

## **INDEXING THE RELATIONSHIP BETWEEN SELF-HYPNOSIS AND HETERO-HYPNOSIS**

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### **Abstract**

Self-hypnosis and hetero-hypnosis were compared through the use of a continuous, concurrent measure of hypnotic experience. Twenty-three high-hypnotizable subjects were asked to turn a dial to indicate the strength of their experience across the suggestion, test and cancellation phases of an ideomotor item (arm levitation) and a cognitive item (age regression) during self-hypnosis and hetero-hypnosis. Differences between self-hypnosis and hetero-hypnosis depended on the item being experienced, as well as on the phase of the item. The findings are discussed in terms of using convergent methodologies to investigate self-hypnotic phenomena.

**Key words:** self-hypnosis, hetero-hypnosis

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### **Introduction**

One view about the relationship between self-hypnosis and hetero-hypnosis (or hypnosis with a hypnotist) is that because it is the ability of the individual (rather than the hypnotist) that primarily determines whether a person responds to hetero-hypnosis, all hypnosis may be thought of as self-hypnosis. Another view is that because self-hypnosis is taught typically within the context of an initial relationship with a hypnotist, self-hypnosis is simply a variant of hetero-hypnosis. Speculation, anecdote and some data, notwithstanding, models of hypnosis fail to address self-hypnosis as separate from hetero-hypnosis. In other words, theory offers little insight as to whether the two types of hypnosis draw on the same abilities or involve the same processes (Orne and McConkey, 1981).

Research has pointed to various similarities and differences between self-hypnosis and hetero-hypnosis. For instance, McConkey (1986) examined hypnotically naïve subjects and found that the majority expected that self-hypnosis would not be experienced as involuntary, but that hetero-hypnosis would. Other studies have compared the behavioural responses of subjects asked to self-administer hypnotic test items with those of subjects administered suggestions by a hypnotist (Shor and Easton, 1973; Ruch, 1975; Johnson and Weight, 1976; Johnson, 1979; Johnson, Dawson, Clark and Sikorsky, 1983). The relatively modest correlations between performance on self-administered items and hypnotist-administered items suggest that the processes underlying self-hypnosis and hetero-hypnosis are different.

Using a self-initiated and unstructured style of self-hypnosis, Fromm and colleagues (Fromm, Brown, Hurt, Oberlander, Boxer and Pfiefer, 1981; Kahn, Fromm,

Lombard and Sossi, 1989; Fromm and Kahn, 1990; Lombard, Kahn and Fromm, 1990; Kahn and Fromm, 1992) evaluated subjects' responses through interviews, questionnaires and diary entries. They reported that self-hypnosis involved characteristics such as impulse expression and outgoingness, ego activity and receptiveness, and absorption/fascination and imagery. This research indicated that how self-hypnosis is carried out (e.g. self-initiated as opposed to other-initiated) and how it is indexed has a strong influence on the inferences that may be drawn about its nature.

Looking across investigations of self-hypnosis, it is apparent that there is difficulty in knowing 'how to measure it'. Adapting the behavioural measures of hetero-hypnosis (Ruch, 1975; Johnson, 1979) and adapting the phenomenological measures of hetero-hypnosis (Fromm et al., 1981) have both been tried, and have both provided some useful information. Both, however, can be said to bring particular problems and to be limited in how they can help us to fully understand the experience of self-hypnosis and its similarities and differences to hetero-hypnosis.

McConkey, Wende and Barnier (1999a) developed a behavioural measure that allows the experience of the individual to be indexed while hypnosis is taking place. Drawing on the work of Field (1996) and Evans and Orne (1965, 1971), the method involves participants turning a dial to indicate changes in the strength of their experience of a hypnotic suggestion. The dial method has been used to investigate the performance of high-, medium- and low-hypnotizable subjects across different types of hypnotic suggestions (McConkey et al., 1999a), to index the suggestion, test and cancellation phases of hypnotic anaesthesia (McConkey, Gladstone and Barnier, 1999b), and to understand how different measures of hypnotic sex change lead to different inferences (McConkey, Szeps and Barnier, in press).

