

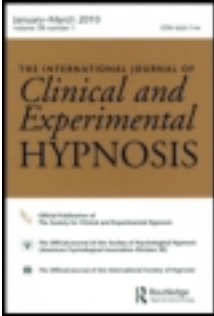
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### Indexing the experience of sex change in hypnosis and imagination

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# INDEXING THE EXPERIENCE OF SEX CHANGE IN HYPNOSIS AND IMAGINATION

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**Abstract:** The authors suggested a change of sex to high hypnotizable participants in hypnosis and imagination conditions and indexed the subjects' experiences with a continuous, concurrent behavioral measure that involved them turning a dial to indicate changes in the strength of the suggested effect. In addition, the researchers indexed the participants' experiences through retrospective ratings of realness, involuntariness, and active thinking. The dial rating showed that the onset of the experience was more rapid for hypnotic than for imagination participants. Moreover, there were differences in the relationship between dial ratings and retrospective ratings across the conditions as well as across the suggestion, test, and cancellation phases of the item. The findings are discussed in terms of how the dial method provides a better understanding of suggested sex change as well as a better understanding of the private experience of hypnosis and imagination.

A suggestion to change sex is a demanding and complex hypnotic phenomenon to investigate and to understand. It is also one that goes to the essence of the identity of most individuals. Sutcliffe (1961) administered a sex change suggestion to hypnotic and nonhypnotic subjects and reported that more hypnotic than nonhypnotic subjects responded to the suggestion. Noble and McConkey (1995) gave a sex change suggestion to three groups of participants: virtuoso, high hypnotizable, and simulating low hypnotizable. They then challenged the subjects' experiences through procedures of contradiction (in which a hypothetical authority figure challenged their reported sex change) and confrontation (in which subjects looked at an image of themselves on a video monitor). Noble and McConkey reported that virtuosos were more likely than were high hypnotizable or simulating participants to maintain their experience in the face of conflicting information.

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Theoretical accounts of hypnosis recognize that the hypnotized person's response to any suggestion is composed of both an overt, behavioral response and a covert, subjective experience (e.g., McConkey, 1991; Sheehan & McConkey, 1982; Shor, 1979; Sutcliffe, 1961). Indexing subjective experience has been a challenge for psychological research generally, and investigators have developed various approaches to assess the subjective experience of the hypnotized individual. Some have asked participants to report on the depth of hypnosis (e.g., Laurence & Nadon, 1986; Perry & Laurence, 1980), others have asked them to describe the experience of hypnosis in detail (e.g., Sheehan & McConkey, 1982; Shor, 1979), and others have asked them to rate a range of dimensions of their experience (Bowers, 1982; Kirsch, Council, & Wickless, 1990). In terms of hypnotic sex change, Sutcliffe (1961) and Noble and McConkey (1995) used postexperimental inquiry and rating procedures. These inquiries and ratings indicated that hypnotic, more so than nonhypnotic, participants described their sex change experience as extremely convincing; virtuosos rated their sex change as more real than did either highs or simulators. Also, whereas highs described their experience as somewhat variable and incomplete (and simulators described their experience as faked), virtuosos described their experience as intense and compelling.

The information provided by such inquiries and ratings of hypnotic phenomena is limited in part by their retrospective nature. To help overcome this particular problem, McConkey, Wende, and Barnier (1999) reported another method of indexing the subjective experience of hypnosis. Drawing on previous work by Field (1966) and Orne and Evans (1966) in particular, this method involves asking participants to turn a dial to indicate changes in the strength of their experience of the suggested phenomenon. They are told that turning the dial all the way to the left means they are not experiencing the suggestion, and turning the dial all the way to the right means they are experiencing the suggestion completely. A computer records the position of the dial every second, and participants indicate their experience across the suggestion from when the hypnotist first introduces it (onset) until when the hypnotist indicates that it is over (offset).

