A Proposal to Measure a Modulator of the Experience of Enjoyment: The Gaudiebility Scale*

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Abstract

This study adopts a theoretical and empirical approach to the concept of gaudiebility which has been defined as the set of mediators (skills, beliefs and lifestyles) which regulate the enjoyment that people experience. The psychometric properties of the Gaudiebility Scale were analyzed in three samples (N= 371, 202, and 369). This scale is made up by 23 items. It shows an internal structure of one factor, high internal consistency, and high test-retest reliability. Relationships between gaudiebility and mood states, quality of life, clinical depression, frequency of exposure to potential reinforcements and self-reported enjoyability were tested. Empirical data indicate that the Gaudiebility Scale presents a satisfactory validity and reliability. These results strengthen and support the proposal of a gaudiebility as a useful construct for research in psychology.
Keywords: enjoy, enjoyability, happiness, well-being, quality of life.

Resumen

Este trabajo presenta una aproximación teórica y empírica del concepto de gaudibilidad, el cual ha sido definido como el conjunto de moduladores (habilidades, creencias y estilo de vida) que regulan el disfrute que las personas experimentan. Las propiedades psicométricas de la escala de gaudibilidad fueron analizadas en tres muestras (N= 371, 202 y 369). La escala está constituida por 23 ítems. La cual muestra una estructura interna de un factor, una elevada consistencia interna, y alta fiabilidad test-retest. La relaciones entre gaudibilidad y estados de ánimo, calidad de vida, depresión clínica, frecuencia de exposición a potenciales reforzadores e intensidad de disfrute autoevaluado han sido estudiadas. Los datos empíricos indican que la escala de gaudibilidad presenta una validez y fiabilidad satisfactoria. Dichos resultados apoyan a la gaudibilidad como constructo útil para la investigación en psicología.
Palabras clave: disfrute, felicidad, bienestar, calidad de vida.

Traditionally, the efforts aimed at increasing people's quality of life and subjective well-being have been focused on the control of the mediators which regulate the negative affect that people experience, in the hope that the positive affect would increase as a consequence of the reduction of the negative one. But, since Bradburn's work (1969),

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a new trend has emerged which conceives the positive and the negative affects as two distinct and relatively independent dimensions.

It is therefore important for us to try to identify and understand the role of the mediators which regulate the positive affect (in which we include enjoyment), and at the same time, understand that these mediators do not have to be the same ones which regulate the negative affect. The set of mediators which regulate the enjoyment that people experience is precisely the one that Padrós and Fernández (2001) identified as gaudiebility (in Spanish "gaudibilidad" from the Latin *Gaudiere*).

The gaudiebility is proposed as a psychological construct which includes all the processes from the external input to the enjoyment that people might experience, i.e. the set of mediators that regulate enjoyment, to a greater or lesser intensity, in a greater or lesser number of situations and during shorter or longer periods of time; in such a way that a higher level of gaudiebility implies more possibilities that people of enjoying something. Gaudiebility is therefore defined as the measure of the disposition to experience enjoyment that any person can have.

It should be borne in mind that gaudiebility can be considered as the set of mediators from different concepts arranged according to specific areas. In the area of subjective well-being and quality of life, gaudiebility is understood as a set of mediators of the positive affect (one of the factors of subjective well-being, Diener 1984) and as a set of mediators of the emotional functioning or psychological well-being, typically included in the quality of life measures (Ruiz & Baca, 1993). From the clinical standpoint, gaudiebility modulates the enjoyability, which refers to how much people enjoy, and which was considered relevant in theories explaining depression (Lewinshon & Graf, 1973). It also has been related to other conditions such as personality disorder (Millon & Davis, 1996), schizophrenia (DiLalla & Gottesman, 1995, Quirk, Subramanian & Hoerger 2007) and drug dependence (Van Etten *et al.*, 1998). Finally, in the area of motivation theories, gaudiebility is conceived as the set of mediators of intrinsic motivation. Lastly, in the reformulation by Bandura (1986) and others (Isen & Reeve, 2005), in which intrinsic motivation and extrinsic motivation are not considered as being opposites, but as independent one from the other, in such a way that an act can be carried out in order to achieve an objective (extrinsic motivation), and being enjoyed at the same time (intrinsic motivation). On the other hand, gaudiebility can be associated with the concept of susceptibility to reinforcement, as proposed by Gray (1987), which refers to the differences observed between individuals when reacting to reinforcement. It was observed that people with a higher susceptibility to reinforcement are more likely to seek reinforcements, they show a greater degree of searching behavior and greater perseverance in seeking out reinforcements, and they find it more difficult to inhibit their behavior in the presence of reinforcements.

