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SHORT REPORTS

Hypnotic Susceptibility in Patients With Conversion Disorder

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Conversion disorder has been associated with hypnotic susceptibility for over a century and is currently still believed to be a form of autohypnosis. There is, however, little empirical evidence for the relation between hypnotic susceptibility and conversion symptoms. The authors compared 50 patients with conversion disorder with 50 matched control patients with an affective disorder on measures of hypnotic susceptibility, cognitive dissociation, and somatoform dissociation. Conversion patients were significantly more responsive to hypnotic suggestions than control patients. In addition, conversion patients showed a significant correlation between hypnotic susceptibility and the number of conversion complaints. These results provide the first evidence of a relationship between hypnotic susceptibility and the presence and number of conversion symptoms.

The association between conversion disorder and hypnosis has a long tradition, dating from Janet's introduction of the concept of autohypnosis (Janet, 1907). Conversion disorder is characterized by a dissociation of lower level implicit information processes from higher level explicit information processes (Kihlstrom, 1992a). When, for example, a patient with conversion blindness walks through a room, he or she is not likely to run into the furniture, even though no visual awareness of the environment is reported (Kihlstrom, 1992b). This apparent contradiction can be explained as follows: Although explicit, conscious visual information processing fails, the visual stimuli are still being processed on a lower, implicit level. Janet (as cited in Putnam, 1989) regarded such clinical dissociation of higher and lower level information processes as a form of hypnosis. He considered autohypnosis to be an adaptive reaction to overwhelming stress and argued that such a reaction in the case of dissociative disorders results in dissociative symptoms affecting explicit memory functions (*cognitive dissociation*). In the case of conversion disorder, it results in dissociative symptoms affecting the explicit sensory and motor functions (*somatoform dissociation*). In line with Janet, contemporary authors such as Bliss (1984), Hilgard (1977), Kihlstrom (1992a), Nehmia (1991), Oakley (1999), and Schacter and Kihlstrom (1989) have also argued that conversion symptoms may result from spontaneous self-hypnosis involving a dissociation of sensory or motor function in reaction to traumatic events or prolonged exposure to stressful situations.

The autohypnosis theory of conversion disorder involves two major assumptions. The first assumption is that patients with conversion disorder are highly susceptible to hypnosis. There are, however, only a few empirical studies available that address the hypnotic susceptibility in patients with conversion symptoms. Kuyk, Spinhoven, and van Dyck (1999) found increased levels of hypnotic susceptibility in 20 patients with pseudoepileptic seizures (a subtype of conversion disorder) as compared with 17 patients with real epileptic seizures. Bliss (1984) found high hypnotic susceptibility in 18 patients with conversion symptoms. The latter study, however, had several methodological shortcomings. Bliss, for example, had only tested 18 of 60 patients because of the fact that only in these cases a test psychologist had been available. Especially because the hypnotic susceptibility of the patients had previously been estimated clinically, this procedure is at high risk for inclusion bias. Finally, an uncontrolled study by Moene, Spinhoven, Hoogduin, Sandijck, and Roelofs (in press) showed 96 conversion patients to display medium hypnotic susceptibility. In sum, there are no systematically controlled studies on the hypnotic susceptibility in patients with conversion disorder other than the study by Kuyk et al., which concerned patients with pseudoepileptic seizures only.

The second assumption of autohypnosis theory states that hypnotic susceptibility is related to the dissociative symptomatology. Spitzer, Spelsberg, Grabe, Mundt, and Freyberger (1999) found patients with conversion disorder to report more dissociative experiences on the Dissociative Experiences Scale (Bernstein & Putnam, 1986) than psychiatric patients with other neurotic disorders. No data on the relationship between hypnotic susceptibility and somatoform dissociative phenomenology are available for patients with conversion disorder.

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Lacking clear empirical support, autohypnosis theory of conversion disorder is mainly based on phenomenological analogues between clinical dissociation and hypnosis. An argument frequently put forward in favor of autohypnosis theory is that the phenomena observed in conversion disorder (e.g., motor paralysis, sensory and auditory hallucinations or analgesia) can also be induced in highly suggestible persons using hypnotic techniques (see Hilgard, 1977, and Oakley, 1999). Also, analogues in involved brain structures have been found for hypnosis and conversion disorder. Two brain-mapping case studies showed similar inhibitory frontal brain structures to be involved in hypnotic paralysis (Halligan, Athwal, Oakley, & Frackowiak, 2000) and conversion paralysis (Marshall, Halligan, Fink, Wade, & Frackowiak, 1997). In sum, although similarities have been observed in phenomenology and in involved brain structures between conversion disorder and hypnosis, there is still little empirical evidence supporting autohypnosis theory of conversion disorder.