McConkey et al. (1999) asked high, medium, and low hypnotizable individuals to use this dial method across arm levitation (an ideomotor item), arm rigidity (a challenge item), and anosmia (a cognitive item). In addition, they explored the pattern of the dial ratings across the three major phases of a hypnotic item, namely the onset or suggestion phase, the test or experience phase, and the offset or cancellation phase. McConkey et al. reported that high, medium, and low hypnotizable participants showed different patterns of experience across the items. Those who passed an item in terms of meeting the behavioral criterion reported a greater experience than those who did not meet the behavioral

criterion. Although highs responded behaviorally more so than mediums and lows, the dial pattern of highs and mediums was essentially similar for each of the items and was different from that of lows. The dial pattern highlighted changes in experience within and across individuals and within and across items; moreover, it allowed fine-grained shifts in experience to become transparent, particularly across the three phases of the items. McConkey et al. reported that the strength of the suggested experience typically increased during the onset phase (albeit differently across the levels of hypnotizability and different types of items), leveled off during the test phase, and decreased during the offset phase (although not necessarily for all subjects and not as rapidly as might have been expected).

In the present experiment, we examined suggested sex change through the use of the dial method as well as through the use of retrospective ratings. We were interested in examining sex change not only because of its inherent complexity and demand as a suggested experience but also because of its essentially private and subjective nature. Moreover, we were interested in extending the use of the dial method beyond the range of items investigated by McConkey et al. (1999) to one that can be experienced only by high hypnotizable individuals. Accordingly, we asked high hypnotizable participants to use the dial method throughout the suggestion, test, and cancellation phases of the sex change item. Also, we asked them both after the sex change item and after deinduction from hypnosis to rate their experience of sex change on the dimensions of realness (see McConkey, 1991), involuntariness (see Lynn, Rhue, & Weekes, 1990), and active thinking (see Spanos, 1971). This allowed us to look for points of convergence and divergence between the different methods of indexing subjective experience and to examine the relationship of the information provided by these methods across different phases of the sex change item. We saw this use of convergent approaches as one way of ensuring that the inferences we drew from the findings were not linked to a single method of indexing subjective experience.

We tested high hypnotizable individuals under two conditions. In the hypnotic condition, a sex change suggestion was administered following a formal hypnotic induction procedure, and participants were told they would have the experience. In the imagination condition, a sex change suggestion was administered without any reference to hypnosis, and participants were encouraged to create the experience for themselves. We anticipated that there would be differences across the hypnotic and imagination conditions in terms of the pattern of dial ratings across the suggestion, test, and cancellation phases, as well as in terms of participants' ratings on the dimensions of realness, involuntariness, and active thinking.

## METHOD

### *Subjects*

Twenty-five (6 male, 19 female; age,  $M = 20.16$ ,  $SD = 4.91$ ) high hypnotizable first-year psychology students at the University of New South Wales, Sydney, Australia, participated in return for research credit. They had scored 9-12 ( $M = 10.32$ ,  $SD = 1.25$ ) on the 12-item Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS:A; Shor & Orne, 1962), and 8-10 ( $M = 8.56$ ,  $SD = 0.58$ ) on a 10-item tailored version of the Stanford Hypnotic Susceptibility Scale, Form C (SHSS:C; Weitzenhoffer & Hilgard, 1962).

### *Apparatus*

The dial was positioned on the right arm of the subject's chair; all subjects were right-handed. It consisted of a semirotatable disc, 70 mm in diameter, fixed to a stationary base. There was a pointer on the dial and a mark on the base at halfway that allowed participants to feel how far they had turned the dial. The dial rotated through 100 degrees; the rotation end positions indicated that the participant was not at all experiencing the suggestion (0) or was completely experiencing the suggestion (100); position 0 was 50 degrees left of center, position 100 was 50 degrees right of center. The dial was connected to a computer, and a computer program recorded the position of the pointer each second. Recording of the dial's position could be controlled via the keyboard, and the resolution of the program's recording of the dial's position was  $\pm 0.5$  degrees.

