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Grounding Hypnosis in Science: The "New" APA Division 30 Definition of Hypnosis as a Step Backward

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Every decade or so, the Division 30 of the American Psychological Association (APA) has seen fit to redefine hypnosis (Elkins, Barabasz, Council, & Spiegel, 2015; Green, Barabasz, Barrett, & Montgomery, 2005; Kirsch, 1994). In the latest attempt, the Hypnosis Definition Committee (HDC) defined hypnosis as a "state of consciousness involving focused attention and reduced peripheral awareness characterized by an enhanced capacity for response to suggestion" (Elkins et al., 2015, p. 6). One might justifiably wonder whether important discoveries or scientific breakthroughs or novel theoretical insights motivated the impetus to update the previous definition. In fact, the recently adopted definition is neither based on any apparent empirical foundation, nor

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is it "new." Moreover, it has the potential to sow the seeds of conceptual and pragmatic confusion to an area sorely in need of greater clarification.

With regard to its empirical base, the HDC stated that in order to realize the goal of "defining the domain of interest with an optimal, definitional resolution that is neither to narrow nor too broad" (Nash, 2005, p. 277), they "sought to disentangle the definition of hypnosis from discussion of the current state of knowledge" (Elkins et al., 2015, p. 7). Accordingly, the definition clearly prioritizes brevity above an explicit connection with the considerable research base on hypnosis (Elkins et al., 2015). Notably, the purportedly new definition bears a striking resemblance to the definition of hypnosis that H. Spiegel and D. Spiegel (1987) (who also participated in crafting the new definition) proposed: "essentially a psychophysiological state of aroused, attentive, receptive focal concentration with a corresponding diminution in peripheral awareness" (p. 34). In short, the precursor to the "new" definition dates back more than 25 years.

The 1993 definition of hypnosis contextualized hypnosis in terms of a procedure "during which a health professional or researcher suggests that a client, patient, or subject experience changes in sensations, perceptions, thoughts, or behavior" (Kirsch, 1994, p. 143). This definition was based on Kihlstrom's (1985) definition of hypnosis as a "process in which one person, designated the hypnotist, offers suggestions to another person, designated the subject, for imaginative experiences entailing alterations in perception, memory and action" (Kihlstrom, 1985, pp. 385–386). The HDC criticizes this procedural definition as "unsatisfactory" for its theoretical bias toward "preconceived social-cognitive mechanisms" because it did not mention the "state concept." Nevertheless, eminent and highly influential state theorists with no avowed affinity for a scociocognitive perspective did not view the definition as biased at the time and, in fact, endorsed it in statements ("endorsements") that immediately followed the definition. More specifically, Kihlstrom (1994)—perhaps not surprisingly—commented, "The consensus definition of hypnosis is a remarkable achievement" (Kihlstrom, 1994, p. 144); Ernest Hilgard stated, "I am thoroughly in agreement with it" (Hilgard, 1994, p. 144); and Erika Fromm (1994) remarked, "I fully agree with the statement, so fully that I cannot really write a commentary on it" (Hilgard, 1994, p. 144). More importantly, defining hypnosis as a procedure in no way precludes the possibility that the techniques encompassed by this procedure could produce a unique or special state of hypnosis along the lines hypothesized by proponents of state theories of hypnosis. Such a definition follows in the tradition of Hilgard (1973) and Kihlstrom (1985), who conceptualized hypnosis as a broad domain of characteristic features and procedures.