In the present experiment, this dial method was used to compare self-hypnosis and hetero-hypnosis. Subjects' responses to two hypnotic items were indexed with both objective, behavioural and subjective, experiential measures. Behaviourally, subjects' responses to each item were categorized as either pass or fail. Experientially, subjects were asked to use the dial method. Subsequently, they were asked to compare self-hypnosis and hetero-hypnosis, retrospectively, on the dimensions of realness, involuntariness and active thought.

High-hypnotizable individuals were tested within a self-hypnosis and a hetero-hypnosis condition. In each condition an ideomotor item (arm levitation) and a cognitive item (age regression) was administered and subjects were asked to use the dial to indicate their experience of the suggestion. In a post-experimental enquiry, subjects were asked whether self-hypnosis or hetero-hypnosis was experienced as being more real, involuntary and involving more active thought. The dial ratings were examined within and across conditions and items, and also in relation to behavioural performance and retrospective reports of experience.

## Method

### *Subjects*

Twenty-three (5 M, 18 F; mean age 19.39 years (SD 2.59 years)) high-hypnotizable first year psychology students at the University of New South Wales participated in the study in return for research credit. Subjects were selected on the basis of their high performance on the 12-item *Harvard Group Scale of Hypnotic Susceptibility: Form A* (HGSHS: A) (Shor and Orne, 1962) and on a 10-item tailored version of the *Stanford Hypnotic Susceptibility Scale: Form C* (SHSS: C) (Weitzenhoffer and

Hilgard, 1962). Subjects scored 8–12 (mean score 8.57; SD 0.74) on the HGSHS: A and 8–10 (mean score 8.43; SD 0.66) on the SHSS: C.

### *Apparatus*

The dial method involved a 70 mm diameter disk attached to a stationary base and positioned on the right arm of the subject's chair. The disk could be rotated through 100° and there was a pointer on the dial and a mark at half-way (50°) to allow subjects to feel how far they had turned it. Turning the dial all the way to the left (0°) indicated the suggestion was not being experienced at all. Turning the dial all the way to the right (100°) indicated that the suggestion was being experienced completely. The dial was connected to a computer via the joystick port and a computer program recorded the position of the dial at each second with a resolution of  $\pm 0.5^\circ$ . Also attached to the computer was a button that the experimenter pressed to begin recording input from the dial. The space bar on the keyboard was used to mark phases of the hypnotic items on the dial record.

### *Procedure*

One experimenter welcomed subjects, gave a brief description of the procedure, and asked them to read and sign an informed consent form. The testing session was conducted by another experimenter (the hypnotist) and consisted of three segments: a self-hypnosis procedure; a hetero-hypnosis procedure; and a filler task in between. The self-hypnosis and the hetero-hypnosis conditions were administered in counter-balanced order; also, within each hypnosis condition, the arm levitation and the age regression items were counterbalanced.

### *Hetero-hypnosis*

Subjects were given an hypnotic induction procedure followed by six items adapted from the SHSS: C (Weitzenhoffer and Hilgard, 1962); the middle two of these six were the items of interest, an ideomotor item (arm levitation) and a cognitive item (age regression). Subjects were instructed before each of these items to use the dial. Each suggestion consisted of three phases: an 80-s suggestion phase; a 20-s test phase; and an 80-s cancellation phase. At the start of the suggestion phase the hypnotist pressed a button to start recording input from the dial. The hypnotist then administered the appropriate suggestion. During the test phase, the hypnotist noted whether the subject passed the item. For arm levitation, passing was defined as the arm moving more than 15 cm in 20 s. For age regression, passing was defined as subjects reporting an age younger than that on their consent form when asked to say their age as they were experiencing it to be. At the end of the test phase, the hypnotist pressed the space bar on the computer and cancelled the suggestion. When the cancellation phase ended, the hypnotist asked subjects to stop using the dial.

