

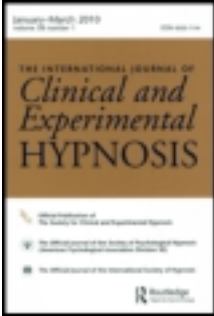
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### Posthypnotic responding: Knowing when to stop helps to keep it going

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# POSTHYPNOTIC RESPONDING: *Knowing When to Stop Helps to Keep It Going*<sup>1</sup>

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**Abstract:** The authors examined the effect of specifying (cue) or not specifying (no cue) the cancellation cue for posthypnotic suggestion. Responding was indexed on formal, embedded, informal, and postexperimental tests. Thirty-six real, hypnotized participants and 20 simulating participants took part in an application of the real-simulating paradigm. Responding declined across the four tests. Real participants in the cue condition maintained responding longer than simulators in the cue condition, and they also maintained responding longer than reals and simulators in the no cue condition. The findings highlight the interactional influence of individual, interpersonal, and situational factors in posthypnotic responding and underscore the active involvement of individuals in hypnotically initiated events.

A specific posthypnotic suggestion given to a highly hypnotizable individual is often seen to lead to a compelling and compulsive response after hypnosis. Clinical lore and anecdotal reports indicate that if such a posthypnotic suggestion is not canceled, then it will endure beyond the time and setting in which it was administered (Sheehan & Orne, 1968; Weitzenhoffer, 1957). Evans (1971; cited in Perry, 1977a), for example, reported that he suggested amnesia for the number 6 and intended the suggestion to last for the session only. One participant, a mathematics teacher, misunderstood the instruction to mean that the suggestion would continue until the next session, and he experienced difficulty teaching until the suggestion was cancelled during the next session. In the present experiment, we investigated the assumed persistence of posthypnotic effects. We drew on three lines of research that have examined this issue.

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In one line of research, investigators considered whether participants who do not complete a posthypnotic suggestion in response to a cue may carry out the suggested behavior subsequently (Coe, 1973, 1976; Nace & Orne, 1970). Nace and Orne (1970) gave participants a posthypnotic suggestion to experience a compelling urge to pick up and play with a blue pencil when the hypnotist took off his glasses. They found that, in comparison to baseline measures in two previous experimental sessions, there was a significant increase in the number of individuals who picked up the pencil following the hypnosis session. A number of participants completed the suggestion after the hypnotist had left the room, and these individuals had higher hypnotizability scores than those who neither responded at the time of the cue nor picked up the blue pencil after the hypnotist had left. Nace and Orne concluded that a posthypnotic suggestion creates an intrapsychic need to carry out the suggested behavior and that if such behavior is not carried out by high hypnotizable participants at the appropriate time, then it may be carried out at a later time. However, in an application of the real-simulating paradigm (Orne, 1959, 1971), Coe (1976; see also Coe, 1973) found an increased tendency of both reals and simulators to choose the blue pencil after hypnosis. Coe (1976) argued that the completion of a posthypnotic suggestion outside the presence of the hypnotist may be due to demand characteristics, rather than the persistence of the uncompleted posthypnotic suggestion.

In a second line of research, Perry (1977a, 1977b; see also Duncan & Perry, 1977) examined the posthypnotic persistence of an uncanceled hypnotic suggestion in a sample of university students. He gave participants a suggestion for analgesia of the right hand and forearm and left it uncanceled. The analgesia persisted posthypnotically for 20% of the high hypnotizable participants, but for none of the medium or low hypnotizable participants; moreover, those who showed this effect had better hypnotic analgesia and greater hypnotic depth. Perry (1977b) concluded that only very susceptible hypnotic individuals will experience the effects of an uncanceled hypnotic suggestion after hypnosis and that most individuals (at least within the university setting) will assume an implicit cancellation if an explicit cancellation is not provided.

In a third line of research, investigators focused on posthypnotic responding away from the experimental setting (e.g., Damaser, 1964; Fisher, 1954; Orne, Sheehan, & Evans, 1968; Spanos, Menary, Brett, Cross, & Ahmed, 1987; St. Jean, 1978). Orne et al. (1968) gave real, hypnotized and simulating, un hypnotized participants a suggestion to touch their forehead whenever they heard the word *experiment* in the next 48 hours. Posthypnotic responding was tested in the experimental setting by the experimenter and in the reception area by a secretary who used the cue word when the participants spoke to her after the first session and again before the next session. They found that whereas 29% of real participants responded consistently across the experimental and reception settings,

no simulating participant showed similar behavior. Others (e.g., Fisher, 1954; Spanos, Menary, et al., 1987), however, have found that participants will not respond outside the experimental setting, and they have argued that participants will continue to respond outside that setting only to the extent that it is a clear continuation of the formal experimental setting.