The most recent definition is arguably more biased than previous Division 30 definitions in declaring hypnosis to be a "state" linked with enhanced response to suggestion. Clearly, notwithstanding the authors' caveats that the definition allows for "inquiry as to whether the 'state of consciousness' is in fact altered" (Elkins et al., 2015, p. 6), the integral role that "state" plays in the new definition, and the clear implication of an altered or distinct state in the description slants the depiction of hypnosis toward

state theories, which for decades have kindled controversy and continue to provoke scientific debate. Furthermore, the HDC definition is perhaps as problematic for what it excludes as well as what it includes. Notably, whereas the 2005 definition concedes that many in the field contend that hypnosis involves an altered state, the HDC does not acknowledge the considerable evidence for the role of sociocognitive variables in producing hypnotic responses. For example, the combination of nonhypnotic suggestibility, response expectancies, and motivation (i.e., sociocognitive variables) accounts for as much as the majority of variance in hypnotic responding (Braffman & Kirsch, 1999).

More importantly, the research base in support of the current definition is slim, certainly to the extent that the definition is read to imply that hypnosis produces a special state of consciousness that exists apart from response to nonhypnotic suggestions, as state theories have historically claimed or strongly implied. Few, if any, traditionally "hypnotic" behaviors or experiences, such as hallucinations, motor responses experienced as nonvolitional, and amnesia, are incapable of being produced by nonhypnotic imaginative suggestions (e.g., requests to experience an imaginary state of affairs as if it were real; Kirsch & Braffman, 2001) in motivated participants (Barber, 1969; Raz, Kirsch, Pollard, & Nitkin-Kaner, 2006). Although there is little question that hypnotic suggestions can produce marked profound alterations in consciousness, such findings are not dispositive of an altered or specific state responsible for hypnotic responses; the same patterns of responding can be achieved in the absence of an induction and with suggestions administered in a situation in which participants are instructed to remain "awake and alert" and specifically not to "fall into hypnosis" (Kirsch et al., 2008). Furthermore, in clinical contexts, meta-analyses (Montgomery, David, Winkel, Silverstein, & Bovbjerg, 2002) have shown large effects (e.g., 89% of surgical patients benefitting from hypnosis), but the variance accounted for by hypnotic suggestibility was a mere 6% of the global effects (Montgomery, Schnur, & David, 2011). The new definition would imply that all patients entered a hypnotic state, a speculation that even the most dedicated state theorists might have difficulty supporting in light of these findings.

Moreover, as some of us have commented elsewhere, whether one must be in a particular, special, or altered state of consciousness to experiences hypnosis becomes a moot issue to the extent that "hypnotic" and ordinary experiences are not static and instead reflect constant and often transient changes in our awareness, emotions, thoughts, sensations, and action tendencies that are typically difficult, if not impossible, to parse into meaningful discrete states" (Lynn, Laurence, & Kirsch, 2015, p. 2). Although a modicum of attention to suggestions is probably often prerequisite to involvement in suggestion-related imaginings, with respect to the new definition, one might ask "How much would one's attention need to be focused, peripheral awareness reduced, and capacity for response to suggestion enhanced for a phenomenon to qualify for the presence of a "state of hypnosis?" Alternatively, does it make sense to argue that people who (1) respond to suggestions with complete conviction yet (2) do not report their attention was particularly focused or their peripheral attention reduced or eliminated are not

"hypnotized"? We think not. Or, what about people who report they are fully immersed in some suggestions yet not others? Should we consider such participants hypnotized only with respect to the suggestions in which they are fully absorbed yet not with respect to other suggestions?

For the new definition to be sufficiently clear to test meaningful derivative predictions—as the authors tout its potential heuristic value–additional specification is needed regarding what exactly counts as a "state of consciousness" or "state of hypnosis." If the construct is so vaguely defined or broad that it can be invoked in virtually any situation in which there is an apparent increase in a person's suggestibility, following any number of unspecified procedures, it is arguably devoid of designatory value and not falsifiable.

The HDC defines a hypnotic induction as "A procedure designed to induce hypnosis" (Elkins et al., 2015, p. 6). Yet hypnotic inductions are highly variable, ranging historically from incorporating a swinging watch as popularized in the media, relaxation instructions, and a handshake. Some inductions are even based on suggestions to expand (rather than focus) attention and to observe stimuli in one's surroundings while walking or talking with the hypnotist (see Capafons & Mendoza, 2010). It would be surprising if each of these procedures induces a similar or uniform state of consciousness among the wide diversity of individuals who pass hypnotic suggestions.

