

Whispering Hypnosis: Phylogenetically Programmed Behavior and a Pluralistic Understanding of Hypnosis

Dan Short

Southwest College of Naturopathic Medicine and Health Sciences, Tempe, Arizona, USA

Abstract

Hypnosis is founded on a legacy of debate and zero-sum thinking as competing schools have argued for the value of one theoretical explanation at the expense of another. More recently, the discussion has turned to pluralistic modeling, with many researchers accepting four central constructs: imagination, suggestion, expectation, and trance experience. The aim of this paper is to introduce a fifth domain, instinct. Discoveries in comparative psychology, such as autoshaping and instinctual drift are used to highlight the importance of using suggestions that incorporate or are in service of phylogenetically programmed behavior. While it is not uncommon for hypnotic operators to intentionally trigger a single reflex for induction purposes, this paper shows the value of strategically incorporating constellations of reflexive behaviors and emotions that can be identified in terms of universal instincts found in humans and non-human animals; such as attachment, dominance-submission, catatonic immobility, competition, ownership, reciprocity, maternal instincts, and fraternal protectiveness. Highly complex interpersonal dynamics, which can occur during hypnosis, are simplified using the phylogenetic construct, as illustrated in clinical vignettes.

ARTICLE

The idea of whispering hypnosis is meant to inspire new thinking about hypnotic interpersonal influence stemming from phylogenetically programmed behaviors (i.e., instinct). Merriam-Webster dictionary defines animal whisperer as a person who excels at calming or training usually hard-to-manage animals using noncoercive methods based especially on an understanding of the animals' natural instincts. The whisperer's interactions with other living creatures has a hypnotic quality because of the strength of rapport that develops and the automaticity of the animal's responses. What is often overlooked when we marvel at the accomplishments of animal whisperers is the fact that humans are another species of animal and, like all other animals, are subject to autoshaping (i.e., a conditioned response that does not require reinforcement by reward or punishment because it is a modified instinctive response to certain stimuli; see Pithers, 1985) as well as instinctual drift (i.e., the tendency of an animal to revert to unconscious and automatic behavior that interferes with operant conditioning and the learned responses that come with it; see Breland & Breland, 1961). An interesting question for general psychology is whether or not the same species specific, nonverbal communication strategies used by an animal whisperer are applicable to the human animal. This line of investigation seems especially relevant to researchers of hypnosis because of its focus on the strategic utilization of automaticity and non-volitional behaviors. This prompts us to ask whether we have paid enough attention to the role of instinct during hypnotism.

WHISPERING HYPNOSIS

The author first began to consider these questions when studying the hypnotherapeutic practices of a legendary figure in hypnosis, Milton H. Erickson (Short, Erickson-Klein, & Erickson, 2005). While Erickson did not make any formal theoretical connections between instinct and hypnosis, he frequently explained the interpersonal dynamics of hypnosis by referencing what he learned while engaging the instinctual reactions of farm animals (Rosen, 2010) and he often explained his hypnotherapeutic tactics by referencing strategically triggered, universal instincts such as competition (Erickson, 1959), reciprocity in terms of cooperation (Erickson, 1958, 1959), dominance-submission in terms of authority (Erickson, circa 1950a), ownership (Erickson, circa 1950b) and maternal instincts (Erickson, 1964). These instincts are identified as universal not only because they are manifest across the entire human species, and most non-human animals (Sapolsky, 2005; Schino, 2001; De Waal & Waal, 2007), but also in eusocial insects, such as ants, termites, and bees (Franks & Scovell, 1983; Johnson & Hubbell, 1974).

Pluralistic Modeling and Hypnosis

The value of pluralistic modeling has been argued since ancient times. For example, the Rigveda states, "Reality is one, though wise men speak of it variously." The parable that illustrates this concept is a story of blind men who encounter an elephant for the first time and thus conceptualize what it is by touching it. Each feels a different part of the elephant's body, but only one part, such as the tail or the tusk. They then describe the elephant based on their limited, subjective experience. In some versions, the men become ensnared in a heated-debate over who is speaking the truth, and physically attack one-another (i.e., similar to the verbal attacks that sometimes erupt in journals or at scientific conventions).

When in search of certainty it is tempting to distill complex realities down to bipolar concepts, thereby creating an either-or-dichotomy in which zero-sum thinking prevails (Meegan, 2010). This approach forces us to ignore any aspect of reality that lies in-between, or outside of, the two juxtaposed positions. It neglects nuances of meaning and leaves us with fewer possibilities for understanding and action (Berlin, 1990). This zero-sum bias has produced a history of warring factions amongst hypnosis researchers, such as the infamous Nancy-Salpêtrière debate (Wagstaff, 2010), the current state-non-state debate (Gruzelier, 2005; Lynn & Kirsch, 2006) or the attitude-aptitude debate (Brenham et al. 2006). If we wish to expand the current state of knowledge, and thereby increase our capabilities, then we need to embrace a form of modeling that yields additional dimensions beyond two juxtaposed polarities (i.e., a two-dimensional view). At minimum, we should insist on a triangulated view of any complex reality (i.e., a three-dimensional view). Accordingly, Wagstaff (1981) argued that no single concept is capable of explaining hypnosis. Later, a leading social psychologist and hypnosis researcher, John Kihlstrom (2003), argued that as hypnosis moves into the next century, researchers must move from monolithic to pluralistic conceptualizations of hypnosis.

Here it is useful to provide a brief overview of conceptual modeling for hypnosis. The first empirically derived explanation was produced by the French Royal commission of 1784, which identified imagination as the causal agent. This was not the first-time imagination had been linked to the healing endeavor. In the mid-1500s, the Swiss physician and father of modern psychiatry, Paracelsus sought to debunk magical healing practices by asserting that, "The power

WHISPERING HYPNOSIS

of imagination is a great factor in medicine. It may produce diseases in man and in animals and it may cure them. But this is not done by the powers of symbols or characters made in wax or being written on paper, but by an imagination, which perfects the will” (Hartmann, 1993, pp. 111-112). To this day, hypnosis researchers continue to find empirical support for the imagination construct, as studied in terms of imaginative involvement (JR Hilgard, 1970, 1974, 2017), fantasy prone individuals (Wilson & Barber, 1981) and absorption, which is defined as immersion in a central experience at the expense of contextual orientation (Spiegel, 1994).

