

## target article

# On the Centrality of the Concept of an Altered State to Definitions of Hypnosis.

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Compilers of most dictionaries and encyclopaedias seem to have similar views on the fundamental defining characteristic of hypnosis: it is an altered state of consciousness. In contrast, experts in the field of hypnosis continue to have in difficulty in coming up with definitions of hypnosis and related terminology on which all can agree. In this paper, it is argued that a major problem in reaching agreement amongst experts on these issues is that, in an attempt to accommodate different theoretical viewpoints, we have lost sight of the etymological origins of terms used when discussing the nature of hypnosis and related phenomena (terms such as hypnosis, hypnotism, hypnotizability, hypnotic induction etc.). As a result, hypnosis and related terms are often defined and applied in disparate ways that do not coherently relate to each other. Some examples illustrative of the general problems are given, and attention is drawn to some possible ways of defining hypnosis and related terminology that acknowledge and maintain the essential features of the original definitions, yet are consistent with different modern explanatory frameworks. The main conclusion drawn is that the concept of an altered state should be central to any definition of hypnosis.

“When I use a word,” Humpty Dumpty said in rather a scornful tone,  
“it means just what I choose it to mean—neither more nor less.”

*Lewis Carroll: Through the Looking Glass.*

## FOREWORD

This paper is about the definition of hypnosis and related terminology, and why authorities in the area continue to experience difficulty in reaching agreement on definitions of the relevant terms. It is argued that one of the major problems, if not the major problem, in reaching agreement on the definition of hypnosis, is that, in an attempt to accommodate different theoretical explanations, we have confused definition and explanation, and thereby lost sight of the etymological origins of terms we use in relation to hypnosis and related phenomena (terms such as hypnosis, hypnotism, hypnotizability, hypnotic induction etc.). Consequently, hypnosis and related terms are often defined and applied in ways that do not coherently relate to each other. However, it is suggested that by acknowledging these issues, it may be possible to come up with some ways of defining hypnosis and related terminology that, whilst acknowledging and maintaining the essential features of the original definitions, are nevertheless, broadly consistent with different modern explanatory frameworks. If the arguments presented have any merit, perhaps the most significant conclusion to be drawn is that, regardless of

one’s theoretical perspective, the concept of an altered state should be a core feature of any definition of hypnosis.

## INTRODUCTION

It is now commonly acknowledged that, although the terms ‘hypnotism’, ‘hypnotic’, and ‘hypnotist’, were first used by James Braid in the 1840s, related terms such as, ‘hypnologie’, ‘hypnotique’ and ‘hypnologiste’, had been publicised and used in France some 20 years earlier by Etienne Félix d’Hémin de Cuvillers (Braid, 1843, 1846; Hémin de Cuvillers, 1820; Gravitz, 1993). Both Hémin de Cuvillers and Braid used the prefix ‘hypn’, from the Greek ‘*hupnos*’ meaning sleep, to apply to a condition previously reported by the early magnetists, known variously as ‘magnetic sleep’, ‘artificial somnambulism’, or ‘lucid sleep’, in which subjects adopted the appearance of someone in a somnambulistic state, and showed evidence of a range of unusual behaviours and experiences (see, for example, Hémin de Cuvillers, 1820). The word ‘hypnosis’ itself (or ‘hypnose’ in French) seems to have appeared somewhat later, by which time any connection with actual sleep had largely been

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\* Braid does not actually use the word ‘hypnosis’ in any of his main works. Also, whilst acknowledging that the hypnotic subject might give the appearance of being in a state of a state of somnambulism, Hénin de Cuvillers (1820) makes it clear that he does not actually believe the subject to actually be in such a state. Similarly, whilst again acknowledging the sleep-like appearance of the hypnotic subject, Braid subsequently abandoned the view that there was an actual connection between the phenomenon and sleep (Braid, 1846; Sheehan & Perry, 1976).

abandoned and replaced by the idea that hypnosis was an altered psychological state or condition in which the subject showed an unusual susceptibility to suggestions for alterations in experience and behaviour (see for example, Bernheim, 1888, 1889; Sheehan & Perry, 1976).\*

Continuing this tradition, although the link with the appearance of sleep is not always made, the idea that hypnosis is some kind of altered state associated with unusual changes in experience and behaviour, overwhelmingly dominates definitions of hypnosis found in modern dictionaries and encyclopaedias. So, for example, the Oxford Dictionaries define hypnosis as, “the induction of a state of consciousness in which a person apparently loses the power of voluntary action and is highly responsive to suggestion or direction” (Hypnosis, 2012d). Similarly, Webster’s Medical Dictionary defines hypnosis as, “a trancelike state of altered consciousness that resembles sleep but is induced by a person whose suggestions are readily accepted by the subject” (Hypnosis, 2012e); the Collins English Dictionary as, “an artificially induced state of relaxation and concentration in which deeper parts of the mind become more accessible” (Hypnosis 2012c), and the Chambers Dictionary as, “an induced sleep-like state in which a person is deeply relaxed, and in which the mind responds to external suggestion and can recover memories of events thought to have been forgotten” (Hypnosis, 2012b). Moreover, although referring to debates about the nature of hypnosis, even the electronic encyclopaedia, Wikipedia, following Encyclopaedia Britannica, defines hypnosis as, “a special psychological state with certain physiological attributes, resembling sleep only superficially and marked by a functioning of the individual at a level of awareness other than the ordinary conscious state” (Hypnosis, 2012f). (For an extended list of very similar quotes from various dictionaries and encyclopaedias see Hypnosis, 2012a.)

Apparently, then, compilers of dictionaries and encyclopaedias seem to have little difficulty in reaching agreement on the fundamental defining feature of hypnosis; whatever its other characteristics, hypnosis is an altered state of consciousness. It may seem somewhat surprising, therefore, that academics, clinicians and other professionals who specialise in hypnosis have so much difficulty in coming up with a definition on which all can agree. There are many examples and reviews of related debates about the general nature of hypnosis in the literature (see, for instance, Barber, 1969; Bowers, 1983; Hilgard, 1973; Kirsch, 1991, 2011; Kirsch & Lynn, 1995, 1998; Lynn & Rhue, 1991; Mazzoni, Venneri, McGeown, & Kirsch, 2013; Sarbin & Coe, 1972; Sheehan & Perry,

1976; Spanos, 1986; Weitzenhoffer, 1980, 2002; Wagstaff, 1998, 2010). However, particularly notable illustrations of the range of opinions specifically regarding definition and the use of related terminology, are the commentaries in Volume 11 of Contemporary Hypnosis following the release of the 1993 definition and description of hypnosis by the American Psychological Association (APA), Division of Psychological Hypnosis (1994); the report of the rationale behind the 2003 APA revised definition of hypnosis (Green, Barabasz, Barrett, & Montgomery, 2005), and the more recent discussion by leading researchers and practitioners again in Contemporary Hypnosis (see Kirsch et al., 2011). Central to most disagreements are views concerning whether or not hypnosis should be defined with reference to an altered state, the relationship between hypnosis and suggestion, the significance of the hypnotic induction procedure, and the definitions of related terminology such as ‘hypnotizability’. Hence, despite an ever increasing volume of scientific research ostensibly about ‘hypnosis’, experts in the field still seem to find it difficult to define what it exactly is that they are (or even should be) investigating or practising.

So why has finding a consensus definition of hypnosis been so difficult?

## DEFINITION, EXISTENCE AND EXPLANATION

According to most authorities, when we refer to the definition of a term, we are usually referring to its ‘lexical definition’; that is, a statement which describes ‘its meaning’. Hence the Oxford Dictionaries state that a definition of a word is, “a statement of the exact meaning of a word, especially in a dictionary” (Definition of definition, 2012). However, the essential meanings of most terms are not contingent upon the actual existence of, or explanation for, phenomena related to the subject concerned. For example, the fundamental meanings of the terms such as, mental telepathy, reincarnation, spiritualism, acupuncture meridians, and Chakras, are not based on whether we believe the phenomena ascribed to them actually exist, or how we explain the phenomena attributed to them. Indeed, if attempt to ‘neutralise’, or ‘water down’ the definitions of terms so that they are compatible with a range of different beliefs and explanations, we invariably lose the essential meaning of the terms. Consider the following example.

Child: Can you speak to the spirits of the dead?

Parent: Personally I don’t think so, but some people think you can.

Child: So what is the meaning of the term ‘spiritualist séance’ then?

Parent: It means when a group of people meet, and led by someone called a ‘medium’; they talk about friends and relatives.

The parent’s definition here may be neutral or uncontroversial, but surely it has lost the essence that defines a ‘spiritualist séance’. Of course, this does not mean that it is impossible to come up with a definition that acknowledges different shades of opinion, or that definitions cannot change to some extent in response to scientific opinion; for example, the Oxford dictionary defines a ‘séance’ as, “a meeting at which people *attempt* to make contact with the dead, especially through the agency of a medium” (my emphasis; Definition of séance, 2012). However, most definitions tend to maintain core features of the original idea. Thus, in the above example, the idea that a séance concerns contact with spirits of the dead still remains central to the definition. But is this the case with hypnosis, or are we in danger of defining hypnosis in a way that is so ‘neutralised’ that its essential characteristics are lost?

### DEFINING HYPNOSIS: SOME PROBLEMS

As an example of some of the relevant problems, consider the main opening paragraph from the 2003 definition of hypnosis provided by American Psychological Association, Division of Psychological Hypnosis (from Green, Barabasz, Barrett, & Montgomery, 2005):

Hypnosis typically involves an introduction to the procedure during which the subject is told that suggestions for imaginative experiences will be presented. The hypnotic induction is an extended initial suggestion for using one’s imagination, and may contain further elaborations of the introduction. A hypnotic procedure is used to encourage and evaluate responses to suggestions. When using hypnosis, one person (the subject) is guided by another (the hypnotist) to respond to suggestions for changes in subjective experience, alterations in perception, sensation, emotion, thought or behaviour. Persons can also learn self-hypnosis, which is the act of administering hypnotic procedures on one’s own. If the subject responds to hypnotic suggestions, it is generally inferred that hypnosis has been induced. Many believe that hypnotic responses and experiences are characteristic of a hypnotic state. While some think that it is not necessary to use the word hypnosis as part of the hypnotic induction, others view it as essential. (p. 262)

In this definition it says, “The hypnotic induction is an extended initial suggestion for using one’s imagination, and may contain further elaborations of the introduction”, and, “A hypnotic

procedure is used to encourage and evaluate responses to suggestions”. But it is not clear what exactly these statements mean. For example, suppose we have two suggestions for using one’s imagination; if we extend the first, does the procedure then become hypnosis? And are we to assume that any procedure that encourages people to respond to suggestions, like Barber’s (1969) task-motivational instructions condition, is ‘hypnotic’? The definition also says, “If the subject responds to hypnotic suggestions, it is generally inferred that hypnosis has been induced”. But, unless the term hypnotic ‘suggestion’ is used tautologically (‘suggested suggestions’), this seems to imply that one can have non-hypnotic suggestions too. So, does this mean that you are hypnotized only if you respond to hypnotic (as distinct from non-hypnotic suggestions)? And if so, we need to know the nature of the distinction. If it is a distinction between suggestion with or without ‘hypnosis’, we still need a definition of ‘hypnosis’. And, in this statement, it is not clear what has been induced. The definition refers mainly to a procedure; we do not normally talk about ‘inducing’ a procedure.

Consider also this more recent definition of hypnosis from the website of the American Psychological Association (2012):

According to the American Psychological Association (APA)’s Division of Psychological Hypnosis, hypnosis is a procedure during which a health professional or researcher suggests while treating someone that he or she experience changes in sensations, perceptions, thoughts, or behaviour. Although some hypnosis is used to make people more alert, most hypnosis includes suggestions for relaxation, calmness, and well-being. Instructions to imagine or think about pleasant experiences are also commonly included during hypnosis. People respond to hypnosis in different ways. Some describe hypnosis as a state of focused attention, in which they feel very calm and relaxed. Most people describe the experience as pleasant.

