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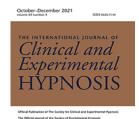
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## **Dispositional Self-Consciousness and Hypnotizability**

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#### **ABSTRACT**

The abeyance of self-consciousness (SC) during hypnosis has been discussed as a central aspect of hypnosis, yet dispositional SC has been very rarely evaluated as a correlate of hypnotizability. In this study (N = 328), the authors administered the Harvard Group Scale of Hypnotic Susceptibility (HGSHS), the Inventory Scale of Hypnotic Depth (ISHD), and the Self-Consciousness Scale-Revised (SCS-R). Women tended to score higher than men on the HGSHS, besides experiencing greater ISHD automaticity. The Discontinuity (with everyday experiences) subscale of the ISHD correlated with the Public Self-Consciousness scale of the SCS-R and with the Private Self-Consciousness subscale (using simple, quadratic, and cubic regressions). Being concerned about the perception of others related to experiencing hypnosis as discontinuous with everyday life, which also related to being more introspective and interested in subjectivity at the middle range of scores. The article concludes with suggestions on how to pursue the implications of these results, including testing for nonlinear relations.

#### **ARTICLE HISTORY**

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#### Introduction

The influential hypnosis theoretician Robert W. White (1941) concluded that a theory of hypnosis must explain, among other facts, that the hypnotized person "behaves ... without the self-consciousness ... which ... one would expect" (p. 503). More recent theories have also considered a decrease in self-awareness a cardinal aspect of hypnosis, including Hilgard's (1991) neodissociation theory, in which during hypnosis a dissociation between the "executive ego" and cognitive control structures occurs, the integrative cognitive theory (Brown & Oakley, 2004), which posits that hypnotizability relates to a decrease in "highlevel attention" (and presumably self-awareness), and the cold control theory (Dienes & Perner, 2007), which states that people who are less aware of their intentions are more likely to be highly hypnotizable. At a process level, Cardeña and Spiegel (1991, p. 104) affirmed that "because of the diminished competition with other types of mental occurrences (including self-reflective appraisals), hypnotic suggestions entail greater salience, influence, and perceived involuntariness."

Yet, scales of dispositional self-consciousness (SC) have been very rarely evaluated as possible correlates of hypnotizability. One impediment may be the multivocality of the term. Self-consciousness has been defined as the process of becoming the object of one's thoughts and awarenesses (Duval & Wicklund, 1972), but it includes different modalities, some seemingly positive and others negative. Three types of SC have been often distinguished: private, referring to awareness of one's mental processes; public, referring to being conscious of what others think of one; and social anxiety, referring to feeling anxious in social situations (Fenigstein et al., 1975; Scheier & Carver, 1985). A factorial analysis of scales of self-consciousness, self-absorption, self-reflection, reflection-rumination, and mindfulness showed that social anxiety was in a factor of maladaptive processes including rumination and lack of insight and acceptance; private self-consciousness scale was in a factor with reflection and self-reflections scales; and there was a factor including public and private self-consciousness (DaSilveira et al., 2015).

Earlier studies evaluated whether hypnotizability relates to a plethora of personality and other inventories, finding that very few showed consistent correlations but did not evaluate self-consciousness (for reviews, see Barber, 1964; Hilgard, 1968). Similarly, the indexes of the three major summaries of hypnosis research of the last few decades did not include "selfconsciousness" (Fromm & Nash, 1992; Fromm & Shor, 1979; Nash & Barnier, 2008) in the index. We conducted a literature search without language or year restrictions in the database PsycINFO using self-consciousness + scale + hypno\* (or suggestibility) and found only one study in which a self-consciousness scale was administered in the context of hypnosis (Wolfradt & Ovaskainen, 1998). The measure of self-consciousness they used has private and public scales (Filipp & Freudenberg, 1989) and hypnotizability was assessed via the Phenomenology of Consciousness. Inventory: Hypnotic Assessment Procedure or PCI-HAP (Pekala et al., 2009). Both self-consciousness scales correlated significantly with attitudes toward hypnosis. Of greater interest for our project is that, following the HAP induction, the private self-consciousness scale correlated positively with the positive affect and memory scales of the Phenomenology of Consciousness Inventory (PCI; Pekala, 1991), and the public self-consciousness scale correlated negatively with a self-awareness scale. The correlations between general hypnotizability and types of SC were not evaluated.

Other studies employing the Self-Awareness scale (with items such as "I was very aware of being aware ...") of the PCI have found that decreases in self-awareness relate to absorbed states such as hypnosis (e.g., Pekala et al., 1985) and that high hypnotizables (henceforth highs) report less self-awareness not only during a hypnotic procedure but during baseline (Cardeña & Terhune, 2019).

