Spanish Adaptation of the Acceptance and Action Questionnaire (AAQ)

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ABSTRACT

In this paper, we present the Spanish adaptation of the Acceptance and Action Questionnaire (AAQ). Hayes et al. (2000) developed the AAQ to assess experiential avoidance and psychological acceptance, two key concepts of the Acceptance and Commitment Therapy. We evaluate its psychometric properties in clinical and non-clinical sample. The results suggest that -as in the English original version- the Spanish AAQ is an internally consistent and valid scale, which is useful in the measurement of experiential avoidance and psychological acceptance in our population.

Key words: Acceptance and Commitment Therapy, Acceptance and Action Questionnaire, Scaling Testing, Test Validity, Test Reliability.

RESUMEN

Adaptación española del Cuestionario de Aceptación y Acción (AAQ). En este artículo se presenta la adaptación española del Cuestionario de Aceptación y Acción (AAQ). Hayes et al. (2000) elaboraron el AAQ para evaluar la evitación experiencial y la aceptación psicológica, dos aspectos claves dentro de la Terapia de Aceptación y Compromiso. Las propiedades psicométricas de la escala se contrastaron tanto en una muestra clínica como en una no-clínica. Los resultados obtenidos revelan que, de forma semejante a lo que sucede con la versión original en inglés, la versión española de la AAQ se puede considerar una escala fiable y válida para la medida de la evitación experiencial y la aceptación psicológica en nuestra población.

Palabras clave: Terapia de Aceptación y Compromiso, Cuestionario de Aceptación y Acción, Test-escalas, Test-validez, Test-fiabilidad.

THEORETICAL FRAMEWORK

In the last years, *functional contextualism* has being considered one of the most productive developments of the behavioral model. A variety of therapies built upon this frame outlined the necessity of leaving behind the mediational models (based on the methodological behaviorism) and re-examine the Skinner's radical behaviorism.

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However, at the same time, they introduce a deep and thorough analysis of the human symbolic activity. The two widespread therapeutic models from this radical behaviorism are the Functional Analytic Psychotherapy (Kohlenberg & Tsai, 1991) and the Acceptance and Commitment Therapy (Hayes, Strosahl, and Wilson, 1999).

Basically, the Acceptance and Commitment Therapy (ACT) considers human suffering consequence of the intrusion of symbolic language into areas of life were it is not functionally useful (Hayes et al., 1999). More specifically, language becomes a problem when is used as a form of *experiential avoidance*. According to Hayes, Wilson, Gifford, Follette and Strosahl (1996, p. 1154), "Experiential avoidance is the phenomenon that occurs when a person is unwilling to remain in contact with particular private experience (e.g., bodily sensations, emotions, thoughts, memories, behavioral predispositions) and takes steps to alter the form or frequency of these experiences or the contexts that occasion them." The opposite (and, therefore, the healthy attitude) to experiential avoidance it is called *psychological acceptance*: "The process wherein clients are encouraged to become willing to experience a full range of private events (e.g., emotions, thoughts, memories…), especially those which are negatively evaluated, without having to necessarily change or follow them, or escape or avoid them." (Hayes, Bissett, Strosahl, Wilson, Pistorello, Dykstra, et al., 2000, p.3).

Even though these two specific processes (experiential avoidance and psychological acceptance) are implicitly essential to many therapeutically systems (e.g. Client-Centered Therapy, Gestalt Therapy, Existential Psychology, Dialectical Behavior Therapy, and the new perspectives of REBT) and even to most of the religious traditions (Hayes et al., 1999), there is not still a development of measures capable of capturing them specifically. That is the reason why Hayes and his group (Hayes et al., 2000) decided to create a unique instrument able to gather these two aspects of its model and, all together, offer good psychometric properties. In this paper, we put forward this original instrument and its adaptation to a Spanish sample.

PSYCHOMETRIC PROPERTIES OF THE ORIGINAL SCALE

As first step, a large pool of potential items was created. Then, they were reduced to a scale of 60 items and tested on a group of ACT clients. These 60 items were reduced again to 32 according to the positive client outcomes. Finally, the psychometrics properties of this 32-item scale (called *Acceptance and Action Questionnaire*: AAQ) were calculated in two large clinical samples and in six non-clinical samples. These statistics recommended reducing the scale to a more feasible 9-item instrument. (Please refer to Appendix A). Structural equation modeling was utilized to determinate the inner structure of the scale.

