RELATION BETWEEN EXPERIENTIAL AVOIDANCE, HALLUCINATION-LIKE EXPERIENCES AND CLINICAL SYMPTOMS, IN A NON-CLINICAL SPANISH SAMPLE

*Álvaro I. LANGER[1], Adolfo J. CANGAS[*1], Pedro J. PÉREZ-MORENO[2],*
José A. CARMONA[1], José GALLEGO[1]

[1]University of Almería, Spain
[2]University of Huelva, Spain

Abstract

This article studies the relevance of several clinical symptoms to the hallucinatory experience, considering the role that experiential avoidance may play in this process. The results show that the predisposition to hallucinations is associated with several clinical symptoms. Specifically, depression is the most relevant factor in the predisposition to auditory hallucinations. The factors that best predict a predisposition to visual hallucinations are obsessive compulsive and phobic anxiety symptoms. A factor common to both types is experiential avoidance. These results are in line with several studies that show that hallucinations are associated with diverse clinical symptoms and studies that suggest experiential avoidance as a diagnostic dimension common to various psychological disorders. The theoretical and clinical importance of the acceptance of internal events and their orientation toward the values and desires of persons that hear voices are discussed.

Keywords*: hallucination-like experiences, clinical symptoms, experiential avoidance, emotions*

Hallucinations are very important symptoms in the diagnosis of certain clinical disorders, such as schizophrenia, but they are also present in other alterations, such as depression, anxiety, obsessive-compulsive disorder, posttraumatic stress disorder, etc. (Birchwood, Iqbal, & Upthegrove, 2005; Kilcommons & Morrison, 2005; Morrison & Wells, 2003; Ohayon, 2000; Palmer, Pankratz, & Botwick, 2005; Tien, 1991). They may also be observed in individuals who do not have any psychological disorders (Barret & Etheridge, 1992; Ohayon, 2000; van Os, Hanssen, Bijl, & Ravelli, 2000) and, in fact, continuity in this type of experiences from the normal population to persons with

---

[*] Correspondence concerning this article should be addressed to:
E-mail: ajcangas@ual.es

diverse psychopathological problems has been suggested (Johns & van Os, 2001; Verdoux & van Os, 2002).

The study of the relationship that certain clinical symptoms could have with the origin and maintenance of hallucinations is particularly relevant. For example, anxiety and obsessive thoughts seem particularly involved in this process (Baker & Morrison, 1998; Morrison, 1998, 2001; Morrison & Wells, 2003; Morrison, Haddock, & Tarrier, 1995). The "Self-Regulatory Executive Function" (S-REF) model also shows that cognitive processes related to heightened self-focused attention, attentional bias, activation of dysfunctional beliefs, ruminative processing and self-regulation strategies that fail to modify maladjusted self-knowledge are fundamental in explaining this phenomenon (Wells & Matthews, 1994).

Furthermore, Krabbendam, Myin-Germeys, Back, and van Os (2005) show that the risk of developing a clinical disorder is higher in subjects who develop delusional ideation than in those who do not. Similarly, the development of depressed moods increases the risk of developing a clinical disorder, suggesting that delusional ideation and depressed moods could arise as secondary responses in the hallucinatory experience during the development of a psychotic disorder. This idea is in line with the suggestion of Maher (1974, 1988) that certain secondary delusions arise in an attempt to explain abnormal perceptive experiences. These data have been corroborated by several authors who suggest that the affective state occurs at the onset of the hallucinatory experience (Delespaul, deVries, & van Os, 2002; Freeman & Garety, 2003; Husting & Hafner, 1990; Serper & Berenbaum, 2008).

It is therefore clear that certain clinical symptoms are very important to understand the origin or maintenance of hallucinations. However, this relationship has not been investigated exhaustively, in the sense that assessment instruments usually used target a particular condition (such as anxiety, depression, etc.), but they are not analyzed together (Allen, Freeman, McGuire, Garety, Kuipers, Fowler, et al., 2005; Paulik, Badcock, & Maybery, 2006).