Relatedly, the relation of hypnotizability with self-monitoring (keeping track of self-presentation during social interactions) was measured in two studies, which found no relation between them ( $N=1,300,\,r=.01$  in Kihlstrom et al., 1980;  $N=107,\,r=.02$  in Bachner-Melman et al., 2002). In another study, self-monitoring related negatively to social anxiety ( $N=310,\,r=-.29$ ) and positively to public self-consciousness (r=.24) (Tomarelli & Shaffer, 1985), suggesting that those who self-monitor do not tend to feel distressed in social situations, while maintaining awareness of how they come across. An important aspect to bear in mind is that correlations among measures may be different when they are measured within the same or different research contexts (J. R. Council, 1993), although an interpretation that they are "inflated" is oversimplistic (Barnier & McConkey, 1999).

Despite the proposition that SC is important in hypnosis, dispositional SC has been partly evaluated only in one article as far as we could ascertain, despite its conceptual relevance to hypnosis and findings of changes in aspects of SC during hypnosis. In addition, the Private Self-Consciousness subscale of the SCS has been related to experiencing imagery

(Carver & Scheier, 1981), which in turn has been associated with hypnosis and hypnotizability (e.g., Cardeña & Terhune, 2019; Kunzendorf et al., 1996). The relation between selfconsciousness and hypnotizability may not, however, be linear. Balthazard and Woody (1992) reported in a spectral analysis of hypnotizability single-item scores that whereas compliance was of importance for low but not high hypnotizables, the converse was the case for absorption (although Kirsch et al., 1995, did not replicate the finding for absorption). Woody et al. (1997), with an alcohol-placebo paradigm, replicated conceptually the finding that social suggestibility is more important for easier rather than more difficult hypnotizability items.

In the present correlational study, we analyze data collected earlier, using both behavioral and subjective measures of hypnotizability and a self-report scale of self-consciousness (private, public, and social anxiety). Hypnosis subjective measures correlate strongly with behavioral ones (e.g., Kirsch et al., 1990) and may be more sensitive indicators than behavioral ones when evaluating potential correlates of hypnosis (Cardeña & Terhune, 2014).

We developed three hypotheses before conducting the analyses:

- (1) Because social anxiety might interfere with performance during hypnotizability group testing, we predicted that it would correlate negatively with it.
- (2) The Private Self-Consciousness Scale used in this study includes items that have been associated with high hypnotizability including daydreaming (e.g., "often daydream about myself"; see Barber, 1999) and an inclination to introspect (e.g., "I generally pay attention to my feelings"). Thus, we hypothesized that it would correlate with hypnotizability (particularly its subjective indexes), in accord with findings of a positive correlation between absorption and hypnotizability (Barnier & McConkey, 1999).
- (3) We also hypothesized that public self-consciousness would correlate negatively with hypnotizability as it might foster comparisons with others rather than absorption in the suggestions.

#### Method

#### **Participants**

We collected data from undergraduate students at two first-tier northern California universities. For the first setting, n = 149, 61% = female,  $M_{\text{age}} = 20.74$ , SD = 4.87; for the second, n=179, 53% = female,  $M_{\rm age}=19.30$ , SD = 2.37 (for the whole sample, N=328age range = 16-57,  $M_{age} = 20.35$ , SD = 4.35, 54% = female). Demographics and analyses are reported jointly for both groups, except when we analyzed the possibility of a context effect.

#### Measures

Hypnotizability was measured with the Harvard Group Scale of Hypnotic Susceptibility (HGSHS; Shor & Orne, 1962), a widely used group measure of hypnotizability with good psychometric properties (Council, 1999). It includes an induction followed by 12

suggestions referring to ideomotor, auditory hallucination, and posthypnotic suggestion items. Participants self-score their behavioral responses as pass or no pass. For this study, because one of the sites did not score the initial suggestion of the head dropping, the score range for both sites was adjusted to 0–11.

The Inventory Scale of Hypnotic Depth (ISHD) consists of 38 dichotomously scored items that evaluate spontaneous subjective experiences during a hypnotic procedure, including (a) absorption and internal and external unawareness (e.g., "I felt aware of my body only where it touched the chair"); (b) feelings of automaticity and compulsion (e.g., "Parts of my body moved without my conscious assistance"); and (c) discontinuity from normal waking experience (e.g., "It was a very strange experience"). It has good psychometric properties (Field, 1965; see also Terhune & Cardeña, 2010). In our data, Cronbach's alphas were .77 for absorption, and .75 for each of the other two subscales.

