

THE HIDDEN OBSERVER: FINAL THOUGHTS BUT NOT THE LAST WORD

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Abstract

In this commentary, we respond to issues raised by reviewers of our paper concerning the hidden observer. We maintain the position that there are sufficient cues in the wording of the instructions to participants concerning the nature of their *hidden* reports to explain our findings and the findings from other flexible-observer studies. Copyright © 2005 British Society of Experimental & Clinical Hypnosis. Published by John Wiley & Sons, Ltd.

Key words: hidden observer, hypnosis, demand characteristics

Introduction

We appreciate the well-thought-out replies to our study and for the commentaries concerning the hidden observer phenomenon in general. While we hope that our study makes a contribution to the literature, we appreciate the fact that a single study, or even a series of studies, cannot prove that something doesn't exist. Moreover, we appreciate the reviewers' concerns about the nature of the task we selected, our participant inclusion criteria, and the generalizability of our results. These limitations notwithstanding, the findings from a number of flexible observer studies indicate that so-called 'hidden' reports *could* simply reflect behavioural cues inherent in the hidden observer instructions. Indeed, interest in and controversy over the hidden observer stems from the fact that the concept has not been operationally defined to distinguish purportedly *genuine* hidden observers from experimentally created ones. Defenders of the hidden observer claim that participants who fail to show a hidden observer are not dissociative enough or hypnotizable enough or are lacking some other ability to report a secondary stream of consciousness during hypnosis, and they dismiss observations of flexible observers by claiming that hypnotized participants are sensitive to instructional demands. Regarding this latter point, everyone agrees. Hypnotized individuals are, obviously, sensitive to social, cognitive and instructional demands inherent in the experimental setting. However, at the present time, we can neither predict with any degree of certainty which participants will evidence a hidden observer, nor can we distinguish between hidden reports that may reflect spontaneous occurrences from those that are experimentally created. Results from flexible observer studies indicate that detailed instructions are sufficient to generate hidden observer reports and, we believe, that it is therefore not necessary to postulate dissociated levels of consciousness that *spontaneously* occur during hypnosis in order to account for the hidden observer phenomenon.

In what follows, we respond to a number of more specific comments raised by the reviewers.

Participant selection

Several reviewers questioned our subject selection criteria. More specifically, Kihlstrom and Barnier (this issue) argued that ‘the assessment of hypnotizability was minimal, involving only the group-administered Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS:A)’ and that ‘in any study of the hidden observer, it is important to determine whether the subjects actually have the dissociative experiences that are necessary for the hidden observer technique to make any sense’ (see page 126). We readily acknowledge that scoring high on the HGSHS:A does not ensure similarly high responsiveness on more demanding measures of hypnotizability, such as the individually administered SHSS:C (see Green, Lynn and Carlson, 1992). Kallio and Revonsuo (this issue) also questioned why we did not preselect our participants on the basis of ‘showing previous evidence of the hidden observer phenomena’ (p.140). In terms of subject selection criteria, we believe that it is instructive to take a closer look at one of the classic studies on the hidden observer. In the Knox, Morgan and Hilgard (1974) study:

The subjects were eight highly hypnotizable university undergraduates, five men and three women, selected at first on the basis of near-maximum scores on a group test of hypnotic susceptibility (mean score of 9.8 on a 10-point scale), and then scoring at least 10 on an individual 12 point test. They subsequently served in an experiment on pain with the cold pressor test, so that they were familiar with pain reporting, and had demonstrated their ability to make use of the automatic talking (*‘hidden observer’*) technique, with subsequent amnesia for what was said (p. 841, emphasis added)

Given that subjects had previously demonstrated that they were willing and able to generate hidden observer reports, it is not surprising that in a follow-up study on ischemic pain, ‘Only one subject failed to experience a “hidden observer” whose reports differed from the “hypnotized part”’ (Knox et al., 1974: 845). As Spanos and Hewitt (1980) pointed out in their review of hidden observer studies, participants were typically selected on the basis of high hypnotizability, passing the amnesia item, and successfully responding to a suggestion for automatic writing. ‘In other words, all of these subjects were willing and able to experience suggested effects in a hypnotic context. Therefore, it is not surprising that, with explicit instructions, many of them responded to cues concerning “hidden” reports’ (Spanos and Hewitt, 1980: 1203).