Obviously, there is a relationship between reinforcement and emotion, which is particularly emphasized in Rolls (1999), who defines emotions as states of mind led by reinforcements and punishments (he even attempts to distinguish emotions according to whether they are associated with positive reinforcement, negative reinforcement, positive punishment or negative punishment). This explains the association between the high susceptibility to the reinforcement and positive affect (Carver & White, 1994; Gable *et*

al., 2000). Nonetheless, we should take into account that, if susceptibility to reinforcement refers to the different ways in which individuals react to reinforcements, gaudiebility refers to the different ways in which people experience the emotion induced by potential reinforcements.

It is important to distinguish positive experiences that are pleasurable from those are enjoyable, as Seligman and Csikszentmihalyi (2000) have pointed out: "Pleasure is the good feeling that comes from satisfying homeostatic needs such as hunger, sex, and bodily comfort. Enjoyment, on the other hand, refers to the good feelings people experience when they break through the limits of homeostasis -when they do something that stretches them beyond what they were- in an athletic event, an artistic performance, a good deed, a stimulating conversation" (p. 12).

The study of gaudiebility implies asking why some people enjoy with the greatest of ease, with a greater intensity and oftener, and why other people enjoy so rarely under the same conditions and circumstances. Until now there have only been partial answers, for instance, the analyses of the experience of intense enjoyment described as a 'flow' by Csikszentmihalyi (1990), who maintains that enjoyment basically appears when the subjects are at a high level of concentration and confronting situations that they consider as a challenge, and at the same time, consider themselves as having the most appropriate abilities for carrying these out.

Another approach to enjoyment is that of perceived control, as in the perceived personal skills defended by Wallston (1992). Also particularly interesting in this line is the model of four control perception factors developed by Bryant (1989), in which factorial analysis shows that the subjects carry out separate self-evaluations about their perception of how they control their own skills in order to avoid negative results, obtain positive results, cope with the negative results and enjoy the positive results. These theories are characterized by showing some cognitive aspects considered as basic in the experience of enjoyment.

Also described in the cognitive area was an attributional style typical of happy people as studied by Martin and Clark (1985). Some studies refer to the "Pollyanna effect", in which the main feature of these subjects is that they see things in a positive way, remember only positive things and are optimistic about the future -see Matlin and Stang (1978) and Silvera *et al.* (1988). In the same line, the model by Taylor and Brown (1988, 1994) should also be mentioned, with the authors maintaining that some perceptive illusions (concerning self-image, control over the environment and the future) are associated with subjective well-being. However, it is quite surprising that, taking into account the effect that some irrational beliefs have on negative emotions, as described by Beck *et al.* (1979) and Ellis and Grieger (1981), to date the observation that some irrational beliefs (different to those that modulate the negative affect) can influence the enjoyment that some people experience, has not been studied. From our point of view, we consider both cognitive styles and the maintenance of some beliefs, which are important potential mediators of the enjoyment experienced.

Other (Williams *et al.*, 1992; Long *et al.*, 1996) have described a positive relationship between a more organized lifestyle and a greater experience of enjoyment. Moreover, Aspinwall (1998) claimed a mutual relationship between the positive affect

and the self-regulating processes. Consequently, lifestyle can be considered as an important mediator of enjoyment experienced.

Finally, Davis and Burns (1999) suggested that depressive individuals may be deficient in the skill of enjoyment, in such a way that the low levels of enjoyment that they obtain may not simply be the product of a low exposure to reinforcements. Some skills have therefore been considered as potentially relevant in obtaining enjoyment. Some of them have already been mentioned, such as sense of humor (Kuiper *et al.*, 1992; Martin *et al.*, 1993; Kuiper *et al.*, 1995) and concentration (Csikszentmihalyi, 1990), and other ones not mentioned, such as imagination and the ability to find things interesting.

Gaudiebility attempts to encompass the different mediators which regulate enjoyment experienced in an overall sense, in such a way that it includes both the mediators dealing with high intensity enjoyment and those which regulate enjoyment at a lesser intensity. In the same way, it is also interesting to study the mediators which regulate the frequency and the duration of enjoyment. In our study we have considered some mediators as potentially relevant in the construct of gaudiebility: skills (sense of humor, imagination, concentration and the ability to find things interesting), beliefs and cognitive styles (general irrational beliefs, perceived competence, cognitive styles) and lifestyles. Additionally, we considered the effect of these mediators in different situations (being alone/in company), and with regard to the different times of life (the past, present and future). Yet we should not forget that we are talking about a very initial phase of our research, which could mean that some of the components may not have been considered so far and some irrelevant ones may have been included.

