Active-Alert Hypnotic Induction Methods: The Relationship Between Phenomenological Experience, Pleasantness and Hypnotic Suggestibility

Ana Alarcón[1], Antonio Capafons[2*], Agustín Bayot[3], and Yael Nitkin-Kaner[4]

[1]*Universidad Jaime I de Castellón, España;* [2]*Universidad de Valencia, España;* [3]*Universidad de Castilla-La Mancha, España;* [4]*University of Connecticut, USA*

ABSTRACT

Two induction methods, Bányai, Zseni and Túry (1993) Active-Alert method, and Capafons' Waking-Alert (alert hand) method (1998a) were used to investigate the role of induction method in predicting test suggestion responses. The results of this study demonstrate that a) responses to the intra-hypnotic suggestions of the Active-Alert hypnotic inductions predict the pleasantness of the methods, b) the higher the number of suggestions responded in the induction methods (in this case, suggested sensations), the higher the scores on the Barber Suggestibility Scale. Such results have the following repercussions: 1) They support the importance of subjective experience from a cognitive-behavioral point of view about hypnosis, 2) they emphasize the artificial separation between inductions and test suggestions, 3) they underscore the relevance of the pleasantness variable in the understanding of hypnotic responsiveness.
Key Words: Pleasantness, efficiency, waking-active-alert hypnosis, hypnotic suggestibility.

RESUMEN

Inducciones hipnóticas activas-alertas: la relación entre experiencia fenomenológica, agrado y sugestionabilidad hipnótica. Se ha aplicado el método de Bányai, Zseni y Túry (1993) y el método vigilia-alerta (mano alerta) de Capafons (1998a) para investigar el *rol* de los procedimientos de inducción en las respuestas a las sugestiones de prueba. En general, los resultados de este trabajo muestran que: a) responder a las sugestiones que conforman las inducciones hipnóticas activo-alerta predicen el agrado por tales métodos, b) cuanto mayor sea el número de sugestiones a las que se responde en la inducción (sensaciones sugeridas), mayor puntuación se obtiene en la escala de sugestibilidad de Barber. Dichos resultados, entre otras, tienen las siguientes repercusiones: 1) Respaldan la importancia que desde la visión cognitivo-comportamental de la hipnosis se le concede a la experiencia subjetiva, 2) Enfatizan que la separación entre inducción y sugestiones de prueba es algo artificial, 3) Subrayan la relevancia de la variable agrado para explicar la sugestionabilidad hipnótica.
Palabras clave: agrado, eficiencia, hipnosis despierta, hipnosis activo-alerta, sugestionabilidad hipnótica.

Hypnotic inductions explicitly define a situation as hypnotic, causing the situation to develop consistently with the preconceptions that the person has about hypnosis (Sarbin & Coe, 1972; Spanos, 1982) Accurate and adequate presentation of hypnosis is essential, so that preconceptions or expectancies that individuals have about hypnosis may be adjusted to the empirical results obtained about it. (Capafons, 2001; 2004). Hypnotic inductions may also be considered as an invitation for a participant to collaborate with a therapist suggestion (Capafons, 2004). From a cognitive-behavioral perspective of hypnosis, and borrowing a term from applied functional analysis of behavior, the purpose of the suggestions in the hypnotic induction would be "to reveal the reinforcer".

That is, suggestions serve to provide an individual with the experience of responding successfully to the suggestions (broadly considered as a reinforcer) while demonstrating that the hypnotic process works. In this way, self-efficacy expectancies increase while increasing response expectancies about test suggestions (Bandura, 1977; Kirsch, 1985). A hypnotic induction method may be seen as a group of suggestions that lie on a continuum with the so-called test suggestions. In this sense we agree with Wagstaff (1998), who considers "trance" as a suggestion. Therefore, we propose that the traditional separation between the hypnotic induction procedure and hypnotic (or therapeutic) test suggestions is artificial, since the hypnotic procedure includes suggestions and implicitly has a test for evaluation of the hypnotic response in a sense. There are different types of induction (by relaxation, by guided imagery, by activation, etc.) which all fall under the label of hypnosis (Kirsch, 1997). In fact, if there is something fundamental to the hypnotic situation, it is simply the word hypnosis.

Labeling is a basic process (although not the only one) used to design a hypnotic method (Spanos & Barber, 1976). Kirsch (1990) identifies a common element to all procedures designed to promote hypnotic behavior, that is, the belief that the procedure is efficacious. While he asserts that all hypnotic procedures are equally effective, he assumes indirectly that not all inductions are equal by suggesting that the "Double Induction" method (Bandler & Grinder, 1975) may be less efficient than traditional methods (Matthews, Kirsch & Mosher, 1985).