From our perspective, the various findings can be interpreted in terms of the information contained in the suggestion about the nature and duration of responding. In studies of responding outside the experimental setting, some experimenters have included specific information about when responding should occur and others have not. For instance, Fisher (1954) told participants to scratch their ear "each time/every time" they heard the word *psychology*, but he provided no specific cancellation; Orne et al. (1968) told participants to touch their forehead "whenever/each and every time" they heard the word *experiment*, and they gave a specific response time of 48 hours; and, Spanos, Menary, et al. (1987) told participants to cough "each time/every time" they heard the word *psychology* and they specified a cancellation during the next session. The various findings of these experiments point to the relevance of the specific wording of the suggestion and the importance of the precise messages that they convey about the cancellation of the suggestion.

Accordingly, we investigated the impact of including specific information in the posthypnotic suggestion about how long participants should respond. We gave participants posthypnotic suggestion to cough out loud. The suggestion included either a cancellation cue (cue) or no cancellation cue (no cue); also, the suggestion included the word *when* or the word *whenever* to describe the time(s) at which responding should occur. We compared the responding of real, hypnotized and simulating, un hypnotized participants (Orne, 1959, 1971). This design allowed a test not only of the influence of the inclusion of an explicit cancellation and the specific wording of the suggestion but also of the possible role of demand characteristics. Following Barnier and McConkey (1996), posthypnotic responding was indexed in four tests: a *formal* test, where the response cue was given immediately after the awakening procedure; an *embedded* test, where the response cue was embedded within an inquiry question; an *informal* test, where the response cue was given as the experimenter left the room; and a *postexperimental* test, where the response cue was given by an independent experimenter during a postexperimental inquiry. Consistent with the response pattern in previous research (Barnier & McConkey, 1996), we expected that responding would decline across the four tests. Also, based on Perry's (1977a, 1977b) argument, we expected that participants who were not given a specific cancellation would assume an implicit cancellation and respond primarily on the formal test; conversely, we anticipated that those who were waiting for a specific cancellation would continue to respond until that cue was given.

## METHOD

### *Participants*

Thirty-six (13 male and 23 female) real, hypnotized individuals of a mean age of 20.44 years ( $SD = 4.40$ ) and 20 (12 male and 8 female) simulating, un hypnotized individuals of a mean age of 21.10 years ( $SD = 5.55$ ), who were undergraduate psychology students at the University of New South Wales, Sydney, Australia, voluntarily participated in return for research credit of 1 hours. Participants were preselected on the basis of their extreme scores on the 12-item Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS: A; Shor & Orne, 1962), and their hypnotic susceptibility was confirmed by a 10-item tailored version of the Stanford Hypnotic Susceptibility Scale, Form C (SHSS:C; Weitzenhoffer & Hilgard, 1962; see also Hilgard, Crawford, Bowers, & Kihlstrom, 1979). Reals had scored in the range of 9-12 on the HGSHS:A ( $M = 9.97$ ,  $SD = 0.94$ ) and 8-10 on the tailored SHSS:C ( $M = 9.08$ ,  $SD = 0.77$ ); simulators had scored in the range of 0-4 on the HGSHS:A ( $M = 2.80$ ,  $SD = 1.20$ ) and 0-3 on the tailored SHSS:C ( $M = 2.20$ ,  $SD = 0.89$ ).

### *Apparatus*

A Panasonic M40 VHS videocamera and a Panasonic HQ VHS videocassette recorder were used to record the individual's participation onto Sony L-750 videocassettes. The videocamera was focused on the participant throughout, and the recorded image included the individual's head, upper body, arms, and hands.

### *Procedure*

The experiment involved the administration of real-simulating instructions, an hypnosis session (including a posthypnotic inquiry), and a postexperimental inquiry session. The real-simulating instructions and the postexperimental inquiry were administered by the first experimenter (E1), and the hypnosis session was conducted by the second experimenter (E2). The posthypnotic suggestion was incorporated into the hypnosis session, which included a standard induction (adapted from Weitzenhoffer & Hilgard, 1962), a number of suggestions (based on the Diagnostic Rating Scale) (Orne & O'Connell, 1967), and a standard deinduction. The posthypnotic suggestion was given just prior to the deinduction procedure. The four tests of posthypnotic responding were administered during the posthypnotic inquiry (formal, embedded, and informal tests) and postexperimental inquiry (postexperimental test) periods conducted by E2 and E1, respectively.