Our aim is to provide support and give meaning to the use of the construct gaudiebility, by constructing an instrument designed to assess and study it. Thus we expect the Gaudiebility Scale to show:

1. A negative and moderate correlation with depressive symptomatology, taking into account that classical studies, such as the ones by Lewinsohn and Graf (1973), found a negative and significant correlation between the intensity and the frequency of the experience of gratifying activities and higher levels of depression; findings that were also corroborated by later studies (Bouman & Luteijn, 1986; Watson *et al.*, 1988; Davis & Burns, 1999).
2. A positive and significant correlation with quality of life, as this concept considers in particular (as a specific factor of the construct) the presence or absence of the positive affect.
3. A positive and significant correlation with the enjoyment experienced.
4. A higher correlation with the positive mood state than with other mood states.

METHOD

Construction of the Scale

The items were drawn up in a rational way, based on the previously described components. The previous 73 items were evaluated by a panel of seven judges consisting

of one PhD and six graduate students of psychology. The judges were asked to evaluate the adequacy of each item as a measure of the gaudiebility concept. Nine items were eliminated and twelve were modified.

It is important to mention that all these components considered a priori are assessed as mixed items in the scale. That is to say, most of the items refer to more than one component, for instance, in one item a skill and a belief may be assessed, and in another item a lifestyle or a belief may be assessed and referred to a specific time.

A selection of items was carried out, in which the results obtained from one sample of university students (N= 239) were analyzed. By analyzing the Principal Components in an exploratory way, it was observed that the best solution was an internal structure with only one factor.

From the initial 64 items, 41 of them were eliminated after an initial psychometric study. The 23 items remaining after the selection make up the "Gaudiebility scale", which is made up of items representing the following skills: humor (1,2), imagination (3,4,5) concentration (6), and the ability to find things interesting (7,8). Furthermore, it also includes items referring to the presence of irrational ideas (10,15,18,20), to cognitive styles (17,19,22) and to perceived competence (4,5,9,11,14,19,20,21).

The scale also assesses lifestyle and the role of enjoyment (8,12,13,16,21,22, and 23). Some items refer to a person on his/her own (11,12,13) and with other people (9,10), while others refer to the future (14,15,16) but none to the past.

It can therefore be seen that the majority of the topics considered in our introduction are notably represented in the scale.

Participants

Two samples (Sample A1 of 371 participants and Sample A2 of 202) were university students. Another sample was composed of people from the general population (Sample B of 369 participants). The socio-demographic characteristics of these samples are shown in Table 1.

Procedure and Instruments

The data of Samples A1 and A were obtained in 2 stages. In the first stage, Gaudiebility Scale (GS) questionnaire, a Quality of Life Questionnaire (QLQ), a Beck Depression Inventory (BDI), a list of reinforcements and General Self-reported Enjoyment Experienced (GSEE), were distributed in different classrooms (see below). The data obtained from the first stage was part of Sample A1 (N= 371). In the second stage, which was carried out two months later, Gaudiebility Scale (GS) questionnaire and a Psychiatric Outpatient Mood Scale (POMS) (see below) were distributed in the same classrooms where the first stage was carried out. The data obtained from the second stage was part of Sample A2 (N= 202).

The data obtained from the students who replied to the questionnaires in both stages, which were identified by means of a code, are the ones used to carry out the test-retest reliability (N= 141).

Table 1. Distribution of the samples (A1, A2 and B) according to the number of individuals, gender, age and level of education. In brackets the percentage of participants.

		Sample A1 (students) N= 371	Sample A2 (students) N= 202	Sample B (general) N= 369
Gender	Female	312 (84.1%)	176 (87.1%)	163 (44.2%)
	Male	59 (15.9%)	26 (12.9%)	204 (55.3%)
	No reply	0 (0%)	0 (0%)	2 (0.5%)
Age	Mean	21.30	21.29	34.95
	S.D.	3.60	3.98	12.87
	Rank	18-45	18-56	18-77
	No reply	4 (1.1%)	2 (1%)	2 (0.5%)
Education	No studies			17 (0.05%)
	Primary			66 (17.9%)
	Secondary			114 (30.9%)
	Technical			89 (24.1%)
	University			83 (22.5%)

The data of Sample B were obtained using the "snowball" technique (Vogt, 1999), which consists of the researcher asking some people to answer the Gaudiebility Scale (GS) and the General Self-reported Enjoyment Experienced (GSEE), and then asking other people they knew to answer it (see below). The data obtained form part of sample B (N= 369).