It seems likely, in fact, that all induction methods are not necessarily equally efficient and effective. In addition, there is little research examining the specific conditions that can increase the efficiency and effectiveness of hypnotic induction methods. In examining the induction process, it is also important to consider the credibility of the process, whether it is liked or not, whether the verbalizations used are adequate for the planned objectives, the socio-cultural adequacy of the induction, etc. Therefore, the label hypnosis seems necessary, but not sufficient. That is, while acceptance of that the label hypnosis usually generates expectancies, the induction itself may serve to generate them as well. Cardeña, Alarcón, Capafons and Bayot (1998) obtained significantly higher scores on suggestion and pleasantness using the Waking-Alert/Alert-Hand method (Capafons, 1998a) than those obtained by the Active-Alert method while also being preferred by participants (Alarcón, Capafons, Bayot, & Cardeña, 1999). In addition, the latter method produced greater attrition than the Waking-Alert method.

Similar results were obtained by Reig, Capafons, Bayot and Bustillo (2001) using the Rapid Self-Hypnosis method (Capafons, 1998a,b): the short version of that

method was preferred to the longer one, and produced higher scores on test suggestions. However, Martínez-Tendero, Capafons, Weber and Cardeña (2001) found that although the full version of the Rapid Self-Hypnosis method was preferred to the Hypnosis Induction Profile (self-hypnosis version) of Spiegel and Spiegel (1987), there were no significant differences in the scores of test suggestions.

Therefore, several studies indicate that the structure and content of the hypnotic procedure may be important determinants of hypnotic suggestibility. This is probably not because the procedures causes a greater or lesser degree of dissociation, but rather because the method is more pleasant, easier to understand, generates less iatrogenic reactions, and is more in accordance with the expectations of the individual. Contrary to past misconceptions about psychotherapy procedures, recent research has shown that not all forms of therapy are equally effective (Pérez-Álvarez, 1998). This question of the differences in effectiveness of various types of procedures seems crucial also in the field of hypnosis, especially applied hypnosis. Indeed, as mentioned above, numerous studies have demonstrated that not all methods are equally pleasant, efficient, nor have equal outcomes (Alarcón *al.*, 1999; Cardeña *al.*, 1998; Martínez Tendero *et al.*, 2001; Reig *et al.*, 2001).

This study examines the relationship between pleasantness and hypnotic suggestibility. The variable pleasantness seems related to the concept of efficiency (Seligman, 1995) and the involvement in psychological treatments (Wolf, 1978). Several studies have considered the efficacy and the quality of treatment as perceived by patients as important variables in the outcome of therapy (Hunsley, 1992; Spirrison, Noland & Savoie, 1992).

No articles, however, have examined the relationship between the pleasantness of a hypnotic induction method and hypnotic suggestibility. Nevertheless, pleasantness seems to be a modulating variable that can increase the efficacy of the hypnotic induction method, promoting a better response to test suggestions. Such a variable also might have important clinical applications, since efforts directed at increasing likelihood of the techniques could impact the subjective quality of treatment, and hence, its efficiency, although not always its efficacy (Dick, Ztiman, Linssen, & Spinhoven, 1991).

Pleasantness of a hypnotic technique is a very wide concept. In order for a technique to be considered as pleasant, it not only should not be bothersome nor create iatrogenic reactions, but it must be credible, useful, easy to understand and easy to perform. Therefore, from an exploratory perspective, we are interested in verifying whether there is a relationship between the subjective experience of suggested sensations in each hypnotic induction, the pleasantness of the method, and level of hypnotic suggestibility of participants.

Since most of the sensations described in the hypnotic induction methods can be considered as suggestions, and since following them can increase self-efficacy and response expectancies, we predict that the more suggestions of the hypnotic induction method are performed, the more test suggestions will be performed as well. We also predict that the more pleasant the induction, the more reactions will be experienced within a particular method), since participants reduce countersuggestion and reactance.

<center>METHOD</center>

Participants

The sample was composed of 60 volunteers who were "blind" to the objectives of the study and did not received academic or economic compensation for participation. 15 men (25%) and 45 (75%) women. They ranged in age between 19 and 51 years (X= 24.13; SD= 5.65).

Assessment

The Barber Suggestibility Scale (BSS) (Barber, 1965; Barber & Wilson, 1979) includes a Subjective scale and an Objective Scale, with eight items in each, that are responses to various kinds of suggestions. The Objective Scale (completed by the experimenter) has a score ranging from 0 to 8. The score on the Subjective Scale (completed by the participant) ranges from 0-24. Test-retest reliability is over .80 for both scales. Split-half reliability is between .70 and .84 for objective scores and .84 to .88 for subjective ones. The BSS was employed in this study due to the speed in which it may be completed, the inclusion of both an objective and a subjective measure, the potential for using it with and without a hypnotic induction, and since it correlates with the Stanford Hypnotic Suggestibility Scale [SHCS: A] (Weitzenhoffer & Hilgard, 1959), which also shows validity and reliability (Council, 1999).