### *Filler task*

Between the two hypnosis conditions, subjects were asked to stand up and to stretch, and were given the opportunity to have a drink and/or visit the toilet. They were also asked to complete a filler task that involved answering questions about their first days at high school and university.

### *Self-hypnosis*

To control for the presence of a hypnotist, the second experimenter was present

throughout the session. Subjects were given a self-hypnosis protocol that was based on *The Inventory of Self-hypnosis* (Shor, 1970). The experimenter told subjects that everything they needed to know was in the booklet being given to them, they should read it carefully and they should follow all the instructions it contained.

The booklet contained specially developed directions for a self-induction. This was followed by instructions on how to use the dial and how to self-administer the suggestion for each of the six items. The criteria for assessing behavioural performance for each item were the same criteria as used for hetero-hypnosis. To control for time across the self-hypnosis and hetero-hypnosis conditions, and to allow subjects to time their suggestions simultaneously and to use the dial without experiencing an excessive cognitive load, the experimenter tapped the table at the beginning of each phase of the suggestion. This signalled to subjects when to perform certain tasks according to the instructions given in the booklet. As for hetero-hypnosis, each item was divided into an 80-s suggestions phase, a 20-s test phase and an 80-s cancellation phase. After subjects had become accustomed to the tapping procedure during the first two items, they used the dial for arm levitation and age regression. After the last two items, subjects self-administered a hypnotic de-induction.

### Post-experimental enquiry

When both the self-hypnosis and the hetero-hypnosis segments had been completed, subjects were taken to the first experimenter for the post-experimental enquiry.

Subjects were asked separately, for the arm levitation and age regression items, whether the suggested experience felt more real when it was given to them either by the experimenter or by themselves. The question for involuntariness was identical, except that it asked subjects to choose between self-hypnosis and hetero-hypnosis in terms of whether the experience felt more 'involuntary' instead of more 'real'. Lastly, subjects were asked whether more active thinking was involved in experiencing the suggestion when it was given to them by the experimenter, or by themselves. After a brief enquiry to ensure that the dial had been used appropriately, the experimenter answered any questions and thanked the subjects for their participation in the study.

## Results

### *Dial ratings*

The computer recorded one rating each second across the 80-s suggestion phase, 20-s test phase and 80-s cancellation phase. These 180 ratings were divided into nine intervals of 20 ratings each; thus, the suggestion phase consisted of intervals 1–4 (4 × 20 ratings; 80-s); the test phase of interval 5 (1 × 20 ratings; 20-s); and the cancellation phase of intervals 6–9 (4 × 20 ratings; 80-s).

Figure 1 presents the mean self-hypnosis and hetero-hypnosis dial ratings for arm levitation. A 2 (condition) × 9 (interval) mixed model analysis of variance (ANOVA) yielded significant main effects for condition [ $F(1,44) = 5.03$ ;  $p < 0.05$ ] and interval [ $F(8,352) = 20.04$ ;  $p < 0.001$ ] and a significant interaction between condition and interval [ $F(8,352) = 3.88$ ;  $p < 0.001$ ]. A 2 (condition) × 9 (interval) multivariate analysis of variance (MANOVA) yielded a significant effect of condition for interval 5 [ $F(1,44) = 7.05$ ;  $p < 0.05$ ] and interval 6 [ $F(1,44) = 10.68$ ;  $p < 0.01$ ]; there were higher ratings for hetero-hypnosis than for self-hypnosis during the test phase and the early part of the cancellation phase.