The Self-Consciousness Scale-Revised (SCS-R; Scheier & Carver, 1985) has good psychometric properties and consists of three subscales: (A) private self-consciousness, or the tendency to introspect and attend to one's thoughts and feelings, with nine items (e.g., "always trying to figure myself," "know the way my mind works"). (B) public self-consciousness or awareness of the self as it is viewed by others, with seven items (e.g., "self-conscious about the way I look," "aware of my appearance"). (C) social anxiety, or feeling shy or anxious in social situations, with six items (e.g., "get embarrassed," "large groups make me nervous"). The items are scored in a scale from 3 = a lot like me to 0 = not at all like me. Women scored higher than men in private self-consciousness but not in the other two subscales in the original report (Carver & Scheier, 1985). An alternative factor structure was reported by Martin and Debus (1999). In our data, Cronbach's alphas were .70 for private, .85 for public, and .78 for social anxiety, very similar to the values reported by the creators of the scale.

#### **Procedure**

In the first setting (all measures administered during the same sitting or "same context"), the first author, then a doctoral student, administered the measures of hypnotizability and self-consciousness during three group tests, carried out in large, mostly quiet rooms with subdued lightning. In the second setting, the last author, a professor then, administered the hypnotizability scales in various sessions in middle-sized rooms, and the first author administered the self-consciousness scale in another session avowedly as part of a different project (or testing in a "different context"). The project had been approved by the University of California, Davis, Institutional Review Board.

#### **Analyses**

For the 328 participants, there were 122 missing values for age (all but one from the second setting), one for gender and for the ISHD, and seven for the HGSHS. Those data were treated as "missing" in the analyses. Otherwise there were few, scattered single answers missing for the SC (4) and the ISHD (37), and we substituted the participants' scales and subscales means for the missing data. Using means for such a small amount of missingness is indicated (Parent, 2013).

We conducted correlation analyses (product moment correlations to evaluate continuous variables, point biserial for those involving gender) for the whole sample to evaluate linear relations. To evaluate possible nonlinear relations between hypnotizability and self-consciousness measures, we used polynomial regressions with centered scores. We conducted t tests to assess differences between means and chi-squared tests to assess frequencies. The significance threshold was set a priori at p < .05. Analyses were carried out using Jamovi 1.6.7 (2020).

#### Results

The two different settings did not differ significantly with regard to age, total ISHD, or SCS-R total or subscale scores (for all analyses p > .05), but there were more women than men in the first setting (in context),  $\chi^2 = 6.34$ , p = .012. In general, participants in the first setting had higher HGSHS scores than those in the second (M = 6.15, SD = 2.48, versus M = 5.13, SD = 5.13, t = 3.63, p < .001) as well as higher scores in the ISHD subscale for automaticity (M = 3.66, SD = 2.32, versus M = 3.12, SD = 2.18, t = 2.17, p = .03).

Because the main purpose of this study was to evaluate the correlations between different indexes of hypnotizability and three types of self-consciousness, the most relevant context question was whether they would be higher (i.e., show a "context effect") in the first context, in which all questionnaires were administered as part of the same study and in the same session. Analyses showed that this was not the case. Out of 15 correlations (HGSHS, ISHD total, ISHD subscales  $\times$  3 SCS-R scales) there were two significant correlations in the first context (for HGSHS and SCS-R private, and ISHD discontinuity and SCS-R public) and one significant correlation in the second context (for ISHD absorption and SCS-R social anxiety); out of 15 correlations, one was of the same magnitude and nine higher in Context 1 (nonsignificant at p=.43 using a binomial test), and none of the correlations between the contexts was significantly different. Hence, we decided to combine the data for both contexts to increase analysis clarity and the power of subsequent analyses.

Table 1 shows the correlations among the variables. With respect to age (bearing in mind that there was a narrow distribution of ages in this sample and many missing data), older participants endorsed greater hypnotic automaticity in the ISHD and scored lower in all scales of the SCS-R (private and public self-consciousness, and social anxiety). As compared with men, women had slightly higher HGSHS and ISHD automaticity scores and reported

Table 1. Correlations among Demographics, Hypnotizability, and Self-Consciousness Variables

	Age	Gender	HGSHS	ISHD				SCS	
				Total	Absorp.	Automat.	Discont.	Private	Public
Age	-								
Gender $(2 = male)$	-0.14	-							
HGSHS	0.06	-0.19***	-						
ISHD Total	0.01	-0.07	0.66***	-					
Absorption	0.00	-0.05	0.54***	0.86***	-				
Automaticity	0.15*	-0.18**	0.62***	0.80***	0.56***	-			
Discontinuity	-0.11	0.05	0.48***	0.75***	0.50***	0.56***	-		
SCS Private	-0.18**	-0.07	0.07	0.02	0.01	-0.01	0.05	-	
Public	-0.32***	-0.02	-0.03	0.03	0.01	-0.04	0.12*	0.36**	-
Social anxiety	-0.15*	0.12*	-0.08	-0.06	-0.09	-0.08	0.05	0.05	0.26**

<sup>\*</sup> p < .05, \*\* p < .01, \*\*\* p < .001.