Pleasantness scale (created specifically for experimental purposes): This is an 18 item Likert type scale, with two open responses. The scale attempts to evaluate the level of pleasantness experienced by participants using each method, contrasting the pleasantness of its use with the ease with which it may be understood (see APPENDIX)

Subjective questionnaires for methods (created specifically for experimental purposes): These questionnaires attempt to evaluate whether the suggested sensations for each hypnotic induction method used in this study have been achieved (i.e., the automaticity of movement of the legs in the Active-Alert method, or the automatic hand movement in the Waking-Alert induction).

Procedure

Two alert hypnotic induction methods were used to hypnotize participants: The active alert induction method described by Bányai, Zseni, and Túry, (1993), and the Waking-Alert Hypnosis induction method described by Capafons (1998a; Cardeña et al, 1998). Both methods were carried out in a single session that lasted between two and a half and three hours long. Before the session, a period of time was allotted for creating rapport. The first technique was attempted and then the Barber Suggestibility Scale was administered. Then the subjective questionnaire for the technique and the pleasantness scale were also administered. Afterwards, participants took a short break which was followed by the second technique. Methods used followed a counterbalanced design: 50% of participants first received the Waking Alert Hypnosis, and the other 50% received the Active-Alert Hypnosis first.

The same experimenter performed both techniques. Also, a second experimenter (who was blind to the hypothesis) observed the session and scored the Barber Suggestibility Scale-objective subscale so that the inter-rater reliability could be established.

<center>RESULTS</center>

The inter-rater reliability was very high: kappa correlations for the Objective Barber Suggestibility Scale were .97 for the Active-Alert induction method, and .96 for the Waking-Hypnosis induction method. Thus, the scores obtained by the main experimenter were used for both induction methods.

Exploratory factor analysis of principal components without rotation was first conducted in order to determine whether it was appropriate to examine total scores obtained in the pleasantness scale and in the subjective questionnaires. A factor emerged in the pleasantness scale for the Waking-Alert technique (eigen value= 6.56; percentage of variance = 36.5; α= .88) and another for the Active-Alert technique (eigen value= 7.15; percentage of variance= 39.7; α= .86). In the suggested sensations, during the induction, a single factor emerged for the Waking-Alert method (eigen value= 3.25; percentage of variance= 36.1; α= .78) and two were found for the Active-Alert method (eigen value= 3.66; percentage of variance= 36.6; α= .83; eigen value= 1.94; percentage of variance= 19.4; α= .63). We refer to the first factor for the suggested sensations in the Active-Alert induction technique as "Active-Alert sensations factor 1" (AASE-F1). Examples of items of this factor are: *Did you feel the automatic movement of your legs? Did you notice if your body felt more and more refreshed and plenty of energy as you pedaled?* The second factor has been named "Active-Alert sensations factor 2" (AASE-F2). Examples of this factor are: *Did you feel your heart beating faster? Did you notice if your breathing was becoming more rapid? Did you experience warmth on your legs, arms and body when it was indicated to you?*.

The only factor in the Waking-Alert technique has been called "*Waking-Alert Sensations*" (WAS). Examples of this factor are: Did you feel the automatic movement of your hand? Did you feel how your body was activated and filled with energy; Did you feel the need to get up from the armchair when it was indicated?

The variable WAS correlates positively and significantly with pleasantness (rxy= .61, $p<$ .0001), the Objective Barber Subscale (rxy= .40, $p<$ .01) and the Subjective Barber Subscale (the BSS, subjective subscale) (rxy= .62, $p<$ .0001), while pleasantness also correlates with the both Barber Subscales (Objective: rxy= .40, $p<$ 0.01; and Subjective: rxy= .64, $p<$ .0001). AASE-F1 follows the same pattern, correlating with pleasantness (rxy= .72, $p<$ .0001), with Barber Objective Subscale (rxy= .31, $p<$ .01) and with Barber Subjective Subscale (rxy= .41, $p<$ .01). AASE-F2 correlates positive and significantly with Barber Objective Subscale (rxy= .52, $p<$ .0001) and with Barber Subjective Subscale (rxy= .51, $p<$ .0001), although the correlation with pleasantness does not reach significance (rxy= .08, $p>$ .05). There is a significant positive correlation between pleasantness Barber Objective Subscale (rxy= .27, $p<$ .01) and with Barber Subjective Subscale (rxy= .42, $p<$ .01).