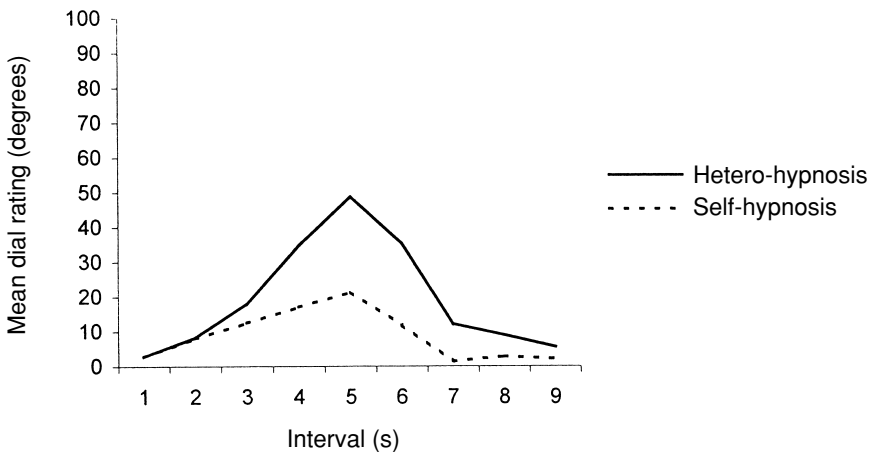


Figure 1. Mean self-hypnosis and hetero-hypnosis dial ratings in arm levitation. Suggestion phase = intervals 1–4; test phase = interval 5; cancellation phase = intervals 6–9.

Figure 2 presents the mean self-hypnosis and hetero-hypnosis dial ratings for age regression. A 2 (condition)  $\times$  9 (interval) ANOVA yielded significant main effects for condition [ $F(1,44) = 4.31$ ;  $p < 0.05$ ] and interval [ $F(1,352) = 28.45$ ;  $p < 0.001$ ] and a significant interaction between condition and interval [ $F(8,352) = 3.72$ ;  $p < 0.001$ ]. A 2 (condition)  $\times$  9 (interval) MANOVA yielded a significant effect of condition for interval 2 [ $F(1,44) = 5.00$ ;  $p < 0.05$ ], interval 3 [ $F(1,44) = 6.29$ ;  $p < 0.05$ ] and interval 4 [ $F(1,44) = 5.89$ ;  $p < 0.05$ ]; there were higher ratings for self-hypnosis than hetero-hypnosis during most of the suggestion phase.\*

Whether the dial ratings differed across arm levitation and age regression was investigated. Figure 3 displays the mean dial ratings for arm levitation and age regression for hetero-hypnosis. A 2 (item)  $\times$  9 (interval) repeated measures ANOVA indicated a significant main effect of interval [ $F(8,352) = 23.70$ ;  $p < 0.01$ ]. A 2 (item)  $\times$  9 (interval) MANOVA indicated a significant effect of item for interval 6 [ $F(1,44) = 5.18$ ;  $p < 0.05$ ]; there were higher ratings for arm levitation during the early part of the cancellation phase. Figure 4 displays the mean dial ratings for arm levitation and age regression for self-hypnosis. Similar analysis revealed significant main effects for item [ $F(1,44) = 5.62$ ;  $p < 0.05$ ] and interval [ $F(8,352) = 26.68$ ;  $p < 0.01$ ] and a significant interaction between item and interval [ $F(8,352) = 4.10$ ;  $p < 0.001$ ]. A significant effect of item was obtained for interval 2 [ $F(1,44) = 4.37$ ;  $p < 0.05$ ]; interval 3 [ $F(1,44) = 4.98$ ;  $p < 0.05$ ]; interval 4 [ $F(1,44) = 5.65$ ;  $p < 0.05$ ] and interval 5 [ $F(1,44) = 5.17$ ;  $p < 0.05$ ]. This indicated higher ratings for age regression than arm levitation in much of the suggestion phase and in the test phase.

\*Significant order effects were observed for age regression. A 2 (hypnosis order)  $\times$  2 (condition)  $\times$  9 (interval) repeated measures ANOVA revealed a significant interaction between hypnosis order and condition [ $F(1,42) = 5.11$ ;  $p < 0.05$ ]; subjects who experienced hetero-hypnosis first made higher dial ratings for self-hypnosis. A 2 (item order)  $\times$  9 (interval) repeated measures ANOVA revealed a main effect for item order [ $F(1,21) = 5.69$ ;  $p < 0.05$ ] and an interaction across item order and interval [ $F(8,168) = 5.29$ ;  $p < 0.01$ ]; subjects who received age regression first made higher dial ratings for age regression, and dial ratings across intervals differed depending upon which item was administered first.