Now compare this with a standard description of Cognitive Behavioural Therapy (CBT) for pain management such as the following from Keefe (1996):

Training is provided in wide variety of cognitive and behavioural pain coping strategies. Progressive relaxation and cue-controlled brief relaxation exercises are used to decrease muscle tension, reduce emotional distress, and divert attention from pain... Training in distraction techniques such as pleasant imagery, counting methods, and use of a focal point helps patients learn to divert attention away from severe pain episodes. Cognitive restructuring is used to help patients

identify and challenge overly negative pain-related thoughts and to replace these thoughts with more adaptive, coping thoughts. (p. 4)

From reading these latter two descriptions, it seems very difficult to identify the component that essentially differentiates ‘hypnosis’ from CBT, other than perhaps a greater emphasis on ‘suggestion’ in the APA definition.

It seems fairly clear that the main reason why the two APA definitions of hypnosis are problematic is that both are attempting to provide a definition or description of hypnosis that is relatively non-committal with regard to the controversial issue of whether, when explaining hypnotic phenomena, we need to invoke the idea of a trance or altered state. That is, the idea is to produce a definition of hypnosis that can stand regardless of whether the concept of trance or altered state, is included or not. Significantly, if one accepts the idea of a hypnotic state or trance, the difficulties do not arise. For example, if hypnosis is defined in terms of an altered state, a hypnotic induction procedure is not just an extended initial suggestion to use one’s imagination, or an attempt to motivate the subject to respond, it is a procedure specifically designed to induce the altered state of hypnosis. The difference between hypnotic and non-hypnotic suggestions is also made clear; they are suggestions with and without the presence of the hypnotic state. Moreover, the entity that has been induced when people respond to hypnotic suggestions is the hypnotic state, and the essential difference between hypnotherapy and CBT (other than perhaps the emphasis on suggestion), is that the former augments the therapy with the induction of a hypnotic state, whereas ordinary CBT does not.

In contrast, a more or less inevitable consequence of avoiding the concept of trance or state in definitions of hypnosis is that, even if unintentional, this will tend to *align hypnosis more or less exclusively with suggestion*; i.e. hypnosis = giving suggestions; if you respond to suggestions you are ‘hypnotized’ etc. (hence, phrases like, “The hypnotic induction is an extended initial suggestion for using one’s imagination”). A similar observation could be made with regard to the opening summary description of hypnosis in the report by the British Psychological Society (2001) on the nature of hypnosis, which is as follows.

The term ‘hypnosis’ denotes an interaction between one person, the ‘hypnotist’, and another person or people, the ‘subject’ or ‘subjects’. In this interaction the hypnotist attempts to influence the subjects’ perceptions, feelings, thinking and behaviour by asking them to concentrate on ideas and images that may evoke the intended effects. The verbal communications that the hypnotist

uses to achieve these effects are termed ‘suggestions’. Suggestions differ from everyday kinds of instructions in that a ‘successful’ response is experienced by the subject as having a quality of involuntariness or effortlessness. Subjects may learn to go through the hypnotic procedures on their own, and this is termed ‘self hypnosis’. (p. 1)

This is problematic, because, although some have actually defined hypnosis solely in terms of suggestion, for example, Persinger (1996) uses phrases such as, “the capacity to be hypnotized—suggestibility” (p. 283), and, “Hypnotizability or suggestibility” (p. 284), there are a variety of very familiar and long standing arguments against the simple equation of hypnosis with suggestion.

### IS HYPNOSIS THE SAME THING AS SUGGESTION?

The equation of hypnosis and suggestion ignores the fact that many authorities, both academics and clinicians, argue that there is a meaningful distinction to be made between hypnotic and non-hypnotic suggestion, or hypnotic and waking suggestibility (i.e. suggestion with and without hypnosis). For instance, Evans (1967) states, “Waking and hypnotic suggestibility are conceptually, and quite probably empirically distinct” (p. 144). And Sheehan and Perry (1976) state, “Although the link between hypnosis and suggestibility is an important one . . . the two concepts are not to be identified . . . reports from subjects about their experience of trance forbid the simple equation of suggestibility and hypnosis” (pp. 46–47). Similarly, Bowers (1983) says, “Hypnosis cannot be reduced to suggestibility . . . deep hypnosis involves an altered state of consciousness” (p. 105). (See also Hilgard, 1973, 1986; Hilgard & Hilgard, 1983; Hilgard & Tart, 1966; Kirsch & Braffman, 1999; Orne, 1959; Wagstaff, 1998; Wagstaff, Cole & Brunas-Wagstaff, 2008; Weitzenhoffer, 1980, 2002.) Accordingly, numerous theorists, both past and present, have argued that ‘hypnosis’ is not identical in meaning to ‘suggestion’ or ‘suggestibility’, or ‘administering suggestions’, rather it is an altered state or condition that is associated with *changes in suggestibility* such that experiences and behaviours are altered in some way. Moreover, the change in suggestibility that is most typically associated with the presence of hypnosis is one in the direction of increased suggestibility, or hypersuggestibility. So, for example, Bernheim (1889) states, “I define hypnotism as the induction of a peculiar psychical condition which increases the susceptibility to suggestion” (p. 15). Similarly, Hull (1933) says, “However different may be the theoretical bias of the various writers, and however varying may be their interpretation



of the phenomenon, there appears to be no disagreement regarding the fundamental fact that whatever else it may be, the hypnotic trance is a state of heightened susceptibility to suggestion". Erickson (1989) also states, "It (hypnosis) is a state of consciousness or awareness in which there is a marked receptiveness to ideas and understandings and an increased willingness to respond either positively or negatively to those ideas" (p. 224). And Hilgard and Hilgard (1983) remark, "For highly hypnotizable subjects waking suggestion was not as successful as hypnotic suggestion" (p. 182). The idea that hypnosis is a condition related to high responsiveness to suggestion is also implicit in Kallio & Revonsuo's (2003) statement that, in as much as it exists, 'the ASC (altered state of consciousness) of hypnosis is a rare phenomenon realized only in virtuosos" (p. 149); i.e. those highly responsive to suggestions.

What many would consider to be the classic relationship between hypnosis and suggestibility is well indicated in the model described in the Hypnosis Unit UK website, which states that, "Hypnosis has often been carved into two separate elements—Trance and Suggestion" (Hypnosis Unit UK, 2012; see also, Heap, 1996). According to this view, suggestion of itself is not 'hypnotic', rather what defines suggestion as hypnotic is the presence of the 'hypnotic trance' or altered state. Hence HUUK say, "People respond better to suggestions while in hypnosis". In other words, hypnosis is not just 'responding to suggestions'; otherwise the HUUK statement would become, 'people respond better to suggestions while responding to suggestions'.

Indeed, if one attempts to incorporate concepts like trance and hypnotic induction with a definition of hypnosis which equates hypnosis with suggestion, the results can be semantically and conceptually confusing. For example, if we define hypnosis as suggestion, and then include the concepts such as hypnotic induction and trance, it is easy to end up with terms such as 'hypnotic hypnosis' and 'non-hypnotic' or 'waking hypnosis'; indeed, there are examples of this in the literature (see Wells, 1924; Cade & Woolley-Hart, 1974). Of these, the term 'waking hypnosis' is perhaps most common (Wells, 1924; Capafons & Mendoza, 2010). If hypnosis is equated with suggestion, then presumably 'waking hypnosis' means the same thing as 'waking suggestion'. However, this is not how the term is usually applied. For example, Capafons and Mendoza (2010) argue that 'waking hypnosis' is not the same as 'waking suggestion'. Rather 'waking' hypnosis is hypnosis with an 'alert' induction procedure, or 'waking-alert' induction procedure. Hence the distinction is more like: 'hypnotic

suggestion' (hypnosis with 'waking/alert' or 'relaxed/not alert' induction), versus non-hypnotic or 'waking suggestion' (which is suggestion without any hypnotic induction); see also, Cardeña, Alarcón, Capafons, and Bayot, (1998).

However, the terminology becomes even more complex and contorted if one attempts to identify hypnosis with particular kinds of suggestions, such as primary suggestions (for relevant discussion see, for example, Hilgard, 1973; Kirsch et al., 2011; Wagstaff, 1981). For example, Kirsch et al. (2011) state, "hypnosis can also be defined more broadly as the administration (or self-administration) and experience of primary suggestions, regardless of whether a trance induction has been administered" (p. 110). The standard rationale for this would be that the general term 'suggestion' includes types of suggestion which are not normally associated with the 'domain' of hypnosis, such as forms of social suggestibility (conformity and gullibility), often referred to as Type 2, or secondary suggestions (see, for example, Eysenck & Furneaux, 1945; Hilgard, 1973; Stukat, 1958). But, if we define hypnosis as primary suggestion, and non-hypnosis as secondary suggestion, and then add hypnotic induction or trance, potentially we could have: 'hypnotic hypnosis' and 'non-hypnotic/waking hypnosis' (for primary suggestions), and, 'hypnotic non-hypnosis', and 'non-hypnotic/waking non-hypnosis' (for secondary suggestions).

At the root of the problem here is the fact that terms like 'hypnotic trance' and 'hypnotic induction' were historically derived from the idea that hypnosis is, by definition, an altered state which can be induced using various induction procedures; i.e. thus a hypnotic induction procedure is procedure designed to induce a hypnotic state (see for example, Braid, 1843; Bramwell, 1906; Bowers, 1983; LeCron, 1953; Sheehan & Perry, 1976; Shor, Orne & O'Connell, 1962; Tart & Hilgard, 1966; Tart, 1966, 1970; Weitzenhoffer, 1953; Wagstaff et al., 2008). Hence, correspondingly, 'hypnotic suggestion' was simply suggestion in the presence of the hypnotic state, and 'waking suggestion' (non-hypnotic suggestion) was suggestion without the presence of the hypnotic state. Within the context of this terminology, therefore, concepts such as 'hypnotic hypnosis' and 'non-hypnotic' or 'waking hypnosis', would be viewed as contradictions in terms.

### WHAT HAPPENED TO 'HYPNOTISM'?

Another potential source of conceptual and semantic confusion is the term 'hypnotism'. One finds less reference to 'hypnotism' in the modern literature; however, according to Pekala et al.

(2010), there is still a meaningful distinction to be made between hypnosis and hypnotism. Pekala et al. argue that hypnosis refers to a ‘trance state’, defined as, “the subjective state the highly hypnotizable person reports in response to a hypnotic induction” (p. 276); whereas ‘hypnotism’ concerns the combination of hypnosis with ‘suggestion’ (p. 273).

However, this distinction is potentially problematic, as it seems to imply that theories that argue that suggestion is a defining feature of hypnosis, such those of as Liébeault (1886), Bernheim (1889) and Hull (1933), are not actually theories of ‘hypnosis’, they are theories of ‘hypnotism’. Moreover, any theory that describes the science, art or practice of using induction procedures to produce hypnotic ‘trance’ experiences and related phenomena, but without the introduction of, or reference to, suggestion as a fundamental feature of the induction of trance, such as that of Charcot (see Ellenberger, 1970; Sheehan & Perry, 1976), is a theory of ‘hypnosis’, but not of ‘hypnotism’.

Again, at the root of this difficulty is the failure to link the term hypnotism with its historical origins. Historically, ‘hypnotism’, or ‘l’hypnotisme’, was simply the term applied to the study or practice of inducing and using the state of hypnosis.\* Indeed, this original usage again dominates definitions of the term in dictionaries and encyclopaedias; hence Webster’s Medical Dictionary defines hypnotism as ‘the study or act of inducing hypnosis’ (Hypnotism, 2012a), and Collins English Dictionary defines it as, “1 the scientific study and practice of hypnosis, and, 2 the process of inducing hypnosis” (Hypnotism, 2012b). In as much as the practice of hypnotism has traditionally involved the use of suggestions both to induce the proposed hypnotic state (‘hypnosis’), and demonstrate the achievement of the state, one can see why some might now construe hypnotism as ‘trance with suggestion’. But, according to historical perspectives, one could, nevertheless, practice hypnotism without using suggestion, at least in principle. So, for example, Charcot, like other followers of the Salpêtrière School, still practised hypnotism (indeed, he founded the ‘Revue de l’Hypnotisme’), but believed that the hypnotic trance could be induced mechanically without suggestion, and that its main manifestations were relatively fixed reactions of the nervous system (Ellenberger, 1970; Sheehan & Perry, 1976).