*Real-simulating instructions.* Following informed consent procedures, E1 instructed participants according to the procedures of the real-simulating paradigm. Reals were told they would be taken to E2, who would

conduct a hypnosis session. Simulators were told they would be taken to E2, and their task was to fool her into believing they were excellent hypnotic participants. Simulators were told E2 knew some participants would be faking, but she did not know which participants they were, and she would stop the session if she discovered they were faking. They were told their task was a difficult one, intelligent individuals could do it successfully, and they were not to reveal they were faking until they returned from their hypnosis session. Finally, all participants were told they would be given the opportunity to discuss their experiences with E1 during the postexperimental inquiry. Following this, E1 introduced participants to E2, who was unaware of their real or simulating identity.

*Hypnosis session.* Initially, E2 informed participants she would hypnotize them and give them a number of hypnotic suggestions. She then rated their real or simulating identity, administered a hypnotic induction procedure, and tested them on the four hypnotic items of hand lowering, arm levitation, heat hallucination, and identity delusion. Following a deepening procedure, E2 administered one of two versions of the post-hypnotic suggestion: 28 individuals received the no cue version (18 reals and 10 simulators) and 28 received the cue version (18 reals and 10 simulators). For half the participants, the suggestion included the word *when*, and for the other half the suggestion included the word *whenever* to describe the time(s) at which responding should occur. The verbatim no cue/cue (with when/whenever) suggestion was as follows:

After a while, you will hear the word *experiment*. When/whenever you hear that word you will cough out loud. You will cough out loud. When/whenever you hear the word *experiment*, you will immediately cough out loud. You will cough out loud. You will do this, but you will forget that I told you so. (You will do this until you hear the words "you can stop coughing now.") It will seem so natural that you will not be aware of it. It will happen automatically when/whenever you hear the word *experiment*. When/whenever you hear the word *experiment* you will cough out loud. (You will do this until you hear the words "you can stop coughing now.")

After administering this posthypnotic suggestion, E2 allowed 10 s to pass before she administered a standard deinduction procedure.

*Posthypnotic inquiry session.* Immediately following the deinduction procedure, E2 administered the formal test. She asked participants, "Well, how did you find the *experiment*?" and allowed 30 s to elapse from the end of the response cue. She avoided eye contact and noted participants behavioral and verbal responses. E2 then administered the embedded test as part of an inquiry about the nature of participants' reactions to the response cue: "A few moments ago when I said to you, 'Well how did you find the *experiment*?' what thoughts went through your mind?" She allowed 30 s to elapse and noted their behavioral and verbal responses. Also, E2 asked participants to rate how much they felt like

coughing when they heard the response cue during the formal test (posthypnotic rating; 1 = *did not at all feel like it*, 7 = *totally felt like it*).

Following this, E2 conducted a brief inquiry into the other hypnotic items and then administered the informal test. At this point, she thanked participants, rated their real or simulating identity,<sup>5</sup> arose from her chair, and administered the informal test when she said: "Now I'll just go and get [E1] for the last part of the *experiment*." After this, she left the experimental room and returned with E1.

*Postexperimental inquiry session.* Initially, E1 administered the postexperimental test. She asked participants "What general thoughts do you have about the *experiment*?" and allowed 30 s to elapse from the end of the response cue. She avoided eye contact and noted their behavioral and verbal responses. E1 then canceled the posthypnotic suggestion, and she conducted an inquiry into participants' perceptions of the overall procedures, interpretation of the posthypnotic suggestion (e.g., "Tell me what you remember about the suggestion that you were given"), and reactions to the posthypnotic tests (e.g., "What thoughts went through your mind when E2 said the word *experiment* after waking you up?"). In addition, she asked participants to rate how much they felt like coughing when they heard the response cue during the formal test (postexperimental rating; 1 = *did not at all feel like it*, 7 = *totally felt like it*). Finally, E1 answered any questions, thanked participants, and ended the session.