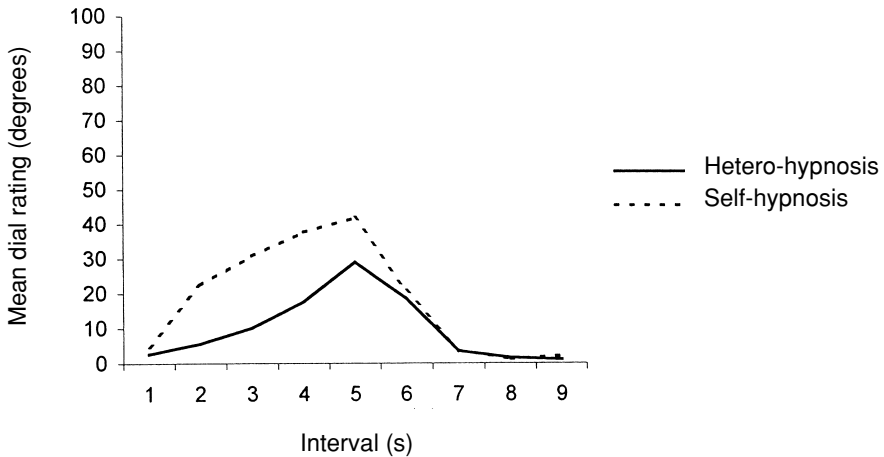


Figure 2. Mean self-hypnosis and hetero-hypnosis dial ratings in age regression. Suggestion phase = intervals 1–4; test phase = interval 5; cancellation phase = intervals 6–9.

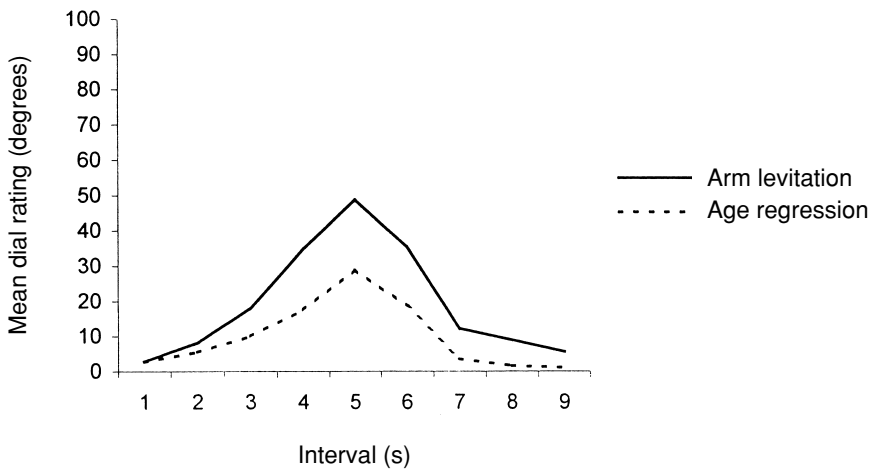


Figure 3. Mean hetero-hypnosis dial ratings for arm levitation and age regression. Suggestion phase = intervals 1–4; test phase = interval 5; cancellation phase = intervals 6–9.

### *Behavioural performance*

Because of reported difficulties in using the dial, there were 21 subjects for age regression during self-hypnosis. For arm levitation, 18 (78%) subjects passed it in hetero-hypnosis and 13 (57%) subjects passed it in self-hypnosis. For age regression, 20 (95%) subjects passed it in hetero-hypnosis and in self-hypnosis.\* Chi-squared

\*\*For arm levitation, 36% of subjects described self-hypnosis as more real and also as more involuntary when self-hypnosis was administered first, compared to 0% of subjects when hetero-hypnosis was administered first [chi-squared test (1,N) = 23] = 5.28;  $p < 0.05$ ].