Indeed, it is well documented that participants often experience hypnosis on a highly individualized basis and use disparate and sometimes idosyncratic cognitive strategies, which do not necessarily rely on focused attention, to respond to inductions and suggestions (see Sheehan & McConkey, 1982). Moreover, participants adopt different expectational sets regarding hypnosis and access diverse abilities to facilitate response to different suggestions (e.g., imagining arm rigidity versus actively tensing and relaxing muscles to pass an arm rigidity suggestion; Polito, Barnier, Woody, & Connors, 2014; see also Sheehan & McConkey, 1982). Accordingly, attention and the overall experience of hypnosis often vary on a moment-to-moment basis within and across individuals, thereby rendering it highly questionable that hypnosis can be aptly characterized as a singular or specific state (Lynn et al., 2015; Sheehan & McConkey, 1982).

The HDC authors provide examples of other states of consciousness beyond hypnosis, including "meditative, mindfulness, yoga," while never clearly defining what they mean by a "state of consciousness." Nevertheless, research has provided scant evidence for a distinct state that transcends different types or schools of meditation, mindfulness, and yoga. In fact, variations of meditation techniques (e.g., concentrative meditation, walking meditation, compassion mediation) instate quite distinctive patterns of physiological and subjective responses depending on instructional differences both across diverse traditions and even within a particular tradition, such as concentrative mediation (e.g., internal versus external focus; Malaktaris, Lemons, Lynn, & Condon, 2015; Yapko, 2011).

Similarly, if there is one overarching, replicable finding in the literature on hypnosis and psychophysiology, it is that different suggestions typically evoke suggestion-dependent responses to hypnosis (e.g., Barabasz, Barabasz, Jensen, Calvin, Trevisan, & Warner, 1999; De Pascalis, Magurano, & Bellusci, 1999; Hofbauer, Rainville, Duncan, & Bushnell, 2001; Kihlstrom, 2003; Rainville, Duncan, Price, Carrier, & Bushnell, 1997). Although we acknowledge that responses to hypnosis might possess as yet unidentified state-like features beyond response to specific suggestions, research to date on the psychophysiology of hypnosis does not permit firm or confident conclusions; studies often have (1) not controlled for sociocognitive variables (e.g., motivation, expectancies, attitudes about hypnosis), (2) not included nonhypnotic controls and participants in the middle range of hypnotic suggestibility, or (3) not provided the same suggestions across hypnotic and nonhypnotic conditions. Moreover, problems exist in interpreting the findings of brain imaging and electrophysiological studies in terms of elucidating a specific state of hypnosis correlated with specific brain substrates and processes (Hasegawa & Jamieson, 2002; Lynn, Kirsch, Knox, & Lilienfeld, 2006; Raz, 2011).

Turning to the most recent definition and the presumed state of hypnosis, the available evidence does not convincingly demonstrate that hypnosis greatly reduces or eliminates peripheral awareness. In fact, research to the contrary exists. More than 30 years ago, Sheehan and McConkey (1982) provided many examples of hypnotized individuals' ability to process reality features of the environment, outside the context of suggestion, while retaining the ability to respond to suggestions. Lynn, Weekes, and Milano (1989) found that hypnotizable participants who indicated they were deeply hypnotized evidenced no impairment in their awareness of details of a telephone conversation that occurred in the experimental setting incidental to the framework of suggestion. Indeed, participants could report the contents of the conversation almost word for word. This finding implies that hypnosis does not produce a state that abolishes or severely degrades the processing or registering of information in peripheral awareness apart from the context of suggestion.