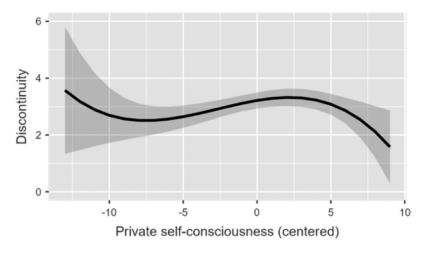


Figure 1. Cubic Regression between ISHD Discontinuity and SCS-R Private with 95% CI

less social anxiety. Further analyses showed that the gender relation to HGSHS was neither mediated (indirect effect, Z = -1.33, p = .18) nor moderated (interaction effect, Z = 1.14, p = .26) by ISHD automaticity.

As expected, the HGSHS correlated moderately to strongly with the total and subscale scores of the ISHD, and the total and subscale scores of the latter corrected strongly among themselves. With respect to the SCS-R, the private and public self-consciousness scales and the public and social anxiety scales had small to moderate intercorrelations.

The main goal of the study was to evaluate whether measures of hypnotizability would correlate with the SCS-R scales. There was only one significant simple correlation, between ISHD discontinuity and SCS-R public, r(325) = .12, 95% CI (.02, .23), p = .03, suggesting that the more people tend to focus on how they might be perceived by others, the more the hypnotic experience seems discontinuous from everyday life.

Because hypnotizability has not been found to be linear in some studies, we also evaluated whether there were significant polynomial relations between the subjective hypnotizability and SCS-R scales. Each model included all three SCS-R scales as predictors and ISHD scales as outcome, with simple, quadratic, and cubic terms (centered). The only significant model, using fixed effects, was for ISHD discontinuity and SCS-R private, which were significant for simple,  $\beta$  (323) = .19, t = 2.06, p = .04; quadratic,  $\beta$  (323) = -.12, t = -2.46, p = .01; and cubic,  $\beta$  (323) = -.06, t = -2.24, p = .03, regressions, showing that the relation between these two variables, initially positive in a linear function became negative using polynomial equations and decreased at lower and higher levels of SCS-R private (see Figure 1).

#### **Discussion**

The results of negative correlations between age and SCS-R private and public self-consciousness are in agreement with a previous study in which older participants reported less public self-consciousness (using the original SCS scale) and less private self-consciousness (using a scale based on the original SCS) (Kirk, 2005). The negative association between age and SCS-R social anxiety is consistent with the other two correlations and



a probable decrease in self-focus with age. Decreased self-focus may have allowed older participants to experience greater hypnotic automaticity, a hypothesis worth pursuing further.

As has been found in various other studies (e.g., Cardeña et al., 2007; Rudski et al., 2004), women scored slightly higher than men in the HGSHS, as well as higher in ISHD automaticity. The last is, as far as we know, a new finding, and it merits further investigation. Weitzenhoffer (1980) concluded that a sense of automaticity is a cardinal aspect of the hypnotic response. A caveat, though, is that typically in studies finding a gender difference in hypnotizability the hypnotist has been a male. Studies should include male and female hypnotists to determine whether the gender of the hypnotist makes a difference. We do not have an explanation of why men reported more social anxiety than women, a finding worth testing in our days, some decades after the testing reported here.

The hypothesis that SCS-R public would relate negatively to hypnotizability was contradicted for one ISHD subscale and unsupported for other measures of hypnotizability, suggesting that being concerned with the appraisals of others correlated with experiencing phenomena during hypnosis as more unusual. It may be that focusing on other's evaluations in everyday life detracts from being aware of subtle alterations of consciousness, and more marked alterations in a hypnotic context are experienced as more unusual.