On the other hand, an element of increasing relevance in the explanation of clinical disorders is experiential avoidance (EA) (Hayes, Wilson, Guifford, Follette, & Strosahl, 1996; Luciano & Hayes, 2001). This phenomenon refers to a person being reluctant to get in contact with certain private events (e.g., thoughts, emotions, bodily manifestations) and trying to change their form and frequency and the contexts that cause them (Hayes, 2004; Hayes, Wilson, Guilford, Follete, & Strosahl, 1996). EA has been related to the presence of several alterations, such as anxiety, mood, and psychotic disorders (for a review, see Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Acceptance and Commitment Therapy (ACT) (Hayes, Strosahl, & Wilson, 1999) is in fact focused on helping the person become less entangled in symptoms and more concentrated on behavior that centers on values that are important in his or her life. Thus, the effort in this type of intervention is not aimed at directly eliminating the symptoms, but modifying their function,

translating them into elements with diminished credibility and increased acceptance, which is particularly relevant in psychotic disorders (Bach & Hayes, 2002; García & Pérez, 2001; Gaudiano & Herbert, 2006; Pankey & Hayes, 2003). Studies using ACT interventions have shown the utility of this type of strategy and the relevance that experiential avoidance can have as an element common to the clinical symptoms related to hallucinations.

In this sense, the goal of the present study was to analyze the relevance of several clinical symptoms to the hallucinatory experience, considering the role that experiential avoidance may play in this process. Our two hypotheses are: 1) experiential avoidance is associated with diverse clinical symptoms and hallucination-like experiences; 2) experiential avoidance is a predictor of these experiences.

Method

Participants

Participants were 265 students at the University of Almería (Spain). The average age was 21.9 years with a standard deviation of 5.95; 62% were women and 38% were men.

Measures

Revised Hallucination Scale (RHS; Morrison, Wells, & Nothard, 2000). This scale was designed based on the *Launay-Slade Hallucination Scale* (Launay & Slade, 1981) to measure predisposition to hallucinations in the normal population. It consists of 13 items with four answer possibilities (1 = *never*, 2 = *sometimes*, 3 = *often*, and 4 = *almost always*). In the original version there were two factors, one related to predisposition to auditory hallucinations and the other, to predisposition to visual hallucinations. The version used in this study was translated into Spanish by Fidalgo, Gutiérrez, García and Cangas (2003).

Symptom Check List (SCL-90-R; Derogatis, 1994). This scale consists of 90 items, which the subject has to rate on a scale ranging from 0 to 4 (0 = *not at all*, 1 = *a little*, 2 = *somewhat*, 3 = *rather a lot*, 4 = *very much*). The questionnaire has nine subscales or dimensions (i.e., somatization, obsession-compulsion, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism) and three overall scores: the Global Severity Index or General Symptomatic Index (GSI), the Positive Symptoms of Distress Index (PSDI) and the Positive Symptoms Total (PST). The Spanish adaptation by González de Rivera et al. (2002), which presents good internal consistency and convergent validity, was used, with results similar to the original English sample (Cronbach's alpha .85).

Experiential Avoidance Scale (AAQ II, Bond & Hayes, 2005). This scale measures experiential avoidance as the unwillingness to get or stay in contact

with internal experience. It consists of 10 items rated on a scale ranging from 1 to 7, where (1 = *never* – 7 = *always true)*. We used the Spanish version, adapted by Langer, Ruiz, Cangas, and Luciano (2009), which presents a one factor structure and adequate psychometric properties, similar to the original, English version of AAQ-II.

Procedure

Questionnaires were administered in groups of 25 students. Participants were previously informed that this was a study of personal psychological experiences, but were not given any details. Participation was voluntary and students did not receive any extra credit for their participation.

Results

Correlation analysis showed statistically significant relations among all the SCL90-R variables and predisposition both to auditory and visual hallucinations. Experiential avoidance was also correlated to both dimensions of predisposition to hallucinations (see Table 1).