Regression analyses were conducted to determine whether the scores of the

factors of the *subjective questionnaires for each hypnotic method* could be predicted by the pleasantness variable. The level of pleasantness reached in each method was taken as the predictor variable, and the scores of the subjective questionnaire were considered as the criterion variable. Results are shown in tables 1 and 2. In the Waking-Alert technique, the sensations, as predictors of pleasantness, explain 37% of the variance, and in the case of the Active-Alert technique they explain 51% of the variance.

A Regression analysis between test and induction suggestions was also conducted. The level of suggestion reached with each technique (objective and subjective) was the criteria variable, and the predictor variable was the suggested sensations on each induction. In the case of the Active-Alert technique, only AASE-F1 was selected, explaining 31% of the variance in the Barber Objective Scale (table 3), and 36% of the variance in the Barber Subjective Scale (table 4). In the Waking-Alert technique WAS explains the 14% of variance in the Barber Objective Scale (table 5) and the 38% of the variance in the Barber Objective Scale (table 6). In both techniques there is a positive relationship between the predictive variable and the criteria. This indicates that the higher the number of sensations presented in the inductions, the higher the scores on the Barber suggestibility scale in general.

Finally, analyses to examine the relationship between pleasantness and test suggestions were conducted. In this case pleasantness was the predictor variable and Objective and Subjective Barber scales were the criteria variables. When the Waking-

Table 1. Regression equation. WAS as predictor of pleasantness as criteria for the Waking-Alert technique.

R	R^2	$R^2_{adjusted}$	Standard error
.61	.38	.37	8.75
Anova	**d.f.**	**S.S.**	**M.S.**	**F**
Regression	1	2695.94	2695.94	35.18**
Residual	58	4444.90	76.63	
Variable	**B**	**S_E B**	**β**	***t***
WAS	1.53	.258	.61	5.93**
(Constant)	54.95	3.02		18.21**

**p< .0001

Table 2. Regression equation. AASE-F1 and AASE-F2 (sensations) as predictor of pleasantness as criteria for the Active-Alert technique.

R	R^2	$R^2_{adjusted}$	Standard error
.72	.52	.51	8.70
Anova	**d.f.**	**S.S.**	**M.S.**	**F**
Regression	1	4744.01	4744.01	62.67**
Residual	58	4390.39	75.70	
Variable	**B**	**S_E B**	**β**	***t***
AASE-F1	2.07	.26	.72	7.92**
(Constant)	39.43	3.35		11.78**

**p< .0001

Table 3. Regression analysis. AASE-F1 and AASE-F2 (sensations) as predictors and Barber Objective Scale as criteria for the Active-Alert technique.

R	R^2	$R^2_{adjusted}$	Standard error
.57	.33	.31	1.37

Anova	d.f.	S.S.	M.S.	F
Regression	2	52.51	26.25	14.04**
Residual	57	106.54	1.87	

Variables	B	$S_E B$	β	t
AASE-F1	.09	.04	.25	2.28*
AASE-F2	.36	.08	.49	4.47**
(Constant)	2.56	.59		4.35**

*p< .01   **p< .0001

Table 4. Regression analysis. AASE-F1 and AASE-F2 (sensations) as predictors and Barber Subjective Scale as criteria for the Active-Alert technique.

R	R^2	$R^2_{adjusted}$	Standard error
.62	.38	.36	3.38

Anova	d.f.	S.S.	M.S.	F
Regression	2	406.44	203.22	17.77**
Residual	57	651.96	11.44	

Variables	B	$S_E B$	β	t
AASE-F1	.35	.10	.35	3.39*
AASE-F2	.88	.20	.47	4.46**
(Constant)	4.66	1.45		3.20*

*p< .01   **p< .0001

Table 5. Regression analysis. WAS (sensations) as predictor and Barber Objective Scale as criteria for the Waking-Alert technique.

R	R^2	$R^2_{adjusted}$	Standard error
.40	.16	.14	1.31

Anova	d.f.	S.S.	M.S.	F
Regression	1	18.67	18.67	10.83*
Residual	58	99.98	1.72	

Variables	B	$S_E B$	β	t
WAS	.13	.04	.40	3.29*
(Constant)	4.41	.45		9.74**

*p< .01   **p< .0001

Alert technique was analyzed, pleasantness explained the 40% of the variance in the Barber Subjective Scale (table 7), and 15% of the variance in the Barber Objective Scale (table 8). In the Active-Alert technique, the percentage of variance in the Barber scales explained by pleasantness is lower than in the Waking-Alert technique: 17% of Barber Subjective Scale (table 9), and only 6% of Barber Objective Scale (table 10).

Table 6. Regression analysis. WAS (sensations) as predictor and Barber Subjective Scale as criteria for the Waking-Alert technique.