The hypothesis that SCS-R private would relate positively to hypnotizability was supported, also only for the ISHD discontinuity subscale, with the polynomial results complicating the picture. A plausible interpretation is that experiencing hypnosis as discontinuous with everyday mentations is not pertinent to those with low private self-consciousness, because they focus more on behaviors than subjective experiences. Conversely, those with greater introspection may have found that hypnotic experiences were not as unusual with what they experience in other contexts than the hypnotic one. An alternative explanation is that the results may be at least partly explained by flooring and ceiling effects produced by the restricted scoring range in the ISHD. The subgroup having the maximum discontinuity score of six included nonextreme scores of the HGSHS (n = 37, m = 7.54, SD = 1.99, range 4–11), as did that having the minimum discontinuity score of 0 (n = 45, SD = 2.31, range 0–10). It would be worthwhile to explore using a wider scoring range and/or adding more items to the ISHD and its subscales (which currently are scored dichotomously), as they seem to provide valuable information about which types of hypnotic experience relate to other variables such as gender and SCS-R.

Finally, our hypothesis that SCS-R social anxiety would correlate negatively with hypnotizability was not supported, in line with the studies reviewed above showing that self-monitoring (with which it correlated in a study) does not correlate with hypnotizability. It is worth pointing out, however, that four out of the five (nonsignificant) correlations of this scale with hypnotic measures were negative, so research on, for instance, increasing levels of social anxiety and measuring performance in hypnotic scales seem worth conducting.

Additional research with the ISHD subscales, which have been neglected in hypnosis research, is called for, and the polynomial results should encourage the evaluation of nonlinear relations within hypnotizability, as suggested by psychometric (e.g., Balthazard & Woody, 1992) and neurophenomenological (e.g., Cardeña et al., 2013) studies.

Given the paucity of personality correlates of hypnotizability (other than typically with similar constructs, see Cardeña & Terhune, 2014; Cardeña et al., 2009) and its apparent relation to state self-awareness, it is worthwhile to explore further how different aspects of

self-consciousness may help or hinder hypnotic responsiveness. One path would be to supplement self-consciousness questionnaire data with experience sampling/ecological momentary assessments and evaluate possible relations to hypnotizability (for a use of this method to evaluate everyday cognitive processes related to hypnotizability, see Cardeña & Marcusson-Clavertz, 2016). Our results also exemplify the importance of looking at different aspects of hypnotic experience and not only behavioral indexes.

This study had various limitations. The small size of the significant correlations (although small correlations can have theoretical and practical implications, see Rosnow & Rosenthal, 2003), and the number of analyses and our decision not to adjust alpha values for them (in line with Keppel & Zedeck, 1989) raises the possibility that the significant results could be spurious. Another limitation is that we could not separate dissociative from imaginal types of highs (see Terhune et al., 2011), because at the time of data collection this heterogeneity was mostly unknown.

Besides taking into consideration these limitations, future studies should consider making more focused analyses looking at the potential relations between self-consciousness, gender, trait dissociation, and hypnotic experiential automaticity, discontinuity, and absorption. Only the latter has received much research attention. In addition, aspects of self-consciousness could be manipulated experimentally to evaluate any impact on hypnotic responsiveness. In sum, there are multiple reasons to continue investigating how different aspects of self-consciousness may relate to hypnotic experience and hypnotizability.

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No potential conflict of interest was reported by the author(s).

#### References

Bachner-Melman, R., Ebstein, R., & Lichtenberg, P. (2002). No link between hypnotizability and the self-monitoring scale. American Journal of Clinical Hypnosis, 45(1), 21-30. https://doi.org/10.1080/ 00029157.2002.10403494

Balthazard, C. G., & Woody, E. Z. (1992). The spectral analysis of hypnotic performance with respect to "absorption." International Journal of Clinical and Experimental Hypnosis, 40(1), 21-43. https:// doi.org/10.1080/00207149208409644

Barber, T. X. (1964). Hypnotizability, suggestibility, and personality: V. A critical review of research findings. Psychological Reports, 14(1), 299–320. https://doi.org/10.2466/pr0.1964.14.1.299

Barber, T. X. (1999). A comprehensive three-dimensional theory of hypnosis. In I. Kirsch, A. Capafons, E. Cardeña-Buelna, & S. Amigo (Eds.), Clinical hypnosis and self-regulation: Cognitive-behavioral perspectives (pp. 21–48). American Psychological Association.

Barnier, A. J., & McConkey, K. M. (1999). Absorption, hypnotizability and context: Non-hypnotic contexts are not all the same. Contemporary Hypnosis, 16(1), 1-8. https://doi.org/10.1002/ch.144

Brown, R. J., & Oakley, D. A. (2004). An integrative cognitive theory of hypnosis and high hypnotizability. In G. A. Jamieson (Ed.), Hypnosis and conscious states: The cognitive neuroscience perspective (pp. 152-186). Oxford University Press.