In this context, it also perhaps worth noting that, if we apply this kind of etymological distinction between hypnosis and hypnotism, the BPS and APA descriptions of hypnosis could perhaps be more accurately described as statements about ‘hypnotism’ rather than ‘hypnosis’; that is, they

describe what a hypnotist *does*, rather than define hypnosis per se, or the ‘essence’ of hypnosis, to use Orne’s (1959) terminology.

### WHAT IS HYPNOTIZABILITY?

Confusion regarding the distinctions between hypnosis as suggestion, and hypnosis as an altered state, is also apparent in the use of the term ‘hypnotizability’. For example, a number of researchers have drawn a distinction between ‘hypnotic or trance depth’, measured by hypnotic depth reports, and ‘hypnotizability’, measured by response to hypnotic suggestions. From this viewpoint, hypnotic depth and hypnotizability are fundamentally different constructs. Thus, whereas depth refers to the degree of trance or state involvement at a particular time, hypnotizability refers to the skill or talent a person has that enables him or her to respond to hypnotic tasks (see for example, Hilgard, 1981; Pekala et al., 2010; Sheehan & McConkey, 1982; Tart, 1970). Hence Hilgard (1981) famously argued that, ‘The purpose of the Stanford scales was to measure hypnotic talent, not hypnotic depth’ (p. 27). Used in this way, the term ‘hypnotizability’ seems to refer more to what used to be called ‘hypnotic suggestibility’, as distinct from ‘hypnotic susceptibility’, which was the older term used in relation to the more general idea of the ability to ‘enter hypnosis’ or ‘enter the hypnotic state’ (for a detailed account of this distinction, see Bowers, 1983).

However, if hypnotic depth refers to involvement in trance, and hypnotizability does not, there seems to be something wrong with the terminology here (Wagstaff et al., 2008, 2010). For example, a number of theorists have considered the possibility that, although hypnosis is normally associated with hypersuggestibility, for some extremely hypnotically susceptible individuals (somnambules), the experience of hypnosis may be so profound that suggestibility may be significantly diminished with hypnosis (Bowers, 1983; Hilgard and Tart, 1966; Shor, 1962; White, 1937; see also, Spanos, Cobb & Gorassini, 1985; Silva & Kirsch, 1987). But if we adopt the previous distinction between hypnotic depth and hypnotizability, there is nothing inconsistent in saying that such participants are so ‘deeply hypnotized’ (or in such a profound ‘state of hypnosis’), that they are ‘less hypnotizable’, or even ‘unhypnotizable’.

As noted elsewhere (Wagstaff, 2010; Wagstaff et al., 2008), the problem here seems to arise from a confusion between what Bowers (1983) terms, ‘the indicator and what is being indicated’ (p. 92). Again, as originally conceived, hypnotic depth was associated with the idea that hypnosis involves an altered state of consciousness or trance with various degrees of depth, and the

\*As previously noted, this distinction is not apparent in Braid’s terminology; it is, however, apparent by the 1880s, as in Bernheim’s (1888,1889) use of the words ‘hypnose’ and ‘hypnotisme’.

deeper one goes into this state the more suggestible one becomes (Bernheim, 1889; Bowers, 1983; LeCron, 1953; Sheehan and Perry, 1976; Sheehan & McConkey, 1982; Shor, Orne and O'Connell, 1962; Tart and Hilgard, 1966; Tart, 1966, 1970; Weitzenhoffer, 1953). Hence, as Bowers points out, in this way, responsiveness to hypnotic suggestions or tasks was originally viewed as an *indicator* of the degree or depth of 'hypnosis' (altered state) that the subject can achieve or has achieved. And, accordingly, by measuring participants' responsiveness to a set of suggestions that increase in difficulty, one could determine their level of hypnotic depth. In this way, it was assumed that hypnotic *suggestibility* (responsiveness to suggestions whilst in the hypnotic state) can be used as a measure of the level of hypnotic *susceptibility* or *hypnotizability* defined as "maximum depth that can be achieved under the most favourable conditions" (Orne & O'Connell, 1967, p.126). Thus, for example, Tart (1966) remarks, "The total responsiveness of a subject to hypnotic test items is conventionally used as a measure of trance depth or profundity" (p. 380). Indeed, this provided the rationale behind the early 'hypnotic susceptibility' scales which were often also referred to as measures of 'hypnotizability' (see, for example, Barry, Mackinnon & Murray, 1931; Davis & Husband, 1931; Friedlander & Sarbin, 1938; Orne & O'Connell, 1967; Sheehan & McConkey, 1986). Thus, for example, Barry et al. (1931) state, "Hypnosis it is conceded may vary as to depth but there is no agreement as to the number or character of the stages (degrees of depth) . . . With the intention of finding and settling upon a pragmatically suitable formula we selected suggestibility and amnesia and adopted the following formula for scoring: . . ." (p. 9)

However, within this context, another approach to measuring depth was to assume that, in addition to, or even in the absence of, effects on suggestions, the hypnotic state gives rise to other profound changes in phenomenological experience that can be indexed through self-report depth scales (Tart, 1966; 1970; 1979). Thus Tart and Hilgard (1966) also argued that: "The subject's report that he feels hypnotized to some degree is primary data about the presence or absence of hypnosis, if not a criterion of hypnosis" (p. 108).

As originally conceived, therefore, the distinction between hypnotic depth reports and responsiveness to hypnotic suggestions concerned a distinction between *two ways of measuring the same thing*, hypnotic susceptibility or hypnotizability, which was conceptualised as the capacity to enter the hypnotic state, or "maximum depth that can be achieved under the most favourable conditions" (Orne & O'Connell, 1967, p.126; see

also, Bowers, 1983; Tart, 1966). And, significantly, it was against this background that Weitzenhoffer (1980) originally made his criticisms of the standard suggestion based scales; i.e. by relying entirely on suggestions, they confounded the measurement of true 'hypnotic susceptibility' (capacity to enter the hypnotic state), with suggestibility per se (see also, Braffman & Kirsch, 1999; Kirsch & Braffman, 1999; Wagstaff et al., 2008). It can be also noted here that, with the abandonment in the modern literature of the distinction between 'hypnotic suggestibility' and 'hypnotic susceptibility' under the all embracing term 'hypnotizability', these semantic and conceptual distinctions seem to have been lost or blurred.

### RECONCILING ETYMOLOGY AND SCIENTIFIC THEORY IN THE DEFINITION OF HYPNOSIS

If we accept the basic premise that, in principle, a definition of hypnosis does not actually have to reflect modern scientific opinion and practice, then we could finish the discussion here. We could just define hypnosis in terms of its etymological origins as some kind of 'altered state of consciousness', as in most dictionary definitions, and then say that hypnotizability is then the capacity to enter this altered state, a hypnotic induction is a procedure designed to produce this state, and so on. And if people want to reject the idea of hypnosis as an altered state for whatever reason, then all they need to argue is that 'hypnosis does not exist'. However, if we could come up with definitions of hypnosis and related terminology that are more consistent with their etymological origins, yet can at least accommodate some variations in modern scientific opinion, this would seem preferable. What follows, therefore, is an attempt to show how this might be achieved with two different approaches to the conceptualisation of hypnosis, the first more consistent with the idea of hypnosis as a trance, or altered state, the second leaning more towards what is now known as the sociocognitive position on hypnosis, which tends to reject, or at least place less emphasis on, the concept of a hypnotic altered state as a useful way of describing or explaining the behaviours we associate with hypnosis (Kirsch & Lynn, 1995). As, Kirsch and Lynn emphasize, it is important not to polarize these positions, but, nevertheless, it might be worth considering whether it is possible to come up with definitions of hypnosis and terminology that can accommodate, at least to some extent, various shades of opinion with regard to these theoretical viewpoints, whilst still maintaining a reasonable connection with the etymological roots of the term 'hypnosis'.

## MEASURING HYPNOTIZABILITY

As a starting point, let us revisit the idea that hypnotic ‘depth reports’ (after induction) and ‘responses to hypnotic suggestions’ (i.e. after induction) can both be used as measures or indicators of the construct of ‘hypnotic susceptibility’ or ‘hypnotizability’ (Bowers, 1983). If this is the case, we would expect them to be related empirically. Is this so?

A variety of evidence indicates that simple Likert style self-reported hypnotic depth reports are psychometrically highly reliable, and correlate highly and significantly with other standard suggestion based measures which purport to measure hypnotizability or hypnotic susceptibility, even if measured before the administration of any other suggestions (Hilgard & Tart, 1966; Tart, 1970, 1979; Wagstaff et al., 2008). Moreover, depth reports have been shown to equal or outperform more standard suggestion based measures in some areas, including predicting profound hypnotic responses such as amnesia (Wagstaff et al., 2008; Wagstaff, Parkes & Hanley, 2001). For example, Wagstaff et al. (2008), found that SSHS:A amnesia scores showed a higher correlation with hypnotic depth reports ( $r = -.59$ ), than with suggestions on the rest of the scale ( $r = -.39$ ). In fact, when these correlations were entered as predictors in a linear regression model with amnesia scores as the dependent variable, only depth reports emerged as a significant predictor. This may be significant, as amnesia has been described as “among the most striking and important phenomena of hypnosis” (Nace, Orne, & Hammer, 1974, p.257), and many writers have argued that suggested amnesia is a fundamental criterion for the classification of ‘deep hypnosis’ (Barber, 1999; Wagstaff et al., 2008).

Interestingly, however, the standard Likert style depth scales most commonly used in the literature provide little if any information to subjects as to how to rate themselves. For example, here are the instructions for one of the most popular of these scales, the Long Stanford Scale of Hypnotic Depth (see, Tart, 1970; Wagstaff et al., 2008).

During your experience of hypnosis I will be interested in knowing just how hypnotized you are. You will be able to tell me this by calling out a number from zero to ten, depending on how hypnotized you feel yourself to be. Zero will mean that you are awake and alert, as you normally are. One will mean a kind of borderline state, between sleeping and waking. Two will mean that you are lightly hypnotized. If you call out the number five it will mean that you feel quite strongly and deeply hypnotized. If you feel really very hypnotized, you would call out the number eight or nine. Ten will mean that you are very deeply hypnotized, and can do just about anything I suggest to you.\*

\* The phrase, ‘Ten will mean that you are very deeply hypnotized, and can do just about anything I suggest to you’ could be construed as inflating correlations with suggestions by influencing expectancy; however, even this detail does not appear to be necessary; depth reports still correlate highly and significantly with responses to other suggestions even when such descriptors are absent (Hilgard & Tart, 1966).

So, if it is indeed the case that depth reports, like hypnotic suggestions (or even more than hypnotic suggestions), index the ability to enter a ‘hypnotic state’, what exactly is this, and how do subjects know they are in it, when given so little information to go on?

## THE GENERIC TRANCE HYPOTHESIS

In everyday practice, many clinicians and researchers consider it appropriate and useful to use the terms ‘hypnotic trance’ and ‘hypnotic state’ to refer to more or less any condition of absorbed attention. So, for example, a person in a profound state of relaxation, concentration or meditation, could be described as ‘in trance’, and, thereby, ‘hypnotized’. And, indeed, many researchers have noted similarities between effects produced by standard hypnotic induction procedures and other procedures such as systematic relaxation, autogenic training and meditation. For example, Edmonston (1977) has proposed that “neutral hypnosis= relaxation” (p. 689); that is, hypnosis as induced by an induction procedure, but without any other suggestions, is basically relaxation. Typically, it has been argued that these procedures and conditions share a number of common features including the adoption of a relaxed, passive mode of thinking which is brought about by focusing of attention on some neutral target or set of targets such as parts of the body or breathing, whilst ignoring distracting thoughts (Barber, Spanos & Chaves, 1974; Benson & Klipper, 1976; Edmonston, 1977, 1991; Morse, Martin, Furst & Dubin, 1977). Often researchers and practitioners also liken the hypnotic ‘state’ to everyday experiences, such as, being ‘lost in thought’ or day dreaming, absorption in sport, reading, listening to music etc., and driving for long distances and not recalling the route taken (see, for example, Hypnosis Unit UK, 2012; Whalley, 2012). Others have also extended the idea of a hypnotic trance to cover a range of pathological dissociative disorders, pointing to studies showing that responses to suggestions following hypnotic induction procedures can sometimes be higher in individuals who are diagnosed with this kind of pathology (for discussions of related issues see, for example, Bryant Guthrie & Moulds, 2001; Dienes, 2009; Spiegel, Hunt & Dondershine, 1988).