A Panasonic video recorder and a Panasonic camera, which was focused on the experimenter and the participant, recorded the experimental session. The videotapes allowed interrater reliability to be determined when scoring responses to the suggestion for sex change in hypnosis and imagination.

### *Procedure*

*Experimental session.* The first experimenter welcomed participants and asked them to read and sign an informed consent form. Following this, she told participants they would use the dial to indicate how strongly they were experiencing what she was asking them to experience. She said that when the dial was all the way to the left it meant they were not at all experiencing the suggestion, and when the dial was all the way to the right it meant they were completely experiencing the suggestion. Participants practiced using the dial with their eyes closed and using the pointer and marker to help judge the position of the dial.

Following this, the experimenter treated individuals according to their allocation to either the hypnotic or imagination condition. Those in the hypnotic condition ( $n = 12$ ) were administered a 15-minute hypnotic induction (adapted from Weitzenhoffer & Hilgard, 1962); those in the

imagination condition ( $n = 13$ ) were given a 15-minute puzzle task (adapted from Nogrady, McConkey, & Perry, 1985). After either the hypnotic induction or the puzzle task, the experimenter instructed participants to close their eyes (if they had not already done so). She then gave all individuals four standard suggestions from the SHSS:C; in the imagination condition, these were presented without any reference to hypnosis. The experimenter then told participants to keep their eyes closed and to place their right hand on the dial and prepare to indicate how much they were experiencing what she was about to ask them to experience. She reminded them of the instructions for using the dial and again asked them to practice using the dial; then she asked them to use the dial from that point on until she said otherwise.

She administered the sex change suggestion, which was composed of a 180-second suggestion phase, a 180-second test phase, and a 30-second cancellation phase. For the suggestion phase, the hypnotist pressed a key on the computer to begin recording the dial's position when she began to administer the suggestion. For those in the hypnotic condition, the experimenter suggested that they were becoming more like the opposite sex in every way (e.g., "You are becoming more and more masculine/feminine, in a moment you will be a man/woman, you will be male/female in every way"); for those in the imagination condition, the experimenter asked them to imagine themselves becoming more like the opposite sex in every way (e.g., "See if you can think things that will make you feel more and more like a man/woman. Imagine your face and body changing"). For the test phase, the experimenter said to participants, "Tell me about yourself," "Tell me what your name is," and "Tell me about the sorts of sensations you are experiencing at the moment." For the cancellation phase, the experimenter cancelled the suggestion, instructed participants to stop using the dial, and pressed a key on the computer to finish recording the dial's position.

Following this, she asked participants to rate how real their experience of sex change was (0 = *not at all real*, 6 = *extremely real*), how involuntary their experience of sex change felt (0 = *not at all involuntary, it felt completely within your control*, 6 = *completely involuntary, it just happened*), and the extent to which they actively thought about things to help them experience the sex change (0 = *not at all active*, 6 = *extremely active*). Individuals in the hypnotic condition were then administered a 1-minute deinduction procedure; individuals in the imagination condition were asked to complete a 1-minute filler task. Following this, the first experimenter answered any questions, thanked participants, and escorted them to the second experimenter.

*Postexperimental inquiry session.* The second experimenter asked participants to rate their sex change experience on the dimensions of realness, involuntariness, and active thinking. In addition, he asked how they went about using the dial, whether it was easy or difficult, and

whether or not they believed it to have been an accurate representation of their experience. Finally, he answered any questions and thanked the participants.