If we had required participants to *pass* a previous hidden observer suggestion, or some other dissociative item (such as automatic writing), we would, in effect, have contaminated the subsequent exploration of the flexible-observer instructions. As we hypothesized in our discussion section of our original paper, the explicit instructions of the hidden observer paradigm encourage participants to produce *hidden* reports that are somehow different from *hypnotized* reports. Additionally, the hidden observer paradigm itself may cull for hidden reports that are closer to reports generated at baseline than during hypnosis. If our conjecture is correct, then requiring participants to demonstrate the *ability* to generate hidden reports would have contaminated our experimental manipulation (i.e. being more or less aware). In essence, selecting participants on the basis of passing a hidden observer test or a similar test of dissociation (e.g. automatic writing) would be likely to prime participants towards producing hidden reports of more awareness during subsequent testing.

Choice of motor task

Both Woody and Sadler (this issue) and Kallio and Revonsuo (this issue) raised the issue that the arm suspension task that we employed was neither a motor item nor a

motor challenge item. It is true that technically it is neither. However, our task involved a motor response (holding the arm and hand out in front of the participant) that bears some resemblance to the classic ischemic and cold pressor pain paradigms. In the case of the pain paradigms, one is certain that the amount of pain experienced increases as a function of the passage of time. So it is in the case of our arm suspension task. Here, one is certain that the amount of effort needed to suspend one's hand and arm increases with the passage of time. When selecting a motor task, we specifically wanted a task that uniformly became more effortful over time. Many classic ideomotor suggestions (e.g. imagining a helium filled balloon attached to a hand and waiting to see if the hand elevates; hands moving together; eye catalepsy) do not have this property or allow for individual rates of responding and are, therefore, less uniform in the amount of effort needed to complete the task. Kihlstrom and Barnier's (this issue) recommendation that participants imagine their arm being held up by a helium-filled balloon could have been a helpful addition to our arm suspension task instructions. However, the suggestion to imagine a helium balloon attached to one's arm without the directive that participants begin the trial with their arms elevated would not have been desirable as participants would undoubtedly respond at different times, elevate their arms to different levels, and probably not keep their elevated arms relatively still. Our use of clear directives and explicit instructions concerning the arm suspension task was an attempt to ensure uniform performance of the arm suspension task across trials.

The explicitness of our hidden observer instructions

If the hidden observer is truly a reflection of dual layers of awareness and a phenomenon that spontaneously occurs during hypnosis, why do the rates of finding hidden observers fluctuate so widely across studies? Is this hidden observer *ability* restricted to a few, even among the most hypnotizable? Are hidden observers more deeply hidden and therefore less accessible within some people than others? Or, is the rate of *detecting* hidden observers due to the explicitness of the hidden observer instructions? It appears that some highly hypnotizable participants, and even some simulating subjects, are not sure what to make of the hidden observer instructions and they fail to produce a hidden observer because they are not sure what they are suppose to do. In our study, nine participants (about 7%) failed to produce a hidden observer at all (i.e. their hidden and hypnotized reports were identical). As noted earlier, Knox et al. (1974) reported that one out of their eight stringently screened participants failed to produce a hidden observer. Among our highly hypnotizable participants that did produce a hidden observer, 29% of those in the Less Aware condition and 39% of those in the More Aware condition produced hidden reports that were the opposite of the hidden observer instructions. In our sample of simulators, 29% and 21% of them produced hidden reports that were the opposite of the Less Aware and the More Aware instructions, respectively. In a flexible observer study on cold pressor pain, Spanos, Gwynn and Stam (1983) found that 42% of their More Aware and 31% of their Less Aware participants failed to produce discrepant ratings in the appropriate direction. As was suggested by Spanos et al. (1983), more uniform responding might have been achieved with more explicit instructions and/or ensuring that participants understood the pattern of responses that were called for.