Table 1. Score correlations

		RHS		AAQII	SCL90R								
		A	V		S	O	I	D	A	H	Ph	Pa	Psy
RHS	A	-											
	V	.453**-											
AAQII		.234**	.405**-										
SCL90R	S	.236**	.440**	.360**	-								
	O	.229**	.467**	.518**	.697**-								
	I	.174**	.399**	.535**	.620**	.734**-							
	D	.231**	.427**	.557**	.705**	.760**	.816**-						
	A	.196**	.457**	.446**	.788**	.752**	.694**	.762**-					
	H	.225**	.366**	.404**	.646**	.632**	.598**	.657**	.657**-				
	Ph	.158*	.438**	.420**	.657**	.627**	.638**	.622**	.773**	.482**-			
	Pa	.197**	.386**	.465**	.610**	.702**	.757**	.719**	.650**	.659**	.550**-		
	Psy	.234**	.368**	.483**	.665**	.715**	.750**	.766**	.741**	.661**	.644**	.740**-	

RHS score correlations: A = auditory hallucination-like experiences; V = visual hallucination-like experiences; The AAQII and the SCL-90-R: S = Somatization; O = Obsessive–Compulsive; I = Interpersonal sensitivity; D = Depression; A = Anxiety; H = Hostility; Ph = Phobic Anxiety; Pa = Paranoid Ideation; Psy = Psychoticism

* Correlations significant at $p > .05$. ** Correlations significant at $p > .01$.

In order to analyze the relationships between the SCL90-R factors, experiential avoidance, and predisposition to hallucinations more exhaustively, a stepwise multiple regression analysis was performed. As shown in Table 2, predisposition to auditory hallucinations was the dependent variable. The independent variables were the nine dimensions of the SCL90-R and the AAQ-II score.

The multiple R presented a value of .272 and was significant (F (2, 246) = 9.859, p <.0001). The adjusted R^2 had a value of .067, indicating that very little variance was accounted for by the predictor variables. Examination of the *variance inflation factor* (*VIF*) of the individual variables showed that they were acceptably low, so colinearity was not a problem. The regression coefficient and summary statistics for the final model can be seen in Table 2.

Table 2. Multiple regression summary for auditory hallucination-like experiences

Variable	Beta	Partial r	T	Sig.	Tolerance	VIF
Avoidance	.147	.126	1.989	.048	.693	1.443
Somatization	.141	.102	1.611	.109	.489	2.045
Obsession	.085	.055	.865	.388	.389	2.569
Sensitivity	-.072	-.042	-.662	.509	.317	3.152
Depression	.162	.139	2.203	.029	.693	1.443
Anxiety	.018	.012	.188	.851	.412	2.429
Hostility	0.87	.067	1.044	.298	.547	1.828
Phobia	-.015	-.012	-.191	.848	.598	1.671
Paranoia	.009	.006	.098	.922	.464	2.154
Psychoticism	.116	.077	1.211	.227	.408	2.453

Method: Enter

A similar regression analysis was run with predisposition to visual hallucinations as the dependent variable. The independent variables were again experiential avoidance and the nine dimensions of the SCL90-R. The multiple R had a value of .529 and was significant (F (3, 245) = 31.734, p <.0001). The adjusted R^2 had a value of .271, indicating that some variance was accounted for by these predictor variables. Examination of the *variance inflation factor* (*VIF*) of the individual variables again showed that they were acceptably low, and therefore colinearity was not a problem. The regression coefficient and summary statistics for the final model can be seen in Table 3.