Materials

The GS (Gaudiebility Scale) consists of 23 items in which people have to indicate the level of agreement with 5 possible answers (completely disagree= 0; largely disagree= 1; slightly agree= 2; agree a lot= 3; completely agree= 4). Lastly the final score, taken from the sum of the 23 items, was considered. (It should be taken into account that items 15, 19 and 22 are valued in reverse order). Therefore, the values may vary between 0 and 92. The interpretation should be the following: a higher score means a higher gaudiebility.

The QLQ (Quality of Life Questionnaire), devised by Ruiz & Baca 1993. This questionnaire is made up of 35 items which assess the quality of people's lives. Each item can be answered on a scale from 1 to 5 and the sum of the direct answers (which can vary between 35 and 175), can be interpreted as follows: the higher the score, the higher the quality of life. Studies indicate that the scale is well devised (with Cronbach's alpha coefficients between .94 and .95), is sensitive to any change, and has a very good validity.

The BDI (Beck Depression Inventory). This adaptation by Vázquez and Sanz (1999) was used; as it is one of those most regularly used to evaluate the presence of depressive symptomatology, and is made up of 21 items. The various studies carried out

show that this inventory is well formulated (with Cronbach's alpha coefficients between .73 and .93), and is useful for detecting the different degrees of seriousness of depressive symptoms.

List of reinforcements. A list of 73 reinforcements and activities was drawn up especially for this study, inspired by, and sometimes taken directly from, the 320 ones that appear in the list of reinforcements devised by MacPhillamy and Lewinsohn (1983), and which people must respond to faced with a list of potential reinforcements. On the one hand, they have to indicate how often they have been submitted to them in the last month (Never= 0; Sometimes (1-6 times)= 2; Often (7 times or more)= 3). And on the other hand, they have to indicate the intensity, i.e. the degree of enjoyability they experienced for each of the reinforcements, or that they believe would have been enjoyable in the event of being confronted by the reinforcement (Not enjoyable= 0, Slightly enjoyable= 2 and Very enjoyable= 3). Three different measurements were taken: the Frequency of the Exposure to the potential Reinforcements (FER), obtained from the sum of the questions in relation to the frequency (values between 0 and 219); the Self-estimated Intensity of the impact of the reinforcement on oneself (SIR), obtained from the sum of the questions related to the intensity (values that may vary between 0 and 219); and the Self-estimation of the Obtained Reinforcement (SOR). Obtained from the sum of the product of the frequency with the intensity (values between 0 and 657). A high score in the FER indicates that the subject has been frequently exposed to potential reinforcements. A high score in the SIR indicates that the subject considers most of the potential reinforcements as highly enjoyable, and a high score in the SOR indicates that the subject has enjoyed them highly during the last month.

The POMS (Psychiatric Outpatient Mood Scale), formulated by McNair *et al.* (1971), adapted by Balaguer *et al.* (1994), which assesses mood states. The assessed subject had to mark the number that best described his mood state for that day (the current day). The values were the following: 1= nothing; 2= very little; 3= slightly; 4= a lot; 5= very much, which made reference to a list of 15 adjectives. The following 5 scales were then used: Tension-Anxiety, Depression-Dejection, Fatigue-Inertia, Vigour-Activity and Anger-Hostility (the sum of the direct scores from the replies to each one of the 3 adjectives which form each one of the scales, with values between 3 and 15 for each one of the scales, in which high scores indicate a major predominance of the mood state that names the scale). The study by Balaguer *et al.* (1994) indicates that this scale is formed by good scores (between .70 and .81) and it is practically equivalent to the complete and original POMS which were shown to be valid, reliable and well formed.

The GSEE (General Self-reported Enjoyment Experienced) the agreement level in a scale from 1 to 10 at the following affirmation: "I am someone who enjoys life". Higher scores indicate higher agreement with the assertion.

RESULTS

The analysis of the internal structure, the selection of items and the study of the internal consistency was carried out using 4 samples (Samples A1 and A2 previously

described and Sub-samples B1 (N= 185) and B2 (N= 184) extracted from a random division of Sample B).

In order to analyze the structure of the questionnaire as well as any possible existing scales, the factorial study was carried out according to the Principal Components method, with Varimax rotation.

The distribution of the eigenvalues and the percentage of the explained variance are similar in the four samples (see Table 2). It is observed that the number of factors with eigenvalues greater than 1 ranges between 6 and 8 and explains about 60% of the variance. All factorial solutions with eigenvalues greater than 1 in the 4 samples were forced. The most suitable solution is the one single factor (see Table 3) provided that: 1) There is more distance between the first factor and the second one that between the second and the third ones; 2) The distribution of item factorial loadings in solutions with more that one factor is unequal in the different samples (see Tables 4 and 5); 3) There is no a clear psychological meaning in these solutions; and 4) The principle of the parsimony advises to choose the simplest solution.