R		R^2	R$^2_{adjusted}$	Standard error
.62		.39	.38	3.58
Anova	**d.f.**	**S.S.**	**M.S.**	**F**
Regression	1	472.15	472.15	
Residual	58	741.78	12.79	36.92**
Variables	**B**	**S$_E$ B**	**β**	**t**
WAS	.64	.11	.62	6.08**
(Constant)	6.69	1.24		5.42**

**p< .0001

Table 7. Regression equation. Pleasantness as predictor and Barber Subjective Scale as criteria for the Waking-Alert technique.

R		R^2	R$^2_{adjusted}$	Standard error
.64		.41	.40	3.51
Anova	**d.f.**	**S.S.**	**M.S.**	**F**
Regression	1	500.29	500.29	
Residual	58	713.65	12.30	40.66**
Variable	**B**	**S$_E$ B**	**β**	**t**
Pleasantness	.26	.04	.64	-1.77**
(Constant)	-5.31	3.00		-1.77

**p< .0001

Table 8. Regression equation. Pleasantness as predictor and Barber Objective Scale as criteria for the Waking-Alert technique.

R		R^2	R$^2_{adjusted}$	Standard error
.41		.16	.15	1.31
Anova	**d.f.**	**S.S.**	**M.S.**	**F**
Regression	1	19.68	19.68	
Residual	58	98.97	1.70	11.54*
Variable	**B**	**S$_E$ B**	**β**	**t**
Pleasantness	.05	.02	.41	3.40*
(Constant)	2.04	1.12		1.82

**p< .01

DISCUSSION

Kihlstrom (1996) concluded that rejection of the idea of an altered state of consciousness in the hypnotic situation implicitly includes a rejection of the subjective experience. However, many authors (Kirsch, Capafons, Cardeña, & Amigó, 1999) maintain

that the cognitive-behavioral approach to hypnosis has never rejected the importance of the subjective experience. In fact, T.X. Barber, a non-state theorist, was first to include Subjective Scales in the measurement of suggestibility (Barber, 1965).

Our results also show that the most significant relationship between pleasantness and test suggestions always occurs in the case of the Barber Subjective Scale, and is generally the same with the relationship between sensations in the induction and Barber Subjective Scale. Thus, suggested sensations in a hypnotic induction method are extremely important since they have repercussions on the pleasantness of the method and on the subjective responses to test suggestions. Our results support the prediction that if people experience the suggested sensations of the induction method, they will engage in more test suggestions. We consider suggested sensations in the induction to be suggestions. The results of this study are in agreement with those of study by Graham (1971) that revealed a high correlation between the speed of eye closing (hypnotic induction procedure) and hypnotic suggestibility. One clinical implication of this finding is that the therapist can know very early on in the induction process whether the patient will respond to the therapeutic suggestions. The importance of suggested sensations in the induction process should be further investigated, since there is an important relationship between

Table 9. Regression equation. Pleasantness as predictor and Barber Subjective Scale as criteria for the Active-Alert technique.

R		R^2	$R^2_{adjusted}$	Standard error
.43		.18	.17	3.86
Anova	**d.f.**	**S.S.**	**M.S.**	**F**
Regression	1	193.48	193.48	
Residual	58	864.92	14.91	12.97*
Variable	**B**	**S_E B**	**β**	**t**
Pleasantness	.15	.04	.43	3.60*
(Constant)	3.03	2.65		1.14

**p< .01

Table 10. Regression equation. Pleasantness as predictor and Barber Objective Scale as criteria for the Active-Alert technique.

R		R^2	$R^2_{adjusted}$	Standard error
.27		.07	.06	1.59
Anova	**d.f.**	**S.S.**	**M.S.**	**F**
Regression	1	11.82	11.82	
Residual	58	147.22	2.54	4.66*
Variable	**B**	**S_E B**	**β**	**t**
Pleasantness	.04	.02	.27	2.16*
(Constant)	2.82	1.09		2.58*

**p< .01

suggestibility and induction method. Therefore, although we agree with the concept of an induction method being hypnotic because it is has been labeled as hypnotic (Fourie, 1991), we also think that not all hypnotic induction methods are equally effective and efficient, and therefore the choice of induction method is significant (Capafons, 1999).

As mentioned above, there is an interesting relationship between pleasantness and suggested sensations in the hypnotic induction method, and between pleasantness and the subjective Barber scale. These results suggest that it may be desirable for hypnotic induction methods to be structured using sensations valued as pleasant. This would improve the quality of the subjective experience, and therefore, efficiency as well. In general, the results seem to indicate that pleasantness can modulate the level of suggestion (via suggestion method). It is not possible to conclude, however, whether pleasantness modulates suggestion or vice versa. It could be argued that the higher the participant's level of hypnotic suggestibility is, the more pleasant the method would be perceived. However, the results of this study are not in agreement with this explanation since both techniques were utilized with the same persons. In spite of this, the Waking-Alert technique has shown to reach a significantly higher level of pleasantness and suggestion than the Active-Alert technique (Cardeña *et al.,* 1998; Alarcón *et al.,* 1999). We are inclined to give a more parsimonious explanation for this, in which pleasantness would act as a modulator of suggestion, since this explanation is consistent with the procedures and does not require the use of explanations that include special processes.