- Cardeña, E., Jönsson, P., Terhune, D. B., & Marcusson-Clavertz, D. (2013). The neurophenomenology of neutral hypnosis. *Cortex*, 49(2), 375–385. https://doi.org/10.1016/j.cortex.2012.04.001
- Cardeña, E., Kallio, S., Terhune, D., Buratti, S., & Lööf, A. (2007). The effect of translation and sex on hypnotizability testing. *Contemporary Hypnosis*, 24(4), 154–160. https://doi.org/10.1002/ch.340
- Cardeña, E., & Marcusson-Clavertz, D. (2016). The relation of hypnotizability and dissociation to everyday mentation: An experience sampling study. *Psychology of Consciousness: Theory, Research, and Practice*, *3*(1), 61–79. https://doi.org/10.1037/cns0000080
- Cardeña, E., & Spiegel, D. (1991). Suggestibility, absorption, and dissociation: An integrative model of hypnosis. In J. F. Schumaker (Ed.), Human suggestibility: Advances in theory, research and application (pp. 93–107). Routledge.
- Cardeña, E., & Terhune, D. B. (2014). Hypnotizability, personality traits, and the propensity to experience alterations of consciousness. *Psychology of Consciousness: Theory, Research, and Practice*, 1(3), 292–307. https://doi.org/10.1037/cns0000026
- Cardeña, E., Terhune, D., Lööf, A., & Buratti, S. (2009). Hypnotic experience is related to emotional contagion. *International Journal of Clinical and Experimental Hypnosis*, 57(1), 33–46. https://doi.org/10.1080/00207140802463500
- Cardeña, E., & Terhune, D. (2019). The role of response expectancies, baseline experiences, and hypnotizability in spontaneous hypnotic experiences. *International Journal of Clinical & Experimental Hypnosis*, 67(1), 1–27. https://doi.org/10.1080/00207144.2019.1553759
- Carver, C. S., & Scheier, M. F. (1981). Attention and self-regulation: A control theory approach to human behavior. Springer-Verlag. https://doi.org/10.1007/978-1-4612-5887-2
- Carver, C. S., & Scheier, M. F. (1985). Aspects of self and the control of behavior. In B. M. Schlenker (Ed.), *The self and social life* (pp. 146–174). McGraw-Hill.
- Council, J. R. (1993). Context effects in personality research. Current Directions in Psychological Science, 2(2), 31–34. https://doi.org/10.1111/1467-8721.ep10770636
- Council, J. (1999). Measures of hypnotic responding. In I. Kirsch, A. Capafons, E. Cardeña-Buelna, & S. Amigó (Eds.), *Clinical hypnosis and self-regulation: Cognitive-behavioral perspectives* (pp. 119–140). American Psychological Association. https://doi.org/10.1037/10282-000
- DaSilveira, A., DeSouza, M. L., & Gomes, W. B. (2015). Self-consciousness concept and assessment in self-report measures. Frontiers In Psychology, 6(930). https://doi.org/10.3389/fpsyg.2015. 00930
- Dienes, Z., & Perner, J. (2007). Executive control without conscious awareness: The cold control theory of hypnosis. In G. A. Jamieson (Ed.), *Hypnosis and conscious states: The cognitive neuroscience perspective* (pp. 293–314). Oxford University Press.
- Duval, S., & Wicklund, R. (1972). A theory of objective self-awareness. Academic.
- Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology*, 43(4), 522–527. https://doi.org/10.1037/h0076760
- Field, P. B. (1965). An Inventory Scale of Hypnotic Depth. *International Journal of Clinical and Experimental Hypnosis*, 13(4), 238–249. https://doi.org/10.1080/00207146508412946
- Filipp, S.-H., & Freudenberg, E. (1989). Der Fragebogen zur Erfassung dispositionaler Selfstaufmerversamkeit (SAM-Fragebogen) [The questionnaire for the assessment of dispositional self-awareness (SAM questionnaire)]. Hogrefe.
- Fromm, E., & Nash, M. R. (1992). Contemporary hypnosis research. Guilford.
- Fromm, E., & Shor, R. E. (1979). Hypnosis: Development research and new perspectives (2nd ed.). Aldine.
- Hilgard, E. R. (1968). The experience of hypnosis: A shorter version of hypnotic susceptibility. Brace & World.
- Hilgard, E. R. (1991). A neodissociation interpretation of hypnosis. In S. J. Lynn & J. W. Rhue (Eds.), *Theories of hypnosis: Current models and perspectives* (pp. 83–104). Guilford.
- Keppel, G., & Zedeck, S. (1989). Data analysis for research designs: Analysis of variance and multiple regression/correlation approaches. Freeman.

