

The subjective experiences of both the hypnotist and the subject in the real-simulating paradigm

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■ Since the end of 1950s more and more theoretical and empirical work has been using the simulating subjects as a quasi-control group in hypnosis research. The general finding of these investigations is that the simulators behave and react like real subjects, but they do not share the subjective experiences of really hypnotised ones. So the subjective experiences - discovered after lifting the simulating instructions - seemed to differentiate between the persons who were really hypnotised and those who just simulated it. In our research we analysed 24 real and 8 simulating subjects' and their hypnotists' hypnotic experiences following an experimental hypnosis session. These experiences were discovered by paper and pencil tests, and by using the Parallel Experiential Analysis Technique in a setting where the simulating instruction was lifted only after these phenomenological measures. Neither the paper and pencil test-scores, nor the computer based blind content analysis of the free subjective experiences gave a significant difference between real and simulating subjects. In the same way, we could not find a significant difference in the hypnotist's subjective experiences working with real or simulating subjects. These results seem to show that hypnotic experiences can also be simulated, just like the behavioural responses to hypnosis. Extended research is needed to replicate these findings in the search of the real essence of hypnotic phenomena.

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Introduction

In an influential early study, Orne (1959) first used simulators in hypnosis as a quasi-control group. His results were that simulators behave the same way than reals. Simulators responded equivalently on all suggestions comparing to the real subjects.

Only the trance logic items reveal simulators because they tend to fake complete or "ideal" responses and they do not tolerate incongruity. For example in the case of Transparency item: the simulators can not see the curtain through the hallucinated

armchair while reals can. So according to Orne, the real essence of hypnosis lies in the subjective experiences of deeply hypnotised persons. In the following research our question was whether the subjective experiences can (also) be simulated or not.

Method

Four hypnotists (2 females, 2 males) took part in the experiment. All of them were blind to the aim of the experiment. In all hypnotic sessions 32 healthy young volunteers - mostly university students - of different hypnotizability participated as subjects. All subjects had been previously tested on Stanford Hypnotic Scales (SHSS-C, Weitzenhoffer & Hilgard, 1962) and had been classified into four groups. High hypnotizability subjects' scores: 10-12, medium: 5-7, low: 0-4, simulator's: 0-4.

The subject and the hypnotist did not know each other before the experimental hypnosis session, and the hypnotist was blind to the subjects' susceptibility. The whole sessions were video recorded. All hypnotists tested 8 subjects (4x8), 2 from each group.

Procedure

First the experimenter instructed simulators. "Fake throughout the hypnosis and on all postexperimental questionnaires and also the PEAT interview and continue faking until you are told to stop it by me at the very end of the whole experiment." The main steps of the hypnosis sessions were designed before. All subjects were greeted by the experimenter arriving at the laboratory, then escorted to the experimental room, and introduced to the hypnotist. The session started with introduction and establishing rapport. Then all subjects received free hypnotic induction and analgesia suggestions to the subdominant hand. For testing the analgesia hypnotists used cold pressure test. Then subjects were given the same age regression test and trance logic task (transparent hallucination). The hypnotic session finished with free dehypnotic suggestions.

At this point of the experiment the hypnotist left the experimental room and went to another similar one while the subject stayed there. For discovering the subjective experiences first we used paper and pencil tests. The following questionnaires were given to both the subjects and the hypnotist at the same time. Subjects filled six questionnaires: FIELD (an inventory scale of hypnotic depth; Field, 1965); involuntary behaviour-questionnaire; DIH (harmony of diadic interaction); rapport-questionnaire; AIM (archaic involvement measure); PCI (phenomenology of consciousness inventory). Hypnotists filled four questionnaires: DIH (harmony of diadic interaction); rapport-questionnaire; AIM (archaic involvement measure); PCI (phenomenology of consciousness inventory).

The second part for discovering subjective experiences of both the subjects and the hypnotists were the Parallel Experiential Analysis Technique (PEAT). When the hypnotist left the experimental room an independent inquirer entered and using the video playback of the original hypnosis session elicited the experiences and feelings without thematic restriction. The same procedure was done with the subjects and hypnotists simultaneously. Lifting of simulating instruction and interviewing the subjects by the

experimenter was only *after* these steps.

In order to answer our question whether the subjective experiences can (also) be simulated or not, we analysed the subjective experiences on three levels. First by the global analysis, then came the classical content analysis and the third level was the computerised textual analysis (TACT).