The role of imagination in hypnosis was soon moderated by a second core construct under the terminology of suggestion. The Scottish Physician James Braid (1852, p. 151) famously elaborated on this construct by identifying six types of suggestion: 1) auditory suggestion (i.e., direct suggestion), 2) written suggestion (i.e., a methodology later embraced by Émile Coué, 1867-1926), 3) sympathy and imitation (i.e., modeling behavior to be imitated), 4) habit and association (i.e., behavioral conditioning), 5) muscular suggestion (i.e., nonverbal attempts to change a person’s posture or facial expression, such as inducing eye closure with a wave of a hand or placing an arm in a suspended position), 6) focused attention (i.e., open-ended sensory suggestions to see, smell, or feel something). The suggestion construct was later expanded by Milton Erickson, who made distinctions between direct suggestion versus indirect suggestion, as well as traditional authoritarian suggestion versus permissive suggestion (Short & Erickson-Klein, 2015). While Braid’s concept of focused attention is very similar to Erickson’s permissive suggestion, the latter is a sophisticated elaboration aimed at producing solutions to problems, presumably as a product of the patient’s own subconscious process work. For example, “I do not know when your unconscious mind will give you the answers you need or how it will solve this particular problem. And you cannot know this consciously, yet, but the solution for the problem is already inside of you.” Researchers have recently begun studying this type of nonconscious processing, accumulating evidence that achievement goals can be activated outside of awareness and can then operate nonconsciously to guide self-regulated behavior effectively (Engeser, 2009; Stajkovic, Locke & Blair, 2006).

The third elemental construct used in hypnosis modeling is expectation. References to expectancy effects, in terms of belief, date as far back as 1820, when a French magnetizer named Étienne Félix d’Henin de Cuvillers (1755–1841) became the first to describe magnetism in terms of belief and suggestibility, as well as describing these phenomena using the prefix "hypn" in words such as hypnotique (hypnotic), hypnotisme (hypnotism) and hypnotiste (hypnotist) (Burns, 2003; Gravitz, 1993). The effect of expectation on hypnotic performance started to be questioned in the mid-20th century (White, 1941a) leading to the contextual view of hypnotic phenomena rather than the formist-mechanistic view (Coe, 1978). As a brief example of this research, it was discovered that hypnotic procedures produced a modest increase in suggestibility when it was called “relaxation,” but a very significant increase if it was labelled “hypnosis.” Thus, the label is a greater determinant of subsequent responses to suggestion than the hypnotic procedure (Gandhi & Oakley, 2005). As experience with these procedures increases, the subject’s own behavior will begin to influence his or her expectancies, thus there is a complex, bi-directional effect between expectancies and actual hypnotic performance (Benham et al., 2006; Shor, 1971). By the end of the century, Irving Kirsch introduced response set theory, which maintains that expectancies about behaviors and subjective experience activate responses consistent with them (Kirsch & Lynn, 1999). One of the advantages of this model is its ability to

WHISPERING HYPNOSIS

integrate social, cultural, cognitive, and neurophysiological variables at play both in and out of hypnosis. In keeping with the general argument of this paper, supporters of this theory believe that multiple determinants need to be considered in order to illustrate the multifaceted experience of hypnosis (Lynn, Laurence & Kirsch, 2015).

The final construct commonly endorsed by those researchers who advocate for pluralistic models of hypnosis is the trance experience, which has also been studied in terms of dissociation (Janet, 1889; Hilgard, 1974, Posner & Peterson, 1990) or alternatively as the subjective experiencing of automaticity, non-volition, or effortless behavior (Kirsch & Lynn, 1998). As stated by Woody, Bowers, Lynn, and Rhue (1994), “The essence of hypnotic responding ... is that the subject’s carrying out of the suggestion is experienced as involuntary. Hence, alterations in the experience of volition are perhaps the single most crucial thing to explain in understanding hypnosis” (p. 59). Since the birth of the science of psychology, the argument has been made that altered states of consciousness serve an adaptive, growth-oriented function, even outside the context of hypnosis (James, 1904). This view continues to be argued in psychiatric circles (Ludwig, 1966) and has found further support in studies on the effects of drugs such as ketamine (Berman et al., 2000) and psilocybin (Grob et al., 2011), which yield psychotherapeutic effects after producing mystical states of consciousness. In keeping with William James’ nineteenth century observations, it has been found that there is a general predisposition for high hypnotizables to have alterations of consciousness even outside of the hypnotic context (Cardeña & Terhune, 2014).

While there are some slight differences in terminology, these four general domains of hypnosis: imagination, suggestion, expectation, and trance experience; have been embraced by a growing number of researchers (Baker, 1990; Barber, 2000; Brown & Fromm, 1986; Spiegel, 1988). Some have even argued that these variables interact with one another to create hypnosis and that having one without the others produces something other than hypnosis (Holroyd, 2003). While debating the meaningfulness of these individual constructs, we should consider the limitations that come with all theoretical modeling (Andersen & Nersessian, 2000). In the spirit of radical empiricism, it can be asserted that any explanation that has predictive power, and thus a connection to empirical facts, represents a meaningful perspective—but only one piece of the elephant.

This brings us to the concept of instinct--any behavior that has been genetically transmitted, not only across generations but even across the phylogenetic tree of diverging species. These evolutionarily derived traits act as a substrate for all other learned behaviors. What will be argued next is that the far reach of instinctual reaction also includes hypnotic behaviors.

The Role of Phylogenetically Programmed Behaviors in Classical Hypnosis

As the saying goes, sometimes it is difficult to recognize the nose on your face not because it is outside the line of sight but because it has always been there. If you wish to test this theory, simply place a finger on either side of your nose and you will see that this object you rarely notice is always in sight. Thus, an interesting question to ask at the start of this conceptual

WHISPERING HYPNOSIS

investigation is whether or not phylogenetically programmed behaviors have been essential to the practice of classical hypnosis from the very start.

A review of literature suggests that the first person to analyze the phenomena of hypnosis from the perspective of universal animal instincts was Sigmund Freud. In one of his early writings, Freud (1891) refers to innate behavior as he proposes the first contextual model of hypnosis. As Freud explains, "...it is of the greatest value for the patient who is to be hypnotized to see other people under hypnosis, to learn by imitation how she is to behave and to learn from others the nature of the sensations during the hypnotic state" (p. 104). While James Braid had already classified imitation as a form of suggestion, citing as examples many of the psychogenic plagues that had swept across Europe (Braid, 1852), Freud frames imitation within the purview of the Darwinian reconciliation of man as animal. The notion that the instinct to imitate group members could be so powerful as to alter people's perception of reality was later demonstrated during one of social psychology's most celebrated studies, when Solomon Asch, using the label of conformity, demonstrated that a subject needed only to see two or three others distort their perception of reality in order for the research subject to experience matching alterations in visual perception. What made these studies so stunning was the fact that hypnotic alterations in sensory perception occurred reliably (75% of subjects were affected by the manipulation), rapidly, without verbal suggestion, and without hypnotic induction or any apparent alterations in consciousness (Asch & Guetzkow, 1951; Asch, 1955, 1956).