## RESULTS

The participants' responses on the formal, embedded, and informal tests were categorized by E2, and those on the postexperimental test were categorized by E1. Also, all responses were categorized by an independent rater who was unaware of the identity of participants and the condition in which they were being tested; this rater viewed only the relevant response segments of the videotape. Responses were categorized as complete (a behavioral response that corresponded to the letter of the suggestion), as incomplete (a behavioral reaction consistent with the suggestion such as clearing the throat, within 30 s of the response cue), or as no response (no behavioral reaction within 30 s of the response cue). Overall interrater reliability was  $k = 0.88$  (kappa statistic; see Cohen, 1960; formal:  $k = 0.94$ ; embedded:  $k = 0.80$ ; informal:  $k = 0.83$ ; postexperimental:  $k = 0.76$ ). Analyses are based on the independent rater's categorizations of response because some responding occurred outside the presence of E2 (e.g., during the informal test) and because E1 was aware of the identity of participants.<sup>6,7</sup>

<sup>5</sup>E2 correctly identified 54% of participants (53% reals, 55% simulators) at the beginning and 68% of participants (81% reals, 45% simulators) at the end of the hypnosis session.

<sup>6</sup>Analyses based on the categorizations by E2 and E1 showed the same pattern of findings.

<sup>7</sup>The use of the word *when* or *whenever* in the suggestion had no impact on the pattern of findings and is not considered.



Table 1  
*Number of Participants Responding and Mean Compulsion Ratings  
 on the Formal Test*

Suggestion and Identity	Response Complete		Response Incomplete		No Response	
	Number	Rating	Number	Rating	Number	Rating
Cue						
Real	9 (50)	4.57 (2.09)	2 (11)	5.25 (2.47)	7 (39)	3.00 (2.19)
Simulating	8 (80)	5.25 (1.15)	0 (—)	—	2 (20)	2.63 (2.47)
No cue						
Real	10 (56)	4.67 (1.91)	2 (11)	5.69 (1.86)	6 (33)	3.06 (1.33)
Simulating	6 (60)	6.42 (0.71)	3 (30)	4.38 (0.88)	1 (10)	3.50 (—)

Note. Percentages (for number) and standard deviations (for ratings) appear in parentheses. For compulsion ratings, 1 = *did not at all feel like it*, 7 = *totally felt like it*.

### *Responding on Formal Test*

Table 1 presents the number of participants responding and the mean compulsion ratings on the formal test. In terms of the number of participants responding, there was no significant difference in the pattern of responding of reals and simulators given either version of the suggestion. In terms of participants' ratings of how much they felt like coughing during the formal test (1 = *did not at all feel like it*, 7 = *totally felt like it*), a two-way ANOVA (Suggestion  $\times$  Identity) of these ratings yielded no significant main or interaction effects. However, a one-way ANOVA of participants' compulsion ratings according to response categorization (a full three-way analysis was not conducted due to empty cells or cells with small numbers) indicated that participants who made either a complete ( $M = 5.11$ ,  $SD = 1.71$ ) or an incomplete ( $M = 5.00$ ,  $SD = 1.49$ ) response on the formal test gave higher ratings of compulsion than those who made no response ( $M = 3.01$ ,  $SD = 1.72$ ),  $F(2, 52) = 8.67$ ,  $p < .001$ . During the postexperimental inquiry, participants were asked again to rate their compulsion during the formal test; at this point, simulators had stopped simulating. Whereas simulators' ratings ( $M = 3.68$ ,  $SD = 1.81$ ; note, means reflect differences in scores) decreased significantly, reals' ratings ( $M = 0.05$ ,  $SD = 1.24$ ) essentially did not change,  $F(2, 44) = 3.76$ ,  $p < .05$ .

### *Responding Across Tests*

The performance of the 40 reals or simulators who responded (completely or incompletely) on the formal test was considered on the other three tests. Across these tests, posthypnotic responding was influenced by suggestion version and test type. Figure 1 presents the percentage responding on the formal, embedded, informal, and postexperimental tests. As expected, the number of participants who responded decreased across the tests. However, that change was slowest for reals in the cue