Although some may argue that the association between trait measures of absorption and hypnotic suggestibility indicates that hypnosis is a state of focused attention and perhaps even reduces peripheral awareness, the correlation between absorption and hypnotic suggestion is typically in the range of $r = .20$ to .30 (corresponding to a small to medium effect size and accounting for only 4% to 9% of variability in hypnotic responding) when measures of the two constructs are administered in the same test context. Nevertheless, when the measures are administered in separate test contexts, the relation often disappears or becomes vanishingly small (Council, Kirsch, & Grant, 1996). Importantly, measures of expectancy (a sociocognitive variable) of hypnotic responding typically are better and more consistent predictors of hypnotic responding than are trait measures of hypnotic suggestibility (Braffman & Kirsch, 1999; Green & Lynn, 2010; Kirsch, Silva, Comey, & Reed, 1995).

In fairness, some participants describe their response to suggestion as involving focused attention (McConkey, 1986). This latter effect probably occurs because the suggestions administered specifically call for or imply that attention will focus on a particular thought, image, or sensation. Inductions, also, are often geared to encourage absorption in internal and external experiences while discouraging focus on competing thoughts and images (Lynn et al., 2015). Yet situational or suggested demands and procedures that abet attention to suggestions do not necessitate the inference of a hypnotic state to account for hypnotic responding. In past studies, expectancies have trumped focused attention. More specifically, even when participants attended to cognitive activities inconsistent with the aim of the suggestion (e.g., to picture the action opposite to what is suggested, such as bending the arm in response to an arm catalepsy suggestion), they nevertheless often continued to respond to suggestions in line with their expectancies (Zamansky, 1977; see also Spanos, Weekes, & De Groh, 1984).

Our comments so far are not meant to imply that attentional abilities play no role in hypnotic suggestibility. To the contrary, such abilities may play a substantial role, especially in concert with sociocognitive variables (Lynn et al., 2015). Nevertheless, it is important to distinguish the ability to experience hypnotic suggestions from a specific state of consciousness that purportedly defines hypnosis. What may underpin hypnotic responding is not so much a state of focused attention and reduced peripheral awareness, but the cognitive and perceptual abilities to respond in a flexible, goal-directed manner to a diversity of imaginative suggestions (see Lynn et al., 2015). An appreciation for the potential relations among sociocognitive variables and specific attentional, perceptual, and memory processes opens the door to a more precise understanding of the mechanisms at play in hypnotic and non-hypnotic suggestibility.

Suggestions are obviously integral to the hypnotic proceedings. Regrettably, the current definition does not define suggestion. By ignoring the types of suggestions (e.g., imaginative suggestions) and inductions (e.g., relaxation, use of imagination, pleasant experiences) that are typically administered during hypnosis, the definition raises a host of troubling questions regarding what hypnosis is and is not. One can ask whether a person subjected to a harsh police interrogation (which often includes focused attention, reduced peripheral awareness, and enhanced suggestibility given social pressure) would be experiencing hypnosis. Or, to take a more extreme example, would a person subjected to torture—with sleep deprivation that would enhance suggestibility along with suggestions provided to divulge sought-after information—be experiencing hypnosis? It seems that both police interrogation and torture may well qualify as "hypnotic inductions" under the current expansive definition.

With no procedural demarcation between these and a host of other conceivable situations, drawing a line—even a blurry one—between what is a "hypnotic" and a "nonhypnotic" situation becomes highly problematic and opens the door to the idea that hypnosis can arise spontaneously (the person undergoing a harsh interrogation will somehow "slip into hypnosis"), with all the attendant problems of ambiguity that ensue

in research and forensic contexts in terms of operationalizing hypnosis and including or excluding "hypnotic" testimony from the courtroom. With no reasonably clear-cut procedural anchors, in most situations we must rely on participants' self-reports of focused attention, for example, with no reasonably objective way of assessing this contention or determining whether their suggestibility is enhanced. Accordingly, a situation could be defined as hypnotic when (1) hypnosis is neither mentioned by the experimenter or clinician nor clearly implied by commonly used procedures (e.g., relaxation suggestions); (2) the person has no inkling that hypnosis has been attempted; and (3) there are no behavioral measures to assess whether attention is focused, peripheral awareness compromised, or responsiveness to suggestion enhanced. Clearly, this state of affairs raises serious problems regarding the falsifiability of the contention that hypnosis is present and raises many questions regarding how to conduct hypnosis research and test theoretical assumptions regarding hypnosis.