However, studying the adjustment of the solution with one factor, we see that the explained variance of the model with a single factor is around 25%. All Loadings of the 23 items in the data of samples A1, A2, B1, and B2 were values higher tha 0.20 (see Table 3).

All the items were maintained, since they seemed to have acceptable psychometric proprieties in the four samples. The following observations were made:

The items show an equal or greater correlation than .30 in at least one of the four samples (A1 A2, B1 or B2), and no lower than .20 in the other ones, between the item and the corrected total for the Gaudiebility Scale (i.e. the total score without taking into account this same item). We have also observed that, in the event of being eliminated, in all the items the Crombach's alpha coefficients do not significantly increase.

Finally, although it was not adopted as a selection criterion, it was observed that most of the communalities of the different items obtain values greater than .20 (see Table 6).

Table 2. Distribution of the eigenvalues and the percentage of cumulative variance of the first 10 factors from the analysis of 23 items in samples A1, A2, B1 and B2.

	Sample A1		Sample A2		Sample B1		Sample B2	
Factor	Eigen Values	% cum Variance	Eigen Values	% cum Variance	Eigen Values	% cum Variance	Eigen Values	% cum Variance
1	5.451	23.702	6.010	26.132	5.820	25.306	5.748	24.991
2	2.168	33.128	2.340	36.306	2.319	35.388	2.183	34.484
3	1.509	39.688	1.604	43.279	1.505	41.933	1.642	41.624
4	1.407	45.807	1.437	49.525	1.342	47.766	1.394	47.686
5	1.215	51.091	1.258	54.997	1.255	53.223	1.333	53.481
6	1.111	55.923	1.186	60.153	1.127	58.123	1.231	58.834
7	0.984	60.202	1.094	64.907	1.061	62.735	1.088	63.565
8	0.952	64.342	1.026	69.366	0.971	66.956	0.993	67.883
9	0.840	67.993	0.788	72.792	0.864	70.711	0.862	71.631
10	0.790	71.429	0.732	75.976	0.795	74.169	0.801	75.111

Table 3. Factor matrix with 1 factor solution. Loadings of 23 items in the samples A1, A2, B1 and B2. (Values lower than 0.20 were excluded).

	Loadings of items			
Item No.	A1	A2	B1	B2
01	.457	.474	.457	.524
02	.487	.485	.491	.428
03	.350	.366	.475	.406
04	.353	.403	.395	.264
05	.311	.360	.368	.230
06	.450	.403	.531	.343
07	.646	.606	.611	.641
08	.615	.629	.605	.632
09	.535	.559	.601	.504
10	.436	.448	.441	.413
11	.475	.356	.500	.427
12	.472	.394	.493	.453
13	.564	.539	.545	.528
14	.640	.727	.660	.592
15	.333	.395	.383	.392
16	.440	.513	.415	.456
17	.577	.690	.627	.632
18	.474	.418	.466	.466
19	.330	.478	.345	.309
20	.465	.556	.405	.353
21	.727	.723	.704	.730
22	.332	.374	.389	.364
23	.668	.735	.721	.666

In spite of this, it should be pointed out that some of the items in some of the samples with values lower than .10 (see Table 6) obtain slightly smaller communalities; such as Items 3, 4 and 5 on the one hand, which load in the same factor in the different factorial solutions with all three of them referring to the imagination, and on the other hand, the opposite items (15, 19 and 22).

We observed a high internal consistency in the four samples (Cronbach's Alpha coefficients= .8383 in Sample A1, .8589 in A2, .8534 in B1 and .8511 in Sample B2).

The median values are between 57 and 58, which are very close to the mean values between 57.18 and 57.89. The standard deviations range between the values 10.18 and 11.32 (see Table 7).

With regard to the samples designed to detect the relation of the mood states during the day that the individual answers the Gaudiebility Scale (GS), the correlations of the POMS scales were analyzed with the GS in Sample A2. The scales that evaluate negative affects show an absence of correlation with the Tension-anxiety scale (r= -.132, ns), and significant correlations with the Depression-dejection scale (r= -.307 p< .01), with the Fatigue-inertia scale (r= -.192 p< .01) and with the Anger-hostility scale (r= -.201 p< .01). However, the correlation is higher with the Vigour-activity scale (r= -.429 p< .01), which is the only scale that assesses positive mood. The mood states

Table 4. Factor matrix (varimax rotation) with 2 factor solution. Loadings of the 23 items of the sample A1 and A2. (Values lower than 0.20 were excluded).