Later, in his 1921 treatise, Freud makes several references to hypnosis, which he seeks to explain in terms of the submission instinct and the herd instinct (i.e., imitation of group members). Freud writes that, "According to Bernheim all hypnotic phenomena are to be traced to the factor of suggestion, which is not itself capable of further explanation. We have come to the conclusion that suggestion is a partial manifestation of the state of hypnosis, and that hypnosis is solidly founded upon a predisposition which has survived in the unconscious from the early history of the human family" (p. 48). In this statement we have an articulate argument for pluralistic modeling from a contextual perspective in which evolutionary factors are taken into account while seeking to understand hypnosis.

Next, Freud goes on to suggest that attachment instincts are also relevant to hypnosis. Using the terminology of his time, Freud references the idealization a child experiences in relation to the parents or that full grown adults experience when in love. As Freud states, "There is the same humble subjection, the same compliance, the same absence of criticism, towards the hypnotist as towards the loved object. There is the same sapping of the subject's own initiative; no one can doubt that the hypnotist has stepped into the place of the ego ideal" (p. 21).

Freud viewed the hypnotist as an idealized leader who from this dominant position triggers a state of submission so intense that his or her words are uncritically accepted as reality. As Freud puts it, "The hypnotist is the sole object, and no attention is paid to any but him. The fact that the ego experiences in a dream-like way whatever he may request or assert reminds us that we omitted to mention among the functions of the ego ideal the business of testing the reality of things...It [hypnosis] contains an additional element of paralysis derived from the relation between someone with superior power and someone who is without power and helpless" (p. 22). The notion that the instinct of dominance-submission could be so powerful as to alter

WHISPERING HYPNOSIS

people's moral judgment was later demonstrated in another of social psychology's most celebrated and shocking discoveries when Stanley Milgram (1978) demonstrated the power of authority (i.e., prestige suggestion) by causing otherwise conscientious individuals to engage in behaviors they believed to be creating anguish and even death for innocent persons. Though there was a clear use of verbal suggestion during the experiment, the hypnotic automatism and drastic alterations in behavior occurred without the use of formal hypnotic induction.

Now consider a comparison of the classical protocol for clinical hypnosis and typical protocol for whisperers who strategically utilize animal instincts. While in a state of distress, pain, or exhaustion, the patient approaches the hypnotherapist for help and consents to hypnotherapy. White (1941b) emphasizes the great importance of this initial act of volition, stating, "It has long been recognized that successful hypnosis depends to some extent on the subject's willingness to be hypnotized" (p. 145). Similarly, as will be explained in greater detail later in this paper, successful animal whisperers understand the importance of structuring an encounter so that a disturbed or distressed animal is able to voluntarily approach the handler. This is often achieved by creating space and evoking its curiosity.

In classical hypnosis, after the patient has voluntarily approached the hypnotherapist, the hypnotic operator will increase emotional arousal by having the patient increase his or her vulnerability in a variety of ways, such as suggesting heightened suggestibility, eye closure, or perhaps the use of touch or a physical closeness that would not be permitted during ordinary social discourse. If we think of eye-closure as the equivalent of hooding a horse or a falcon, then we would expect this alone to trigger greater docility and responsiveness to the operator's lead. Once again, successful animal whisperers understand that in order for a special attachment to form, the animal must be coaxed into increasing its vulnerability by exposing vulnerable body parts to touch, such as the throat, belly, or flanks.

During classical hypnosis, the patient's state of increased vulnerability is then met with nurturing behavior, such as suggestions for relaxation, ego-strengthening, or pleasant imagery. The result is an intensification of rapport and feelings of special intimacy or attachment. The instinct that has been utilized is social herding behavior, which includes a submissive response in which one animal displays its vulnerable areas to another. This action triggers attachment formation in non-human animals if the contact is nurturing, such as stroking or grooming. This helps communicate to the animal that the handler is behaving in ways that mimic a protective herd member and not a predator (Roberts, 1996). Interestingly, the same basic dynamics underly human interactions that lead to secure attachment in adults (Mikulincer, Shaver, & Pereg, 2003).

Throughout the entire process of classical hypnosis, the hypnotherapist maintains the dominant position, suggesting what the patient should do, imagine, or experience, while also passing judgment on those actions (e.g., "Yes, that's right...very good!"). Like a rider that has mounted a horse, the hypnotherapist uses this dominant position to lead the patient in the direction that he or she needs to go but does not feel capable of achieving on his or her own. Lending further support to the use of dominance during healing, ethnologists have found that there is a natural tendency among all organized societies for the needy to seek support from those in a dominant position. As stated by Jane Goodall, "Submissive behavior directed up the dominance hierarchy can be readily understood when considered in relation to the deep-seated

WHISPERING HYPNOSIS

need for reassurance contact experienced by an emotionally or physically distressed chimpanzee” (Goodall, 1986, p. 361).

Should we consider it a remarkable coincidence that the same dynamics built into classical hypnosis are also used by successful animal whisperers to achieve altered states (e.g., relaxation in place of defensive aggression), coupled with a responsiveness to the handler that seems to defy the principles of ordinary operant conditioning (Farmer-Dougan & Dougan, 1999; Miller, 2000). As mentioned in the introduction, these animal experts achieve their results by understanding and utilizing the species’ instinctual reactions (i.e., autoshaping). If we consider that submission to verbal suggestion, the automaticity of expectancy, and physiological responses to imaginative involvement may result from phylogenetically programmed behaviors, then a variety of seemingly contradictory hypnotic phenomena are meaningfully connected, such as catatonic immobility versus rapid reflexive responses, heightened perceptiveness to subliminal stimuli versus dissociative states, or deep relaxation versus highly active, alert, flow states of consciousness (Bányai & Hilgard, 1976; Bányai, Zseni, & Túry, 1993; Wark & Reid, 2018). The argument here is that hypnotists have been working with instinctual responses for centuries, with their methodological practice guided by tradition rather than conceptual understanding. As will be demonstrated next, by embracing the phylogenetic construct and thoughtfully examining expert interactions with non-human animals, we are creatively inspired to see new possibilities for clinical hypnosis.

