Hypnosis Reconsidered

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Kirsch, Mazzoni, and Montgomery’s (in press) article musters an ardent defense of the hypothesis that hypnotic inductions produce relatively small increases in suggestibility, and that subjective changes and hypnotic phenomena can be produced by imaginative suggestions alone, without the induction of hypnosis. As the authors point out, this argument is consistent with studies conducted in a variety of laboratories over a span of more than 70 years.

Nevertheless, if true to form, as Kirsch et al. (in press) anticipate, critics who subscribe to the hypothesis that hypnosis is a trance or altered state of consciousness will argue that suggestible people spontaneously enter an hypnotic state or trance when they respond to suggestions, regardless of whether or not they receive an hypnotic induction, or are lead to believe they will be hypnotized. Accordingly, the argument goes, people who are instructed to relax somehow slip into a state of hypnosis, as do people who are asked to imagine suggested events. Alternately, critics will argue that when differences across hypnotic and nonhypnotic conditions do not surface, people in the hypnosis group are not truly hypnotized. The rub is that if researchers do not clearly define the “state” of hypnosis, and then argue that people are in a trance or altered state (even with no prior induction), their claim can not be falsified, and is not amenable to scientific scrutiny.

Let’s say that people who receive an hypnotic induction, a relaxation induction, and simply imagine along with suggestions (with no prior hypnotic induction) are equally suggestible. Is it any more logical to explain this equivalence by saying that the relaxed and imagining people somehow slipped into hypnosis, than it is to say that the hypnotized people slipped into a state of relaxation or imagining? After all, as Kirsch et al. (in press) contend, it is more parsimonious to
attribute individuals’ responses to imaginative suggestions to imagination or relaxation, fueled by motivation and positive expectancies, rather than add another layer of explanation by positing a trance state with unspecified properties. The burden of proof that a person is hypnотized thus falls squarely on those who claim that hypnosis is an altered state of consciousness. However, this proof has not as yet been forthcoming. Indeed, by controlling for the possibility of slipping into trance, Hilgard and Tart (1966) disconfirmed the hypothesis that an altered state was necessary for hypnotic responding. Before the rise of neuropsychology, the basis for the trance hypothesis was the self-reports of subjects that they are in an altered state. As Kirsch et al. (in press) note, Hilgard and Tart assessed those reports. Their results indicated that very few people reported slipping into trance.

Critics of Kirsch et al. (in press) are likely to lean on another bastion of the claim that hypnosis is an altered state; even though hypnotized, imagining, and relaxed people are equally suggestible, hypnosis, nonetheless, produces a distinctive physiological state that can be distinguished from the effects of relaxation and waking suggestion. Over the last decade or so, researchers have escalated their claims that hypnosis produces such a state, with unique physiological markers (Gruzelier, 1996; Killeen & Nash, 2003; Maquet, Faymonville, et al., 1999). But as our recent review of the literature indicates (Lynn, Kirsch, Knox, Fassler, & Lilienfeld, in press), many of the extant physiological studies of hypnosis fail to disambiguate the effects of the induction of hypnosis from the effects of the suggestions administered—precisely the confound that Kirsch et al. identify. It is also apparent that what transpires during hypnosis does not appear to reflect a uniform or unvarying state, but rather what participants think, “do,” and experience, which varies as a function of the suggestions they receive (Kihlstrom, 2003; Wagstaff, 2003). Indeed, the specificity of neurological effects in response to the specific wording of suggestions can be quite remarkable (Rainville, Duncan, Price, Carrier, & Bushnell, 1997).

Although psychophysiological studies promise to reveal a great deal about peoples’ responses to hypnotic and nonhypnotic suggestions, the literature is plagued with inconsistencies, poorly designed studies, and inflated claims that go far beyond the data (Lynn et al., in press). What altered state theorists need to show is that there is a distinct self-reported or psychophysiological background state of consciousness that is required for successful response to at least some suggestions (Kallio & Revonsui, 2003). However, even if researchers identify large quantitative differences on psychophysiological variables across hypnotic and nonhypnotic conditions, it begs the question of what is responsible for such differences (e.g., attitudes, motivation, expectancies, imaginative strategies). The failure of researchers to forward a-priori hypotheses that link subjective experiences and behaviors specific to hypnosis with psychophysiological changes in specific areas or networks of the brain leaves many of the studies open to any number of interpretations. To make a compelling argument that hypnosis is an altered or trance state, it will be necessary to outline criteria that cognitive-neuroscience researchers can use to discriminate between state and non-state views (Lynn et al., in press). So far, this has not been done. Yet one can hope that the best is yet to come.

References

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