The purpose of the present study was to test whether patients with conversion disorder would respond more to hypnotic suggestions for changes in perception, motor function, and memory than would a control group of patients displaying a similar level of general psychopathology not typically featured by dissociative symptomatology, in this study patients with affective disorders. The second aim of the study was to test whether a relationship exists between hypnotic susceptibility and conversion symptomatology. On the basis of the observed similarities in phenomenology and involved brain structures between conversion disorder and hypnosis, we expected patients with conversion disorder to show increased levels of hypnotic susceptibility compared with control patients. We also expected hypnotic susceptibility to be significantly related to the severity of symptoms in patients with conversion disorder.

Method

Patients

A total of 58 patients diagnosed with conversion disorder were studied between 1997 and 2000. The patients had been referred for either in- or outpatient treatment to a general psychiatric hospital specializing in the treatment of conversion disorders. A psychiatrist performed the psychiatric screening using the criteria of the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM–IV;* American Psychiatric Association, 1994). A trained psychologist checked for other Axis I diagnoses using the Structured Clinical Interview for *DSM–IV* Axis I Disorders (SCID–I; First, Spitzer, Gibbon, & Williams, 1996) and the Structured Clinical Interview for *DSM–IV* Dissociative Disorders (SCID–D; Steinberg, 1993). Axis II disorders were assessed by means of the Structured Clinical Interview for *DSM–IV* Axis II Personality Disorders (SCID–II; First, Gibbon, Spitzer, Williams, & Benjamin, 1996). A neurologist was responsible for the somatic screening, which was performed on all patients. When necessary, additional diagnostic techniques, such as serial computed tomography (CT) brain scans or magnetic resonance imaging (MRI), were applied. Whenever the somatic screening revealed any deviations, the patients were not diagnosed as suffering from conversion disorder and were excluded from the study.

Of the 58 conversion patients originally approached for participation in the present study, 4 patients were unwilling to undergo hypnosis for religious reasons and refused to take part in the study. One patient was excluded because of illness, and 3 dropped out because of logistic reasons. A total of 42 women and 8 men with conversion disorder were studied; their mean age was 37.2 (SD = 11.9 years). The incidence of motor conversion symptoms across patients was as follows: Paralyses or pareses (n = 34), coordination disorders (n = 24), tremors (n = 15), contractures (n = 12), bizarre movements (n = 12), speech disorders (aphonia and dysphonia; n = 12), and eye muscle disorder (n = 4). As regards sensory symptoms, 19 of the patients had pain symptoms, 8 had disturbed feeling and 7 had a visual disorder. Pseudoepileptic seizures were observed in 15 patients. Note that the patients could be exhibiting more than one symptom. The mean period of sustained conversion complaints was 62 months (SD = 85).

The control group consisted of 50 patients with one or more affective disorders. They had also applied for in- or outpatient treatment at either the above-mentioned hospital or an outpatient clinic specializing in the treatment of anxiety disorders. A psychiatrist made the diagnosis during the intake. For this purpose, the Munich Diagnostic Checklists for *DSM–III–R* and *ICD–10* (Hiller, Zaudig, & Mombour, 1990) for mood and anxiety disorders were translated and adapted to the *DSM–IV*. The patients were matched to the sample of conversion patients on age and gender. A total of 41 women and 9 men were included in the control group; their mean age was 36.4 (SD = 11.1 years). Twenty-five patients were diagnosed as suffering from a major depression, of which 3 were also afflicted by a panic disorder, 2 by a dysthymic disorder, 1 by a social phobia, and 1 by an eating disorder. Seven patients were exclusively affected by a panic disorder, 6 had social phobia, 4 had generalized anxiety disorder, 4 had dysthymic disorder, and 3 had an adjustment disorder with mixed depression and anxiety. One patient had both a social phobia and a panic disorder.

Materials

Hypnotic susceptibility was measured with the Dutch version of the Stanford Hypnotic Susceptibility Scale: Form C (SHSS–C; Weitzenhoffer & Hilgard, 1962), with the induction procedure taken from the Stanford Hypnotic Susceptibility Scale: Form A (SHSS–A; Weitzenhoffer & Hilgard, 1959). This 12-item test is administered to each patient individually. Three of the 12 items measure the participant's responses to suggestions for changes in cognitive functioning, and the other 9 items measure changes in perception and ideomotor functioning. The SHSS–C scores can range from 0 to 12. The test–retest reliability of the scale is adequate, and the internal consistency is good (Hilgard, 1965).