Automaticity during Heightened Emotional Arousal

At the birth of psychology, William James (1890) argued that emotion is the action of instinct within the body, while behavioral automaticity is the outward manifestation of instinct. He then defined instinct as a coordinated conglomeration of reflexive actions. Without using this terminology, James seemed to believe that instinct and emotion are “two sides of the same coin.” For conceptual reasons, I have found practical advantage in using the metaphor of a flow control valve to recognize how emotion regulates the flow of psychical energy, directing it to instinctual behavior when emotional arousal is heightened, or redirecting it to consciously reasoned behavior when emotions are minimally activated.

Before describing further advantages of knowing how to strategically manage automatic responses during hypnosis, it seems useful to address the age-old problem of abreaction during heightened emotional arousal as well as the problem of residual impact during hypnotherapy and how a knowledge of phylogenetically programmed behaviors can guide clinical decision-making. Generally speaking, the problem of resistance during hypnosis is often an indicator of fear, which can lead to an undesirable residual impact if not handled correctly (Short, 2016). Thus, an understanding of the automatic behaviors that accompany this powerful emotion is particularly helpful in determining how to respond to defensive reactions that the patient cannot consciously explain or control. This concept will be illustrated using a brief case vignette.

The female patient that the author was attempting to help was standing approximately 12 feet from her romantic partner, who had been instructed to stand silently at the other end of the office. Her task was to walk toward him while looking into his eyes. The emotional nature of the task was intensified with the statement, “Think of this as a sexual experience.” What was

WHISPERING HYPNOSIS

supposed to be a straightforward experiential exercise turned into something else when the woman became dissociative and developed a slight tremor in her left hand. Her breathing was strained and her face turned pale. After waiting a short period to see if she could make progress on her own, the author intervened by asking, “Are you okay? I see your hand trembling so I imagine that you are experiencing some terror.” Without turning her head to speak, she asked, “Why can I not move my feet? Why are my legs frozen?” This reaction is common among animals of prey. In humans, it is sometimes referred to as rape paralysis.

My first exposure to this instinctual response was as an undergraduate research assistant trained to induce tonic immobility in young fowl for a drug research study. The trigger for this automatic response generally consists of holding the specimen in a certain position (prone, supine, or on one side) until it stops moving. Interestingly, this susceptibility to the loss of volitional control in non-human animals was first described in the mid-1600's, thus predating mesmerism and hypnosis (Gilman & Marcuse, 1949). Described by Charles Darwin as the death feint (Darwin, 1839), the immobility response is hypothesized to be a terminal defense mechanism employed by prey animals, after other defense strategies have failed. This automatic behavior serves to limit injury and provide the possibility of escape, if the predator relaxes or changes its grip (Sargeant and Eberhardt 1975; Thompson et al 1981). Accordingly, it has been found that changing aspects of the induction situation results in an increase in susceptibility, especially those manipulations designed to affect fear (Gallup, 1974; Gilman et al., 1950).

The female patient who was standing frozen in front of me did in fact have a history of rape during childhood and problems with dissociation, fear, and anger anytime her partner even mentioned the subject of sex. What the author had been hoping to achieve was a reduction in the amount of space necessary for her to feel safe while considering the possibility of sex.

Ethnologists refer to this spatial boundary as the flight initiation distance (FID) or flight zone (Blumstein et al., 2003). It is the distance that must be kept between an animal and a potential threat to avoid triggering a fight or flight reaction. Experts who work with emotionally damaged animals, such as dogs, horses, or elephants, have found that this distance can be reduced from as much as 200 yards to mere inches, if the frightened animal can be enticed into closing the distance at his or her own initiative (Anthony & Spense, 2009; Millan & Pelteir, 2006; Rashid, 2017; Roberts, 1996). A highly astute observation by Rashid (2017) is that animals cannot learn when in a state of fear or panic. In this case with the author's patient, the woman needed to learn that sexual experiences with a loving partner can be pleasurable. For this learning to occur, it was necessary to reduce her FID from something greater than 12 feet down to practically zero. The problem with my plan was that the size of the office did not provide enough space for her to feel safe to begin with. Under these circumstances, of feeling trapped and threatened, catatonic immobility automatically ensued.

In addition to this involuntary behavior, there was intense engagement of her imagination in this symbolic task (i.e., there was no actual sex) and evidence of dissociation (i.e., a trance state). As mentioned earlier, these are nearly all of the defining elements of hypnosis, with the exception of an expectancy manipulation by means of verbal suggestion, which the author soon provided. Now utilizing my knowledge of hypnosis, I told the stuck patient, “All you need to do

WHISPERING HYPNOSIS

is slip your feet out of your sandals. After that, you will be able to walk forward, if you wish. I think it'll be a curious experience for you...to walk slowly toward him.”

That particular suggestion was chosen because after having worked with animals in a state of catatonic immobility, the author knew that the smallest movement of just one body part is typically enough to end the paralysis. I mentioned the possibility of curiosity after studying rehabilitation work with non-human animals, with several experts emphasizing the role that curiosity plays in reducing the FID. In this instance, the woman was curious enough to complete the task. Later in the session, there was a post hypnotic suggestion that after having been able to cross my office and enjoy a loving embrace from her partner, she would no longer feel threatened by sex in a mutually consenting relationship and she might even feel capable of initiating sexual contact. Although the outcomes reported here are not supported by replication, the subsequent feedback from the couple was that satisfactory improvements were achieved at home, in bed. As illustrated in this case, rather than being entirely dependent on the use of verbal suggestion, the intervention was orchestrated in part by utilizing phylogenetically programmed behaviors, which then led to predictable changes in consciousness, behavior, and physiology.

The Strategic Utilization of Phylogenetically Programmed Behavior

As illustrated above, there are powerful emotional shifts that accompany minimal instinctual triggers. An interesting example comes from a cat whisperer, Dean Harrison, who maintains an animal rescue for lions and tigers, in Arizona. I have had the pleasure of watching Harrison play-fight with 500 to 800-pound apex predators, an activity he considers important for the wellbeing of the animal. Harrison asserts that there is an evolutionary importance connected with play in the wild, since it builds strong bodies, develops strategies and hunting tactics, and creates long-term friendships (Harrison, 2009). However, occasionally some of his playmates have taken steps toward killing him, when the wrong instinct was accidentally triggered.