## RESULTS

We analyzed the data from individuals who met two criteria: they responded positively to the suggested sex change, and they followed the instructions for using the dial. Participants were scored as responding positively to the suggestion if they did not deny the suggested sex change or assert their actual sex when asked, "Tell me about yourself," and if they expressed some difference or change in feelings, behavior, or physical appearance during their response to the question, "Tell me about the sorts of sensations you are experiencing at the moment." Based on the responses to these questions, the experimenter and an independent rater scored participants as either experiencing or not experiencing sex change; across these two raters, the interrater reliability was  $k = 0.93$  (Kappa statistic; see Cohen, 1960). Two participants (1 hypnotic, 1 imagination) did not meet the criteria for sex change, and 3 participants (1 hypnotic, 2 imagination) commenced using the dial from a point other than zero and/or reported postexperimentally that they became confused when using the dial. Accordingly, the data from 20 individuals (10 hypnotic, 10 imagination) were analyzed.

### *Dial Ratings*

There were three phases of the sex change item, 13 intervals of 30 seconds each, and 390 ratings. The suggestion phase consisted of intervals 1-6 (6 x 30 ratings), the test phase of intervals 7-12 (6 x 30 ratings), and the cancellation phase of interval 13 only (1 x 30 ratings). Figure 1 presents the mean interval ratings in hypnotic and imagination conditions. To examine the dial ratings of hypnotic and imagination participants across the intervals, we used a 2 (condition) x 13 (interval) mixed-model ANOVA. There was no significant main effect for condition; a significant main effect for interval,  $F(12, 216) = 14.53, p < .001$ ; and a significant interaction between condition and interval,  $F(12, 216) = 5.25, p < .001$ ; as well as significant linear and quadratic trends overall,  $F(1, 18) = 23.08, p < .001$  and  $F(1, 18) = 23.57, p < .001$ , respectively. There was a significant linear trend associated with the interaction between condition and interval,  $F(1, 18) = 10.42, p < .001$ . In other words, the ratings in some intervals were higher than in other intervals, and the conditions differed appreciably in their ratings across the intervals. More particularly, the ratings increased and then decreased across the intervals, with the increased ratings occurring more quickly for hypnotic than for imagination participants.

Figure 1 indicates that hypnotic participants became involved in the experience much more quickly than imagination participants during the



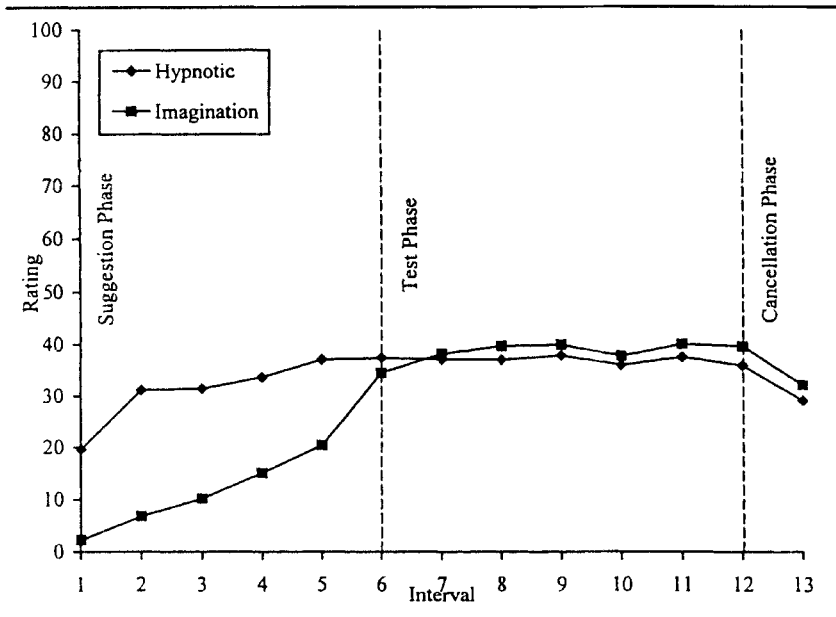


Figure 1. Mean interval ratings in hypnotic and imagination conditions.