Table 3. Multiple regression summary for visual hallucination-like experiences

Variable	Beta	Partial r	T	Sig/p	Tolerance	VIF
Avoidance	.199	.194	3.103	.002	.713	1.402
Somatization	.149	.113	1.771	.078	.409	2.445
Obsession	.216	.181	2.880	.004	.542	1.907
Sensitivity	-.011	-.008	-.120	.904	.375	2.665
Depression	.043	.030	.462	.644	.343	2.917
Anxiety	.116	.073	1.141	.255	.382	3.544
Hostility	.045	.040	.623	.534	.559	1.789
Phobia	.224	.199	3.174	.002	.590	1.694
Paranoia	.046	.037	.575	.566	.462	2.166
Psychoticism	-.061	-.046	-.722	.471	.406	2.461

Method: Enter

Discussion and conclusions

Regarding the first hypothesis, the results of this study show a significant relationship between the predisposition to hallucinations (auditory and visual), the diverse clinical symptoms assessed with the SCL 90-R, and experiential avoidance. These data suggest that auditory and visual hallucination-like experiences are associated with a wide variety of clinical symptoms, such as anxiety, depression, obsessive thoughts, paranoid ideation, social anxiety and somatization, which is in line with the literature showing a relationship between hallucinations and various clinical symptoms (Birchwood et al., 2005; Kilcommons & Morrison, 2005; Morrison & Wells, 2003; Ohayon, 2000; Palmer et al., 2005; Tien, 1991). This is also true in the case of experiential avoidance, as studies have revealed its relationship with the maintenance of various disorders and their associated discomfort (e.g., Hayes et al., 2006; Ruiz, 2010).

Upon more precise analysis of these relationships by means of regression analysis, we observed that the variables that best predict predisposition to auditory hallucinations are depression and experiential avoidance. The direct or indirect influence of depression on hallucinations has been widely documented (Allen et al., 2005; Cangas, Errasti, García, Álvarez, & Ruiz, 2006; Morrison, Wells, & Nothard, 2002; Paulik et al., 2006), suggesting high comorbidity and increased risk of development of a clinical disorder (Krabbendam et al., 2005).

The factors that best predict predisposition to visual hallucinations seem to be obsession-compulsion, phobic anxiety and experiential avoidance. Intrusive thoughts, in fact, have been reiteratively postulated in the origin and maintenance of hallucinations (Baker & Morrison, 1998; Morrison & Wells, 2003; Morrison et al., 1995). Another relevant factor is phobic anxiety. This dimension is related to several social interaction problems, an aspect that seems particularly pertinent to schizophrenia (Rojcewicz & Rojcewicz, 1997). In fact, the comorbidity with

anxiety disorders and specifically, with social anxiety, is frequent in disorders involving hallucinations. (Turnbull & Bebbington, 2001)

As revealed by the regression analysis and with regard to the second hypothesis of this study, experiential avoidance seems to be fundamental to understanding hallucination-like experiences (both auditory and visual). This is consistent with the consideration that hallucinations are a form of experiential avoidance, attributing to an external source certain thoughts that are one's own and thus detaching oneself from their authorship (Bach & Hayes, 2002; García & Pérez, 2001). Some authors have found that metacognitive beliefs, such as negative beliefs about the uncontrollability and danger of thoughts and positive beliefs about worry are predictors of predisposition to visual and auditory hallucinations (Cangas et al., 2006; Morrison et al., 2000; 2002). Considering these data, it is reasonable to suggest that if a person believes that thoughts must be controlled and that not doing so is dangerous, it is not surprising for this individual to attempt to avoid them through various strategies and actions. Such strategies, frequently used when there are undesirable internal events, focus on controlling and eliminating the thoughts, which, paradoxically, can increase the frequency and intensity of precisely what they are meant to eliminate (García-Montes, Pérez-Álvarez, & Fidalgo, 2003; Salkovsky & Campbell, 1994). It may therefore be more relevant to suggest strategies that focus more on accepting rather than on avoiding or eliminating one's thoughts (Veiga-Martínez, Pérez-Álvarez, & García-Montes, 2008).

These results should be taken with precaution as we used a non-clinical sample (results might be different with a clinical sample). Furthermore, in the regression analysis performed on the predisposition to auditory hallucinations, the variance explained by the model is low, which means that other variables are also important in the prediction. Future studies could evaluate whether these results are repeated and whether they are maintained using patients with a history of hallucinations, which could corroborate the results found and clarify the transition between the clinical and non-clinical population.