On one such occasion, Harrison found himself being charged by Java, a male lion, who had his fraternal-protection instinct triggered when he saw his lioness, the one he had been mating with, running over to play with Harrison. As Harrison (2009) explains, “If she hit me and knocked me down, Java would be on top of me a moment later, all six hundred pounds of him, biting and thrashing in instinctual lion fashion for dealing with a rival male” (p. 40). As predicted, the male lion charged at full speed, with his eyes narrowed to a squint. Harrison understood that this meant the attack would be lethal. Harrison knew not to turn and run, since it would only further invigorate the pursue and kill instinct. Fortunately, in Java’s haste to get to Harrison before his mate, the massive lion misjudged the slipperiness of the ground, lost his footing and skidded toward his intended target. This gave Harrison the opportunity to step to the side of Java. As if suddenly possessed by hypnotic amnesia, the large predator came to his feet and bounded off enthusiastically toward another female member of his pride. Harrison explains the surprising turn of events by saying he had quickly positioned himself behind the lion’s mane, so that he was no longer in the line of sight. Harrison then adds, “Lions are sight hunters and only attack what they see” (p. 42).

The practical value of what amounts to comparative psychology for hypnotherapy can be illustrated with the following clinical anecdote. After reading Harrison’s account, the author

WHISPERING HYPNOSIS

hypothesized that humans are also sight predators and therefore should demonstrate unanticipated and presumably automatic or subconscious reactions to visual redirection during a moment of uncontrollable aggression. I was able to informally test my theory a couple weeks later in the context of couples counseling with conversational hypnosis.

The husband and wife pair were in tremendous distress, having spent many nights screaming at one another until early morning hours. During these verbal exchanges, their voices became shrill, their eyes reddened, nostrils flared, veins protruded from their necks as their faces became flush with blood. They had only to look at one another to trigger rapidly escalating states of defensive aggression (Schrammel et al., 2009).

In order to observe first-hand the problem behavior, the author asked them to discuss the last topic that had led to such a fight. In very little time, they became emotionally flooded (Gottman 1991, 1994; Mence et al., 2014), losing cognitive capacity for self-regulation or rationale behavior. In this state of wild aggression, the husband began making guttural noises that gave his yelling a savage quality. The wife was wide-eyed with fear yet ruthless in her unrelenting verbal assaults. In this frenzied state, the couple was no longer responsive to my verbal requests for them to disengage. Their attention was deeply fixated on one another, causing them to lose awareness for anyone else in the room. Assuming that powerful instincts were controlling their thoughts and behavior, the author physically intervened, holding a large decorative pillow in the line of sight to block the visual triggers. This intervention was inspired by Harrison's movement behind the lion's mane.

The couple immediately ceased their verbal attack and stared at me in what appeared to be a state of confusion and uncertainty. The author immediately took the lead. Using prestige suggestion, they were instructed to look only at the author's face and to refrain from speaking to one another, not until they were given permission. The author was aware that studies with human subjects show that the automatic response to dominance is submission, even outside of the hypnotic protocol (Leary, 1957; Markey, Funder & Ozer, 2003; Short, 2010).

After securing a commitment from each person to follow my suggestions, the author placed two stools in the center of the room and had them sit back-to-back, so they could communicate without seeing each other. The couple was told to close their eyes and envision the other person smiling (i.e., a trigger for attachment instincts). Then they were given permission to say anything they wish about what they need from one another.

The dialogue that ensued lasted for approximately 25 minutes. The couple never once raised their voices nor did they make any hurtful remarks. At one point, the man felt the shaking movement of his wife against his back, and asked, "Are you crying?" With tears rolling down her cheeks, she answered in the affirmative. He responded by apologizing for his selfish behavior and requesting her forgiveness. Rather than using blame and accusations, she reciprocated by asking him to forgive her for jumping to conclusions and failing to communicate.

After seeing that the attachment instincts had been verbally and nonverbally activated (i.e., a volitional act of increased vulnerability that is responded to with nurturing behavior), the author gave the couple permission to return to the sofa and look at each other once again. The

WHISPERING HYPNOSIS

effect of the attachment bonding had been heightened due to the positioning of their bodies on the two stools, such that they were touching from the buttocks all the way up to the back of their shoulders. In this posture of mutual support, they figuratively and literally “had each other’s back.”

At the end of the therapy hour, the couple was given the post-hypnotic suggestion that this experience would forever change how they handle disagreements. They left the office walking hand-in-hand. Of course, in the absence of controlled experimentation, it remains an open question as to whether or not these clinical results will replicate. That having been said, it is interesting to note that human studies have uncovered a relationship not only between direction of gaze and threat perception (Ewbank, Jennings & Calder, 2009) but direction of body as well (Marschner et al., 2015).

I consider this type of intervention to be hypnosis not only because of the automaticity of behavior and altered state of consciousness, but also because of the dramatic alteration of the couple’s perception of reality. If we view hypnosis as automatic responding, paired with the subjective sense of nonvolitional responding (Kirsch & Lynn, 1999), then it seems only logical that hypnotherapists should be prepared to utilize phylogenetically programmed behaviors. While the author intentionally incorporated some aspects of direct and indirect suggestion, my understanding of this therapeutic process was guided mostly by my study of animal whisperers and social psychology, which is in large part the study of human instinct.

Adding to Freud’s observations on the relevancy of imitation, attachment, and dominance-submission to hypnosis, as well as Erickson’s utilization of competition, reciprocity, ownership, and maternal instincts; the author has found it useful to briefly activate other universal instincts in service of clinical objectives, such as the powerful instinct toward freedom or self-determination (“I did this because I chose to do it”) and the fraternal instinct to protect one’s children or one’s mate.

I can illustrate the later in a final brief clinical vignette. Here we consider the dynamics occurring in another couple’s counseling session in which a woman, who had recently attempted suicide, was telling her husband that she cannot fight with him anymore. When the author asked why, she said it takes her to very dark places. When asked if this means suicidal urges, she nodded her head. Her face was filled with tears, pain and fear. She stated that she was terrified of getting into another verbal fight with him. Unfortunately, the husband had been yelling and screaming in her presence that same morning, using self-debasing profanity. To make matters worse, the couple had just been to a school-based evaluation for their young daughter in which they were told their child has been diagnosed with autism and AD/HD.

After all of this, the husband’s empathetic ability seemed to be exhausted, with all of his emotions deeply suppressed. His jaw was held clenched and his face had the look of hard steel. He did not show any willingness to cooperate with my suggestions. Focusing on the wife, the author asked what would help her become more emotionally stable. She replied that she needed a hug—she needed someone to hold her. The husband refused to look at her or make any movements toward her. Thus, my task was to compel him to move automatically toward her, with a heightened sense of empathy and a heart-felt desire to care for her. Furthermore, it could

WHISPERING HYPNOSIS

not appear to either of them that the author was forcing or even coaxing him into the supportive behavior. To achieve this, I turned to my understanding of fraternal instincts.