For descriptive purposes, we could call this the ‘generic trance’ hypothesis; that is, the view that hypnosis belongs to, or is akin to, a family of ‘trance experiences’ frequently found in everyday life. In modern times this conception of hypnosis seems to have received considerable popular support. For example, in the influential BPS report on the Nature of Hypnosis it states: “the concept of ‘trance’ may be a useful term to denote the



state of inner absorption and detachment from immediate realities that is usually encouraged by the hypnotic induction and often reported by the subject. In this sense it may be very similar to everyday ‘trance’ experiences, for example, when one is absorbed in some music or a daydream, or engrossed in a book.” (p. 6) Moreover, a variety of evidence could be construed as supporting a fairly generic conceptualisation of ‘trance’. For example, when Edmonston (1977, 1991) asked highly hypnotizable subjects what the hypnotic state is like, what is unique about hypnosis, and how they judge themselves to be hypnotized, the overwhelming majority mentioned feelings of relaxation and feeling calm and peaceful. Also, other researchers have found that reports of the experience of hypnosis from hypnotizable individuals tend to be indistinguishable from those given by participants who have undergone relaxation training, or instructions in the use of imagery (Barber, 1969; Barber, Spanos & Chaves, 1974; Edmonston, 1977; Kirsch, Mobayed, Council & Kenny, 1992; Lynn, Myer & Mackillop, 2000). Another very important feature of viewing the hypnotic state in this way, is it allows the hypnotic state, and variations of consciousness associated with it, to occur *spontaneously*, which some have argued is an important feature of the hypnosis (Pekala & Kumar, 1997; Cardeña, 2005). Indeed, many people have argued that people may ‘slip into’ hypnosis in a variety of everyday situations and in some pathological conditions (Beahrs, 1989; Spiegel & Greenleaf, 2006). Hence, one can see here why some researchers and theorists have rejected the idea of defining ‘hypnosis’ operationally, as simply what occurs as a response to, or after, an induction procedure, as according to this view of the hypnotic trance, a person may ‘drift into hypnosis’ without a formal induction procedure (Hilgard & Tart, 1966; Sheehan & Perry, 1976; Green et al., 2005).

However, there are also a number of well known difficulties with this ‘generic trance’ hypothesis. For example, in contexts explicitly defined as ‘hypnosis’, participants still report themselves as hypnotized and show elevated responses to suggestions when instructions are given that appear to directly counter experiences of relaxation and calmness, or being lost in thought and daydreaming; for example, by increasing physiological arousal and encouraging them to be alert and attentive (Banyai & Hilgard, 1976; Barber, 1969; Cardeña et al., 1998; Cikurel & Gruzelier, 1990; Malott, 1984; Gill & Brenman, 1959). Also, writers disagree on the phenomena that are to be included in this generalised or ‘generic trance’ concept. For instance, whilst some have argued that meditation can be included or integrated

with the hypnotic domain (Benson & Klipper, 1976; Williams, Hallquist, Barnes, Cole & Lynn, 2010), others have argued that meditation and hypnosis produce very different cognitive and physiological effects (see, for example, Semmens-Wheeler & Dienes, 2012).

Another potential problem with the generic trance hypothesis is that the concept of a ‘hypnotic trance’ as something similar to everyday experiences could be considered rather different from the more traditional conception of a hypnotic trance or hypnosis as an altered state of consciousness (ASC), as conceptualised elsewhere in the literature (Barber, 1969; Wagstaff et al., 1981, 1998; see also Cardeña, 2011, and Kallio & Revonsuo, 2003, for discussions of related issues). For instance, Tart (1972) defines an ASC as a “qualitative alteration in the overall pattern of mental functioning, such that the experimenter feels his consciousness is *radically different* from the way it functions ordinarily” (p. 1203, my emphasis). Similarly, Farthing (1992) defines an ASC as a “temporary change in the overall pattern of subjective experience, such that the individual believes that his or her mental functioning is *distinctly different*” (p. 205, my emphasis). Arguably, such definitions of an ASC perhaps imply a perceived shift in mental functioning rather more extreme than, say, when one is say, engrossed in music, a book or sport. Also, as Hoffman (1988) points out, “Trance is still conventionally defined as a state of reduced consciousness, or a somnolent state” (p. 9). And, indeed, the traditional view of the hypnotic trance, as expressed not only in the historical literature, but also in much of the experimental literature, has often implied the existence of an ASC that seems somewhat different from that associated with involvement in a range of everyday activities; for example, its manifestations include a profound loss of, or decrease in, the experience of volition, increased suggestibility, amnesia, and a capacity to experience delusions, hallucinations and anaesthesia, to a degree not found in the ‘waking state’ (Barber, 1969; Barber, Spanos & Chaves, 1974; Bowers, 1983; Hilgard 1965; Wagstaff, 1981; Spanos, 1982, 1986; Spanos & Chaves, 1989).

It appears, therefore, that there may be a potential tension or mismatch here between the idea that hypnosis is a ‘trance state’ akin to everyday experiences, and the view that there is something about the hypnotic state that enables us to have experiences that are qualitatively very different from those commonly encountered in everyday activities (see Kallio & Revonsuo, 2003, for an explication of this view). So, if hypnosis is indeed related to a variety of everyday experiences, it looks like we may need to ‘add’ something that

will transform these everyday experiences into the hypnotic altered state. So the question becomes; what do we need to add?

One possible answer may emerge if we address what is perhaps the major problem with the ‘generic trance’ hypothesis. That is, as yet, there seems to be no definitive empirical evidence that relaxation, meditation, absorption etc., of themselves, increase suggestibility. As mentioned previously, it has long been argued that it is the increase in suggestibility that most reliably differentiates ‘hypnotic’ behaviour from normal ‘waking behaviour’ (Bernheim, 1889; Bowers, 1983; Hilgard & Tart, 1966; Hull, 1933; Kirsch & Braffman, 1999). But it seems that suggestibility is only increased significantly if the ‘trance inducing procedure’ is actually labelled or contextualised as ‘hypnosis’. For example, Gandhi and Oakley (2005) gave participants identical relaxation/induction procedures; however, for one group the procedure was labelled as ‘hypnosis’ and the other ‘relaxation’. Their results showed significant increases in suggestibility (responses to suggestions) on behavioural and experiential measures, and also perceptions of involuntariness, only when the relaxation induction was labelled as ‘hypnosis’. Hence they conclude, “these results indicate that the significant effects that hypnotic inductions have on suggestibility is dependent on the label hypnosis” (p. 311). The present author has found effects consistent with these in an analysis of hypnotic depth reports using the Long Stanford Scale of Hypnotic Depth described earlier. Thus participants ( $N = 21$ ) assigned to a condition in which they received a meditation focused breathing procedure introduced as a ‘simple focussed breathing exercise’, with no mention at any stage of hypnosis, were no more likely to rate themselves as hypnotized than controls ( $N = 20$ ) receiving no meditation procedure (for details of the meditation exercise see, Wagstaff et al., 2004). However, participants ( $N = 20$ ) receiving the same meditation exercise, but introduced as ‘a very simple hypnotic induction procedure’ were significantly more likely to rate themselves as ‘hypnotized’. The median LSS scores were 0, 0, and 3, for the three conditions, respectively, Kruskal Wallis  $\chi^2(2) = 28.96, p < .0001$ . The median score of 3 for the hypnosis label group compares favourably with the normative median score of 2 (indicating ‘lightly hypnotized’) expected with the use of a standard induction procedure labelled as hypnosis (see LSS norms, Wagstaff et al., 2008). Moreover, only those in the hypnosis label condition achieved scores in the 6–8 range, indicating that they felt ‘very’ or ‘deeply’ hypnotized. There is also some evidence to suggest that the label of hypnosis may have a crucial

influence on any additional benefits that may accrue from the addition of hypnotic procedures to therapeutic procedures (Kirsch, Montgomery & Sapirstein, 1995).

### THE RELATIONSHIP BETWEEN TRANCE AND SUGGESTIBILITY

In sum, there appears to be no definitive evidence that procedures involving relaxation, meditation, absorption etc., of themselves, raise suggestibility. Rather, it seems that any increases in suggestibility that arise from the use of hypnotic induction procedures only occur when the context is interpreted by the subject as one of ‘hypnosis’. If this is actually the case, then perhaps we have a candidate for what it is that transforms the everyday experiences and sensations that have at one time or another been placed within the domain of ‘generic trance’, into the kinds of experiences and sensations more often associated with hypnosis. It is the definition of the context as one of hypnosis; that is, *a suggestion to the hypnotic subject that he or she is entering an altered state of consciousness we call ‘hypnosis’* (Wagstaff, 1998).

Significantly, this is consistent with the view that the primary, or necessary, mechanism through which suggestion is raised by hypnotic inductions is, as Liébeault (1886) and Bernheim (1889) argued, *suggestion itself*; that is, the label of hypnosis acts as an extra suggestion that the subject is entering an ‘altered state’ or ‘trance’ that will (usually) increase responses to other suggestions and lead to experiences associated with such a state (see also, Wagstaff, 1981, 1998; 2004; 2010; Wagstaff et al., 2008). Thus Bernheim (1889) variously argued, “The (hypnotic) sleep itself is the effect of a suggestion . . .” (p. viii), and hence, “It is suggestion that rules hypnotism” (p. 15). But, as a corollary, in Bernheim’s view, the hypnotic condition cannot occur spontaneously; rather he says: “The idea of being hypnotized must be present . . .” (p. 5).\*

The idea that the mechanism through which hypnotic induction raises suggestibility is suggestion itself, i.e. *the suggestion for hypnosis*, may also help to illuminate why, perhaps surprisingly, depth reports are such reliable predictors of scores on suggestion based ‘hypnotizability’ measures (Bowers, 1983; Tart, 1970, 1979; Wagstaff et al., 2008). Perhaps the reason why depth reports correlate so well with other suggestion based measures of hypnotizability is that they reflect the subject’s acceptance of the suggestion that hypnosis has occurred (Wagstaff et al., 2008); i.e. depth reports are perhaps the most direct measure available of subjects’ acceptance of the ‘suggestion for hypnosis’ (i.e. the suggestion that they are entering an altered state in which they will

\*According to the viewpoint expressed here, it is not necessary to use the word ‘hypnosis’ as part of an induction routine, for subjects to accept the suggestion for hypnosis, or define the context as one of hypnosis. The only requirement is that the subject is prepared to construe the situation in this way. A subject could, in theory, construe any situation, even without a formal induction, as one of hypnosis, if it accords with his/her conception of what hypnosis is like or involves.

be more responsive to suggestions, have unusual experiences etc.). Put another way, they measure what could be construed as the first suggestion on the suggestion based standard scales of hypnotizability: the suggestion conveyed by the induction procedure (Wagstaff, 1998, 2010).

### ARE ‘GENERIC TRANCE’ EXPERIENCES AN IRRELEVANCE?

But, if so, does this mean that, in terms of explaining hypnotic behaviours and depth ratings, the sorts of everyday experiences that have been interpreted by some researchers as lying within the domain of ‘generic trance’ experiences are actually an irrelevance? Possibly related here are some early findings from Barber and his colleagues investigating the effects of sleep/relaxation instructions and labelling the context of hypnosis on suggestibility (Barber & Calverley, 1964; 1965ab; Barber, Spanos & Chaves, 1974; see also, Mazzoni et al., 2013; Wagstaff, 2010).

In a series of studies, Barber and Calverley (1964, 1965ab) found that suggestions for sleep and relaxation did not significantly affect suggestibility if subjects were led to believe that the procedure would be ineffective in inducing hypnosis. However, labelling the situation as ‘hypnosis’, but with no sleep or relaxation instructions, resulted in a small but significant increase on suggestibility. But, most significantly, suggestibility was increased further when suggestions for sleep and relaxation were added to the label of hypnosis. Along with the findings of Gandhi and Oakley (2005), these findings of Barber and Calverley appear to indicate that, although instructions for sleep and relaxation alone may not increase suggestibility, they may significantly influence the effectiveness of the label of hypnosis in increasing responsiveness to suggestions.