On the other hand, critics argued that our instructions were already *too* explicit. Kihlstrom and Barnier (this issue) stated that we 'departed crucially from the canonical features of Hilgard's hidden observer method, which is to *suggest* that there *might* be a

hidden observer, but not to insist on it' (p. 146, original emphasis). They added, 'Green et al. bluntly informed subjects that they had a hidden observer and required it to make an effort rating' (p. 147).

In response, we once again return to the instructions used by Knox et al. (1974):

'When I place my hand on your shoulder, *I shall be able to talk to a hidden part* of you that knows things are going on in your body, things that are unknown to the part of you to which I am now talking.' And, '*You will remember that there is a part of you that knows many things* that are going on that may be hidden from either your normal consciousness or the hypnotized part of you. *I can talk to this hidden part* when I place my hand on your shoulder to get into communication again with this hidden part of you' (Knox et al., 1974: 842, emphasis added).

We view these instructions as containing explicit directives. Participants are told that they (a) have a hidden part; (b) that it knows things that are unknown to the hypnotized part; and (c) the hypnotist can talk to it following a physical cue. The only ambiguously worded phrase is that the contacted part *may be hidden* from consciousness or from the hypnotized part. Yet, both previous and subsequent references explicitly state that the *part* in question is in fact *hidden*. Spanos and Hewitt (1980: 1230) concluded that the hidden observer procedures are, in fact, 'detailed "recipes" for teaching the integrated, sequential enactment of a social role (the role of "dissociated subject.")'. We leave it to the reader to judge whether our instructions were so qualitatively different than those used by Knox et al. (1974) that they should invalidate our findings.

Alternative data analysis

Kihlstrom and Barnier (this issue) called for a 2 (real/simulator) x 2 (condition: More vs. Less Aware) x 4 (effort rating trial) repeated measures analysis. As Kihlstrom and Barnier (this issue) keenly predicted, the results of this analysis do show a significant three way interaction, $F(3, 207) = 3.02, p = 0.05$. However, interpretation of this triple interaction is not straightforward. Recall that simulators tend to exaggerate hypnotizable subjects' responses and that different hidden observer instructions (i.e. to be more or less aware) were given during the hidden observer trial. The second analysis suggested by Kihlstrom and Barnier (this issue) is more easily interpreted. Here, we conducted a 2 (real/simulator) x 4 (effort rating trial) repeated measures analysis including only those participants in the More Aware condition. Results of this (two-way) interaction did not reach significance, $F(3, 108) = 2.00, p = 0.12$. Similarly, among only those participants in the Less Aware condition, the group by trial interaction did not reach significance, $F(3, 99) = 1.65, p = 0.18$.

While it is true that our hypnotizable participants in the Less Aware (LA) condition did not generate hidden reports that were, on average, lower than those they produced during the hypnosis trial (M hypnosis = 24.28; M hidden = 27.78), the magnitude of this difference is statistically trivial: $t(17) = -0.58, p = 0.57$. Kihlstrom and Barnier (this issue) noted that the standard deviations are relatively large across the hidden observer trials. Precisely because of this observation, it is quite instructive to consider the results of our non-parametric analyses. We won't reiterate all of the frequency data and percentages that are listed in our original article with the exception of the following: 'The inclusion of non-parametric analyses are important because they show that while the average ratings of our LA participants failed to decrease during the hidden observer trial relative to the hypnosis trial, nearly 70% of both real and simulating participants in the LA condition reported less effort during the hidden observer trial relative to the hypnosis trial' (Green, Page, Handley and Rasekhy, this issue).