	Loadings of items of sample A1		Loadings of items of sample A2	
Item No.	Factor 1	Factor 2	Factor 1	Factor 2
01	.309	.396	.267	.492
02	.408	.414	.331	.380
03	--	.799	--	.853
04	--	.778	--	.852
05	--	.837	--	.831
06	--	--	.385	--
07	.380	--	.659	--
08	.607	--	.627	--
09	.510	--	.588	--
10	.491	--	.531	--
11	.398	--	.222	.248
12	.340	.250	.253	.295
13	.550	--	.425	.340
14	.619	--	.629	.351
15	.360	--	.386	--
16	.450	--	.495	--
17	.556	--	.646	.244
18	.503	--	.482	--
19	.360	--	.534	--
20	.477	.270	.476	.247
21	.763	--	.704	.202
22	.387	--	.324	--
23	.629	--	.678	.275

were also compared with the GS result which had been replied to two months before, with very similar results to the ones obtained here.

The correlations were r= -.072 (ns) on the Tension-Anxiety scale; r= -0.224 ($p< .01$) significant with the Depression-Dejection scale; r= -.196 , which is also significant ($p< .05$) with the Fatigue-Inertia scale; r= -.099, this time not significant with the Anger-Hostility scale, and finally the Vigor-Activity scale is again the highest, with r = .424 ($p< .01$). All of them were analyzed using the Pearson's r (see Table 8).

With regard to the scale that assesses depressive symptomatology, it was seen, as expected, that the GS correlated in a negative, significant and moderated way with the BDI, showing correlations of r= -.368 ($p< .01$) in Sample A1, and r= -.376 ($p< .01$) in the analysis that was carried out between the BDI and the GS, and which was responded to two months later (see Table 9).

With regard to the quality of life (QLQ) measurement, the relationships between the GS are high and positive. The correlations with the QLQ are r= .496 in Sample A1, and r= .537. (This analysis was carried out between the QLQ and the GS responded to two months later). All the correlations were carried out using the Pearson's r and are clearly significant ($p< .01$; see Table 9).

Table 5. Factor matrix (varimax rotation) with 2 factor solution. Loadings of the 23 items of the sample B1 and B2. (Values lower than 0.20 were excluded).

	Loadings of items of sample B1		Loadings of items of sample B2	
Item No.	Factor 1	Factor 2	Factor 1	Factor 2
01	.273	.505	.329	.354
02	--	.581	.340	.274
03	--	.732	--	.759
04	--	.642	--	.794
05	--	.713	--	.823
06	.249	.314	.352	.389
07	.646	--	.569	.282
08	.574	--	.604	.255
09	.492	--	.527	.264
10	.333	.240	.376	.229
11	--	.575	.297	.395
12	.289	.431	.266	.440
13	.548	--	.473	.241
14	.715	--	.515	.236
15	.506	--	.477	--
16	.581	--	.487	--
17	.522	.258	.716	.244
18	.361	.406	.489	--
19	.295	.239	.432	--
20	--	.489	.304	.220
21	.807	--	.695	.217
22	.379	--	.426	--
23	.765	--	.652	.244

Finally an analysis of multiple regression was applied. The GS and the BDI were considered as independent variables and the QLQ as the dependent variable. The results reveal a model with a R_2= .539 (F=99.289, p<.001) and the relative importance of each of the independent variables. The standardized coefficients (β= 0.269 of GS and β=-0.591 of BDI) were significant at p< .001. The partial, semi-partial and tolerance coefficients of GS and BDI allowed us to determine the contribution of each predictor on the QLQ (see Table 10).

With regard to the measurements for enjoyment experienced, although none of them have been validated, on the one hand, very high and significant correlations of the GS with the GSEE can be seen, with Pearson's correlation index *r*= .580 in Sample A1, *r*= .480 (this analysis was carried out between the GSEE and the results of the GS 1 responded to two months later) and *r*= .578 in Sample B (all of them with a p< .01).

On the other hand, there were significant correlations between the GS (on both occasions, the GS 1 in Sample A1 and GS 2 in Sample A2, replied to two months later) and the Frequency of Exposure to potential reinforcements (FER), the Self-estimated intensity of the impact of the reinforcement on oneself (SIR) and the Self-estimation of the Obtained Reinforcement (SOR), in all the scores obtained from the reinforcements list. The correlations with FER are *r*= .359 in Sample A1 and *r*= .353 in Sample A2. The correlations with the (SIR) are *r*= .330 and *r*= .215. And finally, the indexes of

Table 6. Values of the communalities of the 23 items of the samples A1, A2, B1 and B2.