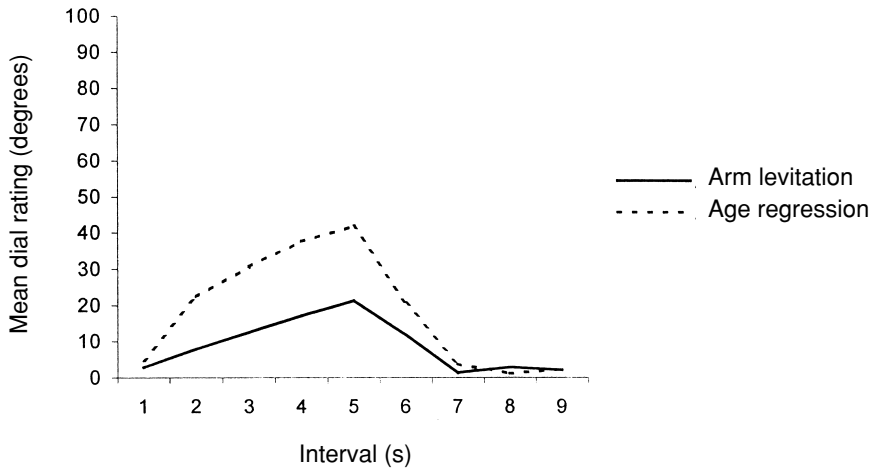


Figure 4. Mean self-hypnosis dial ratings for arm levitation and age regression. Suggestion phase = intervals 1–4; test phase = interval 5; cancellation phase = intervals 6–9.

analyses revealed no significant differences between hetero-hypnosis and self-hypnosis in this pattern of response. For hetero-hypnosis, 21 (91%) subjects passed the arm levitation item and 18 (78%) subjects passed the age regression item. For self-hypnosis, 20 (95%) subjects passed arm levitation and 13 (62%) subjects passed age regression. Again, chi-squared analyses indicated no significant differences in this pattern of response.

#### *Retrospective reports*

Subjects were asked post-experimentally whether they found hetero-hypnosis or self-hypnosis to be more real, more involuntary and to involve more active thought. For arm levitation, 19 (83%) subjects described hetero-hypnosis as being more real and more involuntary, and 15 (65%) subjects reported self-hypnosis as involving more active thought.\*\* For age regression, 13 (57%) subjects rated hetero-hypnosis as being more real, and 15 (65%) subjects rated hetero-hypnosis as being more involuntary. In contrast, self-hypnosis was seen by 20 (87%) subjects as involving more active thought. Chi-squared analyses indicated no significant difference across items in terms of subjects' endorsements of self-hypnosis and hetero-hypnosis.

#### *Relationship between dial ratings and behavioural performance*

To examine dial ratings between subjects who passed and who failed, a 2 (performance)  $\times$  9 (interval) repeated measures ANOVA was performed for each item for each hypnosis type. For hetero-hypnotic arm levitation, there was a significant interaction between interval and performance [ $F(8,168) = 2.58; p < 0.05$ ]; the ratings for

\*For arm levitation in the self-hypnosis condition, more subjects passed the item (nine individuals, 82%) when age regression was administered first, in comparison with arm levitation being administered first (four individuals, 33%); [chi-squared test = (1,N) = 23) = 5.49;  $p < 0.05$ ].

\*\*For arm levitation, 36% of subjects described self-hypnosis as more real and also as more involuntary when self-hypnosis was administered first, compared to 0% of subjects when hetero-hypnosis was administered first [chi-squared test (1,N) = 23) = 5.28;  $p < 0.05$ ].

subjects who passed differed from the ratings of those who failed. For self-hypnotic arm levitation there was a significant main effect of performance [ $F(1,21) = 5.87$ ;  $p < 0.05$ ] and also a significant interaction between performance and interval [ $F(8,168) = 3.75$ ;  $p < 0.001$ ]; subjects who passed self-hypnotic arm levitation made higher dial ratings for that item than those who failed. For age regression, there were no significant differences in patterns of dial ratings between subjects who passed or failed the item in either hetero-hypnosis or self-hypnosis.