While the husband was the intended target of influence, attention was directed to the woman by asking her, “Will you do absolutely everything I say? Do you trust me enough for that?” In her fearful and desperate state, she was willing to agree to anything that might help. She was then instructed to stand in the middle of the room. Speaking from a position of authority, the author told her that she would need to stand there until someone came to rescue her, only after that could she return to the sofa. I added that I did not care how long she stood there, that I was willing to make this last for up to thirty minutes, the time remaining in our session. This intervention was intended to trigger his instinct to protect his mate from other males, in this case by freeing her from captivity and reestablishing himself as her protector.

As she stood there in obedient silence, the husband looked at her face and seemed to newly see her sadness and overall desperation. Without me saying anything or even looking in his direction, he walked up to her and asked if she still needed a hug. After she nodded in the affirmative, the couple stood locked in a lengthy, deep embrace, ignoring all else in the room. She wept into his chest as he stroked her back. My reason for maneuvering the pair into a standing position was so that the full-length of her body, front and back, was exposed for touch, thus promoting activation of the attachment systems. After returning to their seats, a much more constructive dialogue developed and traditional counseling methods were applied, as well as a risk management protocol for active suicidal ideation. Of course, in the absence of controlled experimentation, it remains an open question as to whether or not these results will replicate.

In summary, the only reason for applying the phylogenetic construct to hypnosis is if it makes a meaningful contribution beyond other well-established constructs, such as suggestion, expectancy, imaginative involvement, or trance experience. As illustrated in the preceding clinical vignettes, one of the primary benefits of studying hypnosis from the perspective of phylogenetically programmed behavior is that it enables us to think about reflexive actions that can function independent of language and cognition. For example, when the operator’s hand reaches straight toward someone’s eyes and the eyelids automatically close, respiration alters, and subsequently the same person becomes more docile or compliant, this complex set of reflexive behaviors can be understood as something that does not require language or thought. Because hypnosis has historically been linked to verbal suggestion and stated beliefs, it has been challenging to remain sensitive to contextual elements operating outside of language. But when we begin to examine instincts that humans share with other animals, then we can more easily discern non-verbal elements of hypnotic influence.

Conclusion

In classical forms of hypnosis, the operator seeks to communicate with the subconscious mind of his or her subject by means of verbal interaction, just as would be done when speaking to the conscious mind, which specializes in linguistics and logic. But what if instinctual behavior is the language of the reflexive mind, the part that has greater control over automatic reactions and physiological responses? In other words, could there be some advantage in focusing on symbolic behaviors rather than the spoken symbolism of language during hypnosis? As Skinner

WHISPERING HYPNOSIS

(1957) pointed out in his behavioral analysis of language, language is behavior. Thus conversely, symbolic behavior is a form of language. But how do we know which behaviors have symbolic importance for interpersonal relations versus those that lack a universality of meaning? The answer is a study of instinct, as observed in human and non-human animals. The behavior may be as subtle as the direction of your gaze, the positioning of your spine, or a slight change in proximity by leaning forward or leaning back (Short, 2010). Even deeper influence is achieved when we incorporate the patient's imaginative involvement to trigger phylogenetically programmed behaviors (e.g., imagining that your child is in danger). With the use of imagination, every conceivable scenario becomes available for activating the desired instinctual response. The operator merely has to state, "Just imagine that..."

Thus, whenever hypnotists speak of triggering a reflex, the next relevant question to ask is to what instinctual behavior does this reflex belong? When a hypnotic operator achieves eye closure, what does this mean for those parts of the mind that exist outside of conscious awareness? The same can be asked of all aspects of the hypnotic protocol. When one person is sitting absolutely still and doing all the listening, while the other does all of the talking and leading, what instinct does this trigger? The answer is greatly informed by research on attachment as well as dominance and submission. What advantage is there for having a new subject watch the hypnotic behavior of another? The answer is greatly informed by research on imitation of group members and within-group competition. What advantage is there for having the patient tell you the best way for him or her to go into a trance? The answer is greatly informed by research on ownership and need for freedom (i.e., self-determination). What advantage is there for the operator to respond to resistance by making concessions, or even allowing the patient to dictate some of his or her behavior, initially? The answer is greatly informed by research on reciprocity (i.e., cooperation). Of course, much of this knowledge already exists in organized form under the domains of social psychology as well as ethology—two behavioral fields that have recently begun to converge (Waal, 1999).

While some may reject this reasoning as unwarranted zoomorphism, Waal (1999) reminds us of the dangers of anthropodenial, a blindness to the humanlike characteristics of other animals as well as a refusal to see the animal-like characteristics of the human species. For those who are concerned that instinctual behavior is too pervasive to enable us to discriminate between hypnotic and non-hypnotic behavior, it is necessary to recognize that every construct traditionally used to identify hypnosis, such as responsiveness to suggestion, imaginative absorption, non-volitional behavior, altered states of consciousness and dissociative states, have been determined to be natural behaviors that can occur without a hypnotic induction. The essential difference in their hypnotherapeutic application is the strategic elicitation and goal-oriented utilization of these phenomena.

If the professional clinical hypnosis community at large, and researchers in particular, are willing to investigate and potentially add one more dimension to the hypnosis paradigm, then not only is our understanding increased but also the precision with which we plan and execute each hypnotic endeavor. This would not change the essential definition of hypnosis but rather help us better contextualize the interpersonal and non-cognitive aspects that are undoubtedly operative. In the same way that philosophers of science continue to debate the exact definition of science (Taylor, 1991), it is equally likely that attempts to precisely define hypnosis will never reach a

WHISPERING HYPNOSIS

point of absolute resolution. Yet, as our understanding of what constitutes science continues to advance, so should we expect greater dimensionality in our modeling of hypnosis.