	Values of the communalities			
Item No.	Sample A1	Sample A2	Sample B1	Sample B2
01	.184	.228	.261	.220
02	.280	.227	.230	.188
03	.059	.153	.198	.206
04	.103	.183	.103	.130
05	.072	.138	.074	.121
06	.134	.159	.147	.256
07	.387	.345	.380	.398
08	.344	.389	.335	.418
09	.242	.285	.264	.344
10	.200	.180	.169	.194
11	.178	.100	.218	.214
12	.214	.135	.232	.213
13	.314	.289	.299	.279
14	.370	.519	.473	.315
15	.078	.146	.195	.108
16	.179	.248	.221	.148
17	.302	.464	.332	.457
18	.262	.170	.278	.160
19	.103	.211	.143	.076
20	.293	.287	.149	.141
21	.575	.505	.527	.493
22	.161	.122	.089	.206
23	.416	.525	.503	.464

Table 7. Means (M), Standard Deviation (SD), Rank, and Medians (Mdn), of the GS and number of subjects.

	M	SD	Rank		Mdn	N
			Min	Max		
Sample A1	57.46	10.18	26	84	58	371
Sample A2	57.18	10.70	28	87	57	202
Sample B	57.89	11.32	11	84	58	369

Table 8. Matrix of correlations between GS1 and GS2 and the five scales of POMS in samples A1 and A2.

	Tension	Depression	Fatigue	Vigor	Anger
GS1	-.072	-.224**	-.196*	.424**	-.099
GS2	-.132	-.307**	-.192**	.429**	-.201**

GS1= Gaudiebility Scale (replied two months before).
GS2 = Gaudiebility Scale (replied at the same moment that the POMS scales).
Values of N are between 142 and 146 in the GS1, and between 197 and 200 in the GS2.
** Significant at 01 (bilateral); * Significant at level .05 (bilateral).

Table 9. Matrix of the correlations (Pearson's *r*) between the GS and the other variables in samples A1 and A2 (N in brackets).

	GS1	GS2	QLQ	BDI	FER	SIR	SOR	AGE
GS 2	.741**	--						
	(141)							
QLQ	.496**	.537**	--					
	(177)	(101)						
BDI	-.368**	-.376**	-.716**	--				
	(177)	(101)	(182)					
FER	.359**	.353**	.289**	-.149	--			
	(167)	(98)	(170)	(170)				
SIR	.330**	.215*	.133	-.051	.543**	--		
	(169)	(99)	(171)	(171)	(116)			
SOR	.445**	.402**	.311**	-.164*	.910**	.725**	--	
	(161)	(95)	(163)	(163)	(166)	(166)		
AGE	-.011	.000	-.173*	.044	-.113	-.043	-.095	--
	(367)	(200)	(176)	(176)	(166)	(168)	(160)	
GSEE	.580**	.480**	.628**	-.482**	.244**	.092	.289**	-.027
	(368)	(141)	(177)	(177)	(167)	(169)	(161)	(364)

GS1= Gaudiebility Scale administered at the first stage; GS2= Gaudiebility Scale (replied at the second stage); QLQ= Questionnaire Life Quality; BDI= Beck Depression Inventory; FER= Frequency of Exposure to the potential reinforcements; SIR= Self-estimated Intensity of the impact of the reinforcement on oneself; SOR= Self-estimation of the Obtained Reinforcement, age; GSEE= General Self-reported Enjoyment Experienced.
** Significant at .01 (bilateral); * Significant at .05 (bilateral).

Table 10. Results of Multiple Regression analysis (and partial and semi-partial correlations, and tolerance coefficients) between QLQ and GS and BDI in A1.

	β	T	*p*	Partial	S-partial	Tolerance
GS	0.269	4.804	<.001	0.346	0.250	0.864
BDI	-0.591	-10.546	<.001	-0.629	-0.549	0.864

correlations with SOR are *r*= .445 and *r*= .402. In all the cases, significance indexes were very low (p< .01), except for the correlation between the SIR and the GS 2 (the farthest in time), which shows a major degree of significance (p< .05). All the correlations were calculated using Pearson's *r* (see Table 9).

In to order to analyze the stability of the total scores for the GS, we firstly observed the Test-retest Reliability from the analysis of the data from 141 individuals who replied to the GS twice (two months' difference), Pearson's correlation was high and significant: *r*= .741 (p< 0.01).

DISCUSSION

This study had two main objectives. The first of these was to present and carry out a theoretical study into the concept of gaudiebility. The second was the construction of an instrument to assess gaudiebility and study its psychometric properties.