Sequences of studies were designed to revel the main characteristics of the scale (see details in Hayes et al., 2000). Although these studies have a number of limitations, provide support for the internal consistency, the predictive, construct, convergent, and concurrent validity of the original scale in clinical as well as non-clinical samples.

General method follow in the adaptation

Considering the psychometric presented by the authors, we chose to use the 9-item version and not the 32-item to accomplish our adaptation. First, because the structural equation modeling analysis strongly suggested the one factor solution, fully achieved with these 9 items. Second, because we only knew the original psychometrics properties of the brief scale (internal consistence and correlations with other measures). Third, because shorted scales had clear advantages when filled together with other instruments, particularly in clinical samples.

As recommended (Hambleton & Kanjee, 1995), we used two groups of bilingual translators working independently in a *Forward-Adaptation* design. We do not find significant differences between the two groups in the items translation. Afterwards, some therapists and professors change those items ambiguous or difficult to understand. In our AAQ we maintained the same order and the same balanced responding from the original 9-item scale (please refer to Appendix B).

Sample

The participants were 114 subjects (50 men: 43.9%; and 64 women: 56.1%). Mean age was 30.92 (standard deviation 10.12). The ages comprised between 18 and 69-years-old (approximately normal distributed). Forty-eight subjects were clinic population (42.1%), and 66 non-clinic (57.9%). Clinic populations came from different therapists working in Madrid (Spain). All these subjects sought clinical counseling services voluntarily. The diagnostics (provided by clinicians) were: Obsessive-compulsive Disorder (22.9%), Depressive Disorder (20.8%), Non Specific Anxiety Disorder (18.8%), Panic Disorder with and without Agoraphobia (10.4%), Specific Phobias (6.3%), Borderline Personality Disorder (6.3%), and Others (14.5%).

Instruments

We could not select the same instruments used by Hayes et al. (2000) because not all of them are adapted to Spanish population. Anyway, we tried to choose those most closely related. All the subjects of the sample completed these questionnaires:
- *Acceptance and Action Questionnaire (AAQ)*: Adapted by J. Barraca at Universidad Camilo José Cela, Madrid.
- *Beck Depression Inventory (BDI)*: Adapted by Vázquez at Universidad Complutense, Madrid. (Spanish version: 21 items; Cronbach alpha= .82; high scores indicates Severe Depression Disorder) (Vázquez & Jiménez, 2000).
- *State/Trait Anxiety Inventory (STAI)*: Adapted by TEA, Ed. (Spanish version: 40 items; Internal Consistency (KR-20)= .90 State; .84 Trait; high scores indicates possibility of suffering Generalized Anxiety Disorder or Panic Disorder) (Spielberger, Gorsuch, & Lushene, 1982).

- *Vallejo Obsessional Personality Inventory (VOPI)*: Spanish inventory of 31 items designed to assess the obsessive personality disorder. The VOPI has demonstrated good internal consistence (Cronbach alpha= .64) and sensitivity to discriminate between Obsessive-compulsive Disorder, Obsessive Personality Disorder, and non-clinical population. High scores indicate possibility of suffering Obsessive-Compulsive Personality Disorder (Vallejo, Marcos, & Salamero, 2000).
- *Borderline Personality Scale (STB)*: Original scale of Claridge & Broks (1984). (Spanish version: 19 items; Cronbach alpha= .80; high scores indicates Borderline Personality Disorder) (Muntaner, García Sevilla, Fernández, & Torrubia, 1988).

Procedure

The questionnaire was applied in clinical (counseling services) and non-clinical (university) settings. Ages and main demographic characteristics were similar in both groups. University participants were students, professors and administrative workers. The distribution of questionnaires was done differently in the two settings: in the clinical one therapists gave and explicate the AAQ and the other instruments directly to their patients (therapists provided also the diagnostics); in the non-clinical one the author distributed them between the participants and provided the necessary instructions.

RESULTS

Reliability

Internal consistency. The internal consistency index (Cronbach alpha) of the AAQ was .74, which, as Hayes et al. (2000) point out, is adequate for a scale in development. This result closely follows that obtained by the group of Hayes in the original instrument (.70).