Theoretical issues, future studies, and other points raised by reviewers

We agree with Kirsch's (this issue) conclusion that findings from flexible observer studies, at least so far, do not offer specific support for any particular theory. We also agree with Woody and Sadler (this issue) that our design did not specifically examine dissociated control theory, and their commentary nicely illustrates important distinctions between neodissociation and dissociative control theory. They point out that according to dissociated-control theory, 'highly hypnotizable subjects cannot genuinely become more aware of hidden effort; therefore, as the experimenter told them what the hidden observer was supposed to be noticing, their *only* possible recourse would have been to respond to demand effects' (p.146, original emphasis). Recall that our highly hypnotizable and simulating participants generated, on average, reports of more effort during the hidden observer trial than the hypnosis trial *following no information/control instructions*. Both real and simulating participants in our control condition showed a similar pattern of responding across these trials. Because of this, we speculated that the hidden observer paradigm itself might create demands for increased awareness, relative to a previously experienced hypnosis trial. If one accepts the premise that the hidden observer paradigm itself creates a demand for increased awareness, then the dissociated-control explanation of hidden reports of more effort is plausible. However, if the hidden observer paradigm is conceptualized as not intrinsically encouraging reports of more awareness, than it is unclear how dissociated-control theory would explain why our control participants tended to be *more* aware during the hidden observer trial. Certainly, additional work needs to be done to more carefully examine this issue. In line with the suggestion by Kirsch (this issue), future research could explore hidden observer reports concerning the intentionality of lifting one's arm following a hypnotic suggestion for arm levitation in an attempt to examine predictions from dissociative control theory. As Woody and Sadler (this issue) point out, future work should include indices of effort other than self-report.

Naish (this issue) makes a stalwart case for paying more attention to cognitive (as opposed to social) variables to account for hypnotic behavior. Citing the work of Kallio and Revonsuo (2003), he calls for more thorough assessment of hypnotized participants' subjective experiences. Additionally, we hope that his insightful comments regarding the future role of simulators, namely, that they should be used to examine spontaneous, *non-suggested* behaviours of hypnotized participants, inspires new research.

As was pointed out by a number of commentaries, we failed to conduct post-session inquiries with our participants. We regret not doing so. Such post-session inquiries could have shed light on how hypnotizable and simulating participants interpreted our various hidden observer instructions. At a minimum, participants could have written out responses to open-ended questions about how they interpreted the hidden observer instructions. Of course, as pointed out by Kallio and Revonsuo (this issue; 2003), post-session interviews detailing participants' experiences and interpretations of instructions would be the ideal.

Our use of a group format, by itself, was of less concern to us than it was for some of the commentators. First, as noted above, post-session inquiries could be handled in a group format by having participants write out responses to questions about the experiment. Second, we have no reason to believe that using a group format affected the motivation or behaviour of our simulators. Simulators were instructed (by someone other than the experimenter) to behave and respond as though they were highly responsive to hypnotic suggestions and they were informed that both the hypnotist and the hypnotist's assistant would tap them on the shoulder and ask them to leave the room if they suspected that they

were simulating. While we have no reason to suspect that the group format affected the behavior of our simulators, it would be instructive for future studies to contrast individual and group formats to see if the group format affords less concern about being detected.

Our choice of using a vocal cue to access the hidden observer was seen by Kihlstrom and Barnier (this issue) as a catastrophic error. Concerning the manner in which we contacted the hidden observer, they remarked, 'And they did so by uttering the "special sound" of "Ohm" in "a slow, deep, mantra-like voice. Such a gratuitous methodological choice, contrasting starkly with Hilgard's more prosaic touch on the shoulder, casts a shadow over the entire enterprise' (p. 147). Aside from the question of elegance, are we to believe that the hidden observer can feel but cannot hear?

Final thoughts

From the outset, we did not intend nor did we believe that our study would resolve the controversy surrounding the hidden observer phenomenon. We simply set out to extend the so-called flexible observer paradigm to a motor task. We believe that our study and the commentaries that it sparked contributes to the literature on the hidden observer. We have not claimed that all hidden observers are experimental creations or that hypnosis could not produce dual layers of awareness. Our study, indeed no study, could reasonably reach such conclusions. We do maintain the position, however, that the results of our study and those from many other studies utilizing the hidden observer paradigm can be parsimoniously explained by the cues inherent in the hidden observer instructions.