Self-reports of cognitive dissociative experiences were assessed using the Dutch version (Ensink & van Otterloo, 1989) of the Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986) and the Dissociation Questionnaire (DIS–Q; Vanderlinden, van Dyck, Vertommen, & Vandereycken, 1992). The DES is a 28-item self-report questionnaire that requires participants to indicate on a scale ranging from 0 to 100 to what extent presented statements of dissociative experiences apply to them. The statements include experiences such as having done something without knowing when and how or finding oneself at a place without being able to recollect how one got there. Total scores are calculated by averaging the scores of the 28 items. This widely used screening instrument for dissociative symptoms in clinical samples was found to have good reliability and clinical validity (Ensink & van Otterloo, 1989; Frischholz et al., 1990). The DIS–Q is a 63-item self-report questionnaire addressing identity confusion, loss of control, psychogenic amnesia, and absorption. Patients indicate on a 5-point scale whether presented descriptions of dissociative experiences apply. The total score is derived by dividing the sum total of all item scores by 63. This instrument was also found to have good validity, internal consistency, and test–retest reliability (Vanderlinden et al., 1992).

Self-reports of somatoform dissociative phenomena were measured using the 20-item Somatoform Dissociation Questionnaire (SDQ–20; Nijenhuis, Spinhoven, van Dyck, van der Hart, & Vanderlinden, 1996). Five-point scales are used to indicate to what degree presented statements apply. Statements include "It sometimes happens that I feel pain while urinating" and "It sometimes happens that I grow stiff for a while." The total score

ranges from 20 to 100. The reliability of the scale is high, and the construct validity is good (Nijenhuis et al., 1996). Furthermore, the number of pseudoneurological symptoms, with a maximum of 13, were assessed in conversion patients by the SCID–I (First, Spitzer, et al., 1996). Items are: impaired coordination or balance, paralysis or localized weakness, difficulty swallowing, aphonia, urinary retention, loss of touch or pain sensation, double vision, hallucinations, blindness, deafness, seizures, amnesia, and loss of consciousness (not fainting). General level of psychopathology was assessed by the Dutch version (Arrindell & Ettema, 1986) of the Symptom Checklist (SCL–90–R; Derogatis, 1983).

Procedure

After intake, one of two trained psychologists administered the SCID–I, the SCID–II, and the SCID–D within, maximally, 3 days. In the subsequent week, a test psychologist administered the SCL–90, DES, DIS–Q, and SDQ–20 as part of a standard intake test protocol. Within the course of the next 2 weeks, one of four trained psychologists, none of them involved in the initial assessments and all unaware of the research questions and the clinical status of the patients, administered the SHSS–C. The SHSS–C was administered in a different room to further ensure independence of assessments. Before administration of the SHSS–C, hypnosis was explained to the participant as a relaxed state in which people are, more than usually, willing to respond to suggestions. Possible misconceptions about hypnosis also were discussed.

The assessments took place before the start of treatment and were completed within 4 weeks. The study was explained to the patients as an exploratory investigation into psychological and personality factors associated with unexplained medical symptoms. All of the patients gave their informed consent before their participation.

Results

Nonspecific Group Characteristics

Groups did not differ with respect to age, $F(1, 99) = 0.12$, $p = .73$; sex, $\chi^2(1, N = 100) = 0.07$, $p = 1.0$; and level of education, $F(1, 99) = 2.23$, $p = .14$. The general level of psychopathology, as measured by the total score of the SCL–90, was also equally high for patients with a conversion disorder ($M = 201$, $SD = 69$) and patients with an affective disorder ($M = 204$, $SD = 60$), $F(1, 99) = 0.06$, $p = .80$.

Differential Diagnoses

As far as *DSM–IV* Axis I comorbidity is concerned, of the 50 conversion patients, 17 patients showed no other Axis I disorders (SCID–I, SCID–D). In the remaining 33 patients, the following Axis I disorders were observed: mood disorder (19), panic disorder or agoraphobia (16), dissociative disorder (13), posttraumatic stress disorder (12), social or specific phobia (9), generalized anxiety disorder (2), bulimia nervosa (1), and obsessive–compulsive disorder (1). Note that 13 (26%) of the 50 conversion patients met the criteria for an additional dissociative disorder: a depersonalization disorder (3) or a dissociative disorder not otherwise specified (10). With regard to Axis II diagnoses (SCID–II), 31 patients did not suffer from any personality disorder. In the remaining 19 patients, we observed the following types of personality disorder: avoidant (8), obsessive–compulsive (6), borderline (3), paranoid (2), antisocial (1), and dependent (1). Note that on both Axis I and Axis II, patients could meet the criteria for more than one disorder.