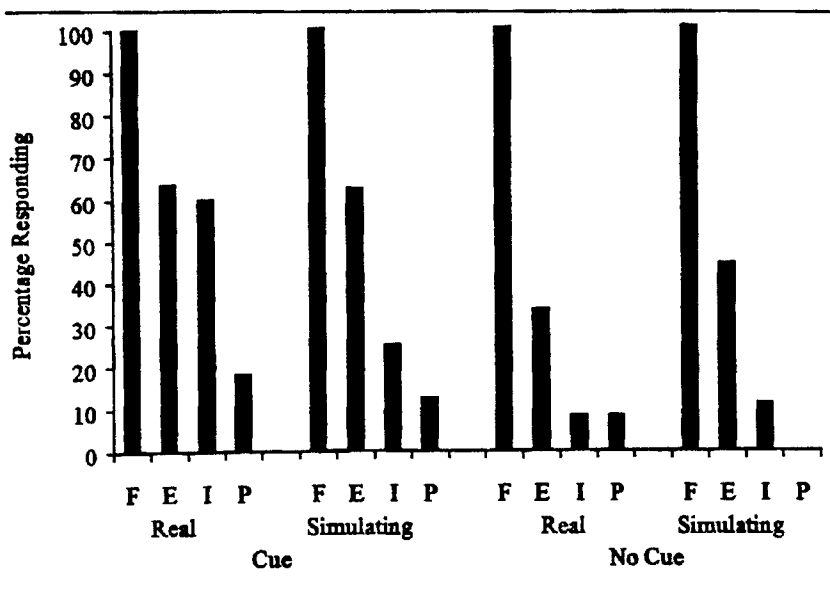


Figure 1. Percentage response on the four tests.

Note. F = formal test, E = embedded test, I = informal test, P = postexperimental test.

condition; in other words, the slowest decrease was for those reals who were waiting for a cancellation cue to be given. For reals and simulators in the no cue condition, separate McNemar tests for the significance of changes,  $p < .05$ , indicated a significant decline from the formal test to the embedded test. In comparison, for reals and simulators in the cue condition, there was no significant change from any test to the next test.

Reals and simulators in the no cue condition did not differ on any test. In contrast, reals and simulators in the cue condition responded similarly on the embedded and postexperimental tests and differently on the informal test. On the informal test, whereas 6 (60%) reals made a complete ( $n = 5$ ) or an incomplete ( $n = 1$ ) response, only 2 (25%) simulators made an incomplete response,  $\chi^2(2, n = 18) = 5.58, p < .06$ . On the postexperimental test, only 2 (18%) reals and 1 (13%) simulator responded. Overall, and although acknowledging that the number of participants involved is small, reals who were given a suggestion that specified a cancellation cue maintained their responding longer than simulators.

In addition to examining the impact of the suggestion version and the decline in responding across the tests, we examined how responding on the formal test influenced responding on the other tests. From a heuristic perspective, we were interested in whether the reals and simulators who responded after the formal test did so in a way that was consistent or inconsistent with their response on the formal test independent of the

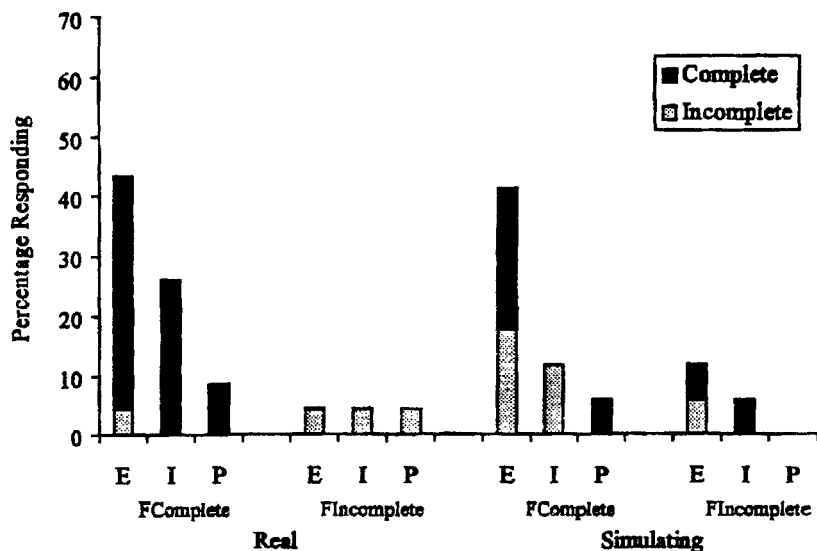


Figure 2. Percentage of complete and incomplete responding on the embedded, informal, and postexperimental tests.