On the other hand, as mentioned, some data support people's preference for pleasant methods (Alarcón *et al.*, 1999; Martínez-Tendero *et al.*, 2001; Reig *et al.*, 2001), as well as the idea that methods determined to be more pleasant lead to greater test suggestion responses (Cardeña *et al.,* 1998; Reig *et al.,* 2001). Therefore, hypnotic induction methods may have two complementary roles: to induce hypnosis and as a procedure used to increase hypnotic suggestibility. In fact, these results would indirectly support the theories that postulate that hypnotic suggestibility can be modified through cognitive-behavioral variables (i.e., the hypnotic induction procedure itself) more than internal variables (trait of suggestibility) (Cangas & Pérez Álvarez, 1997; Diamond, 1977; Gorassini & Spanos, 1999; Sachs & Anderson, 1967; Spanos, 1986). If suggestibility could be understood as a trait that is very difficult to modify (Bowers, 1976; Perry & Laurence, 1986), participants would have the same hypnotic suggestibility scores regardless of the induction method. But in this case, using the Waking-Alert and Rapid Self-Hypnosis techniques, higher scores in test suggestions were obtained with the induction methods that were perceived as more pleasant and were preferred in that dimension using the same participants (Alarcón *et al.,* 1999; Cardeña *et al.,* 1998; Reig *et al.,* 2001). Therefore, in this case, the induction method promotes variability in the responses to test suggestions.

On the other hand, we want to highlight that the percentage of the variance on the Subjective Barber Scale explained by pleasantness is different depending on the technique used: 40% in the Waking-Alert technique, and 17% in the Active-Alert one. A possible explanation could be that a certain level of pleasantness has to be reached so that it can influence subjective hypnotic responding. Perhaps that level was reached by the Waking-Alert technique but not by the Active-Alert one. In fact, not all the

sensations suggested in the Active-Alert technique are correlated with pleasantness (specifically, the AASE-F2 factor). Nevertheless, this hypothesis needs to be supported by further research.

Evidently, there are several other variables (in addition to pleasantness) that may be affecting the suggestion level and that should be investigated as well. Our data focus on the importance of the pleasantness variable in its interaction with the method, but its interaction with other variables (therapist, problem, etc.) is unclear. Even taking other studies into consideration, the percentage of variance explained by other variables is lower than that explained by pleasantness. Thus, fantasy proneness explains approximately 5% of variance, response expectancies explain about 24% of the variance (Kirsch, Silva, Comey, & Reed, 1995), and archaic involvement show a common variance with hypnotic suggestibility of 34% ($rxy= .52$; Nash & Spinler, 1989). Thus, pleasantness explains a higher percentage of variance. Therefore, the potential role of the pleasantness and examined sensations of the induction method should not be underestimated. In fact, this fit with the idea of hypnosis as the application of the rhetoric principles (Pérez Álvarez, 1996, 1999). Thus, future research on the pleasantness scale should focus on gaining empirical data on the validity and reliability of the instrument.

REFERENCES

Alarcón, A., Capafons, A., Bayot, A., & Cardeña, E. (1999). Preference between two methods of Active-Alert hypnosis: Not all techniques are created equal. *American Journal of Clinical Hypnosis, 41,* 269-276.

Bandler, R., & Gringer, J. (1975). *Patterns of the hypnotic techniques of Milton H. Erickson, M.D.* (Vol. 1). Cupertino, CA: Meta Publications.

Bandura, A. (1977). Self-efficacy: Towards a unifying theory of behavior change. *Psychological Review, 34,* 191-215.

Bányai, É.I., Zseni, A., & Túry, F. (1993). Active-alert hypnosis in psychotherapy. In J. W. Rhue, S. J. Lynn, & I. Kirsch (Eds.), *Handbook of clinical hypnosis* (pp. 271-290). Washington, D. C: American Psychological Association.

Barber, T.X. (1965). Measuring "hypnotic-like" suggestibility with and without "hypnotic induction"; psychometrics properties, norms and variables influencing response to the Barber Suggestibility Scale (BSS). *Psychological Reports, 16*, 809-844.

Barber, T.X. & Wilson, S.C. (1979). The BSS and the CIS: Experimental and clinical applications. *American Journal of Clinical Hypnosis, 21*, 81-108.

Bowers, K.S. (1976). *Hypnosis for the seriously curious.* Monterey, Calif.: Brooks-Cole.