Group Differences in Hypnotic Susceptibility and Dissociative Symptoms

The mean group scores on the SHSS–C, SDQ–20, DES, and DIS–Q are presented in Table 1. An analysis of variance (ANOVA) on the SHSS–C scores with group as a between-subjects factor showed that conversion patients scored significantly higher on hypnotic susceptibility than control patients, $F(1, 99) = 9.1$, $p < .01$. To check whether this group difference was not just due to a repression of hypnotic susceptibility, possibly associated with the depressive psychopathology in the control group, we also compared the SHSS–C scores of control patients with ($n = 29$) and without ($n = 21$) a mood disorder. The results showed that the mean scores of control patients with (3.8) and without (4.1) a mood disorder did not differ with respect to the SHSS–C scores, $F(1, 48) = 0.16$, $p = .69$. In addition, as a post hoc check, the average SHSS–C scores of the conversion patients were compared with those of a matched control group of nonpsychiatric adults. From a group of healthy adults who had been tested as part of a Dutch SHSS–C normative study (Näring & Hoogduin, 2001) that was being conducted at the time, we selected 30 healthy adults, matched to the conversion group with respect to mean age (41.7 years, $SD = 11.81$), $F(1, 79) = 2.7$, $p = .11$; sex (11 men, 19 women), $\chi^2(1, N = 80) = 4.4$, $p = .06$; and mean level of education (3.0, $SD = 0.26$), $F(1, 79) = 3.2$, $p = .08$. The results showed conversion patients to score significantly higher on the SHSS–C than nonpsychiatric adults ($M = 3.4$, $SD = 0.57$), $F(1, 79) = 10.1$, $p < .01$. On the basis of these findings, we concluded that the hypnotic susceptibility scores of patients with conversion disorder were significantly inflated.

The SHSS–C scores of conversion patients sorted by symptom type and the presence of DSM–IV Axis I comorbidity are presented in Table 2. No significant subgroups could be identified. For all group differences tested by means of ANOVA, ps $> .10$.

To assess differences in the self-reports of dissociative phenomena, a multivariate analysis of variance (MANOVA) was conducted with group as the independent variable and the SDQ–20, DIS–Q, and DES total scores as dependent variables. Conversion patients reported significantly more dissociative phenomena than

Table 1
Mean Scores for Control Patients and Conversion Patients on Measures of Hypnotic Susceptibility and Dissociative Experiences

	Control patients ($n = 50$)		Conversion patients ($n = 50$)		
Measure	*M*	*SD*	*M*	*SD*	Effect size
SHSS–C*	3.9	2.6	5.6	3.1	0.6
SDQ–20*	23.0	3.8	30.5	8.5	1.2
DES	9.1	7.9	11.7	11.0	0.3
DIS–Q	1.8	0.5	1.8	0.7	0.0

Note. Effect size is Cohen's *d* (difference scores divided by pooled *SD*s). SHSS–C = Stanford Hypnotic Susceptibility Scale: Form C; SDQ–20 = 20-item Somatoform Dissociation Questionnaire; DES = Dissociative Experiences Scale; DIS–Q = Dissociation Questionnaire.
* Groups differ significantly from each other ($p < .01$).

Table 2
Mean SHSS–C Scores for 50 Conversion Patients Classified by Symptom Type and DSM–IV Axis-I Comorbidity

Variable	*n*	SHSS–C score *M*	SHSS–C score *SD*
Symptom			
Motor	28	6.3	0.6
Sensory	3	5.3	1.8
Seizures	4	4.8	1.5
Mixed	15	4.8	0.8
Axis-I comorbidity			
Present	31	5.4	0.5
Absent	17	6.0	0.7
Dissociative disorder	13	6.1	0.8
No dissociative disorder	27	5.5	0.5

Note. SHSS–C = Stanford Hypnotic Susceptibility Scale: Form C.