Note. F = formal test, E = embedded test, I = informal test, P = postexperimental test.

suggestion that they had been given. Figure 2 presents the percentage of complete and incomplete responding across the embedded, informal, and postexperimental tests. Participants were categorized according to whether they had given a complete or an incomplete response on the formal test. Consistent with Figure 1, this figure shows the decline in responding across the tests. More important, however, it also indicates that the majority of reals who made a complete or incomplete response on the formal test and who responded again on a subsequent test maintained their original manner of responding. In other words, reals who made a complete response on the formal test and who responded on a subsequent test generally continued to make a complete response. In comparison, simulators who made a complete or incomplete response on the formal test and who responded on a subsequent test showed more variability in their responding; in other words, they were as likely to make a complete as an incomplete response on the other tests. Overall, reals were more consistent in their responding than were simulators regardless of the nature of the subsequent test.

#### *Participants' Postexperimental Comments*

In the no cue condition, the postexperimental comments of participants indicated that they thought they did not need to respond again after they had responded on the formal test. Notably, those reals and simulators who continued to respond differed in the ways in which they

described that responding. The majority of reals (92%,  $n = 11$ ) characterized their behavior as either automatic and unconscious or as a combination of conscious and unconscious aspects; most simulators (78%,  $n = 7$ ) characterized their behavior as voluntary and strategic.

In the cue condition, simulators' comments indicated that they were unsure whether to maintain their response across the tests. Consistent with their role, most said they were aware of the suggestion, were waiting for the cancellation, and were wondering about the meaning of the multiple tests. For example, one simulator said: "I wasn't sure whether to maintain it between the times. I knew that the key word was *experiment*, but I didn't know when to cough and for how long." All simulators who responded described their responding as conscious and strategic. In comparison, reals' comments in the cue condition were characterized by reports of compulsion and automaticity; also, their comments indicated little specific awareness of the cancellation, and most reals said they could recall little about what they had been asked to do. Of those who responded, 7 (64%) reals reported no memory for the specifics of the suggestion and the cancellation, and 2 (18%) recalled the specifics of the suggestion and the cancellation. Nevertheless, most reals (82%,  $n = 9$ ) described their behavior as natural and compelling. For example, one real commented: "I was trying to think of what to say and I just started to cough. It just happened and then went away. I didn't feel like coughing beforehand, but when [E2] said *experiment* I felt like I had to."

## DISCUSSION

Real, hypnotized participants who were given a suggestion that specified a cancellation cue maintained their response longer than simulating, un hypnotized participants who were given the same suggestion, and longer than reals and simulators who were given a suggestion that did not specify a cancellation cue. More particularly, reals and simulators in the cue condition responded similarly on the formal, embedded, and postexperimental tests, but differently on the informal test; in comparison, reals and simulators in the no cue condition did not differ on any test. These findings indicate that knowledge that a cancellation will occur leads to continued responding until the cancellation is given; the absence of that knowledge leads to participants' terminating their response to the suggestion. In other words, if participants know they are going to be told to stop responding, then that helps them maintain their responding. This finding can be placed in the context of the rules that govern the social interaction between a "hypnotist" and a "subject," and the rules that govern the cognitive and motivational events that are occurring in someone who is responding to a hypnotic suggestion (McConkey, 1991). Also, this finding could be placed in the context of the expectations and beliefs that individuals hold about hypnosis (e.g., McConkey, 1986; Spanos, Brett, Menary, & Cross, 1987), although little is known about the

expectations and beliefs surrounding posthypnotic suggestion. In fact, posthypnotic suggestion has been relatively neglected in both empirical and theoretical work, and the present findings provide part of the information that is needed to better understand the phenomenon and the processes involved.

The present findings are consistent with our work on the impact on posthypnotic responding of specific features of the suggestion (Barnier & McConkey, 1996), and they extend previous research on posthypnotic effects (e.g., Coe, 1973, 1976; Damaser, 1964; Duncan & Perry, 1977; Nace & Orne, 1970; Orne et al., 1968; Perry, 1977a, 1977b; Spanos, Menary, et al., 1987). Our findings indicate that the clearer the hypnotist is about how long responding should continue, then the more likely it is that participants will continue to respond. Previous investigations that have found that some individuals may complete an uncompleted posthypnotic suggestion during a later test (Coe, 1973, 1976; Nace & Orne, 1970), or that the effects of uncanceled suggestions may persist (Perry, 1977a, 1977b), or that responding may continue outside the experimental setting (Damasar, 1964; Orne et al., 1968; Spanos, Menary, et al., 1987) may be best understood in terms of the information that the hypnotist somehow conveyed to participants about the nature and duration of their responding.