Temporal stability. Hayes et al. (2000) do not offer any data about the temporal stability of the AAQ. So we think this is the first analysis of this kind. To calculate the test-retest we use a sub sample of 42 subjects. These subjects completed the AAQ again after 5-6 weeks. Because of this limited number, these data can only be regarded as provisional. However, our results show an acceptable test-retest reliability (r_x= .71; p<.001). Bearing in mind that the AAQ intended to be a measure sensitive to therapeutic change, and that the majority of this sub sample was clinical, we think this is a satisfactory result.

Validity

Construct validity. We try to confirm the one-factor structure reported by Hayes et al. (2000) using the exploratory factor analysis. Nevertheless, our results do not were clearly in agreement with it. With the Kaiser's criterion for the retention of factors ($\lambda \geq 1$) we obtain three dimensions, as well as in the Scree plot of eigenvalues (see Figure 1). Table 1 shows the factor loadings of each item (Principal Components Model,
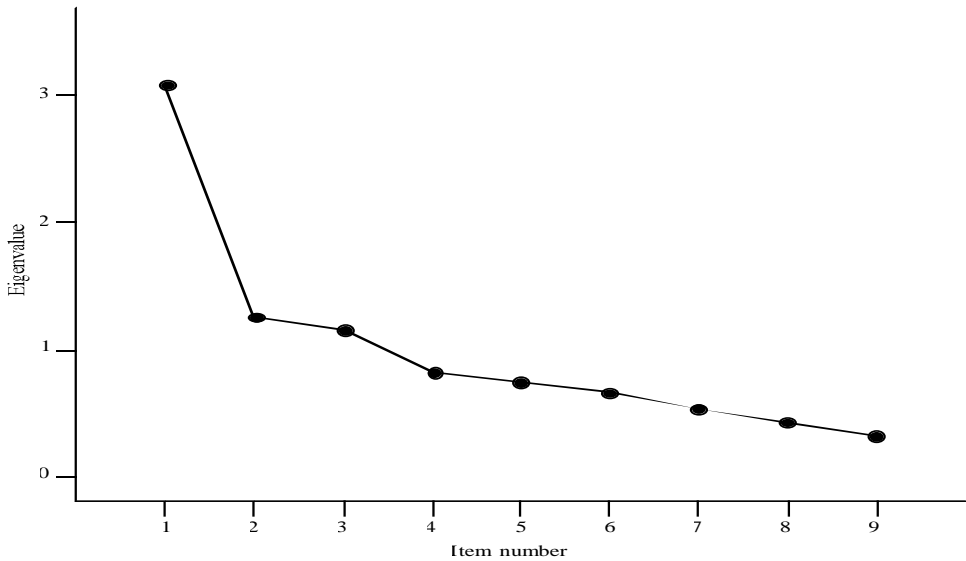
Figure 1. Scree plot of factorial analysis of the AAQ

Table 1. Results of factorial analysis of the AAQ: factor loadings of each item (rotated matrix).

Items	F I	F II	F III
1	.190	.311	**.746**
2	.002	**.830**	.003
3	**.755**	.279	.147
4	.207	.424	**-.714**
5	**.698**	-.125	.017
6	.145	**.678**	.002
7	**.587**	.467	.186
8	**.772**	.0021	-.186
9	**.573**	.399	.003

Table 2. Results of factorial analysis of the AAQ: eigenvalues, proportion of explained variance and proportion of variance accumulated by the factors.

Items	Eigenvalues	% of variance	% accumulated
1	3.078	34.196	34.196
2	1.253	13.918	48.114
3	1.153	12.814	60.928
4	.824	9.151	70.078
5	.750	8.334	78.413
6	.671	7.461	85.874
7	.527	5.856	91.730
8	.425	4.724	96.453
9	.319	3.547	100.000

Varimax rotation). All items are closely linked to each other, but some data, like the inverse loading of item 4, are very odd. We discuss some possible explanations of these results at the end of this paper. The three factors are not easy to interpreted, but if we consider the loadings we can state that Factor I (items 3, 5, 7, 8 and 9) has to do with a sense of "emotional overflow"; Factor II (items 2 and 6) can be namely "inadequate evaluation of the life problems"; and Factor III (items 1 and 4) "inefficiency response to life problems". Table 2 shows the eigenvalues, the proportion of explained variance and the proportion of variance accumulated by the factors.

   Concurrent validity. We find high and significant correlations with measures of Depression (BDI), Anxiety (STAI-R), and Borderline Personality Disorder (STB). We also find moderate but significant correlations with Obsessive Personality (VOPI). Table 3 summarizes these results.