The HDC stated that they chose the term "hypnotizability" to reflect individual differences in hypnotic responding over other terms, such as suggestibility, hypnotic suggestibility, hypnotic susceptibility, or trance, solely on the basis that it "best reflect[s] current preferences for descriptors" (Elkins et al., 2015, p. 6). This decision was justified by a survey of members of a relatively small sample of hypnosis society members—who are unlikely to be unrepresentative of hypnosis researchers and practitioners—in which exactly half of the respondents expressed a strong preference for the term (Christensen, 2005). This finding strikes us as a flimsy rationale for the preferred use of a term, as the decision is again devoid of any empirical backing and is at best based on an appeal to consensus. Indeed, on theoretical and empirical grounds, some scholars have argued vigorously for using the term hypnotic or imaginative suggestibility in lieu of "hypnotizability" (Kirsch & Braffman, 1999, 2001).

The part of the new definition that states that hypnosis occurs when the capacity for response to suggestion is enhanced is extremely vague. How can we ascertain whether a person has an enhanced capacity for response to suggestion independent of how he or she responds to suggestions? If hypnotic responsiveness can at once indicate the existence of a hypnotic state and be explained by it, then the definition risks being logically circular (see Braffman & Kirsch, 1999; Lynn & Green, 2011; Sarbin & Coe, 1972).

To measure an enhanced capacity for response to suggestion in a given individual, one ideally tests responsiveness to suggestions before and after hypnosis to evaluate whether the capacity for response to suggestion has been enhanced above and beyond waking suggestibility (Kirsch & Braffman, 2001). Nevertheless, such repeated testing is rarely conducted in either research or clinical contexts. When researchers have conducted such studies, they have found little or no increase in responsiveness to imaginative suggestions when participants are led to believe that the context in which the suggestions are administered is "hypnotic" (e.g., the suggestions are presented as "hypnotic suggestions," the overall context is described as "hypnosis") versus not hypnotic (e.g., Meyer & Lynn, 2011). In other words, "hypnosis"—at least when operationalized as a procedure

or context clearly different from "no hypnosis"—does not appear to "enhance the capacity to respond to suggestions" much, if at all. Such research provides no warrant for defining hypnosis as a "state" that is readily discriminable from what is experienced in a nonhypnotic context (see Lynn & Green, 2011).

Although one could argue that participants in the nonhypnotic conditions were actually hypnotized, and that they somehow slipped into hypnosis or experienced "spontaneous hypnosis" (Barabasz, 2005/2006), one could just as legitimately and more parsimoniously contend that participants in the hypnosis group slipped into imagining and that there is no need to invoke a hypnotic state of consciousness (Kirsch et al., 2008). Indeed, given that Occam's razor reminds us not to posit novel entities when they are not necessary, the burden of proof rests on those who assert that hypnosis is a "state of consciousness" to provide evidence that such a state accounts for behavior that more mundane explanations, such as (1) imaginative involvement in suggestions or (2) relaxation, cannot. It is perhaps relevant in this regard that few people in nonhypnotic conditions report that they slip into a trance or altered state of consciousness (Hilgard & Tart, 1966; Kirsch et al., 2008).

