I am sensitive to criticism from someone with whom I have a close relationship]*	.413	-.023	**.452**	.215

Table 2
Correlation matrix of different questionnaires with EOSS. Positive correlations in grey

	EPQ P	EPQ E	EPQ N	EPQ M	DES	RSES	EOSS 1	EOSS 2	EOSS 3	EOSS 4	EOSS Total
EPQ_P	1										
EPQ_E	** .076	1									
EPQ_N	** .101	** -.302	1								
EPQ_M	** -.282	** -.098	** -.121	1							
DES	** .185	-.006	** .365	** -.144	1						
RSES	* -.080	** .406	** -.604	.049	** -.255	1					
EOSS_1	.010	** -.433	** .614	** -.118	** .374	** -.595	1				
EOSS_2	* .076	** -.179	** .441	** -.157	** .444	** -.355	** .503	1			
EOSS_3	.027	** -.171	** .382	** -.126	** .342	** -.268	** .407	** .612	1		
EOSS_4	.025	** -.432	** .573	-.040	** .327	** -.562	** .716	** .447	** .356	1	
EOSS_Total	.042	** -.342	** .600	** -.146	** .468	** -.513	** .754	** .836	** .829	** .721	1

(* p<.05; ** p<.01)

Table 3
Mean scores of different sections of EOSS with men/women and standard/clinical participants distribution

	Men		Women		Non-Clinical		Clinical		
EOSS Factors	**M**	**Sd**	**M**	**Sd**	**M**	**Sd**	**M**	**Sd**	
Self close relations	28.59	*13.18*	28.78	*12.71*	27.44	*12.23*	31.36	*13.74*	***
Self casual relations	22.27	*11.07*	21.23	*9.56*	20.41	*9.24*	24.05	*11.33*	***
Self general	24.30	*9.56*	24.30	*9.79*	21.48	*7.15*	28.42	*10.53*	***
Self positive	23.75	*7.43*	22.98	*7.06*	23.80	*7.10*	22.06	*8.14*	***
Total	96.71	*31.65*	95.49	*28.19*	90.18	*25.65*	107.73	*32.96*	***

(* $p<.05$; ** $p<.01$; *** $p<.001$)

in general and a positive concept of the self. Evidence of validity was also achieved on correlating the EOSS to other questionnaires that assess similar constructs such as neuroticism, disassociation and lack of self-esteem. In addition, the EOSS scores allow us to differentiate the clinical population, i.e. people who have problems of the self and who might benefit from psychotherapy.

In the original study in English on EOSS, the authors stated that the more relevant the public stimulation, the greater the influence it exerts on the concept of the self and, therefore, the lower the self-esteem. This leads to a less stable self and a greater degree of dissociation between personal experience and the influence of others. In this study we can conclude, in much the same way, that high scores on the EOSS correspond to people with a very social self, who are easily led by others and who have great difficulty in close or intimate relationships. They show high levels of "neuroticism" and "dissociation" in terms of personality, while also showing low self-esteem and low extraversion. These are all characteristics that would occur in psychological problems of the self in personality disorders.

However, the conclusions cannot be definitive, as they could also have been compared with other more specific questionnaires such as SOSS (Flury & Ickes, 2007) and IASC (Briere & Runtz, 2002), although in this case, they should previously have been adapted to Spanish for mutual validation. We have preferred here to make comparisons with other questionnaires such as EPQ-R, RSE and DES, as there are more studies available on their reliability, adaptations have been made in Spanish and they are the same as the ones the original authors used for comparative purposes in the first version of the questionnaire. Unlike the others, the EOSS puts more emphasis on the assessment of the self in relation to other people with whom there is less intimacy or close contact. It has been shown that factors can indicate changes between a general personal self in general social relations and in closer relations. Therefore, it could be a good tool to assess this concept of self and its problems, which can lead to psychological problems of lack of personal identity, or of exclusively social control regarding this concept of the self.

One limitation of this study is perhaps that, although it is quite large in relation to other types of questionnaire validation studies, it does not allow us to compare some types of specific disorders, for example, borderline personality disorder or avoidant personality disorder. In addition, the distribution of the participants might not be even. We aimed to include a wide range of participants, but there is a greater number of women and of people under 30 years old. However, in no case can we see significant differences between the sexes in the data that we gather from the questionnaire. Moreover, the availability of college students always tends to bias the participants, so when the EOSS was applied to non-students and people over 30, the results must be relativized. In any case, the sample contained a large number of participants of different ages, sex, relationship status and professions. Moreover, they were obtained from a total of 24 different private and public centers.

In conclusion, the measure of the self with the EOSS serves to test the theory of self-development as a public versus private experience. It has shown three well-separated factors about experiences of the self (in intimate relationships, in casual acquaintances, or a "*general self*") with items which refer in all cases to a public control of self. On the other hand, the EOSS has shown a factor of "*positive self*" with reference to items about experiences of well-being in solitude. Therefore, in general, if in the assessment process by means of the EOSS, a client obtains high scores, this indicates higher public control of self, but a low "*positive self* " factor.

Furthermore, the EOSS differentiates people with or without problems. The clinical sample showed higher scores, and could therefore be a clinically useful measure for psychotherapy. In fact, the application of this questionnaire in clinical cases has shown that it is dynamic and sensitive to change and improvement in clients (Ferro, Valero, & López, 2012). Subsequent on-going research involves applying this questionnaire systematically to all clinical cases treated with *Functional Analytic Psychotherapy*, in order to test its usefulness in assessing pre-post therapeutic effectiveness with this kind of intervention.

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