### *Relationship between dial ratings and retrospective reports*

To examine dial ratings between subjects who endorsed self-hypnosis and those who endorsed hetero-hypnosis, a 2 (endorsement)  $\times$  2 (condition)  $\times$  9 (interval) repeated measures ANOVA was performed for each dimension of experience (realness, involuntariness and active thinking), for each item separately. For arm levitation, analyses yielded no significant effects. For age regression, there was no significant main effect of endorsement for involuntariness [ $F(1,42) = 4.10$ ;  $p < 0.05$ ] and a significant interaction between endorsement and condition [ $F(1,42) = 3.77$ ;  $p < 0.05$ ]; there were higher dial ratings for age regression during both self-hypnosis and hetero-hypnosis by subjects who endorsed self-hypnosis as being more involuntary. Also, subjects who rated hetero-hypnosis as being more involuntary gave higher dial ratings for age regression during self-hypnosis, and subjects who rated self-hypnosis as being more involuntary gave higher dial ratings for age regression during hetero-hypnosis. For age regression, there was also a significant interaction between endorsement and condition [ $F(1,42) = 3.77$ ;  $p < 0.05$ ] for active thinking; subjects who gave higher dial ratings for the hypnosis type they rated as involving less active thought.

## **Discussion**

Self-hypnosis and hetero-hypnosis were compared in high-hypnotizable subjects. The focus was on an ideomotor (arm levitation) and a cognitive item (age regression) and a behavioural measure, a concurrent experiential measure and retrospective experiential measures were used in the study. Subjects were equally likely to pass each item during self-hypnosis as they were during hetero-hypnosis. Subjects retrospectively reported the experience of hetero-hypnosis as being more real and involuntary, and the experience of self-hypnosis as involving more active thought.

The similar behavioural performance in self-hypnosis and hetero-hypnosis is consistent with other studies (Shor and Easton, 1973; Ruch, 1975; Hammond, Haskins-Bartsch, Grant and McGhee, 1988). However, whereas some have considered that such findings mean there are no differences at all between self-hypnosis and hetero-hypnosis (Ruch, 1975), our results indicate that the subjective experiences in each type of hypnosis are distinct (see also Johnson and Weight, 1976; McConkey, 1986). Similar to Johnson and Weight (1976), we found self-hypnosis to be less involuntary and to involve more active thought than hetero-hypnosis. This accords with McConkey (1986) who reported that there was a general expectation among hypnotically naïve subjects that self-hypnosis would not be experienced as involuntary, and could only be experienced when the subject consciously thought in a way that facilitated its effects.

A major finding of the present experiment was that differences between the experience of self-hypnosis and hetero-hypnosis depended upon the item being considered. The dial ratings revealed that hetero-hypnosis was experienced more than



self-hypnosis for the arm levitation item, and self-hypnosis was experienced more than hetero-hypnosis for the age regression item. In particular, hetero-hypnosis was experienced more during the test phase and early cancellation phase, whereas self-hypnosis was experienced more during the suggestion phase. In other words, hetero-hypnosis was associated with a greater strength of experience during arm levitation, and self-hypnosis was associated with a greater speed of onset of the suggested experience during age regression.

The dial ratings showed that the arm levitation and age regression items were experienced differently. This is consistent with McConkey et al. (1999a) who also found that dial ratings varied across different items. Moreover, our results indicate that the differences between the two items were not the same for hetero-hypnosis and self-hypnosis. In hetero-hypnosis, arm levitation was experienced more strongly than was age regression, whereas in self-hypnosis, age regression was experienced more strongly than arm levitation. In particular, arm levitation was experienced more strongly during the start of the cancellation phase, and age regression was experienced more strongly during the suggestion and test phases.