References

- Andersen, H., & Nersessian, N. J. (2000). Nomic concepts, frames, and conceptual change. *Philosophy of Science*, 67, S224-S241. doi.org/10.1086/392821
- Anthony, L., & Spence, G. (2009). *The Elephant Whisperer: My Life with the herd in the African Wild*. New York: Macmillan.
- Asch, S. E. (1955). Opinions and social pressure. *Scientific American*, 193(5), 31-35. Retrieved from <https://www.jstor.org/stable/24943779>
- Asch, S. E. (1956). Studies of independence and conformity: I. A minority of one against a unanimous majority. *Psychological monographs: General and applied*, 70(9), 1-70. doi.org/10.1037/h0093718
- Asch, S. E., & Guetzkow, H. (1951). Effects of group pressure upon the modification and distortion of judgments. In M. Henle (Ed.), *Documents of gestalt psychology*, 222-236, University of California Press.
- Bányai, E. I., & Hilgard, E. R. (1976). A comparison of active-alert hypnotic induction with traditional relaxation induction. *Journal of Abnormal Psychology*, 85(2), 218-224. doi.org/10.1037/0021-843X.85.2.218
- Bányai, É. I., Zseni, A., & Túry, F. (1993). Active-alert hypnosis in psychotherapy. In J. W. Rhue, S. J. Lynn, & I. Kirsch (Eds.), *Handbook of clinical hypnosis* (pp. 271-290). Washington, DC: American Psychological Association.
- Barber, T. X. (2000). A deeper understanding of hypnosis: Its secrets, its nature, its essence. *American Journal of Clinical Hypnosis*, 42(3-4), 208-272. doi.org/10.1080/00029157.2000.10734361
- Benham, G., Woody, E. Z., Wilson, K. S., & Nash, M. R. (2006). Expect the unexpected: Ability, attitude, and responsiveness to hypnosis. *Journal of Personality and Social Psychology*, 91(2), 342-350. doi.org/10.1037/0022-3514.91.2.342
- Berlin, S. B. (1990). Dichotomous and complex thinking. *Social Service Review*, 64(1), 46-59. doi.org/10.1086/603741
- Berman, R. M., Cappiello, A., Anand, A., Oren, D. A., Heninger, G. R., Charney, D. S., & Krystal, J. H. (2000). Antidepressant effects of ketamine in depressed patients. *Biological psychiatry*, 47(4), 351-354. doi.org/10.1016/S0006-3223(99)00230-9
- Blumstein, D. T., Anthony, L. L., Harcourt, R., & Ross, G. (2003). Testing a key assumption of wildlife buffer zones: is flight initiation distance a species-specific trait? *Biological Conservation*, 110(1), 97-100.
- Braid, J. (2009). On hypnotism. In D. J. Robertson (Ed.), *The discovery of hypnosis: The complete writings of James Braid the father of hypnotherapy* (pp. 125-177). London: The National Council for Hypnotherapy. (Original work published 1852)

WHISPERING HYPNOSIS

- Braid, J. (2009). On hypnotism. In D. J. Robertson (Ed.), *The discovery of hypnosis: The complete writings of James Braid the father of hypnotherapy* (pp. 54-68). London: The National Council for Hypnotherapy. (Original work published 1860)
- Breland, K., & Breland, M. (1961). The misbehavior of organisms. *American psychologist*, *16*(11), 681-684. doi.org/10.1037/h0040090
- Brown, D. P., & Fromm, E. (1986). *Hypnotherapy and hypnoanalysis*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Burns, G. W. (2007). *Healing with stories: Your casebook collection for using therapeutic metaphors*. New York: John Wiley & Sons.
- Cardeña, E., & Terhune, D. B. (2014). Hypnotizability, personality traits, and the propensity to experience alterations of consciousness. *Psychology of Consciousness: Theory, Research, and Practice*, *1*(3), 292-307. doi.org/10.1037/cns0000026
- Coe, W. C. (1978). The credibility of posthypnotic amnesia: A contextualists' view. *International Journal of Clinical and Experimental Hypnosis*, *26*(4), 218-245. doi.org/10.1080/00207147808411250
- Darwin, C., Fitzroy, R., & King, P. P. (1839). *Narrative of the Surveying Voyages of His Majesty's Ships Adventure and Beagle, Between the Years 1826 and 1836: Describing Their Examination of the Southern Shores of South America, and the Beagle's Circumnavigation of the Globe*. London: Henry Colburn.
- De Waal, F., & Waal, F. B. (2007). *Chimpanzee politics: Power and sex among apes*. Baltimore, MD: JHU Press.
- Engeser, S. (2009). Nonconscious activation of achievement goals: moderated by word class and the explicit achievement motive? *Swiss Journal of Psychology*, *68*(4), 193-200. doi.org/10.1024/1421-0185.68.4.193
- Erickson, M. H. (1958). Pediatric hypnotherapy. *American Journal of Clinical Hypnosis*, *1*(1), 25-29. doi.org/10.1080/00029157.1958.10401769
- Erickson, M. H. (1959). Further clinical techniques of hypnosis: Utilization techniques (Example 15). *American Journal of Clinical Hypnosis*, *2*(1), 3-21. doi.org/10.1080/00029157.1959.10401792
- Erickson, M. H. (1964). Hypnotically Oriented Psychotherapy in Organic Brain Disease: An Addendum. *American Journal of Clinical Hypnosis*, *6*(4), 361-362. doi.org/10.1080/00029157.1964.10402376
- Erickson, M. H. (circa 1950a). Modesty: An authoritarian approach permitting reconditioning via fantasy. In E. L. Rossi, R. Erickson-Klein & K. L. Rossi (Eds., 2008), *The Collected Works of Milton H. Erickson: Vol. 3. Opening the Mind* (pp. 169-178). Phoenix, AZ: Milton H. Erickson Foundation Press.
- Erickson, M. H. (circa 1950b). The abortion issue: Facilitating unconscious dynamics permitting real choice. In E. L. Rossi, R. Erickson-Klein & K. L. Rossi (Eds., 2008), *The Collected Works of Milton H. Erickson: Vol. 3. Opening the Mind* (pp. 183-186). Phoenix, AZ: Milton H. Erickson Foundation Press.