In any case, this work shows that a greater tendency toward hallucinations is related precisely to a higher score in clinical symptoms. Depression is of particular relevance to predisposition to auditory hallucinations, and obsessions and social anxiety to visual hallucinations. These data suggest the importance of understanding hallucinations in a cognitive-affective model, as emotional factors are closely tied to psychotic symptoms (e.g., Freeman & Garety, 2003). Furthermore, the predisposition to auditory and visual hallucinations are both related to high scores in experiential avoidance, showing the relevance of working with therapies that deal with the acceptance of private events, such as for example, Acceptance and Commitment Therapy (Bach & Hayes, 2002; García & Pérez, 2001; Gaudiano & Herbert, 2006; Pankey & Hayes, 2003) or other models that also promote acceptance and normalizing of hallucinatory experiences, granting them meaning that is coherent with the life history and desires of the

patient (Romme & Escher, 1989; 1996; Romme, Honig, Noorthoorn, & Escher, 1992).

Finally, in order to understand the relation between experiential avoidance, hallucination-like experiences and clinical symptoms, it must be noted that experiential avoidance is not just a part of the clinical symptoms and hallucinations, but instead, both clinical symptoms and hallucinatory experiences (visual and auditory) may be types of experiential avoidance. This is dimensionally present throughout the diverse symptoms and experiences analyzed.

Acknowledgements

REFERENCES

Allen, P., Freeman, D., McGuire, P., Garety, P., Kuipers, E., Fowler, D., et al. (2005). The prediction of hallucinatory predisposition in non-clinical individuals: Examining the contribution of emotion and reasoning. *British Journal of Clinical Psychology, 44,* 127-132.

Bach, P., & Hayes, S. C. (2002). The use of Acceptance and Commitment Therapy to prevent the rehospitalization of psychotic patients: A randomized controlled trail. *Journal of Consulting and Clinical Psychology 70,* 1129-1139.

Baker, C., & Morrison, A. P. (1998). Metacognition, intrusive thoughts and auditory hallucinations. *Psychological Medicine, 28,* 1199-1208.

Barret, T. R., & Etheridge, J. B. (1992). Verbal hallucinations in normals. I: people who hear "voices". *Applied Cognitive Psychology, 6*, 379-387.

Birchwood, M., Iqbal, Z., & Upthegrove, R. (2005). Psychological pathways to depression in schizophrenia-studies in acute psychosis, post psychotic depression and auditory hallucinations. *European Archives of Psychiatry and Clinical Neuroscience, 255*, 202-212.

Bond, F. W., & Hayes, S. C. (2005). *Here is the AAQ-2!* Paper presented at the II ACT Summer Institute, Philadelphia, USA.

Cangas, A. J., Errasti, J. M., García-Montes, J. M., Pérez-Álvarez, M., & Ruiz, R. (2006): Metacognitive factors and alterations of attention related to predisposition to hallucinations. *Personality and Individual Differences, 40,* 487-496.

Delespaul, P., deVries, M., & van Os, J. (2002). Determinants of occurrence and recovery from hallucinations in daily life. *Social Psychiatry and Psychiatry Epidemiology, 37*, 97-104.

Derogatis, L. R. (1994). *Symptom checklist-90-R (SCL-90-R): Administration, scoring and procedures manual.* Minneapolis, MN: National Computer Systems.

Fidalgo, A., Gutiérrez, O., García, J. M., & Cangas, A. J. (2003). Escala de predisposición a las alucinaciones: Estructura factorial de la adaptación para la población española [Predisposition to hallucinations scale: Factorial structure of the Spanish adaptation]. In A. J. Cangas & J. Gil (Eds.). *Avances en la Etiología y Tratamiento de los Trastornos del Espectro Esquizofrénico*. Granada: Ediciones Némesis.