We hope that we have addressed many of the important issues raised by the commentators. We recognize that others do and will continue to hold views that are different from ours and we eagerly await additional studies on this fascinating topic. Fully appreciating the fact that our study and commentary does not, nor should not, constitute the final word on the credibility of the hidden observer, we hope our final thoughts have been helpful.

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Quality of life and mood changes in metastatic breast cancer after training in self-hypnosis or Johrei: a short report

Tannis Laidlaw, Bryan M. Bennett, Prabudha Dwivedi, Akira Naito and John Gruzeliar

Owing to an error during the production stage, the above article contains errors in figures 2 and 3 on page 90. The correct figures are shown below:

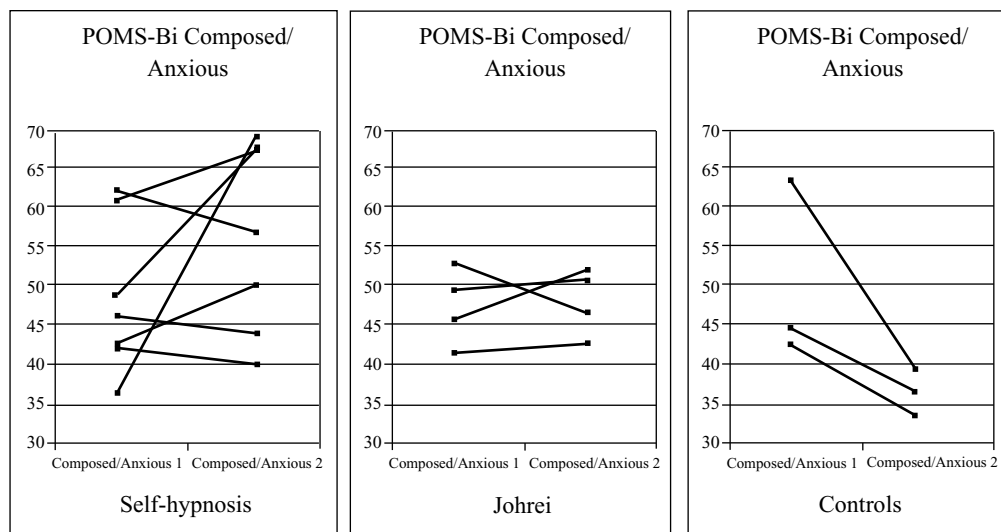


Figure 2. Individual scores on the subscale Composed/Anxious subscale of the POMS-Bi showing changes before (1) and 3 months after (2) the intervention.

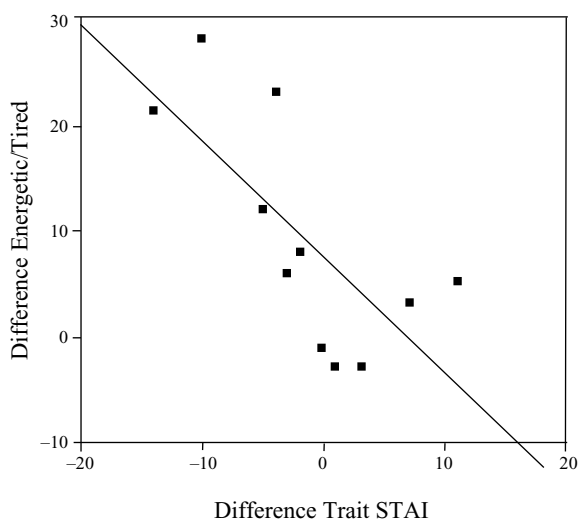


Figure 3. Difference scores (post minus pre) in energy levels plotted against difference scores for trait anxiety ($\rho = -0.80$, $p = 0.003$).