Note. Suggestion phase = Intervals 1-6; Test phase = Intervals 7-12; Cancellation phase = Interval 13.

suggestion phase. This was confirmed by a 2 (condition)  $\times$  6 (interval) mixed-model ANOVA for the ratings during the suggestion phase. There was a significant main effect for interval,  $F(5, 90) = 12.72, p < .001$ ; and a significant interaction between condition and interval,  $F(5, 90) = 2.36, p < .05$ ; as well as a significant quadratic trend overall,  $F(1, 18) = 27.19$ . Notably, there was a significant quadratic trend associated with the interaction between condition and interval,  $F(1, 18) = 4.31, p < .05$ . In particular, the ratings in the hypnotic condition during the suggestion phase increased much more markedly than those in the imagination condition; however, there were no appreciable differences in the test or cancellation phases in terms of the pattern of ratings.

#### Retrospective Ratings

Table 1 presents the mean experimental and postexperimental retrospective ratings of realness, involuntariness, and active thinking in hypnotic and imagination conditions. A 2 (condition)  $\times$  2 (occasion) mixed-model ANOVA of realness ratings yielded a significant main effect for occasion,  $F(1, 18) = 9.97, p < .01$ . Specifically, individuals rated the realness of the experience significantly higher during the experimental ( $M = 3.40, SD = 1.43$ ) than the postexperimental ( $M = 2.80, SD = 1.54$ ) inquiry. Similar analyses of participants' ratings of involuntariness and active thinking, however, yielded no significant main or interaction

**Table 1**  
*Mean Experimental and Postexperimental Retrospective Ratings of Realness, Involuntariness, and Active Thinking for Hypnotic and Imagination Conditions*

Occasion and Condition	Realness	Involuntariness	Active Thinking
Experimental:			
Hypnotic	3.30 (1.49)	3.00 (0.76)	4.20 (1.32)
Imagination	3.50 (1.43)	3.30 (1.49)	3.90 (1.37)
Postexperimental:			
Hypnotic	2.40 (1.65)	3.20 (1.99)	3.90 (1.45)
Imagination	3.20 (1.40)	2.60 (1.65)	3.70 (1.34)

*Note:* For realness, 0 = not at all real, 6 = extremely real; for involuntariness, 0 = not at all involuntary, 6 = completely involuntary; for active thinking, 0 = not at all active, 6 = extremely active. Standard deviations appear in parentheses.

effects. There were significant correlations between participants' experimental and postexperimental ratings of realness ( $r = .83, p < .001$ ) and involuntariness ( $r = .75, p < .001$ ); however, the correlation between their experimental and postexperimental ratings of active thinking ( $r = .39, p < .09$ ) was not significant.

#### *Dial Ratings and Retrospective Ratings*

Tables 2 and 3 present the correlations between the mean interval ratings for the 13 intervals and participants' experimental and postexperimental retrospective ratings, respectively, of realness, involuntariness, and active thinking. Regarding the experimental ratings, for individuals in the hypnotic condition, there were significant correlations between all of the interval dial ratings and the experimental ratings of realness and involuntariness but not for active thinking. The experimental ratings of individuals in the imagination condition correlated with their dial ratings across only two intervals and only for realness and not for either involuntariness or active thinking. In other words, whereas the experimental ratings of hypnotic participants were a good reflection of their experience of sex change as indicated by the dial, the ratings of imagination participants were not. It needs to be acknowledged, however, that the size of some correlations is appreciable even though they do not reach significance because of the small sample.

In terms of the postexperimental ratings, for individuals in the hypnotic condition there were significant correlations between all of the interval ratings and the postexperimental ratings of realness but not for ratings of involuntariness or active thinking. For individuals in the imagination condition there were significant correlations between 11 of their interval ratings and postexperimental ratings of realness but not for ratings of involuntariness or active thinking. Notably, the correlations between dial ratings and realness were significantly different across the

Table 2  
Correlations Between Mean Interval Ratings and Experimental Retrospective Ratings