This endorses the view of Barber, Spanos and Chaves (1974) that suggestions for eye fixation, relaxation etc. do not act *directly* to create hypnotic phenomena, but rather they may act *indirectly* to reinforce the attribution that ‘hypnosis’ has occurred and thereby increase the readiness to respond to suggestions. Hence, Barber and Calverley (1965b) state that, “The administration of relaxation-sleep suggestions, therefore, serves to emphasize (to subjects) that the situation is ‘hypnosis’ in which high response to test-suggestions is not only easy but is also desired and expected” (p. 263). Barber, Spanos and Chaves (1974) also state:

If a subject responds to the relaxation-sleep-hypnosis suggestions or to some of the other variables involved in induction procedures and, consequently, experiences changes in body feelings and judges from his responses that he is

hypnotized, his expectancy that he can be affected by suggestions is enhanced. His enhanced expectancy, in turn, tends to heighten his responsiveness to subsequent test suggestions. (p. 45)

The idea that subjects may use a range of non-specific subjective experiences to support their attributions of being hypnotized, and raise suggestibility, has also been suggested by a number of other researchers and writers (see for example, Kidder, 1973; Hilgard; 1986; Mazzoni et al., 2013; Skemp, 1972; Wagstaff, 1981, 1998, 2010). For example, Mazzoni et al., (2013) have drawn attention to the following quote from Hilgard (1986):

After a subject has agreed to participate in hypnosis and has been hypnotized according to any of the several methods, he perceives that some changes have taken place, partly as a response to the suggestions that have been given in the induction, such as relaxation of his muscles, drowsiness, and other subtle changes that are part of the total experience for him. This feeling of being hypnotized, being in some kind of changed condition or state, makes him ready to accept the suggestions of the hypnotist to produce the specific responses that are called for. (p. 163)

However, another way that the experiences associated with the induction procedures may facilitate responsiveness to suggestions, is the subject may utilise them to perform suggestions. For example, a number of researchers have argued that one of the ways in which subjects may come to experience suggestion effects is through redirected attention or inattention; in particular, this may help to facilitate attributions of involuntariness (Crawford & Gruzeliier; 1992; Egner & Raz, 2007; Spanos, 1982; Wagstaff, 2004; Wegner & Erskine, 2003). Consequently, having received the ‘suggestion for hypnosis’, subjects may then be able to use any redirected focus (on breathing, feelings of sleep/relaxation, absorption etc.) to enhance responses to suggestion (see also, Kidder, 1973; Skemp, 1972).

Thus, from the ‘hypnosis as a suggestion’ perspective, the kinds of processes and experiences that, at one time or another, proponents of the ‘generic trance’ hypothesis have related to hypnosis are not necessarily epiphenomena, in the sense of being an irrelevance to response to suggestions; rather they may act together with the suggestion for ‘hypnosis’ to provide a source of experiences that a) justify the attribution that an ‘altered state’ has occurred, thus raising motivation and expectancies, and b) facilitate a redirection of focus that may aid the strategic enactment of some suggestions. Moreover, in principle, any procedure which results in some kind of experiential change in a particular context is potentially capable of providing experiences that can be used



\* A background state of consciousness refers to the idea that, although the more fine grained contents of consciousness may change continually, they are set against a general background state, such as being awake, being asleep, and dreaming (Chalmers, 2010). If we argue that any change in the background state of consciousness, in any direction, could potentially reinforce the subject's view that he/she is 'hypnotized', we have a possible mechanism for understanding why, when combined with the suggestion for hypnosis, both alerting and relaxation inductions increase suggestibility (see also, Kallio & Revonsuo, 2003).

† One apparent exception here is a study by Brown, Antonova, Langley, & Oakley (2001), which demonstrated that inductions supplemented by using suggestions for absorption and reduced critical thought were more effective than relaxation alone in increasing responses to suggestion (though not significantly different from each other); indeed the relaxation induction produced a decrease in suggestibility. For some reason this result was clearly anomalous. Virtually all of the major hypnosis scales, and many hypnotherapeutic techniques use induction procedures based on suggestions for sleep and relaxation; and the literature is replete with studies showing that such relaxation type inductions significantly raise suggestibility, and levels of reported hypnotic depth (e.g. Barber, 1969; Barber, Spanos & Chaves, 1974; Hilgard & Tart, 1966; Gibbons & Lynn, 2010). Relaxation based procedures are also routinely used by neuroimaging researchers to evoke hypnotic effects (see for example, McGeown, Mazzoni, Venneri & Kirsch, 2009; Rainville et al, 1999).

in this way, including procedures which encourage alertness and arousal (Banyai & Hilgard, 1976; Cardeña et al., 1998; Cikurel & Gruzelier, 1990; Ludwig, 1966; Malott, 1984). The idea that subjects may use external cues to label their experiences of a variety of ambiguous internal cues is well known in the social psychological literature (see, for example, Dutton & Aron, 1974; Schachter & Singer, 1962; Valins & Ray, 1967; Wagstaff, 1981).

This creates a rather different model of hypnosis to one which construes hypnosis as a trance state which is associated with increases in responsiveness to suggestion, but is independent in kind from suggestion. In this alternative model, hypnosis now associated with a particular 'species' or subcategory of suggestion (the suggestion that one is in an altered state), which may act on other forms of suggestion. Nevertheless, within this framework, a variety of what could be termed non-specific processes and experiences may still be used by the hypnotic subject to support or reinforce the commitment that hypnosis has occurred (Barber, Spanos & Chaves, 1974; Wagstaff, 1981, 1986, 2010; Mazzoni et al., 2013). It should also be emphasized, however, that this is very different from simply equating hypnosis with suggestion; it would obviously be a logical fallacy to argue that because hypnosis is itself the result of a suggestion, then any suggestion must be hypnosis (this is like saying, Tom Jones is a singer, therefore, any singer must be Tom Jones).

### THE CONTENTS OF 'GENERIC TRANCE' RECONSIDERED

If we adopt this viewpoint, it may help to explain some of the inconsistencies in views and findings with regard to what should be included within the category of 'generic trance'. For example, to reiterate, some have variously argued that hypnosis, meditation and relaxation share similar characteristics (Barber, Spanos & Chaves, 1974; Benson & Klipper, 1976; Edmonston, 1977; Williams et al., 2010). And, indeed, when asked to report what an induction felt like, hypnotic subjects given standard relaxation induction procedures report experiences very similar to subjects who have simply undergone relaxation (Barber, 1969; Barber, Spanos & Chaves, 1974; Edmonston, 1977). In contrast, other results suggest that relaxation is dissimilar to hypnosis, because it does not increase responses to suggestions, and produces different physiological effects from hypnosis (Gandhi & Oakley, 2005; Williams & Gruzelier, 2001). Moreover, hypnotic induction procedures produce effects different from those of meditation (Semmes-Wheeler & Deines, 2012). But yet again, other findings suggest that relaxation instructions can increase suggestibility (Barber,

Spanos & Chaves, 1974; Gandhi & Oakley, 2005) and meditation instructions can increase depth reports (as in the data reported in the present paper), if the context is labelled as 'hypnosis'.

Such apparently inconsistent findings might make more sense if, again, one were to argue that the suggestion conveyed by labelling or defining the situation as hypnosis, may lead subjects to define any perceived shifts in experience, or changes in the background state of consciousness', resulting from instructions for relaxation, alertness etc., as evidence they have been 'hypnotized'. This in turn could affect a host of variables that might facilitate responses to suggestions (motivation, expectancies, attention deployment etc.). However, it would not necessarily follow from this that all inductions will necessarily produce the same effects; for example, it is possible that different kinds of induction might produce different degrees of shifts in experience, or background state. It is also well known that the effectiveness of inductions can be substantively, and sometimes dramatically, affected by contextual and attitudinal variables (Barber, 1969; Silva & Kirsch, 1987; Spanos, 1986). Though, in general, unless attempts are made to manipulate attitudes and expectancies, there appears to be little reliable evidence that the form of the induction has any substantive effect on suggestibility (Banyai & Hilgard, 1976; Mathews, Lynn & Mosher, 1985).†

From this viewpoint, therefore, it may indeed be correct to say that 'hypnosis' is not the same as relaxation, and not the same as meditation, because, for subjects to define their experiences as hypnosis, and/or utilize the induction procedures to facilitate their responses to suggestions, whatever instructions they have been given must be contextualised as hypnosis; i.e. they have to accept that they have been 'hypnotized', according to their view of what this means (Wagstaff, 1998). As a result, as the evidence suggests, relaxation + the label of (suggestion for) hypnosis will tend to produce responses and effects different from relaxation alone (Gandhi & Oakley, 2005), meditation + the label of hypnosis will produce responses different from meditation alone (as in the study on depth reports reported in this paper), relaxation + the label of hypnosis will produce different responses from meditation without the hypnosis label (Semmes-Wheeler & Deines, 2012). Moreover, one possible implication of this is that if, in an attempt to find some defining core feature of hypnosis, we systematically apply the 'label/suggestion of hypnosis + x, versus x or y or z' paradigm to every conceivable factor that could be conceptualised as belonging to the domain of a hypnotic 'generic trance', we run the risk of eventually eliminating all of them on the grounds



\*It can be noted that there are two ways this paradigm is popularly applied. The first is to use a standard two or more conditions design, suggestion for hypnosis label +x versus x. The second is to use a high vs low hypnotizability conditions paradigm where all are given the hypnotic induction, and comparisons are made between high hypnotizables and low hypnotizables (see, for example, Williams & Gruzelier, 2001). However, if we assume that highs accept the suggestion for hypnosis, and lows do not, the design is equivalent.

that none produces the same effects as ‘hypnosis.’

So, despite decades of research devoted, as yet unsuccessfully, to finding some core defining psychological or physiological feature we can associate with the hypnotic state, we may have missing something very obvious. There *is* actually something common to the vast majority of procedures we label ‘hypnotic induction procedures’, that is in many respects unique, and seems very much related to the kinds of changes in suggestibility and experience we might expect of someone in a hypnotic state: they all *explicitly or implicitly convey to the subject that idea that the procedure will induce a state of ‘hypnosis’*, with all the associations and expectancies that this idea carries. A relaxation procedure without the label of hypnosis is just that: a relaxation procedure. Tell, or imply to, the subject that it is a hypnosis procedure, and it is transformed into something rather different and rather special: a hypnotic induction procedure.

And if we accept this conceptualisation, then perhaps it is not surprising that manipulating subjects’ expectancies and beliefs as to whether hypnosis is present, and what hypnosis is likely to do, appears to have considerably more effect on responses to suggestions following induction, than changing the mechanics of the induction procedure (Banyai & Hilgard, 1976; Barber, 1969; Mathews, Kirsch & Mosher, 1985; Silva & Kirsch, 1987; Spanos, 1986; Spanos, Cobb & Gorassini, 1985). Hence, if there really is some entity or emergent property we can meaningfully describe as a ‘hypnotic altered state of consciousness’, that is perhaps accompanied or identifiable by a set of discrete psychological or physiological markers, we are unlikely to find it whilst ignoring or rejecting what might be its most critical feature, defining the context as hypnosis, or conveying the suggestion for hypnosis.

## DEFINITIONS OF HYPNOSIS REVISITED

Which of the two models identified in this paper, i.e. hypnosis as an altered state that can exist independent of suggestion, or hypnosis is the acceptance of a suggestion that one is in such a state, clearly remains a point of contention, and it is not within the scope of the present paper to debate further their relative merits. Instead, the main point here is to emphasize that, although these models might appear to represent very different theoretical approaches to the study of hypnosis, they both use the idea of hypnosis as an altered state as a central or core concept in *defining* the concept of hypnosis. In other words, in essence, ‘hypnosis’ is either an altered state that exists independently of suggestion, or it involves acceptance of a suggestion for one. What hypnosis is

not, however, is simply ‘suggestion’, or ‘response to suggestion’, or ‘giving suggestions’.