In the present experiment, the way in which participants interpreted the suggestion clearly influenced their responding. For instance, a few participants interpreted the suggestion as having to continue coughing, independent of the test, from the time that the response cue was given (during the formal test) until they heard the cancellation, and their experience was in line with this understanding; for example, one real reported feeling a constant irritation in his throat across the tests. Thus, participants' interpretation of the specific features of the suggestion influenced their behavior and experience. This is consistent with the focus that others have placed on the importance of understanding how individuals interpret the information presented in the hypnotic setting (e.g., Barnier & McConkey, 1996; McConkey, 1991; Sheehan & McConkey, 1982).

Consistent with Barnier and McConkey (1996), we again found that posthypnotic responding declined across the four test types. Whereas most reals and simulators responded on the formal test, the ambiguity in the embedded and informal tests led to a sharp decline in responding; only 3 reals and 1 simulator responded on the postexperimental test. This indicates that the change of setting and experimenter and/or the passage of time influenced posthypnotic responding for the majority of participants. This finding is consistent with research on other hypnotic phenomena, such as hypnotic pseudomemory, which has highlighted the

impact of changes in the testing context on participants' responding (e.g., Barnier & McConkey, 1992; McConkey, Labelle, Bibb, & Bryant, 1990). In the present experiment, it seems that many participants either did not recognize or were not prepared to receive a cue after the formal test, and thus did not respond to the posthypnotic cue. Despite this, reals who were awaiting a cancellation were more likely to maintain their response across the tests. This suggests that continued responding across multiple tests depends, in part, on the information that is included in the original suggestion. Nevertheless, the fact that responding declined as the tests became more ambiguous in nature indicates that participants' determination of the appropriateness of continuing to respond across these tests also influenced their behavior. As in any social interaction, the participants must recognize and interpret the information that is intended to elicit some response from them; then, they must determine whether to respond. As the tests became less obvious to recognize and interpret, then the participants became less likely to respond. Also, from our perspective, once a participant does not respond, it is unlikely that he or she will respond to a test that is less obvious. In the present experiment, this was supported by the fact that participants who did not respond on the formal test generally did not respond on any later test.

The inferences that can be drawn about participants' responding across different types of tests in this experiment may be limited by an alternative explanation that involves the "decay" of the suggestion with the passage of time. For instance, perhaps responding would have continued if participants had been given a series of formal tests rather than a very formal test followed by a number of less formal and more ambiguous tests; alternatively, a formal test could have been given after rather than before the more ambiguous tests. In the present experiment, the tests went from very formal to very informal, and future research could usefully examine performance on a series of tests that go from very informal to very formal. In such an order of testing, the minimal information or cue needed to initiate a posthypnotic response would be of central importance in a full understanding of the phenomenon. Of course, the minimal information needed would depend critically on the way in which the participant interprets the communications of the hypnotist and the hypnotic setting.

Real, hypnotized participants were more consistent in their manner of responding. Reals who responded on the embedded, informal, or postexperimental tests generally maintained the response that they had given originally on the formal test; simulators tended to change their manner of responding. This behavior by reals is consistent with their ratings of compulsion. Notably, there was no appreciable difference between the compulsion reported by those reals who gave a complete or

an incomplete response. Whereas the response categorization assumed that incomplete responding (such as clearing the throat) was essentially less than complete responding (coughing), the ratings of compulsion did not follow this differentiation and the qualitative comments by reals in these two groups indicated that these responses were experientially similar and were rated as such. Whereas methodological issues such as the retrospective nature of the ratings by participants need to be noted, this finding underscores the importance of the primacy of the experience of participants; this is an importance that is sometimes forgotten in theorizing. Moreover, this finding is consistent with previous work that has highlighted the interpretation of complete and incomplete responses to posthypnotic suggestions (Barnier & McConkey, 1996); in other words, what the experimenter sees as behaviorally incomplete, the participant may experience as complete. There is an essential importance in this finding that needs to be explored in future research. It carries implications for how researchers should conduct research on posthypnotic (and hypnotic) phenomena in the laboratory and also for how practitioners should use hypnotic procedures in the clinic.