Rating and Condition	Interval													
	1	2	3	4	5	6	7	8	9	10	11	12	13	
<b>Realness:</b>														
Hypnotic	.65	.74	.74	.66	.67	.72	.74	.74	.75	.75	.73	.74	.80	
Imagination	.22	.44	.59	.68	.64	.36	.39	.41	.41	.48	.53	.57	.55	
<b>Involuntariness:</b>														
Hypnotic	.54	.81	.79	.69	.76	.82	.86	.85	.79	.78	.78	.82	.81	
Imagination	.58	.39*	.46	.49	.42	.32**	.32**	.31**	.30*	.33*	.40	.44*	.57	
<b>Active Thinking:</b>														
Hypnotic	-.41	-.24	-.36	-.49	-.35	-.26	-.19	-.19	-.30	-.31	-.31	-.29	-.27	
Imagination	.05	-.28	.04	.28	.24	.30	.17	.14	.15	.22	.16	.14	.39	

Note: Bold type indicates correlation significant at  $p = .05$ ; \*\* indicates difference between correlations is significant at  $p = .05$  ( $z = 1.96$ , two-tailed); • indicates significance at  $p = .10$  ( $z = 1.65$ ; two-tailed).

Table 3  
Correlations Between Mean Interval Ratings and Postexperimental Retrospective Ratings

Rating and Condition	Interval													
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Realness:														
Hypnotic	.72	.95	.93	.86	.89	.91	.93	.94	.96	.96	.96	.94	.91	
Imagination	.51	.56***	.66**	.68	.62*	.69*	.71**	.72**	.72***	.75***	.77**	.80	.76	
Involuntariness:														
Hypnotic	.15	.42	.39	.29	.37	.42	.46	.47	.39	.38	.39	.43	.42	
Imagination	.11	.39	.59	.72	.68	.02	.09	.12	.11	.15	.23	.28	.23	
Active Thinking:														
Hypnotic	-.16	-.30	-.35	-.36	-.36	-.36	-.34	-.33	-.28	-.27	-.29	-.33	-.24	
Imagination	.31	-.14	.03	.28	.27	.47	.37	.34	.36	.42	.35	.30	.48	

Note: Bold type indicates correlation significant at  $p = .05$ ; \*\*\* indicates difference between correlations is significant at  $p = .01$  ( $z = 2.55$ ; two-tailed); \*\* indicates significance at  $p = .05$  ( $z = 1.96$ ; two-tailed); \* indicates significance at  $p = .10$  ( $z = 1.65$ ; two-tailed).

hypnotic and imagination conditions for 9 of the 13 intervals. Specifically, hypnotic participants showed a stronger relationship between dial ratings and realness than did imagination participants. In other words, the postexperimental ratings of realness were a good reflection of the experience of both hypnotic and imagination participants as indicated by the dial.

## DISCUSSION

We focused on the sex change experience of high hypnotizable individuals in hypnotic and imagination conditions. In the hypnotic condition, the suggestion indicated that the effect would just happen, and in the imagination condition the suggestion encouraged individuals to use their imagination. A similar number of highs experienced the suggested sex change in both conditions. Moreover, the hypnotic and imagination participants rated their experiences similarly on the dimensions of realness, involuntariness, and active thinking both after the item and after the session as a whole. This is consistent with other work that has shown a strong convergence when high hypnotizable individuals are tested in hypnotic or imagination conditions on complex hypnotic phenomena (e.g., McConkey, Bryant, Bibb, & Kihlstrom, 1991). However, there were differences in the pattern of dial ratings across the hypnotic and imagination conditions. Most notably, the dial ratings differed for the suggestion phase but not the test or cancellation phases. This pattern indicated that the experience of sex change came about more quickly for hypnotic than for imagination participants. This implies that the presence of a hypnotic induction may influence the rate of onset of a suggested experience for high hypnotizable individuals. Thus, hypnosis induction may facilitate, rather than create, particular experiences.