did control patients, $F(3, 97) = 14.6$, $p < .001$. Post hoc univariate F tests showed a significant group difference for the SDQ–20, $F(1, 99) = 32.8$, $p < .0001$, whereas no significant group differences were found for the DES, $F(1, 99) = 1.8$, $p = .18$, and the DIS–Q, $F(1, 99) = 0.1$, $p = .70$. These findings show conversion patients and control patients to differ in self-reported somatoform dissociative phenomena but not in self-reported cognitive dissociative phenomena. The mean DES and DIS–Q scores only differentiated significantly between conversion patients with an additional dissociative disorder (DES mean = 19.1; DIS–Q mean = 2.4) and conversion patients who had no additional dissociative disorder (DES mean = 8.8; DIS–Q mean = 1.6), DES $F(1, 49) = 10.6$, $p < .01$; DIS–Q $F(1, 49) = 16.4$, $p < .001$.

Hypnotic Susceptibility and Symptom Severity

The number of pseudoneurological symptoms (SCID–I) was significantly correlated to the SHSS–C scores in patients with conversion disorder ($r = .31$, $p < .05$), indicating that an increase in the number of symptoms was associated with increased hypnotic susceptibility. The SDQ–20 scores were significantly correlated to the number of pseudoneurological symptoms ($r = .39$, $p < .01$), but the correlation between the SDQ–20 scores and the SHSS–C scores ($r = .03$, $p = .84$) was not significant. The correlation between self-reports of cognitive dissociative experiences (DES; DIS–Q) on the one hand and hypnotic susceptibility on the other hand were also not significant for patients with conversion disorder ($r = .05$, $p = .75$; $r = .10$, $p = .50$, respectively).

Discussion

The aims of the present study were to investigate whether patients with a conversion disorder would show increased levels of hypnotic susceptibility compared with patients with an affective disorder and whether a relation exists between hypnotic susceptibility and the severity of conversion symptoms. Because of the many similarities in phenomenology and involved brain structures between hypnosis and conversion disorder, we expected patients with conversion disorder to show increased levels of hypnotic susceptibility and for the hypnotic susceptibility to be related to the severity of somatoform dissociative symptoms. These hypotheses were confirmed by the present study.

The results indeed showed patients with a conversion disorder to be more susceptible to hypnotic suggestions than control patients with an affective disorder who scored comparably to the Dutch norm for healthy participants ($M = 4.2$, $SD = 2.6$; Näring, Roelofs, & Hoogduin, 2001). Additional analyses showed this difference not to be due to a repression of hypnotic susceptibility, possibly associated with depressed psychopathology in the psychiatric control group. Furthermore, the patients with conversion symptoms also scored significantly higher on the SHSS–C when compared with an additional control group of 30 nonpsychiatric adults. The mean SHSS–C score for our conversion sample (5.6) still fell, but only just within the range of medium (3–6) hypnotic susceptibility (Näring et al., 2001). Consequently, although the conversion patients showed increased susceptibility to hypnotic suggestions compared with patients with an affective disorder, they did not show the high degree of hypnotic susceptibility that was suggested by Bliss (1984).

As was to be expected, conversion patients scored significantly higher on the SDQ–20 than did control patients. In agreement with Spitzer et al. (1999), we found conversion patients to also report higher levels of cognitive dissociative experiences. In our sample, however, this only held for those conversion patients who also met the criteria for an additional dissociative disorder. This finding indicates that increased numbers of self-reported cognitive dissociative experiences are not typical for patients with *DSM–IV* conversion disorder but rather for patients with *DSM–IV* dissociative disorders.

The second aim of the present study was to investigate whether there is a relation between hypnotic susceptibility and symptom severity in patients with a conversion disorder. Hypnotic susceptibility was significantly correlated with the number of pseudoneurological symptoms, as assessed by the SCID–I. These results indicate that patients who are more susceptible to hypnotic suggestions display more conversion symptoms. The SHSS–C scores were not significantly correlated to the SDQ–20 scores. These findings are interesting because the number of pseudoneurological symptoms is a specific measure of the severity of conversion symptomatology, whereas the SDQ–20 is not. The SDQ–20 also includes symptoms of pain, derealization, and depersonalization and therefore merely measures the severity of somatization and somatoform dissociative symptoms in general. The findings may suggest that in patients with conversion disorder, the role of hypnotic susceptibility is more pronounced for pseudoneurological symptoms than for somatization in general. Our findings, however, are preliminary and need to be replicated, preferably in both patients with conversion disorder and patients with somatization disorder, before any tenable conclusions can be drawn. It should also be noted that other measures of symptom severity, such as severity ratings of disability, may yield different results.