Because the concept of an altered state is central to both viewpoints, we now perhaps have the opportunity to come up with some definitions that can accommodate both, and also fit more closely with the etymological origins of the terms. So, here are some possibilities. It can be noted that, apart from the fact there is no reference to sleep or somnambulism, all could be considered reasonably consistent with the etymological origins of the terms.

*Hypnosis (in essence):* Hypnosis can be defined as 1) an alleged altered state of consciousness normally associated with increased susceptibility to suggestion, and changes in sensations, perceptions, thoughts, and behaviour, or 2) acceptance of the suggestion that one is in such a condition.

By referring to an *alleged* altered of consciousness, like the APA and BPS definitions, the definition aims to remain relatively non-committal as to the actual existence of such an altered state, or whether it is useful to postulate the existence of one. By using the term ‘normally’, it also allows for the position that a person who is hypnotized may not necessarily show an increase in response to suggestion, as occasionally a minority of subjects will show a decrease in suggestibility after induction (Hilgard & Tart, 1966), and hypnotized subjects may resist responding to suggestions, if instructions imply that such resistance is concordant with deep hypnosis (Silva & Kirsch, 1987; Spanos, Cobb & Gorassini, 1985). Also, it does not assume that any relationship between the altered state of consciousness and suggestibility is causal (see, for example, Hilgard, 1969; Kihlstrom, 1985). The phrase ‘changes in sensations, perceptions, thoughts, and behaviour’ is borrowed directly from the definition in the APA website (American Psychological Association, 2012).

*Hypnotic induction procedure:* a procedure designed to induce or bring about hypnosis (as defined above).

This definition can accommodate a variety of hypnotic induction procedures, including alerting instructions, or relaxation/sleep style procedures, leading to ‘alert’ vs ‘non-alert/relaxation’ types of hypnosis (Banyai & Hilgard, 1976; Barber, 1969; Cardeña et al., 1998; Cikurel & Gruzelier, 1990; Gibbons & Lynn, 2010; Malott, 1984).

\*As Mazzoni et al. (2013) comment, “The designs of many neuroimaging studies confound the induction of hypnosis with the suggestions that can be given in or out of hypnosis, thus rendering them incapable of resolving the controversy. Brain imaging studies that do not have this confound support the hypothesis that hypnotic inductions produce changes in brain activity, but also indicate that these changes are not required for the experience of hypnotic suggestions or their neural correlates.” (p. 400; See also, Wagstaff, 1998, 2004, with regard to the interpretation of results of physiological studies of hypnosis.)

*Hypnotism (or hypnosis as a procedure):* the art or practice of inducing and using hypnosis.

As construed here, hypnotism or ‘hypnosis as a procedure’, typically involves administering suggestions in a context that utilises a hypnotic induction procedure, as defined above. It can be noted that it is here that procedural descriptions of hypnosis, such as those given in the definitions provided by the APA and BPS, can come into their own.

*Hypnotizability / hypnotic susceptibility:* the ability to enter hypnosis (as previously defined), or respond to a suggestion for hypnosis.

Hypnotizability as defined here is not the same as ‘response to suggestion’, or ‘response to suggestion after induction’, and thus does not suffer their attendant problems (Braffman & Kirsch,

1999; Kirsch & Braffman, 1999; Wagstaff et al., 2008; Weitzenhoffer, 1980, 2002). However, the issue arises as to how best to measure it.

Ideally, if there actually existed an entity we could reasonably label a ‘hypnotic altered state’, and we could establish a set of discrete physiological markers that could be used to index the degree of to which subjects had entered this state, we could use these as an index of hypnotizability. However, although a growing volume of studies, especially in the neuropsychological literature, have found results consistent with the view that responses to hypnotic suggestions, including those for hallucinations and analgesia, may be experienced veridically (see, for example, Kosslyn, Thompson, Costantini-Ferrando, Alpert & Spiegel, 2000; Jensen, Barabasz, Barabasz, and Warner, 2001; Rainville et al., 1999), it has yet to be established whether such studies can be considered to attest to the reality of a hypnotic state. Moreover, we do not appear to have found a set of discrete physiological markers that we can associate with a hypnotic state (whether construed as independent of suggestion, or an emergent property resulting from a combination of the suggestion for hypnosis, with ‘generic trance’ processes), and of a kind that could be used as an index of hypnotizability as construed here (Lynn, Kirsch, Knox & Lilienfeld, 2006; Mazzoni et al., 2013; Oakley & Halligan, 2010).\*

In the meantime, therefore, for reasons identified earlier, perhaps depth reports are the most direct way of measuring hypnotizability; however, given that, after induction, depth reports correlate significantly with responses to imaginative suggestions, especially following an induction procedure, the latter could also potentially be used as an indirect or proxy measure of hypnotizability (see Box I).

*Hypnotic suggestibility:* responsiveness to suggestions given together with, or in the context of, hypnosis and hypnotism as previously defined.

*Non-hypnotic (‘waking’) suggestibility:* responsiveness to suggestions given outside of the context of hypnosis and hypnotism as previously defined.

Significantly, these definitions allow a person to exhibit hypnotic suggestibility without a formal induction procedure. Also, they do not assume that a hypnotic induction procedure is necessary to produce hypnosis. This is consistent with the view that hypnosis is an altered state that can occur spontaneously (Beahrs, 1989; Spiegel & Greenleaf, 2006), but is most likely to occur

### BOX I. DEPTH REPORTS

Not only are depth reports reliable, they also have face and construct validity. Hence, unlike the suggestions used in standard scales of hypnotic suggestibility, depth reports tend to be low or absent in situations where we would not expect to find hypnosis (as previously defined) to any appreciable degree; such as, when there is no hypnotic induction procedure (Hilgard & Tart, 1988; Wagstaff et al., 2008). Nevertheless, as imaginative suggestions instructions given both with and without induction in a variety of contexts tend to correlate highly and significantly with depth reports given after induction (Hilgard & Tart, 1966; Tart, 1970; Wagstaff et al., 2008), responses to imaginative suggestions can still potentially be used as a less accurate, indirect, or proxy measure of the construct of hypnotizability. The idea of proxy or indirect measurement is premised on the psychometric principle that variables can be used to predict/measure to the extent that they correlate. For example, because socioeconomic status (SES) correlates significantly with more direct measures of intelligence, then indicators of socioeconomic status (SES) can be described as ‘proxy measures of intelligence’ (see, for example, Jokela, Batty, Deary, Silventoinen & Kivimäki, 2011, p. 489). But obviously SES is not the same as Intelligence, neither are they measured using the same procedures. Similarly, we can say that depth reports and responses to imaginative suggestions

are obviously different constructs (one measures the self-perception of hypnotic depth, the other imaginative suggestibility). Nevertheless, they correlate significantly with each other, and hence both can potentially be used to measure the construct of hypnotizability, though with different degrees of accuracy. A possible analogy here is the measurement of alcohol use using Blood Alcohol levels and impulsivity. Both are known to correlate significantly with alcohol use, but they are obviously not the same thing; one is measuring the alcohol level in the blood and the other is measuring impulsivity. However, that does not mean that they cannot both be used as measures of another construct, alcohol use. The main difference is BAL is more of a direct measure, whereas impulsivity is clearly an indirect or proxy measure. In fact, if one substitutes BAL for hypnotic depth reports, impulsivity for suggestibility, and opportunity to consume alcohol for hypnotic induction, they appear to behave very much in the same way. BAL (like depth reports) will be virtually nonexistent in a situation in which there is no opportunity to drink (no hypnotic induction) whereas, whilst impulsivity (suggestibility) scores are also increased by the opportunity to drink (hypnotic induction), scores before and after the opportunity to drink (induction) are highly correlated (see, for example, Reed, Levin & Evans, 2012).

following hypnotic induction (because, by definition, hypnotic inductions are designed to increase the likelihood that hypnosis will occur). It is also consistent with view that, although hypnotic inductions with the explicit label of ‘hypnosis’ are most likely to induce hypnosis, subjects can also make the attribution that hypnosis has occurred (accept a suggestion for hypnosis) in situations that do not involve a formal induction procedure or the explicit label of hypnosis, which a small number of subjects do (see, for example, Hilgard & Tart, 1966; Wagstaff et al., 2008).

*To be ‘hypnotized’:* to be in an alleged altered state of consciousness, normally associated with increased susceptibility to suggestion etc., or to have accepted the suggestion that one is in such a condition.

Again this definition allows a person to be ‘hypnotized’ without a formal induction procedure.

Finally, suppose we were to accept this kind of definition; what might a revised version of the first part of the APA definition and description look like? Here is one possibility.

Hypnosis can be defined as 1) an alleged altered state of consciousness normally associated with increased susceptibility to suggestion, and changes in sensations, perceptions, thoughts, and behaviour, or 2) acceptance of the suggestion that one is in such a condition. When using hypnosis as a procedure, one person (the subject) is guided by another (the

hypnotist) to respond to suggestions aimed to bring about such changes. A hypnosis procedure will typically involve an introduction to the procedure during which the subject is told that suggestions for imaginative experiences will be presented. This is usually followed by a hypnotic induction procedure, which is a set of instructions and suggestions designed to facilitate entry into the alleged hypnotic state, or convey the suggestion that one is entering such a condition. The induction is used to encourage and facilitate responses to subsequent suggestions. Persons can also learn self-hypnosis, which is the act of administering hypnotic procedures on one’s own. If the subject responds to suggestions after an induction procedure, it is generally inferred that hypnosis has been induced, though subjects can also respond to suggestions outside the context of hypnosis. Many believe that the responses and experiences of subjects during hypnosis procedures are characteristic of a hypnotic state, though opinions vary as to whether such a state actually exists and whether it is useful or necessary to invoke the idea of an altered state of hypnosis to account for phenomena that are attributed to hypnosis. Also, while some think that it is not necessary to use the word *hypnosis* as part of the hypnotic induction to effectively facilitate subsequent responses to suggestions, others view it as essential.

## REFERENCES

- American Psychological Association, Division of Psychological Hypnosis (1994). Definition and description of hypnosis. Released in 1993, reproduced with commentaries in *Contemporary Hypnosis*, 11, 142–162.
- American Psychological Association (2012). *Definition of hypnosis*. Retrieved 24 November 2012 from <http://www.apa.org/topics/hypnosis/media.aspx>
- Banyai, E. I., & Hilgard, E. R. (1976). A comparison of active alert hypnotic induction and traditional relaxation induction, *Journal of Abnormal Psychology*, 85, 218–224.
- Barber, T. X. (1969). *Hypnosis: A scientific approach*, New York, NY: Van Nostrand.
- Barber, T. X. (1999). A comprehensive three dimensional theory of hypnosis. In I. Kirsch, A. Capafons, E. Cardeña-Buelna, E., & Amigo, S. (Eds.) *Clinical hypnosis and self-regulation: Cognitive-behavioral perspectives* (pp. 21–48). Washington, DC: APA.
- Barber, T. X., & Calverley, D. S. (1964). Toward a theory of hypnotic behaviour: Effects on suggestibility of defining the situation as hypnosis and defining response to suggestions as easy. *Journal of Abnormal and Social Psychology*, 68, 585–592.
- Barber, T. X., & Calverley, D. S. (1965a). Empirical evidence for a theory of hypnotic behaviour: Effects on suggestibility of five variables typically included in hypnotic induction procedures. *Journal of Consulting Psychology*, 29, 98–107.