   Our findings point to the same direction to those reported by Hayes et al. (2000). However, in our sample, most correlations are higher (see table 4) Notice that anxiety has the higher correlation with the AAQ in the American as well as in the Spanish sample.

   Predictive validity, To obtain data about the predictive validity we apply the AAQ to a clinical sample (subjects undergoing therapy) and compare its results with a non-clinical sample. Both groups were similar in its number (48 clinical; 66 non-clinical) and in some characteristics: mean ages (32.10 clinical; 30.06 non-clinical), gender distribution (58 M/42 W clinical; 34 M/65 W non-clinical).

   Because of the number of subjects in both groups, we use the Student's t-test

Table 3. Correlations with 9-item AAQ.

	r	**p**
Beck Depression Inventory (BDI)	**.74**	.01
State / Trait Anxiety Inventory (STAI-R)	**.76**	.01
Vallejo Obsessional Personality Inventory (VOPI)	.22	.05
Borderline Personality Scale (STB)	**.66**	.01

Table 4. American and Spanish samples results in Depression, Anxiety, BPD and OCPD.

	American sample	Spanish sample
Depression (BDI)	.36**	.74**
Anxiety (BAI and STAI)	.58**	.76**
Inestability-BPD (BSI-Psychoticism and STB)	.53**	.66**
Obsessive-compulsive (BSI-Obsess.-compuls. and VOPI)	.43**	.22*

*** p < .001; * p < .015*

Table 5. Means, Standard Deviations and Standard Error of Mean in Clinical and Non-clinical sample. Student's t-test.

	Group	N	Mean	S.D.	SE of M
AAQ	Clinical	48	44.71	8.42	1.21
	Control	66	34.61	5.43	.67

$t = 7.28$; $p < .001$

(independent samples) as statistical contrast. Main results can be seen in Table 5. *t* value was 7.28. With high probability, at a level of $p < .001$, the difference between the two groups is significant, both for the contrast of one tail and for that of two. That is: there are reasons to believe in the capacity of the scale to discriminate between a general sample and a clinical group in therapy.

For the clinicians who want to use the scale with their patients we must remark that in the American sample Hayes et al. (2000) obtain a mean for the clinical group about 38-40 and for the non-clinical about 30-31. In the Spanish sample, the mean in clinical group was 44.71 (SD= 8.42) and in the non-clinical one was 34.61 (SD= 5.43). Hence, scores in our sample are higher.

Discussion

Our objective in this paper was the presentation of the Spanish adaptation of the AAQ, an instrument developed by Hayes et al. (2000) to assess experiential avoidance and psychological acceptance. We believe that the statistical results obtained by our AAQ met psychometric standards. Its internal consistency (α= .74), and, especially, its temporal stability (test-retest correlation= .71), so problematic in this scale because of its sensitivity to therapeutic change and the reduced sub sample used, are indications of adequate reliability.

The results obtained after the factorial analysis do not clearly fulfill several of the one-dimension tests based on the quantity of eigenvalues and of loadings of the first factor (Martínez Arias, 1995). In our adaptation, we obtain three dimensions. This result does not fit into the data obtained by Hayes and his group with the original instrument. We propose three possible explanations for this unexpected result: First, the analysis was made with the 9-item scale and not with the 32 one. Even if Hayes et al. (2000) outlined that this 9 items were enough to gather the main proportion of variance, they reached to their conclusion after the analysis of the 32-item scale. Second, with the translation of the scale some items become more difficult to answer, especially because of the double negative (see, for example, the difference of item 4 in English and in Spanish, even so the translation is accurate. Refer to Appendix A and B). Therefore, we think the misunderstanding of some items explains partially these results. Third, the use of an alternative analysis to confirm the inner structure: the exploratory factor analysis. It is not a goal of structural equation modeling to produce the best solution (as it is in the exploratory factor analysis); rather, the analytic goal is one of confirming if one particular solution is adequate. And this was not our aim: we need to confirm if this 9-item scale has that one-factor structure also in our sample.

Otherwise, the three dimensions obtained ("emotional overflow", "inadequate evaluation of the life problems" and "inefficiency response to life problems") could be considered as different faces of the "avoidance attitude". So, in a qualitative or subjective analysis the one-dimension structure remains as possibility in the Spanish version.