The observed relationship between hypnotic susceptibility and conversion symptoms is in line with the similarities observed in brain structures involved in conversion paralysis (Marshall et al., 1997) and hypnotic paralysis (Halligan et al., 2000). It is also in agreement with the findings of two motor imagery studies showing similar reaction time profiles for the mental movements of the paralyzed arms of conversion patients (Roelofs et al., 2001) and the mental movements of healthy participants with hypnotically

induced paralysis of the arms (Roelofs, Hoogduin, & Keijsers, 2002). In both conversion paralysis and hypnotic paralysis, the findings suggested motor processing to be impaired on a high cognitive level of motor control. These studies, with the present study, fit in with Janet's autohypnosis theory and with more current views on the relation between conversion symptoms and hypnosis. Oakley (1999) proposed a unifying model of conversion disorder and hypnosis based on the current knowledge of implicit and explicit information processing, especially with respect to the role of attention. He refined Janet's (1907) autohypnosis model and described hypnosis as a means to influence the higher level cortical control over lower level automatic processes. According to Oakley, hypnosis as well as conversion disorder involves the inhibition of motor and sensory functioning on a high cognitive level of information processing. In hypnosis, this inhibition is suggested to be the result of heterosuggestions, and in conversion disorder, it results from autosuggestions.

The findings of the present study, however, do not prove that hypnosis is the mediating or underlying mechanism in the development of conversion disorder. Although the similarities between hypnotic and conversion phenomena are striking, they also show clear differences. Typical for hypnosis is the participant's ability to end a positive or negative phenomenon at any time and the fact that the phenomena are voluntarily evoked in a controlled experimental environment (see Oakley, 1999). Both features are quite different from an involuntary onset of symptoms in chaotic, emotional circumstances, as is often reported for conversion symptoms.

The observed relation between hypnotic susceptibility and the number of conversion symptoms merely suggests that high hypnotic susceptibility may be a risk factor for the development of conversion symptoms. Hypnotic susceptibility is regarded as a stable trait (Morgan, Johnson, & Hilgard, 1974) with a normal distribution (Hilgard, 1978). However, what the exact nature of the relation between hypnotic susceptibility and the onset of conversion symptoms is remains to be explained. On the one hand, the elevated hypnotic susceptibility and its relation with symptom severity may suggest that hypnotic susceptibility functions as a facilitating factor for the onset or persistence of conversion symptoms due to a trancelike state under severely stressing circumstances, as was suggested by Janet (1907). On the other hand, a nonhypnotic explanation for the relation between hypnotic susceptibility and conversion symptoms is also possible. Woody, Drugovic, and Oakman (1997), for example, observed that hypnotically induced alterations in perception and motor functioning in healthy participants were correlated to nonhypnotically induced alterations in experience. Accordingly, it is plausible that patients with conversion symptomatology are more susceptible not only to hypnotic suggestions but also to nonhypnotic suggestions. Such suggestions need not be direct but may also be created by more indirect, contextual influences (see Kirsch & Lynn, 1998). They may, in the case of conversion disorder, for example, be elicited by the observation of similar bodily deficits in the environment (role model), specialists (iatrogenic suggestions), or previously experienced somatic diseases or injuries (perceived weak somatic spot). The possible role of such nonhypnotic suggestions from the environment or personal experiences and the way they may interact with personality factors like hypnotic susceptibility, waking suggestibility, or fantasy proneness still need to be clarified for patients with conversion disorder. A consequence of the latter nonhypnotic interpretation is that in contrast to Janet's (1907) hypnotic state hypothesis, here the explanation of a link between hypnotic susceptibility and conversion symptoms does not rely on poorly defined concepts of trance or hypnotic state.

A limitation of the present study is that we cannot rule out the possibility that contextual effects have influenced the relation between hypnotic susceptibility and conversion symptoms. Although we took care and maximalized the independence of assessment of hypnotic susceptibility and symptom severity, patients with conversion disorder may display more social compliance and may be more sensitive to demand characteristics of the study than are control patients. In future studies, it is therefore recommended to control for these factors and to assess not only objective but also subjective responses to hypnotic suggestions.

Finally, a remark should be made on the therapeutic implication of the present findings. The fact that patients with conversion disorder were relatively susceptible to hypnotic suggestions for changes in perception and motor functioning may imply that the use of hypnotic suggestions is useful in the reversal of conversion symptoms. This technique looks promising, as is shown by the study of Moene, Hoogduin, and van Dyck (1998), who have successfully applied the method in 8 patients with motor conversion symptoms.

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