- Barber, T. X., & Calverley, D. S. (1965b). Empirical evidence for a theory of 'hypnotic' behavior: The suggestibility enhancing effects of motivational suggestions, relaxation–sleep suggestions, and suggestions that the S will be effectively 'hypnotized'. *Journal of Personality*, 33, 256–270.
- Barber, T. X., Spanos, N. P., & Chaves, J. F. (1974). *Hypnotism, imagination and human potentialities*. New York, NY: Pergamon.
- Barry, H., Mackinnon, D. W., & Murray, H. A. (1931). Studies in Personality. A. Hypnotizability as a personality trait and its typological relations, *Human Biology*, 3, 1–36.
- Behrs, J. O. (1989). Spontaneous Hypnosis in the forensic Context. *Bulletin of the American Academy of Psychiatry and Law*, 17, 2, 171–181.
- Benson, H., & Klipper, M. Z. (1976). *The relaxation response*. London, UK: Collins.
- Bernheim, H. (1888). *De la suggestion et de son application à la thérapeutique*. Paris, France: Octave Doin.
- Bernheim, H. (1889). *Suggestive therapeutics: A treatise on the nature and uses of hypnotism (2<sup>nd</sup> ed)* (C.A. Herter, Trans.). New York, NY: Putnam.
- Bertrand, L. D., 1989, The assessment and modification of hypnotic susceptibility, in Spanos, N. P. and Chaves, J. F. (eds.), *Hypnosis: The cognitive behavioral perspective* (pp.18–31). Buffalo, NY: Prometheus.
- Braffman, W., & Kirsch, I. (1999). Imaginative suggestibility and hypnotizability: An empirical analysis. *Journal of Personality and Social Psychology*, 77, 578–587.
- Bowers, K. S. (1983). *Hypnosis for the seriously curious*, New York, NY: Norton.
- Bowers, K. S. (1992). Imagination and Dissociation in Hypnotic Responding. *International Journal of Clinical and Experimental Hypnosis*, 40, 253–75.
- Braid, J. (1843). *Neurypnology: Or the rationale of nervous sleep considered in relation with animal magnetism*. London, IK: Churchill.
- Braid, J. (1846). *On the power of the mind over the body*. London, UK: John Churchill.
- Bramwell, J. M. (1906). *Hypnotism: Its history, practice and theory*. London, UK: Alexander Moring.
- British Psychological Society (2001). *The nature of hypnosis*. Leicester, UK: the British Psychological Society.
- Brown, R. J., Antonova, E., Langley, A., & Oakley, D. (2001). The effects of absorption and reduced critical thought on suggestibility in the hypnotic context. *Contemporary Hypnosis*, 18, 62–72.
- Bryant, R. A., Moulds, M., & Guthrie, R. M. (2001). Hypnotizability in acute stress disorder. *American Journal of Psychiatry*, 158, 600–604.
- Cade, C. M., & Wooley-Hart, A. (1974). Psychophysiological studies of hypnotic phenomena. *British Journal of Clinical Hypnosis*, 5, 14–25.
- Capafons, A., & Mendoza, M. E. (2010). 'Waking hypnosis' in clinical practice. In S. J. Lynn, J. W. Rhue, & Kirsch, I. (Eds.), *Handbook of clinical hypnosis* (pp. 293–318). Washington, DC: American Psychological Association.
- Cardena, E. (2005). The phenomenology of deep hypnosis: Quiescent and physically active. *International Journal of Clinical & Experimental Hypnosis*, 53, 37–59.
- Cardena, E. (2011). Altering consciousness: Setting up the stage. In E. Cardena, & M. Winkelmann (Eds.), *Altering consciousness. Multidisciplinary perspectives. Volume I: History, culture, and the humanities* (pp. 1–21). Santa Barbara, CA: Praeger.
- Cardena, E., Alarcón, A., Capafons, A., & Bayot, A. (1998). Effects on suggestibility of a new method of active-alert hypnosis. *International Journal of Clinical and Experimental Hypnosis*, 46, 280–294.
- Cikurelm K., & Gruzelier, J. (1990). The effect of an active-alert hypnotic induction on lateral asymmetry in haptic processing. *British Journal of Experimental and Clinical Hypnosis*, 7, 17–25.
- Crawford, H. J., & Gruzelier, J. H. (1992). A midstream view of the neuropsychology of hypnosis: Recent research and future directions. In E. Fromm and M. R. Nash (Eds.), *Contemporary Hypnosis Research*. (pp.227–266). New York, NY: Guilford Press.
- Davis, L. W., & Husband, R. W. (1931). A study of hypnotic susceptibility in relation to personality traits. *Journal of Abnormal and Social Psychology*, 26, 175–182.
- Definition. (2012). In *Oxford Dictionaries*. Retrieved from <http://oxforddictionaries.com/definition/english/definition>
- D'Héning de Cuvillers (1820). *Le magnétisme éclair ou Introduction aux archives du Magnétisme Animal*. Paris, France: Barrois, Treuttel et Wurtz, Belin-Le Prieur, Bataille et Bousquet.
- Dienes, Z., Brown, E., Hutton, S., Kirsch, I., Mazzoni, G., & Wright, D. (2009). Hypnotic suggestibility, cognitive inhibition, and dissociation. *Consciousness and Cognition*, 18, 837–847.
- Dutton, D. G., & Aron, A. P. (1974). Some evidence for heightened sexual attraction under conditions of high anxiety. *Journal of Personality and Social Psychology*, 30, 510–517.
- Edmonston, W. E. (1977). Neutral hypnosis as relaxation, *American Journal of Clinical Hypnosis*, 30, 69–75.
- Edmonston, W. E. (1991). Anesis. In S. J. Lynn and J. W. Rhue (Eds.), *Theories of hypnosis: Current models and perspectives* (pp. 197–240). New York, NY: Guilford Press.
- Ellenberger, H. F. (1970). *The discovery of the unconscious: The history and evolution of dynamic psychiatry*. New York, NY: Basic Books.
- Egner, T., & Raz, A. (2007). Cognitive control processes and hypnosis. In G. A. Jamieson (Ed.), *Conscious states: The cognitive neuroscience perspective* (pp. 29–50). New York, NY: Oxford University Press.
- Evans, F. J. (1967). Suggestibility in the normal waking state. *Psychological Bulletin*, 67, 114–129.
- Eysenck, H. J., & Furneaux, W. D. (1945). Primary and secondary suggestibility. *Journal of Experimental Psychology*, 25, 485–503.
- Farthing G. W. (1992). *The psychology of consciousness*. Englewood Cliffs, NJ: Prentice-Hall.
- Fellows, B. J. (1986). The concept of trance. In P. L. N. Naisb (Ed.), *What is Hypnosis?* (pp. 37–38). Philadelphia, PA: Open University Press.
- Friedlander, J. W., & Sarbin, T. R. (1938). The depth of hypnosis. *Journal of Abnormal and Social Psychology*, 33, 453–475.
- Gandhi, B., & Oakley, D. A. (2005). Does hypnosis by any other name smell as sweet? The efficacy of 'hypnotic' inductions depends on the label 'hypnosis'. *Consciousness and Cognition*, 14, 304–315.
- Gibbons, D. E., & Lynn, S. J. (2010). Hypnotic inductions: A primer. In J. Rhue, S. J. Lynn, & I. Kirsch (Eds.), *Handbook of Clinical Hypnosis* (pp. 267–291). Washington, DC: American Psychological Association.
- Gill, M. M., & Brenman, M. (1959). *Hypnosis and related states*. New York, NY: International Universities Press.
- Gorassini, D. R., & Spanos, N. P. (1999). The Carleton Skill Training Program for modifying hypnotic suggestibility: Original version and variations. In I. Kirsch, A. Capafons, E. Cardena-Buelna, & S. Amigo (Eds.), *Clinical hypnosis and self-regulation: Cognitive-behavioral perspectives*, (pp. 141–180). Washington, DC: American Psychological Association.
- Gravitz, M. A. (1993). Etienne Félix d'Héning de Cuvillers: A founder of hypnosis. *American Journal of Clinical Hypnosis*, 36, 7–11.



- Green, J. P., Barabasz, A. F., Barrett, D., & Montgomery, G. H. (2005). Forging ahead: The 2003 APA Division 30 definition of hypnosis. *International Journal of Clinical and Experimental Hypnosis*, 53, 259–264.
- Heap, M. (1996). The nature of hypnosis. *The Psychologist*, 9(11), 498–501.
- Heap, M., Oakley, D. & Brown, R. (Eds.). (2004). *The highly hypnotizable person*. London, UK: Brunner-Routledge.
- Hilgard, E. R. (1969). Altered states of awareness. *Journal of Nervous and Mental Disease*, 149, 68–79.
- Hilgard, E. R. (1973). The domain of hypnosis: With some comments on alternative paradigms. *American Psychologist*, 28(11), 972–982.
- Hilgard, E. R. (1981). Hypnotic susceptibility scales under attack: An examination of Weizenhoffer's criticisms. *International Journal of Clinical and Experimental Hypnosis*, 29, 24–41.
- Hilgard, E. R. (1986). *Divided consciousness: Multiple controls in human thought and action*. New York, NY: Wiley.
- Hilgard, E. R. & Hilgard, J. R. (1983). *Hypnosis in the relief of pain*. Los Altos, CA: William Kaufmann.
- Hilgard, E. R., & Tart, C. T. (1966). Responsiveness to suggestions following waking and imagination instructions and following induction of hypnosis. *Journal of Abnormal Psychology*, 71, 196–208.
- Hull, C. L. (1933). *Hypnosis and suggestibility: An experimental approach*. New York, NY: Appleton-Century Crofts.
- Hypnosis. (2012a). In *Answers.com*. Retrieved from <http://www.answers.com/topic/hypnosis>
- Hypnosis. (2012b). In *Chambers Dictionary*. Retrieved from <http://www.chambers.co.uk/search.php?query=hypnosis&title=21>
- Hypnosis. (2012c). In *Collins English Dictionary*. Retrieved from <http://www.collinsdictionary.com/dictionary/english/hypnosis>
- Hypnosis. (2012d). In *Oxford Dictionaries*. Retrieved from <http://oxforddictionaries.com/definition/english/hypnosis>
- Hypnosis. (2012e). In *Webster's Medical Dictionary*. Retrieved from <http://www.merriam-webster.com/dictionary/hypnosis>
- Hypnosis. (2012f). In *Wikipedia*. Retrieved from <http://en.wikipedia.org/wiki/Hypnosis>
- Hypnosis Unit UK. (2012). In *What is Hypnosis?* Retrieved from <http://www.hypnosisunituk.com/what.html>
- Hypnotic. (2013). In *Oxford Dictionaries*. Retrieved from <http://oxforddictionaries.com/definition/english/hypnotic>
- Jokela, M., Batty, G. D., Deary, I. J., Silventoinen, K., & Kivimäki, M. (2011). Sibling analysis of adolescent intelligence and chronic diseases in older adulthood. *Annals of Epidemiology*, 7, 489–96.
- Kallio, S., & Revonsuo, A. (2003). Hypnotic phenomena and altered states of consciousness: A multilevel framework of description and explanation. *Contemporary Hypnosis*, 20, 111–164.
- Keefe, F. J. (1996). Cognitive behavioral therapy for managing pain. *The Clinical Psychologist*, 49(3), 4–5.
- Kidder, L. H. (1973). On becoming hypnotized: How sceptics become convinced. *American Journal of Clinical Hypnosis*, 16, 1–8.
- Kihlstrom, J. F. (1985). Hypnosis. *Annual Review of Psychology*, 36, 385–418.
- Kirsch I. (2011). The altered state issue: Dead or alive? *International Journal of Clinical and Experimental Hypnosis*, 59, 350–362.
- Kirsch, I., & Braffman, W. (1999). Correlates of hypnotizability: The first empirical study. *Contemporary Hypnosis*, 16, 224–230.
- Kirsch, I., Cardeña, E., Derbyshire, S., Dienes, Z., Heap, M., Kallio, S., . . . Whalley, M. (2011). Definitions of hypnosis and hypnotizability and their relation to suggestion and suggestibility: A consensus statement. *Contemporary Hypnosis and Integrative Therapy*, 28, 107–115.
- Kirsch, I., & Lynn, S. J. (1995). Altered state of hypnosis: Changes in the theoretical landscape. *American Psychologist*, 50, 846–858.
- Kirsch, I., & Lynn, S.J. (1998). Dissociation theories of hypnosis. *Psychological Bulletin*, 123, 100–115.
- Kirsch, I., Montgomery, G., & Sapirstein, G. (1995). Hypnosis as an adjunct to cognitive-behavioural therapy: A meta-analysis. *Journal of Consulting and Clinical Psychology*, 63, 214–220.
- Kirsch, I., Mobayed, C. P., Council, J. R., & Kenny, D. A. (1992). Expert judgments of hypnosis from subjective state reports. *Journal of Abnormal Psychology*, 101, 657–662.
- LeCron, L. M. (1953). A method of measuring the depth of hypnosis. *International Journal of Clinical and Experimental Hypnosis*, 1, 4–7.
- Liébeault, A.-A. (1866). *Du sommeil et des états analogues considérés surtout du point de vue de l'action du moral sur le physique*. Paris, France: Masson.
- Ludwig, A. M (1966) Altered states of consciousness. *Archives of General Psychiatry*, 15, 225–234.
- Lynn, S. J. & Kirsch, I. (2006). *Essentials of clinical hypnosis: An evidence-based approach*. Washington DC: American Psychological Association.
- Lynn, S. J., Kirsch, I., Knox, J., & Lilienfeld, S. (2006). Hypnosis and neuroscience: Implications for the altered state debate. In G. Jamieson (Ed.), *Hypnosis and conscious states: The cognitive-neuroscience perspective*. New York, NY/Oxford, UK: Oxford University Press.
- Lynn, S. J., Myer, E., & Mackillop, J. (2000). The systematic study of negative post-hypnotic effects: Research hypnosis, clinical hypnosis and stage hypnosis. *Contemporary Hypnosis*, 17, 127–31.
- Lynn, S. J. and Rhue, J. W. (Eds.). (1991). *Theories of Hypnosis: Current Models and Perspectives*. New York, NY: Guilford.
- Malott, J. M. (1984). Active-alert hypnosis: Replication and extension of previous research. *Journal of Abnormal Psychology*, 93, 246–249.
- Matthews, W. J., Kirsch, I., & Mosher, D. (1985). Double hypnotic induction: An initial empirical test. *Journal of Abnormal Psychology*, 94, 92–95.
- Mazzoni, G., Venneri, A., McGeown, W. J., & Kirsch, I. (2013). Neuroimaging resolution of the altered state hypothesis. *Cortex*, 49(2), 400–410. doi: 10.1016/j.cortex.2012.08.005
- McGeown, W. J., Mazzoni, J., Venneri, A., & Kirsch, I. (2009). Hypnotic induction decreases anterior default mode activity. *Consciousness and Cognition*, 18, 848–855.
- Morse, D. R., Martin, J. S., Furst, M. L., & Dubin, L. L. (1977). A physiological and subjective evaluation of meditation, hypnosis, and relaxation. *Psychosomatic Medicine*, 39, 304–324.
- Oakley, D. A., & Halligan, P. W. (2010). Psychophysiological foundations of hypnosis and suggestion. In J. Rhue, S. J. Lynn, & I. Kirsch (Eds.), *Handbook of Clinical Hypnosis* (pp. 79–118). Washington, DC: American Psychological Association.
- Orne, M. T. (1959). The nature of hypnosis: Artifact and essence. *Journal of Abnormal Psychology*, 58, 277–299.
- Orne, M. T., & O'Connell, D. N. (1967). Diagnostic ratings of hypnotizability. *International Journal of Clinical and Experimental Hypnosis*, 15, 125–133.