Cangas, A.J., & Pérez Álvarez, M. (1997). Transformación de las instrucciones en sugestiones mediante procedimientos operantes [Transformation of instructions into suggestions through operant procedures]. *Psicothema, 9,* 167-174.

Capafons, A. (1998a). Hipnosis clínica: una visión cognitivo-comportamental [Clinical hypnosis: A cognitive-behavioral perspective]. *Papeles del Psicólogo, 69,* 71-88.

Capafons, A. (1998b). Rapid self-hypnosis: A suggestion method for self-control. *Psicothema*, *10,* 571-581.

Capafons, A. (1999). La hipnosis despierta setenta y cuatro años después [Waking hypnosis seventy-

four years later]. *Anales de Psicología*, *15,* 77-78.

Capafons, A. (2001). *Hipnosis* [Hypnosis]. Madrid: Síntesis.

Capafons, A. (2004). Clinical applications of "waking" hypnosis from a cognitive-behavioural perspective: From efficacy to efficiency. *Contemporary Hypnosis, 21,* 187-201.

Cardeña, E., Alarcón, A., Capafons, A., & Bayot, A. (1998). Effects on suggestibility of a new method of Active-Alert hypnosis. *International Journal of Clinical and Experimental Hypnosis, 45,* 280-294.

Council, J.R. (1999). Measures of hypnotic responding. In I. Kirsch, A. Capafons, E. Cardeña, & S. Amigó (Eds.), *Clinical hypnosis and self-regulation: Cognitive-behavioral perspectives* (pp. 119-140). Washington, D.C.: American Psychological Association.

Diamond, M.J. (1977). Hypnotizability is modifiable: An alternative approach. *International Journal of Clinical and Experimental Hypnosis, 25,* 147-165.

Dick, R. Van., Zitman., F.G. Linssen, A.C., & Spinhoven, P. (1991). Autogenic training and future oriented hypnotic imagery in the treatment of tension headache: Outcome and process. *International Journal of Clinical and Experimental Hypnosis, 39*, 6-23.

Fourie, D.P. (1991). The ecosystemic approach to hypnosis. In S.J. Lynn & J.W. Rhue (Eds.), *Theories of hypnosis. Current models and perspectives* (pp. 467-481). New York: The Guilford Press.

Gorassini, D.R. & Spanos, N.P. (1999). The Carleton Skill Training Program for modifying hypnotic suggestibility: Original version and variations. In I. Kirsch, A. Capafons, E. Cardeña, & S. Amigó (Eds.)*, Clinical Hypnosis and Self-Regulation* (pp. 141-180). Washington, D.C.: American Psychological Association.

Graham, K.R. (1971). Rate of eye closure and hypnotic susceptibility. *Paper presented at the 42 annual meeting of Eastern Psychological Association. New York, April*

Hunsley, J. (1992). Development of the treatment acceptability questionnaire. *Journal of Psychopathology and Behavioral Assessment, 14,* 55-64.

Kihlstrom, J.F. (1996). *Recovered memories and implicit memories.* Paper presented at the Annual Meeting of the Southwestern Psychological Association, Houston, Texas.

Kirsch, I. (1985). Response expectancy as a determinant of experience and behavior. *American Psychologist, 40*, 1189-1202.

Kirsch, I. (1990). *Changing expectations. A key to effective psychotherapy.* Pacific Grove, California: Brooks Cole Publishing Company.

Kirsch, I. (1997). Suggestibility or hypnosis: What do our scales really measure?. *International Journal of Clinical and Experimental Hypnosis, 3*, 212-225.

Kirsch, I., Capafons, A., Cardeña, E., & Amigó, S. (1999). Hypnosis and self-regulation: An introduction. In I. Kirsch, A. Capafons, E. Cardeña, & S. Amigó (Eds.) *Clinical hypnosis and self-regulation: Cognitive-behavioral perspectives.* Washington, D.C.: American Psychological Association.

Kirsch, I., Silva, C.E., Comey, G., & Reed, S. (1995). A spectral analysis of cognitive and personality variables in hypnosis: Empirical disconfirmation of the two-factor models of hypnotic responding. *Journal of Personality and Social Psychology, 69,* 167-175.

Martínez-Tendero, J., Capafons, A., Weber, V., & Cardeña, E. (2001). Rapid Self-Hypnosis: A new self-hypnosis method and its comparison with the Hypnosis Induction Profile. *American Journal of Clinical Hypnosis, 44,* 3-11.

Matthews, W. J., Kirsch, I., & Mosher, D. (1985). Double hypnotic induction: An initial empirical test. *Journal of Abnormal Psychology, 94*, 92-95.

Nash, M.R., & Spinler, D. (1989). Hypnosis and transference: A measure of archaic involvement with the hypnotist. *International Journal of Clinical and Experimental Hypnosis, 37,* 129-144.