If we do not define hypnosis in terms of procedures in which the situation is defined or construed as "hypnotic," then it is dubious that any of the existing standardized scales and norms bear on what the HDC now defines as "hypnosis" or "hypnotizability," as hypnotic suggestibility has traditionally been assessed in research and clinical contexts in which imaginative suggestions and the procedures (e.g., eye closure, eye fixation, relaxation) were defined unambiguously as "hypnotic." Indeed, the previous definition highlighted this concern by noting that some researchers view defining the induction as hypnotic as being an "essential" component of hypnosis (Green et al., 2005, p. 262; see Heap et al., 2001).

The HDC defines hypnotherapy as "the use of hypnosis in the treatment of a medical or psychological disorder or concern" and further notes that "The identification of 'medical or psychological disorder or concern' is intended to be very broad and to encompass all health care disciplines and is not limited to any particular diagnosis or concern in the absence of a specific diagnosis" (Elkins et al., 2015, p. 7). Troublingly, the HDC goes out of its way not to list examples of clinical disorders in which hypnosis may be useful, stating that such a list of applications "is in itself limiting." Yet providing examples is not "self-limiting" as feared by the HDC, as a list of examples need not be construed as exhaustive. Additionally, the omission of examples holds the potential to imply that hypnosis should be applied to any and all psychological conditions. More broadly, the HDC statement ignores the crucial point that one of the central goals of science, by its very nature, is to constrain inferences, giving us warrant to make certain assertions but not others (see McFall, 1991). We suggest that the HDC forfeited a valuable opportunity to inform the public about the empirically supported uses for hypnosis, with the understanding that this list may be modified in accord with research advances. The HDC also missed an opportunity to (1) correct a widespread misconception about hypnosis, namely

that it is often used as a standalone treatment rather than as an adjunctive intervention to catalyze a variety of interventions (Green, Laurence, & Lynn, 2014) and (2) to note that hypnosis can serve as a tool in studying basic psychological processes, including perception, memory, and attention (see Barnier, Cox, & McConkey, 2014; Kihlstrom, 2007; Nash & Barnier, 2012).

Additionally, it is not entirely clear how the new definition of hypnosis would apply to posthypnotic suggestions in which there is little or no evidence that attention is particularly focused or that peripheral awareness recedes in response to such suggestions. Finally, the definition only vaguely alludes to how self-hypnosis (e.g., self-administered suggestions) would fit into the operationalization of hypnosis.

In conclusion, what might appear to readers to be a simple, concise, and straightforward definition of hypnosis is bedeviled by serious conceptual problems and does not provide an improvement over earlier definitions of hypnosis. To the contrary, the new definition raises a multitude of concerns regarding (1) the circumstances associated with hypnosis, (2) whether hypnosis is present, (3) how hypnotic suggestibility is assessed, and (4) how hypnosis is to be studied and presented to the public. In short, contra the title of the article that presents the definition, the revised APA definition advances neither research nor practice. Moreover, we fear that the lack of evidence for the current definition could lead to the mistaken conclusion that hypnosis does not exist, which could easily lead some researchers to adopt the convention of placing "hypnosis" in quotes. This outcome would certainly be a disservice to procedures that have (1) been demonstrated to enhance the outcome of various psychotherapies (Lynn, Rhue, & Kirsch, 2010) and (2) contributed to an understanding of basic cognitive and affective processes related to important social and psychological questions, such as the creation of false memories (Laurence, Day, & Gaston, 1998; Lynn et al., 2010).

At a time when hypnosis has an opportunity for a clinical and scientific resurgence as a field, it would be more useful to promote a definition that fits the larger hypnosis community, state and sociocognitive theorists alike, under the same tent. The new definition explicitly takes on a "state stance," which is far from theoretically neutral, and neglects to incorporate the diversity of reasoned positions that populate the hypnosis scientific and clinical literature. Perhaps a decade from this day, a new committee of the APA, with a different theoretical bent, will craft another definition that is inclusive and closely adheres to the literature. For now, it is important to recognize the limitations of the most recent definition, which represents a step backward in the field's ongoing attempt to ground hypnosis more firmly in its diverse and growing empirical literature.

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