- Kihlstrom, J. F., Diaz, W. A., McClellan, G. E., Ruskin, P. M., Pistole, D. D., & Shor, R. E. (1980). Personality correlates of hypnotic susceptibility: Needs for achievement and autonomy, self-monitoring, and masculinity-femininity. American Journal of Clinical Hypnosis, 22(4), 225-230. https://doi.org/10.1080/00029157.1980.10403233
- Kirk, R. M. (2005). Age differences in identity processing styles and self-consciousness: A moderation analysis and exploration of ageism [Unpublished doctoral dissertation]. Bowling Green State University. https://etd.ohiolink.edu/apexprod/rws\_etd/send\_file/send?accession= bgsu1428926536&disposition=inline
- Kirsch, I., Council, J. R., & Wickless, C. (1990). Subjective scoring for the Harvard Group Scale of Hypnotic Susceptibility, Form A. International Journal of Clinical and Experimental Hypnosis, 38 (2), 112-124. https://doi.org/10.1080/00207149008414506
- 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 model of hypnotic responding. *Journal of Personality and Social Psychology*, 69(1), 167–175. https://doi.org/10.1037/0022-3514.69.
- Kunzendorf, R. G., Spanos, N. P., & Wallace, B. (1996). Hypnosis and imagination. Baywood.
- Martin, A. J., & Debus, R. L. (1999). Alternative factor structure for the Revised Self-Consciousness Scale. Journal of Personality Assessment, 72(2), 266-281. https://doi.org/10.1207/ S15327752JP720211
- Nash, M. R., & Barnier, A. J. (2008). The Oxford handbook of hypnosis: Theory, research and practice. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780198570097.001.0001
- Parent, M. C. (2013). Handling item-level missing data: Simpler is just as good. Counseling Psychologist, 41(4), 568–600. https://doi.org/10.1177/0011000012445176
- Pekala, R. J., and Kumar, V. K., & . (2009). The Phenomenology of Consciousness Inventory -Hypnotic Assessment Procedure (PCI-HAP): Administrator's manual. http://www.luminous-project.eu/wpcontent/uploads/2018/12/pci\_hap\_admin.pdf.pdf
- Pekala, R. J., Wenger, C. F., & Levine, R. L. (1985). Individual differences in phenomenological experience: States of consciousness as a function of absorption. Journal of Personality and Social Psychology, 48(1), 125–132. https://doi.org/10.1037/0022-3514.48.1.125
- Pekala, R. J. (1991). Quantifying consciousness: An empirical approach. Springer.
- Rosnow, R. L., & Rosenthal, R. (2003). Effect sizes for experimenting psychologists. Canadian Journal of Experimental Psychology, 57(3), 221–237. https://doi.org/10.1037/h0087427
- Rudski, J. M., Marra, L. C., & Graham, K. R. (2004). Sex differences on the HGSHS:A. International Journal of Clinical & Experimental Hypnosis, 52(1), 39-46. https://doi.org/10.1076/iceh.52.1.39. 23924
- Scheier, M. F., & Carver, C. S. (1985). The Self-Consciousness Scale: A revised version for use with general populations. Journal of Applied Social Psychology, 15(8), 687–699. https://doi.org/10.1111/j. 1559-1816.1985.tb02268.x
- Shor, R. E., & Orne, E. C. (1962). Harvard Group Scale of Hypnotic Susceptibility, Form A. Consulting Psychologists Press. https://doi.org/10.1037/t02246-000
- Terhune, D. B., Cardeña, E., & Lindgren, M. (2011). Dissociative tendencies and individual differences in high hypnotic suggestibility. Cognitive Neuropsychiatry, 16(2), 113-135. https://doi.org/ 10.1080/13546805.2010.503048
- Terhune, D. B., & Cardeña, E. (2010). Differential patterns of spontaneous experiential response to a hypnotic induction: A latent profile analysis. Consciousness and Cognition, 19(4), 1140-1150. https://doi.org/10.1016/j.concog.2010.03.006
- Tomarelli, M. M., & Shaffer, D. R. (1985). What aspects of self do self-monitors monitor? Bulletin of the Psychonomic Society, 23(2), 135-138. https://doi.org/10.3758/BF03329805
- Weitzenhoffer, A. (1980). Hypnotic susceptibility revisited. American Journal of Clinical Hypnosis, 22 (3), 130–146. https://doi.org/10.1080/00029157.1980.10403217
- White, R. W. (1941). A preface to the theory of hypnotism. Journal of Abnormal and Social Psychology, 36(4), 477-505. https://doi.org/10.1037/h0053844



Wolfradt, U., & Ovaskainen, P. (1998). Ängstlichkeit, Selbstaufmerksamkeit und hypnotische Suggestibilität [Anxiety, self-consciousness and hypnotic suggestibility]. Experimentelle und Klinische Hypnose, 14(1), 29-46.