The different dial ratings for arm levitation and age regression underscore that different hypnotic items tap particular dimensions of hypnotic responding (see also McConkey et al., 1999a). Whereas cognitive items are typically considered to be more difficult than ideomotor items (Balthazard and Woody, 1985; McConkey, Barnier, Maccallum and Bishop, 1996), our results indicate that age regression was experienced more strongly than arm levitation during self-hypnosis. This suggests that the experience of and behavioural responses to hypnotic items is determined by a range of factors, and that these factors interact with the way in which hypnosis is administered. In this respect, self-hypnosis has been associated with greater receptivity to internal stimuli and vivid personal imagery (Fromm et al., 1981). Such factors might be expected to enhance the experiences of a cognitive item, such as age regression, but have relatively less impact on an ideomotor item, such as arm levitation. This notion could be examined in future studies by investigating additional ideomotor and cognitive items in self-hypnosis and hetero-hypnosis.

The item-specific nature of the relationship between hetero-hypnosis and self-hypnosis is an important finding of the present study. Use of the dial method allows further systematic comparison of the experiences of different hypnotic items to be undertaken in quantifiable ways. By using a concurrent measure we were able to detect fine-grained differences across hetero-hypnosis and self-hypnosis that were related to the particular phase of the suggestion. The failure of behavioural and retrospective measures to distinguish across items and across phases demonstrates the amount of information that is lost when retrospective reports are used that require subjective averaging (Laurence and Nadon, 1986; Bowers, Laurence and Hart, 1988) or when experience is indexed behaviourally during a single phase of the suggestion (see also McConkey et al., 1999a).

Various relationships were observed among the different types of measures, but these relationships did not exist for both items and did not exist for the same items across self-hypnosis and hetero-hypnosis. In self-hypnosis and hetero-hypnosis, passing an item was related to higher dial ratings in arm levitation, but not in age regression; retrospective reports of involuntariness and active thought were related to dial ratings in age regression but not in arm levitation. We recognize that the dial ratings were a measure of strength of experience, and that this is not identical to a measure of involuntariness, realness or active thought. However, the fact that the different measures either did not converge at all, or failed to do so, consistently across each

type of hypnosis, item or dimension of experience, underscores the importance of the use of multiple methods of enquiry and indexing.

Overall, our findings indicate that self-hypnosis and hetero-hypnosis vary in ways that are specific rather than global (see also Johnson et al., 1983). Given this, it would be inappropriate to assume that all the findings, methodologies and theories of hetero-hypnosis may be applied to self-hypnosis. Our findings also have implications in terms of the use of self-hypnosis in a clinical setting. The finding, for instance, that our subjects engaged more quickly in their experience of a cognitive item during self-hypnosis suggests that the use of self-hypnosis could be an advantage in some clinical procedures and a disadvantage in others. In addition, subjects' endorsement of self-hypnosis as more active and less involuntary indicates that self-hypnosis could provide clients with a more autonomous, participatory role during treatment (Fromm et al., 1981; Baker, 1987). That said, we acknowledge that individuals experiencing self-hypnosis in the clinic might have quite different motivations and expectations to subjects in the laboratory (see also Sacerdote, 1981).

Subjects were asked to choose between the two types of hypnosis during the post-experimental enquiry. Not only did this imply that differences between self-hypnosis and hetero-hypnosis were expected, but it also made inferential analysis of these particular data difficult. Alternatively, future studies could use numerical rating scales such as those employed by McConkey et al. (in press) or could ask subjects to use the dial to rate a specific dimension during the item itself. Also, high-hypnotizable individuals were used in the present study and these subjects have been shown to be the most able to distinguish between the experiences of self-hypnosis and hetero-hypnosis (Fromm et al., 1981). A future study should include subjects with a broad range of hypnotic abilities.

Finally, any future study should examine how the attentional and/or physical demands of using the dial might have influenced subjects' response to the suggestions across self-hypnosis and hetero-hypnosis (see also Field, 1966; McConkey et al., 1999a). These issues aside, our findings indicate that self-hypnosis and hetero-hypnosis are different, and that the way in which they differ will depend in part on the item that subjects are being asked to experience.

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