Overall, our research points to the active involvement of hypnotized individuals, and the way in which their experiences are shaped by their interpretations of the hypnotist's communications (see also Kihlstrom, 1995; McConkey, 1991). The present findings highlight that response to a posthypnotic suggestion depends on the way in which participants process the information included in both the suggestion and the tests, and they do this in the overall context of trying to understand the hypnotist's communications and to make sense of the hypnotic setting. From our perspective, participants must have a preparedness to respond on the basis of the suggestion. This preparedness involves the development of a motivated set or expectancy to respond, which may be influenced by the extent to which the suggestion meets participants' expectations, the availability of social cues in the hypnotic setting that indicate that responding is expected and appropriate, and the degree to which participants are committed to the communications of the hypnotist. Then, participants must recognize that the response cue is present and decide at some level that it is appropriate to initiate a response. Recognition of the response cue is a prerequisite for processing the information that it contains, and the type and context of testing, as well as the expectations of the individual, play a significant role in determining the likelihood of a test being recognized and responded to posthypnotically. One outcome of all of this is that hypnotic responding is essentially personal and often idiosyncratic. In the present experiment, those real participants who knew that they were going to be told to stop were more likely to keep responding to the posthypnotic suggestion. They were engaged in an active partnership with the hypnotist to experience posthypnotic responding.

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### Posthypnotische Reaktionen: zu wissen wann man aufhören kann, hilft beim Weitermachen

Amanda J. Barnier und Kevin M. McConkey

**Zusammenfassung:** Die Autoren untersuchten den Effekt der Spezifizierung (Hinweisreiz) bzw. der Nicht-Spezifizierung (kein Hinweisreiz) eines Hinweisreizes für die Aufhebung der posthypnotischen Suggestion. Die Reaktionen wurden durch formelle, eingebettete, formlose, und postexperimentelle Tests erfaßt. 36 richtige, hypnotisierte Probanden und 20 simulierende Probanden nahmen an der Untersuchung, die sich am Real-Simulations-Modell orientierte, teil. Die Reaktionsrate fiel über die vier Tests ab. Richtige Probanden in der Bedingung mit Hinweisreiz hielten ihre Reaktionen länger aufrecht, als simulierende Probanden in der selben Bedingung, und sie hielten ihre Reaktionen auch länger aufrecht, als die richtigen und die simulierenden Probanden in der Bedingung ohne Hinweisreiz. Die Befunde heben den interaktionellen Einfluß der individuellen, interpersonalen, und situationalen Faktoren bei posthypnotischen Reaktionen hervor und unterstreichen die aktive Beteiligung des Individuums bei hypnotisch initiierten Ereignissen.

La réponse post hypnotique: savoir quand arrêter aide à continuer

Amanda J. Barnier et Kevin M. McConkey

**Résumé:** Les auteurs examinent l'effet de spécifier ou non l'indice d'annulation de la suggestion sur la suggestion post hypnotique. La réponse était mesurée par 4 types de tests: formel, caché, informel, et post expérimental. Trente-six sujets réellement hypnotisés et 20 simulateurs ont participé à l'étude basée sur l'application du paradigme réalité-simulation. La réponse a diminué à travers les 4 tests. Les sujets hypnotisés, dans la condition spécifiant l'indice ont maintenu leur réponse plus longtemps que les simulateurs. Ils ont aussi maintenu leur réponse plus longtemps que les sujets hypnotisés et les simulateurs, dans la situation de non-spécification de l'indice. Les résultats soulignent les influences interactives des facteurs individuels, interperson-

nels, et situationnels lors de la réponse post hypnotique et réaffirment l'implication active des individus dans les événements initiés sous hypnose.

Respuesta poshipnótica: reconocer cuando parar ayuda a continuar

Amanda J. Barnier y Kevin M. McConkey

**Resumen:** Los autores examinaron los efectos de especificar (con consigna) o no especificar (sin consigna) la señal de cancelación de la sugestión poshipnótica. Las respuestas de los sujetos fueron sometidas a cuatro tipos de pruebas: formal, incluida (embedded), informal, y posexperimental. Treinta y seis sujetos realmente hipnotizados y veinte sujetos simuladores participaron en la aplicación de un paradigma de realidad-simulación. Las respuestas fueron en declinación a medida que se les realizaban las distintas pruebas. Los participantes realmente hipnotizados bajo la condición "con consigna," mantuvieron sus respuestas por más tiempo que los realmente hipnotizados y los simuladores de la condición "sin consigna." Los hallazgos destacan la importancia de la influencia de los factores individuales, interpersonales, y situacionales en la respuesta poshipnótica y subrayan el compromiso activo de los individuos en el suceso hipnótico.