Our finding that hypnotic subjects achieve an experience more quickly than do imagination subjects is apparent because of the use of the dial method in this experiment; it is not revealed by the retrospective ratings or reports. Thus, our use of this method has revealed an aspect of hypnosis that is worthy of further investigation. Future research needs to investigate this differential onset effect in more detail and also needs to investigate the nature of the offset of the experience. This is because a limitation of our experiment was that it considered the cancellation phase for only 30 seconds, and the dial ratings indicated that subjects were still experiencing sex change to some degree at the end of that period. Arguably, over a longer period the hypnotic and imagination participants would have differed in the way in which they released themselves from the suggested effect. In their use of the dial method, McConkey et al. (1999) reported that although the strength of the suggested experience typically decreased during the cancellation phases of the ideomotor, challenge, and cognitive items they used, it did not do so for all individuals, and it did not do so as rapidly as might be expected.

Although there has been a substantial increase in the sophistication of the models that investigators have developed to understand hypnotic phenomena and process (see Kihlstrom, 1997; Kirsch & Lynn, 1995), there are aspects of hypnotic responding that remain relatively neglected. One such aspect is the nature of the experience across the phases of suggestion, test, and cancellation. The dial method now allows the investigation of this aspect.

The retrospective ratings of sex change on the dimensions of realness, involuntariness, and active thinking can be said to have involved either a subjective averaging of experience or a fixation on a particular point of experience rather than an indication of their experience as a whole (see also Bowers, Laurence, & Hart, 1988; Laurence & Nadon, 1986; Tellegen, 1978-1979). In this sense, retrospective ratings of suggested experiences could be said to be a relatively blunt approach to understanding the phenomenology of the individual. The dial rating appears to provide a more detailed appreciation of the ongoing experience, although we acknowledge that there are practical and interpretational difficulties associated with the dial method. For instance, in the present experiment, a few individuals (whose data were not included) reported becoming confused when using the dial, and this may reflect the difficulty of carrying out concurrent tasks. In this respect, the use of the dial may have placed an additional load on subjects' attention that interfered to some degree with their experience of sex change. The degree to which the concurrent indexing of private experience by the dial method may create bidirectional interference should be examined in future research.

The dial rating of strength of experience and the retrospective ratings of realness, involuntariness, and active thinking showed both convergence and divergence across the phases of the item and across the hypnotic and imagination conditions. Specifically, the experimental ratings of realness and involuntariness made by hypnotic participants were related closely to their dial ratings across all phases of the item, whereas the experimental ratings made by imagination participants were related only to dial ratings during two intervals of the suggestion phase and only for realness ratings. Also, the postexperimental ratings of realness made by both hypnotic and imagination participants were related closely to their dial ratings across all phases of the item. There was no relationship between dial ratings and experimental or postexperimental ratings of active thinking. Overall, this indicates that the dial ratings of strength and the experimental ratings of realness and involuntariness yield similar interpretations for hypnotic, but not for imagination, participants; the dial ratings and the postexperimental ratings of realness yield similar interpretations for both hypnotic and imagination participants. It may be that the differences in the relationships between dial ratings and retrospective ratings in the hypnotic and imagination conditions reflect the fact that whereas the dial ratings of hypnotic participants

were relatively stable across the item, the dial ratings of imagination participants changed across the item. Nevertheless, the point to note is that a focus on any particular measure may sometimes yield and sometimes not yield an interpretation of experience that converges with that of another measure.

The dial rating focused on the strength of the suggested sex change, and we acknowledge that we did not ask for a retrospective rating of strength of experience. In this sense, how individuals were interpreting our request for a dial rating of strength can be debated. However, postexperimental comments by participants and the relationship between the dial ratings and the retrospective rating of realness indicate that subjects may have been interpreting the dial rating as an indication of the reality or the genuineness of the suggested experience (see also McConkey, 1991; McConkey et al., 1999). Although our use of the dial method in this experiment focused on strength, the dial method could be used to index shifts in the experience of the hypnotized individual across the phases of an item on any dimension. In doing so, however, it would be important to ensure that participants' understanding of that dimension was consistent across individuals and across test conditions, as well as consistent with the investigator's intended dimension. Of course, this is the case for any verbal report or indeed any behavioral reaction in the experimental setting (see Field, 1966; Kihlstrom, 1995). Overall, our use of the dial method to index sex change underscores the experiential involvement of high hypnotizable individuals in hypnotic and imagination conditions, the differential onset of suggested sex change under different conditions, and the utility of the dial method to better understand a suggested experience from the perspective of the individual.