Woody, E. Z., Drugovic, M., & Oakman, J. M. (1997). A reexamination of the role of nonhypnotic suggestibility in hypnotic responding. Journal of Personality and Social Psychology, 72(2), 399-407. https://doi.org/10.1037/0022-3514.72.2.399

#### Dispositionelles Selbst-Bewusstsein und Hypnotisierbarkeit

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Zusammenfassung: Die Abwesenheit des Selbstbewusstseins (SC) während der Hypnose wird als ein zentraler Aspekt der Hypnose diskutiert, doch wurde die dispositionelle SC nur sehr selten als Korrelat der Hypnotisierbarkeit untersucht. In dieser Studie (N = 328) führten die Autoren die Harvard Group Scale of Hypnotic Susceptibility (HGSHS), die Inventory Scale of Hypnotic Depth (ISHD) und die Self-Consciousness Scale-Revised (SCS-R) durch. Frauen schnitten bei der HGSHS tendenziell besser ab als Männer und wiesen zudem eine höhere ISHD-Automatizität auf. Die Unterskala Diskontinuität (mit Alltagserfahrungen) der ISHD korrelierte mit der Skala Öffentliches Selbstbewusstsein der SCS-R und mit der Unterskala Privates Selbstbewusstsein (mittels einfacher, quadratischer und kubischer Regressionen). Die Besorgnis über die Wahrnehmung durch andere hing mit der Erfahrung zusammen, dass die Hypnose nicht mit dem Alltagsleben zusammenhängt, was auch mit einer stärkeren Introspektion und einem größeren Interesse an Subjektivität im mittleren Bereich der Punktwerte zusammenhing. Der Artikel schließt mit Vorschlägen, wie die Implikationen dieser Ergebnisse weiterverfolgt werden können, einschließlich der Prüfung auf nichtlineare Beziehungen.

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#### Conscience de soi dispositionnelle et hypnotisabilitét

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Résumé: La suspension de la conscience de soi (SC) pendant l'hypnose a été discutée comme un aspect central de l'hypnose, mais la SC dispositionnelle a été très rarement évaluée comme corrélat de l'hypnotisabilité. Dans cette étude (N = 328), les auteurs ont administré l'échelle de sensibilité hypnotique du groupe Harvard (HGSHS), l'échelle d'inventaire de la profondeur hypnotique (ISHD) et l'échelle de conscience de soi révisée (SCS-R). Les femmes avaient tendance à obtenir des scores plus élevés que les hommes sur le HGSHS, en plus de manifester une plus grande automaticité à l'ISHD. La sous-échelle Discontinuité (avec les expériences quotidiennes) de l'ISHD était en corrélation avec l'échelle de la conscience de soi publique du SCS-R et avec la sous-échelle de la conscience de soi privée (en utilisant des régressions simples, quadratiques et cubiques). Être préoccupé par la perception des autres est liée à l'expérience hypnotique comme étant en discontinuité avec la vie quotidienne, ce qui était également lié au fait d'être plus introspectif et intéressé par la subjectivité dans la fourchette moyenne des scores. L'article se termine par des suggestions sur la façon d'utilizer les implications de ces résultats, y compris les tests de relations non linéaires.

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#### La disposición hacia la autoconciencia y la hipnotizabilidad

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Resumen: La suspensión de la autoconciencia (AC) durante la hipnosis ha sido discutida como un aspecto central de la hipnosis, sin embargo, la disposición hacia la AC rara vez ha sido evaluada como un correlato de la hipnotizabilidad. En este estudio (n = 328), los autores administraron la Escala Grupal Harvard de Susceptibilidad Hipnótica (HGSHS), el Inventario Escala de Profundidad Hipnótica (ISHD), y la Escala Revisada de Autoconciencia (SCS-R). Las mujeres tendieron a puntuar más alto que los hombres en la HGSHS además de experimentar mayor automaticidad en la ISHD. La subescala de discontinuidad (con experiencias diarias) de la ISHD correlacionó con la subescala de Autoconciencia Pública de la SHS-R y con la subescala de Autoconciencia Privada (utilizando regresiones simples, cuadráticas y cúbicas). El preocuparse por la percepción de los otros se relacionó con experimentar la hipnosis como discontinua de la vida diaria, lo que también se relacionó con ser más introspectivo y estar más interesado en la subjetividad en el rango medio de puntuaciones. Este artículo concluye con sugerencias sobre cómo indagar las implicaciones de estos resultados, incluyendo la evaluación de relaciones no lineares.

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