Freeman, D., & Garety, P. A. (2003). Connecting neurosis and psychosis: The direct influence of emotion and delusions and hallucinations. *Behaviour Research and Therapy, 41,* 923-947.

García-Montes, J. M., & Pérez, M. (2001). ACT como tratamiento de síntomas psicóticos. El caso de las alucinaciones auditivas [ACT as treatment for psychotic symptoms. The case of auditory hallucinations]. *Análisis y Modificación de Conducta 27,* 455- 472.

García-Montes, J. M., Pérez-Álvarez, M., & Fidalgo, A. (2003). Influence of the suppression of self-discrepant thoughts on the vividness of perception of auditory illusions. *Behavioural and Cognitive Psychotherapy, 31,* 33-44.

Gaudiano, B. A., & Herbert, J. D. (2006). Acute treatment of inpatients with psychotic symptoms using Acceptance and Commitment Therapy: Pilot results. *Behaviour Research and Therapy*, *44,* 415-437.

González de Rivera, J. L., de la Cueva, C., Rodríguez, M., & Rodríguez, P. (2002). *Cuestionario de 90 síntomas (SCL90-R): Manual de aplicación [Checklist-90-R (SCL-90-R): Procedures manual]*. Madrid: Ediciones TEA.

Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior Therapy 35,* 639-665.

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy. An experiential approach to behavior change.* New York: Guilford.

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and Commitment Therapy: Model processes and outcomes. *Behaviour Research and Therapy*, *44,* 1-25.

Hayes, S. C., Wilson, K. G., Guilford, E. V., Follete, V. M., & Strosahl, K. D. (1996). Experiential avoidance and behavioural disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64,* 1152-1168.

Husting, H. H., & Hafner, R. J. (1990). Persistent auditory hallucinations and their relationship to delusions and mood. *Journal of Nervous and Mental Disease, 178*, 264-267.

Johns, L. C., & van Os, J. (2001). The continuity of psychotic experiences in the general population. *Clinical Psychology Review, 21*, 1125-1141.

Kilcommons, A., & Morrison, A. P. (2005). Relationships between trauma and psychosis: An exploration of cognitive and dissociative factors. *Acta Psychiatrica Scandinavica, 112,* 351-359.

Krabbendam, L., Myin-Germeys, I, Bak, M., & van Os, J. (2005). Explaining transitions over the hypothesized psychosis continuum. *Australian and New Zealand Journal of Psychiatry, 39,* 180-186.

Launay, G., & Slade, P. D. (1981). The measurement of hallucinatory predisposition in male and female prisoners. *Personality and Individual Differences, 2*, 221-234.

Luciano, M. C., & Hayes, S. C. (2001). Trastorno de evitación experiencial [Experiential avoidance disorder]. *Revista Internacional de Psicología Clínica y de la Salud,1*, 109-157.

Langer, A. I., Ruiz, F. J., Cangas A. J., & Luciano, C. (2009). Spanish adaptation of Acceptance and Action Questionnaire – II: factor structure and psychometric

properties. Poster presented at *The Third World Conference on ACT, RFT and Contextual Behavioural Science,* Enschede, Netherlands.

Maher, B. A. (1974). Delusional thinking and perceptual disorder. *Journal of Individual Psychology, 30*, 98-113.

Maher, B. A. (1988). Anomalous experience and delusional thinking: the logic of explanations. In T. F. Oltmanns & B. A. Maher (Eds.). *Delusional Beliefs.* New York: Wiley.

Morrison, A. P. (1998). A cognitive analysis of auditory hallucinations: are voices to schizophrenia what bodily sensations are to panic? *Behavioural and Cognitive Psychotherapy, 26*, 289-302.

Morrison, A. P. (2001). The interpretation of intrusions in psychosis: An integrative cognitive approach to hallucinations and delusions. *Behavioural and Cognitive Psychotherapy, 29,* 257-276.