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### Indizieren des Erlebens von Geschlechtsumwandlung unter Hypnose- und Vorstellungsbedingung

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**Zusammenfassung:** Hochsuggestible Vpn. erhielten in einer Hypnose- bzw. Vorstellungsbedingung die Suggestion, sich als das andere Geschlecht zu erleben und indizierten das Erleben mit einem kontinuierlichen, gleichzeitigen verhaltensmäßigen Maß, indem sie eine Zählerrscheibe drehten, um Veränderungen in der Intensität des suggerierten Effekts anzuzeigen. Zusätzlich indizierten die VL die Erlebnisse der Vpn. durch eine retrospektive Einschätzung der Echtheit des induzierten Rollenspiels, der Unfreiwilligkeit und des aktiven Denkens. Die Einschätzung auf der



Zählerscheibe zeigte, daß das Erleben für die hypnotisierten Vpn. schneller einsetzte als für die Vpn. in der Vorstellungsbedingung. Außerdem gab es Unterschiede in der Beziehung zwischen Zählereinschätzung und retrospektivem Urteil in beiden Bedingungen sowie in der Suggestion-, Test- und Rücknahmephase des Items. Die Befunde werden im Hinblick darauf analysiert, inwiefern die Zählermethode zu einem besseren Verständnis der Suggestion der Geschlechtsumwandlung sowie des subjektiven Erlebens von Hypnose und Vorstellung beiträgt.

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Répertoire l'expérience du changement de sexe  
par hypnose et par imagination

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Résumé: Les auteurs ont suggéré un changement de sexe à des participants hautement hypnotisables au cours d'états d'hypnose et d'imagination et ont classé les expériences des sujets par une mesure comportementale continue à laquelle ils concouraient et les impliquaient en tournant un cadran afin d'indiquer les changements de niveau de l'effet suggéré. En outre, les chercheurs ont classé les expériences des participants par des estimations rétrospectives de sensations de réel, d'involontaire et de pensée active. Le taux observé par le cadran a prouvé que le début de l'expérience était plus rapide avec l'hypnose qu'avec les participants travaillant à l'imagination. D'ailleurs, il y avait des différences dans le rapport entre les estimations du cadran et les estimations rétrospectives à travers ces conditions, aussi bien qu'à travers la suggestion, l'essai, et les phases d'annulation de l'élément choisi. Les résultats sont discutés sur la façon dont la méthode du cadran fournit une meilleure compréhension de changement suggéré de sexe comme une meilleure compréhension de l'expérience personnelle de l'hypnose et de l'imagination.

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Medida de la experiencia de cambio de sexo en hipnosis e imaginación

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Resumen: Los autores sugirieron cambio de sexo a participantes muy hypnotizables en condiciones de hipnosis e imaginación y evaluaron sus experiencias con una medida de comportamiento continua y simultanea consistente en un control (dial) para indicar cambios en la fuerza del efecto sugerido. Además, los investigadores midieron las experiencias de los participantes mediante auto-informes retrospectivos de realidad, involuntariedad, y pensamiento activo. El control mostró que la experiencia se

inició más rápidamente en la hipnosis que en la imaginación. Asimismo, se encontraron diferencias en la relación entre las puntuaciones del control y las puntuaciones retrospectivas de las condiciones, así como con las fases de sugestión, prueba, y cancelación del ítem. Discutimos estos resultados en relación a cómo el método de control proporciona un mejor entendimiento del cambio sugerido de sexo, así como de la experiencia subjetiva de hipnosis e imaginación.

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