- Pekala, R. J., & Kumar, V. K. (2007). An empirical–phenomenological approach to quantifying consciousness and states of consciousness: With particular reference to understanding the nature of hypnosis. In G. A. Jamieson (Ed.), *Hypnosis and conscious states: The cognitive neuroscience perspective* (pp. 167–194). New York, NY: Oxford University Press.
- Pekala, R. J., Kumar, V. K., Maurer, R., Elliot-Cater, N., Moon, E., & Mullen, K. (2010a). Suggestibility, expectancy, trance state effects, and hypnotic depth: I. Implications for understanding hypnotism. *American Journal of Clinical Hypnosis*, 52, 271–286.
- Pekala, R. J., Kumar, V. K., Maurer, R., Elliot-Cater, N., Moon, E., & Mullen, K. (2010b). Suggestibility, expectancy, trance state effects, and hypnotic depth: II. Assessment via the PCI-HAP Implications for understanding hypnotism. *American Journal of Clinical Hypnosis*, 52, 271–286.
- Persinger, M. A. (1996). Hypnosis and the brain: The relationship between sub-clinical complex partial epileptic like symptoms, imagination, suggestibility and changes in self identity. In R. G. Kunzendorf, N. P. Spanos and B. J. Wallace (Eds.), *Hypnosis and imagination* (pp. 283–306). New York, NY: Baywood.
- Rainville, P., Hofbauer, R. K., Paus, T., Duncan, G. H., Bushnell, M. C., & Price, D. D. (1997). Cerebral mechanisms of hypnotic induction and suggestion. *Journal of Cognitive Neuroscience*, 11, 110–125.
- Reed S. C., Levin F. R., & Evans S. M. (2012). Alcohol increases impulsivity and abuse liability in heavy drinking women. *Experimental Clinical Psychopharmacology*, 20, 454–465.
- Sarbin, T. R., & Coe, W. C. (1972). *Hypnosis: A social psychological analysis of influence communication*. New York, NY: Holt, Rinehart and Winston.
- Seance. (2012). In *Oxford Dictionaries*. Retrieved from <http://www.oxforddictionaries.com/definition/english/seance>
- Semmens-Wheeler, R., & Dienes, Z. (2012). The contrasting role of higher order awareness in hypnosis and meditation. *Journal of Mind–Body Regulation*, 2, 43–57.
- Sheehan, P. W., & McConkey, K. M. (1982). *Hypnosis and experience: The exploration of phenomena and process*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Sheehan, P. W., & Perry, C. W. (1976). *Methodologies of hypnosis: A critical appraisal of contemporary paradigms of hypnosis*. Hillsdale, NJ: Laurence Erlbaum.
- Shor, R.E. (1962). Three dimensions of hypnotic depth. *International Journal of Clinical and Experimental Hypnosis*, 10, 23–38.
- Shor, R. E., & Orne, E. C. (1962). *Harvard Group Scale of Hypnotic Susceptibility*. Palo Alto, CA: Consulting Psychologists Press.
- Shor, R. E., Orne, M. T., & O'Connell, D. N. (1962). Validation and cross-validation of a scale of self-reported personal experiences which predicts hypnotizability. *Journal of Psychology*, 53, 55–75.
- Silva, C. E., & Kirsch, I. (1987). Breaching hypnotic amnesia by manipulating expectancy. *Journal of Abnormal Psychology*, 96, 325–329.
- Skemp, R. R. (1972). Hypnosis and hypnotherapy considered as cybernetic processes. *British Journal of Clinical Hypnosis*, 3, 97–107.
- Spanos, N. P. (1982). A social psychological approach to hypnotic behavior. In G. Weary & H. L. Mirels (Eds.), *Integrations of clinical and social psychology* (pp. 231–271). Oxford, UK: Oxford University Press.
- Spanos, N. P. (1986). Hypnotic behavior: A social psychological interpretation of amnesia, analgesia, and 'trance logic'. *The Behavioral and Brain Sciences*, 9, 449–502.
- Spanos, N. P. (1992). Compliance and reinterpretation in hypnotic responding. *Contemporary Hypnosis*, 9, 7–14.
- Spanos, N. P. & Chaves, J. F. (Eds.). (1989). *Hypnosis: The Cognitive behavioral perspective*. Buffalo, NY: Prometheus.
- Spanos, N. P., Cobb, P. C., & Gorassini, D. R. (1985). Failing to resist test suggestions: A strategy for self presenting as deeply hypnotized. *Psychiatry*, 48, 282–292.
- Spiegel, D., Hunt, T., & Dondershine, H. E. (1988). Dissociation and hypnotizability in posttraumatic stress disorder. *American Journal of Psychiatry*, 145, 301–305.
- Spiegel, H., & Greenleaf, M. (2006). Commentary: Defining hypnosis. *American Journal of Clinical Hypnosis*, 48, 2–3.
- Stukat, K. G. (1958). *Suggestibility: A factorial and experimental analysis*. Stockholm: Almqvist and Wiksell.
- Tart, C. T. (1966). Types of hypnotic dreams and their relation to hypnotic depth. *Journal of Abnormal Psychology*, 71, 377–382.
- Tart, C. T., & Hilgard, E. R. (1966). Responsiveness to suggestions under 'hypnosis' and 'waking imagination' conditions: A methodological observation. *International Journal of Clinical and Experimental Hypnosis*, 14, 247–256.
- Tart, C. T. (1970). Self-report scales of hypnotic depth. *International Journal of Clinical and Experimental Hypnosis*, 18, 105–125.
- Tart C. T. (1972) States of consciousness and state-specific sciences. *Science*, 176, 1203–1210.
- Tart, C. T. (1979). Measuring depth of an altered state of consciousness, with particular reference to self-report scales of hypnotic depth. In E. Fromm and R. E. Shor (Eds.), *Hypnosis: developments in research and new perspectives* (pp. 445–477). Hawthorne, NY: Aldine.
- Valins, S., & Ray, A. A. (1967). Effects of cognitive sensitization of avoidance behaviour. *Journal of Personality and Social Psychology*, 4, 400–408.
- Wagstaff, G. F. (1981). *Hypnosis, compliance, and belief*. Brighton, UK: Harvester / New York, NY: St Martin's Press.
- Wagstaff, G. F. (1986). Hypnosis as compliance and belief: A sociocognitive view. In P. L. N. Naish (Ed.), *What is hypnosis?* (pp. 59–84). Philadelphia, PA: Open University Press.
- Wagstaff, G. F. (1998). The semantics and physiology of hypnosis as an altered state. *Contemporary Hypnosis*, 15, 149–164.
- Wagstaff, G. F. (2004). High hypnotizability in a sociocognitive framework. In M. Heap, D. Oakley & R. Brown (Eds.), *The highly hypnotizable person* (pp. 85–114). London, UK: Brunner-Routledge.
- Wagstaff, G. F. (2010). Hypnosis and the relationship between trance, suggestion, expectancy and depth: Some semantic and conceptual issues. *American Journal of Clinical Hypnosis*, 53, 47–59.
- Wagstaff, G. F., Cole, J. C., & Brunas-Wagstaff, J. (2007). Effects of hypnotic induction and hypnotic depth on phonemic fluency: A test of the frontal inhibition account of hypnosis. *International Journal of Psychology and Psychological Therapy*, 7, 27–40.
- Wagstaff, G. F., Cole, J. & Brunas-Wagstaff, J. (2008). Measuring hypnotizability: The case for self-report scales and normative data for the Long Stanford Scale. *International Journal of Clinical and Experimental Hypnosis*, 7, 27–40.
- Wagstaff, G. F., Daniel, D., Lynn, S. J., & Kirsch, I. (2009). The cognitive behavioral model. In J. Rhue, S. J. Lynn, & I. Kirsch (Eds.), *Handbook of Clinical Hypnosis* (pp. 179–208). Washington, DC: American Psychological Association.
- Wagstaff, G. F., Parkes, M., & Hanley, J. R. (2001). A comparison of posthypnotic amnesia and the simulation of amnesia through brain injury. *International Journal of Psychology and Psychological Therapy*, 1, 67–78.
- Wegner, D. M., & Erskine, J. A. K. (2003). Voluntary involuntariness: Thought suppression and the regulation of the experience of will. *Consciousness and Cognition*, 12, 684–694.

- Weitzenhoffer, A. M. (1953). *Hypnotism: An objective study in suggestibility*. New York, NY: Wiley.
- Weitzenhoffer, A. M. (1980). Hypnotic susceptibility revisited. *American Journal of Clinical Hypnosis*, 22, 130–146.
- Weitzenhoffer, A. M. (2002). Scales, scales, and more scales. *American Journal of Clinical Hypnosis*, 44, 209–220.
- Wells, W. (1924). Experiments in waking hypnosis for instructional purposes. *Journal of Abnormal and Social Psychology*, 18, 389–404.
- Whalley, M. (2012). *Hypnosis and suggestion*. Retrieved from [www.hypnosisandsuggestion.org/definitions-of-hypnosis.html](http://www.hypnosisandsuggestion.org/definitions-of-hypnosis.html)
- White, R. W. (1937). Two types of hypnotic trance and their personality correlates. *Journal of Psychology*, 3, 279–289.
- Williams, J. D. & Gruzelier, J. H. (2001). Differentiation of hypnosis and relaxation by analysis of narrow band theta and alpha frequencies. *International Journal of Clinical and Experimental Hypnosis*, 49, 185–206.