Results

1. Global analysis

Two independent experts assessed on a 4-point scale the global harmony of a subject's and hypnotist's subjective experiences regarding to the hypnosis session. This overall judgement was based on the parallel video playback of both the subjects' and the hypnotists' PEAT sessions. The result of global analysis was that the interrater agreement of global harmony of real subjects and their hypnotists was quite high ($r=0.56$) while with simulators was nearly 0, so the judges did not agree in this cases at all.

2. Classical content analysis

This technique is well known than the previous one. It is a deeper analysis. Independent experts who were blind to the subject's treatment condition evaluated the transcribed subjective experiences. From the subjects' experiences two experts collected experiences reflecting the alteration of consciousness according a previously fixed category system. Examples of categories: focused attention or translogic thoughts. From the hypnotists' experiences nine experts collected every comment of the hypnotists about six topics: Subjects, Interaction, Subjects' hypnotic susceptibility and hypnotic depth, Experimental circumstances, Testing, Disturbing circumstances. Results of classical content analysis were that the frequency values on all the category scales did not reach statistical significance between reals versus simulators both in the case of hypnotists and subjects.

3. Textual analysis (TACT)

The deepest and the most precise computerised content analysis was conducted when the computer collected definite words or word groups (categories) in the transcribed experiences of both the hypnotists and subjects. These categories were based on words with similar meaning for example in the category of doubtfulness contained the following words: maybe, perhaps, let us say, I do not really know, probably, possibly. In the negative category, e.g. were: bad, frightening, problem, pain, unpleasant. We used 24 categories for the subjects and 33 categories for the hypnotists. Results of textual analysis (TACT) were that the category scales did not reach statistical significance between reals versus simulators both in the case of hypnotists and subjects.

Conclusion

The first and most important finding of this research was that simulated and real subjective experiences are not different. Neither revealed any significant difference by questionnaires nor on the basis of the analysis of free reports. This was true both for

the hypnotists and for the subjects. So on the level of subjective experiences nothing differentiated reals from simulators. There were however some interesting comments in the hypnotists' experiences connected with simulators regarding ambivalence, asynchrony, inconsistency, subject's "overdoing". To demonstrate these features some verbatim quotation are given below:

Asynchrony: "... her non-verbal signs was not consistent with the subjective experiences she said during the hypnosis."

Inconsistency: "... I felt that his hypnotic depth fluctuated during the hypnosis. But through the age regression I think he was in a deep hypnosis."

Subject's "overdoing": "... when she was talking about her inner feelings she had just a few words for them..., and now she talks a lot, more vivid and intense about this curtain, colour, shade, ruffles, etc.,. So it is quite interesting" (transparent hallucination).

Summing up the results the only difference we have found between reals and simulators - including both the reports of the subjects and the hypnotists - was that the inter-rater reliability of the global ratings was acceptable in the case of real dyads, while not in the case of simulator ones.

All of the other measures and levels of analysis failed to show distinction between real and simulated hypnosis interaction. This implies that the phenomenological reports can be simulated, just like behavioural manifestation. We think that in the future hypnosis research should consider this possibility much more carefully, than it did so far.

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Acoustic analysis of the hypnotist's voice. A preliminary study

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■ It has been demonstrated in the literature that the communication between hypnotist and subject changes characteristically in the hypnosis interaction. The voice of the hypnotist is an important channel in this interaction. Modern computer technology made voice analysis more easily available only recently. In the present paper we wish to show the possibility of describing the changes in the hypnotist's voice by objective, physical measures. The preliminary acoustic analysis of the hypnotist's voice seems to indicate that the fundamental frequency and the intensity of the hypnotist's voice generally decreases during hypnosis, but this general trend may be moderated as a function of the nature of the hypnotic suggestion.

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Introduction

Ever since Bernheim considered suggestion as the essence of hypnosis, words seem to be the most important element in eliciting hypnosis. As Jay Haley has pointed out (1963), hypnosis is the outcome of an interpersonal relationship brought about by communication between hypnotist and patient, and this communication is mediated by the verbal and nonverbal behavior of the participants.

Jakobson (1958) described the following six functions of verbal communication:

- *referential function:* talking about the facts of the world
 - *conative function:* addressing and calling upon the listener
 - *attentional function:* eliciting and controlling the listener's attention
 - *emotive function:* expressing the speaker's emotions and attitude toward the topic under discussion
 - *meta-linguistic function:* communication regarding speech and communication
 - *poetic function:* exerting aesthetic influence on the listener
- All of these functions seem to play a part in the verbal communication of the hypnotist. Let me illustrate this by examples taken from the different forms of the Stanford scales (Weitzenhoffer and Hilgard, 1959), as the method that is the most widely used in hypnosis research. One of the most evident functions is the referential function; when the hypnotist gives feedback about the changes in the outside world or inside the