Morrison, A. P., & Wells, A. (2003). A comparison of metacognitions in patients with hallucinations, delusions, panic disorder and non-patient controls. *Behaviour Research and Therapy, 41*, 251-256.

Morrison, A. P., Haddock, G., & Tarrier, N. (1995). Intrusive thoughts and auditory hallucinations: a cognitive approach. *Behavioural and Cognitive Psychotherapy, 23*, 265-280.

Morrison, A. P., Wells, A., & Nothard, S. (2000). Cognitive factors in predisposition to auditory and visual hallucinations. *British Journal of Clinical Psychology, 39,* 67-78.

Morrison, A. P., Wells, A., & Nothard, S. (2002). Cognitive and emotional predictors of predisposition to hallucinations in non-patients. *British Journal of Clinical Psychology, 41*, 259-270.

Ohayon, M. M. (2000). Prevalence of hallucinations and their pathological associations in the general population. *Psychiatry Research, 97*, 153-164.

Palmer, B. A., Pankratz, V. S., & Botwick, J. M. (2005). The lifetime risk of suicide in schizophrenia – A reexamination. *Archives of General Psychiatry, 62*, 247-253.

Pankey, J., & Hayes, S. C. (2003). Acceptance and Commitment Therapy for psychosis. *International Journal of Psychology and Psychological Therapy, 3*, 311-328.

Paulik, G., Badcock J. C., & Maybery, M. T. (2006). The multifactorial structure of the predisposition to hallucinate and associations with anxiety, depression and stress. *Personality and Individual Differences, 41,* 1067-1076.

Rojcewicz, S. & Rojcewicz, R. (1997). The "human" voices in hallucinations. *Journal of Phenomenological Psychology, 28*, 1-41.

Romme, M. A., & Escher, S. (1989). Hearing voices. *Schizophrenia Bulletin, 15*, 109-216.

Romme, M. A., & Escher, S. (1996). Empowering people who hear voices. In G. Haddock & P. D. Slade (Eds.), *Cognitive-Behavioural interventions with psychotic disorders*. London: Routledge.

Romme, M. A., Honig, A., Noorthoorn, E. O., & Escher, S. (1992). Coping with hearing voices: An emancipatory approach. *British Journal of Psychiatry, 161*, 99-103.

Ruiz, F. J. (2010). A review of Acceptance and Commitment Therapy (ACT) empirical evidence: Correlational, experimental psychopathology, component and outcome studies. *International Journal of Psychology and Psychological Therapy, 10*, 125-162.

Salkoviskis, P. M., & Campbell, P. (1994). Thought suppression induces intrusion in naturally occurring negative intrusive thoughts. *Behaviour Research and Therapy, 32,* 1-8.

Serper, M., & Berenbaum, H. (2008). The relation between emotional awareness and hallucinations and delusions in acute psychiatric inpatients. *Schizophrenia Research 101,* 195-200.

Tien, A. (1991). Distributions of hallucinations in the population. *Social Psychiatry and Psychiatric Epidemiology, 26*, 287-292.

Turnbull, G., & Bebbington, P. (2001). Anxiety and the schizophrenic process: Clinical and epidemiological evidence *Social Psychiatry and Psychiatry Epidemiology, 36*, 235-243.

van Os, J., Hanssen, M., Bijl, R. V., & Ravelli, A. (2000). Strauss (1969) revisited: A psychosis continuum in the general population? *Schizophrenia Research, 45,* 11-20.

Veiga-Martínez, Pérez-Álvarez, M., & García-Montes, J. M. (2008). Acceptance and Commitment Therapy applied to treatment of auditory hallucinations. *Clinical Case Studies, 7,* 118-136.

Verdoux, H., & van Os, J. (2002). Psychotic symptoms in non-clinical populations and the continuum of psychosis. *Schizophrenia Research, 54*, 59-65.

Wells, A., & Matthews, G. (1994). *Attention and Emotion*: A clinical perspective. Hillsdale: Erlbaum.