The study of the internal structure of the Gaudiebility Scale, which was carried out using four samples, indicates that the best factorial solution is the single factor perspective. However, the conclusion reached regarding the adjustment of the solution with one factor raises some doubts. We can observe two groups of items with very low communalities. On the one hand, there is some evidence pointing to a specific factor, like the one which could be formed by Items 3, 4 and 5, which influence the same factor in different factorial solutions. All three of these refer to the imagination. On the other hand, the reverse items (15, 19 and 22) show very low communalities, a fact that could be due to the effect of a moderated number of reading mistakes of this accumulated type and could explain the low communalities of these items.

With regard to the valuation of the single factor solution, it should also be taken into account that the items were not generated with any particular type of hypothesis related to any factor in mind, since it was only a first approximation (Padrós & Fernández, 2001). Thus, a range of juxtaposed elements were borne in mind during the generation of items, and most of them were formulated in a mixed way, a fact that greatly interferes with the extraction of clear and unequivocal factors. The possibility that a more complex gaudiebility structure might be found in future research studies cannot therefore be discounted.

The analysis of the relationship between the GS and the mood states at the moment of replying to the questionnaires (evaluating them using the scale POMS) revealed, as expected, that the correlations between the GS and the factor which assess the presence of positive mood are noticeably higher than the ones which measure the presence of others moods. Therefore, at this first stage, the results suggest that the mood state that the person is in at the moment of replying to the GS influences the GS score.

Although, when we analyze the relationship between the different scales of the emotional state and the score of the GS which was responded to two months before, it was observed that the replies to it were very similar to the replies obtained in the GS at the same moment. This can be interpreted as follows: individuals who have a high level of gaudiebility increase the frequency and intensity of the positive states and reduce to a lesser degree the intensity and frequency of the negative states. In future studies it would be interesting to use mood state induction techniques to be able to obtain conclusions in a more unmistakable way, in order to find out how the emotional state that the people are in at the moment of replying affects the measurement of gaudiebility.

The negative and moderate relationship between the GS and the BDI which evaluates the presence of depressive symptomatology was checked. These results, on the one hand, correspond to the relationship between the intensity and the frequency of pleasant activities and depression found in the studies by Lewinsohn and Graf (1973), Bouman and Luteijn (1986), Watson *et al.* (1988) and Davis and Burns (1999). On the other hand, they correspond to the theoretic structure, since it should be taken into account that in people suffering from depressive disorders there is usually a pronounced decrease in interest in, or capacity for, experiencing pleasure (APA, 2000).

Obviously, it is also possible to consider low gaudiebility as a risk factor for

depression disorders, although it would be necessary to use long-term studies and wide high risk samples to be able to assess the risk factor which could result in low gaudiebility.

As far as the relationship between the GS and the inventory that assesses the quality of life is concerned, it was also confirmed that it is also high, positive, significant and more intense that the previous ones.

It should be mentioned that the high correlations found between the GS and the quality of life measurement are probably due to the questionnaire used in this study, since the QLQ contains a lot of items which assess the positive affect.

Moreover, the effects of GS and BDI on the QLQ showed an independent relation between each of the independent variables and the quality of life. This results supported the idea that gaudiebility is related mainly with the positive affect, but not with the negative affect.

The relationships obtained from the measurements designed to assess the enjoyment experienced, observed using instruments that have been specially devised for this study, are high and significant, although it would be advisable in future studies to make use of other procedures which are more accurate and reliable for assessing the enjoyment experienced, such as the Experience-Sampling Method used in other studies (Csikszentmihalyi & Larson 1987; Csikszentmihalyi, 1990; Haworth *et al*., 1997).

To conclude we can state that the results obtained support the maintenance and use of the gaudiebility concept and confirm the idea that gaudiebility is a stable variable and is not easily modified. It would however be advisable in the future to carry out long-term studies and observe how gaudiebility evolves over long periods of time.

It might also useful to explore whether gaudiebility can act as an indicator for pointing out possible risk situations (in the case of low gaudiebility) for some kinds of mental disorders, or (in the case of high gaudiebility) an indicator of high resilience, and/or for predicting how different mental disorders might evolve.

At present, a deficit in the achievement of gratification, despite being considered a relevant indication of different mental disorders, such as depression or schizophrenia, is neither treated nor seen as a problem in itself. It is likely that dissatisfaction would be considered a problem to be treated, if the right of to enjoy is developed.

Obviously, the achievement of high levels of gaudiebility does not ensure a high quality of life for anyone. But it can be considered as a way of increasing and promoting well-being, since the positive affect is one of its components. It would be desirable in the future to be able to create some kind of intervention program efficient enough to increase gaudiebility, and, in this way, to contribute to the improvement of people's well-being and quality of life.

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