Other aspects of the scale's validity are also worth mentioning. Considerable correlations were obtained with different instruments in the Spanish version: Beck Depression Inventory, State/Trait Anxiety Inventory, Vallejo Obsessional Personality Inventory, and Borderline Personality Scale. The highest correlations was obtained with the Anxiety measures, as well as in the English version. All this data support the concurrent validity of the AAQ and shows the particular relation between avoidance and anxiety problems. The scale has been found to be sensitive enough to detect the differences between a general and a clinical sample. So, we have a preliminary data of its predictive validity.

The satisfactory behavior of our adaptation in the statistical tests gives firm support to the theoretical framework from which it has been constructed. The AAQ has demonstrated its effectiveness with a heterogeneous sample; however, we are aware that it is limited by the characteristics of the general sample, not big enough for an extensive generalization, and because of all our data are correlational. Despite these

limitations, we have considered useful to present it to other researchers interested in the assess of concepts so important as the experiential avoidance and the psychological acceptance.

Finally, we want to remark that in spite of its usefulness a measurement of psychological acceptance can not be made uniquely in base of a questionnaire. A score in a scale as the AAQ is only a cue of knowing if someone is accepting or avoiding psychological phenomena and must be endorse with the clinical intuition.

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APPENDIX A

AAQ

Client Name or ID _____ Date _____

Below you will find a list of statements. Please rate the truth of each statement as it applies to you. Use the following scale to make your choice.

1------------------2------------------3------------------4------------------5------------------6-----------7
never   very seldom   seldom   sometimes   frequently   almost always   always
true   true   true   true   true   true   true

_____ 1.   I am able to take action on a problem even if I am uncertain what is the right thing to do.

_____ 2.   I often catch myself daydreaming about things I've done and what I would do differently next time.

_____ 3.   When I feel depressed or anxious, I am unable to take care of my responsibilities.

_____ 4.   I rarely worry about getting my anxieties, worries, and feelings under control.

_____ 5.   I'm not afraid of my feelings.

_____ 6.   When I evaluate something negatively, I usually recognize that this is just a reaction, not an objective fact.

_____ 7.   When I compare myself to other people, it seems that most of them are handling their lives better than I do.

_____ 8.   Anxiety is bad.

_____ 9.   If I could magically remove all the painful experiences I've had in my life, I would do so.

Notes: Ratings on items 1, 4, 5, and 6 are reversed for scoring purposes. The score that results is high if experiential avoidance and immobility is high; it is low if acceptance and action are dominant (i.e., high scores are undesiderable).

Author request: Feel free to use the instrument as long as you tell us about interesting things you find (hayes@scs.unr.edu).

APPENDIX B

AAQ

Sexo: _____   Edad: _____   Fecha: _____

A continuación encontrará una serie de frases. Valore en qué grado son aplicables a usted. No hay contestaciones buenas o malas, ni preguntas con truco; unas serán más verdad en su caso y otras menos. Tome el tiempo que necesite y trate de responder a todas las preguntas. Use la escala siguiente (ponga el número que crea aplicable a su caso en la raya que está a la izquierda de cada frase):

1 ------------------- 2 ---------------- 3 --------------- 4 -------------- 5 ------------------ 6 -----------------7

| nunca | muy raramente | raramente | a veces | con frecuencia | casi siempre | siempre |
| verdad | verdad | verdad | verdad | verdad | verdad | verdad |

_____ 1. Tenga o no tenga claro cuál es el mejor modo de resolver un problema, me pongo en marcha.

_____ 2. Muchas veces me descubro fantaseando sobre cosas que he hecho y que haría de forma distinta si tuviese otra oportunidad.

_____ 3. La verdad es que cuando estoy deprimido o ansioso no soy capaz de hacer frente a mis responsabilidades.

_____ 4. Casi nunca me preocupa tener bajo control mi ansiedad, mis preocupaciones o mis sentimientos.

_____ 5. Mis sentimientos no me dan miedo.

_____ 6. Cuando valoro algún suceso negativamente, lo habitual es darme cuenta de que es sólo una apreciación y no un hecho objetivo.

_____ 7. Cuando me comparo con otras personas tengo la impresión de que la mayoría lleva su vida mejor que yo.

_____ 8. La ansiedad es mala.

_____ 9. Ojalá pudiese borrar por arte de magia todas las experiencias dolorosas que he tenido en la vida.

Los items 1, 4, 5 y 6 suman de forma inversa; esto es, una puntuación de 7 en el item 1 equivale a 1 punto.