Pérez Álvarez, M. (1996). *Tratamientos psicológicos* [Psychological treatments]. Madrid: Universitas.

Pérez Álvarez, M. (1998). La psicología clínica desde un punto de vista contextual [Clinical psychology from a contextual perspective]. *Papeles del Psicólogo, 69*, 25-40.

Pérez Álvarez, M. (1999). Teoría dramatúrgica de la hipnosis [Dramaturgical theory of hypnosis]. *Anales de Psicología, 15,* 27-38.

Perry, C. & Laurence, J.R. (1986). Social and psychological influences on hypnotic behavior. *Behavioral and Brain Sciences, 9,* 478-479.

Reig, I., Capafons, A., Bayot, A., & Bustillo, A. (2001). Suggestion and degree of pleasantness of Rapid Self-Hypnosisand its abbreviated variant. *Australian Journal of Clinical and Experimental Hypnosis, 29,* 152-164

Sachs, L.B. & Anderson. W.L. (1967). Modification of hypnotic susceptibility. *International Journal of Clinical and Experimental Hypnosis, 15,* 172-180.

Sarbin, T.R. & Coe, W. (1972). *Hypnosis: A social psychological analysis of influence communication.* New York: Holt, Rinehart & Winston.

Seligman, M.E.P. (1995). The effectiveness of psychotherapy: The consumer reports study. *American Psychologist, 50*, 965-974.

Spanos, N.P. (1982). A social psychological approach to hypnotic behavior. In G. Weary & H.L. Mirels (Eds.), *Integrations of clinical and social psychology* (pp. 231-271). New York: Oxford University Press.

Spanos, N.P. (1986). Hypnosis and the modification of hypnotic susceptibility. In P. Naish (Ed.), *What is hypnosis?* (pp. 85-110). London: Open University Press.

Spanos, N.P. & Barber, T.X. (1976). Behavior modification and hypnosis. In M. Hersen, R.M. Eisler, & P.M. Miller (Eds.), *Progress in Behavior Modification* (pp. 1-43). New York: Academic Press Inc.

Spiegel, H. & Spiegel, D. (1978*). Trance and treatment: Clinical uses of hypnosis.* New York: Basic Books.

Spirrison, C.L., Noland, K., & Savoie, L. (1992). Factor structure of the treatment evaluation inventory: Implications for measurement of treatment acceptability. *Journal of Psychopathology and Behavioral Assessment, 14*, 65-79.

Wagstaff, G. (1998). The semantics and physiology of hypnosis as an altered state: Towards a definition of hypnosis. *Contemporary Hypnosis, 15,* 149-165.

Weitzenhoffer, A.M. & Hilgard, E.R. (1959). *Stanford Hypnotic Susceptibility Scale. Forms A and B.* Palo Alto, CA: Consulting Psychologists Press.

Wolf, M.M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis, 11,* 203-214.

PLEASANTNESS SCALE
(Experimental Version)

The following statements refer to the technique for which you have used a bicycle (or you had to move your hand). Read each phrase and check the degree to which you agree based on the following scale: Do not agree at all; 2. Agree somewhat; 3. Don't know; 4. Agree somewhat; 5. Completely Agree.
1. This technique makes sense and is coherent.
2. This technique is believable.
3. This technique is easy to understand.
4. This technique has been pleasant.
5. I felt anxious using this technique.
6. I felt embarrassed while practising this technique.
7. This technique has been easy to perform.
8. This technique has been bothersome to perform.
9. I would recommend the use of this technique to my friends and relatives.
10. I think this would be a useful technique to treat problems such as anxiety, depression, smoking, obesity, etc.
11. I think this technique would be helpful for me to cope with my problems.
12. I would like to experience this technique, if I need to.
13. I would be able to perform this technique if I wanted to.
14. If I ever used this technique, I would probably get tired of it very soon and drop out of treatment.
15. This is a technique that requires too much physical effort to be put into practice.
16. Using this technique has been fun and enjoyable.
17. I have no doubts regarding this technique.
18. I have felt hypnotised with this technique.

- PLEASE ANSWER A OR B, DEPENDING ON YOUR OPINION:
A) IF YOU FELT COMFORTABLE IN GENERAL BEING EXPOSED TO THE BIKE (OR HAND) TECHNIQUE, WHAT DO YOU THINK ARE THE REASONS? EXPLAIN BRIEFLY:
B) IF YOU FELT UNCOMFORTABLE IN GENERAL BEING EXPOSED TO THE BIKE (OR HAND) TECHNIQUE, WHAT DO YOU THINK ARE THE REASONS ? EXPLAIN BRIEFLY:

- PLEASE ANSWER THE FOLLOWING QUESTION: WHAT WOULD YOU USE THE BIKE/HAND TECHNIQUE FOR?