WHISPERING HYPNOSIS

- Ewbank, M. P., Jennings, C., & Calder, A. J. (2009). Why are you angry with me? Facial expressions of threat influence perception of gaze direction. *Journal of Vision, 9*(12), 16-16. doi:10.1167/9.12.16
- Farmer-Dougan, V. A., & Dougan, J. D. (1999). The man who listens to behavior: folk wisdom and behavior analysis from a real horse whisperer. *Journal of the experimental analysis of behavior, 72*(1), 139-149. doi.org/10.1901/jeab.1999.72-139
- Franks, N. R., & Scovell, E. (1983). Dominance and reproductive success among slave-making worker ants. *Nature, 304*(5928), 724-725. doi.org/10.1038/304724a0
- Freud, S. (1891). Hypnosis. *The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume I* (1886-1899): Pre-Psycho-Analytic Publications and Unpublished Drafts, 103-114. Retrieved from <https://www.pep-web.org/document.php?id=se.001.0103a>
- Freud, S. (1921). *Group Psychology and The Analysis of The Ego*. Translator: James Strachey. Release Date: April 15, 2011 [EBook #35877], Produced by Chuck Greif, University of Michigan and the Online Distributed Proofreading Team. Retrieved from <http://www.pgdp.net>
- Gallup, G. G., Jr. (1974). Animal hypnosis: Factual status of a fictional concept. *Psychological Bulletin, 81*(11), 836-853. doi.org/10.1037/h0037227
- 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*(2), 304-315. doi.org/10.1016/j.concog.2004.12.004
- Gilman, T. T., & Marcuse, F. L. (1949). Animal hypnosis. *Psychological Bulletin, 46*(2), 151-165. doi.org/10.1037/h0060434
- Gilman, T. T., Marcuse, F. L., & Moore, A. U. (1950). Animal hypnosis: a study in the induction of tonic immobility in chickens. *Journal of Comparative and Physiological Psychology, 43*(2), 99-111. doi.org/10.1037/h0053659
- Goodall, J. (1986). *The chimpanzees of Gombe: Patterns of behavior*. Cambridge, MA: Belknap Press of Harvard University Press.
- Gottman, J. M. (1991). Chaos and regulated change in families: A metaphor for the study of transitions. In P. A. Cowan & M. Hetherington (Eds.), *Family transitions* (pp. 247-272). Hillsdale, NJ: Erlbaum.
- Gottman, J. M. (1994). *Why marriages succeed or fail*. New York, NY: Simon & Schuster.
- Gravitz, M. A. (1993). Etienne Félix d'Hémin de Cuvillers: A founder of hypnosis. *American Journal of Clinical Hypnosis, 36*(1), 7-11. doi.org/10.1080/00029157.1993.10403033
- Grob, C. S., Danforth, A. L., Chopra, G. S., Hagerty, M., McKay, C. R., Halberstadt, A. L., & Greer, G. R. (2011). Pilot study of psilocybin treatment for anxiety in patients with advanced-stage cancer. *Archives of general psychiatry, 68*(1), 71-78. doi:10.1001/archgenpsychiatry.2010.116
- Gruzelier, J. (2005). Altered states of consciousness and hypnosis in the twenty-first century. *Contemporary Hypnosis, 22*(1), 1-7. doi.org/10.1002/ch.14
- Harrison, D. (2009). *Return to Eden: A new look at old relationships — man, animal and God*. Camp Verde, AZ: Out of Africa Wildlife Park.
- Hartmann, F. (1993). *Paracelsus: Life and Prophecies*. Whitefish, MT: Kessinger Publishing.

WHISPERING HYPNOSIS

- Hilgard, E. R. (1974). Toward a neo-dissociation theory: Multiple cognitive controls in human functioning. *Perspectives in Biology and medicine*, 17(3), 301-316. doi:10.1353/pbm.1974.0061
- Hilgard, J. R. (1970). *Personality and hypnosis: A study of imaginative involvement*. Chicago: University of Chicago Press.
- Hilgard, J. R. (1974). Imaginative involvement: Some characteristics of the highly hypnotizable and the non-hypnotizable. *International Journal of Clinical and Experimental Hypnosis*, 22(2), 138-156. doi.org/10.1080/00207147408412993
- Hilgard, J. R. (2017). Imaginative and Sensory—Affective Involvements: in Everyday Life and in Hypnosis. In R. E. Shor (Ed.) *Hypnosis* (pp. 483-518). New York: Routledge.
- Holroyd, J. (2003). The science of meditation and the state of hypnosis. *American Journal of Clinical Hypnosis*, 46(2), 109-128. doi.org/10.1080/00029157.2003.10403582
- James, W. (1890). *Principles of psychology*. New York: Henry Holt and Company.
- James, W. (1904). *The varieties of religious experience*. New York: New American Library.
- Janet, P. (2003). *L'automatisme psychologique: Essai de psychologie expérimentale sur les forms inférieures de l'activité humaine par le d' Pierre Janet* (pp. 315-329). (D. B. Supérieur, Trans.). Paris, France: L'Harmattan. (Original work published 1889)
- Johnson, L. K., & Hubbell, S. P. (1974). Aggression and competition among stingless bees: field studies. *Ecology*, 55(1), 120-127. doi.org/10.2307/1934624
- Kihlstrom, J. (2003). The fox, the hedgehog, and hypnosis. *International Journal of Clinical and Experimental Hypnosis*, 51, 166-189. doi: 10.1076/iceh.51.2.166.14611
- Kirsch, I., & Lynn, S. J. (1998). Dissociation theories of hypnosis. *Psychological Bulletin*, 123(1), 100. doi.org/10.1037/0033-2909.123.2.186
- Kirsch, I., & Lynn, S.J. (1999). Automaticity in clinical psychology. *American Psychologist*, 54, 504-515. doi.org/10.1037/0003-066X.54.7.504
- Leary, T. (1957). *Interpersonal Diagnosis of Personality*. New York: Ronald'Press co.
- Ludwig, A. M. (1966). Altered states of consciousness. *Archives of general Psychiatry*, 15(3), 225-234. doi:10.1001/archpsyc.1966.01730150001001
- Lynn, S. J., & Kirsch, I. (2006). *Essentials of clinical hypnosis: An evidence-based approach*. Washington, DC: American Psychological Association.
- Lynn, S. J., Laurence, J. R., & Kirsch, I. (2015). Hypnosis, suggestion, and suggestibility: An integrative model. *American Journal of Clinical Hypnosis*, 57(3), 314-329. doi.org/10.1080/00029157.2014.976783
- Markey, P. M., Funder, D. C., & Ozer, D. J. (2003). Complementarity of interpersonal behaviors in dyadic interactions. *Personality and Social Psychology Bulletin*, 29(9), 1082-1090. doi.org/10.1177/0146167203253474
- Marschner, L., Pannasch, S., Schulz, J., & Graupner, S. T. (2015). Social communication with virtual agents: The effects of body and gaze direction on attention and emotional responding in human observers. *International Journal of Psychophysiology*, 97(2), 85-92. doi.org/10.1016/j.ijpsycho.2015.05.007

WHISPERING HYPNOSIS

- Meegan, D. V. (2010). Zero-sum bias: Perceived competition despite unlimited resources. *Frontiers in psychology*, 1, 191. doi.org/10.3389/fpsyg.2010.00191
- Mence, M., Hawes, D. J., Wedgwood, L., Morgan, S., Barnett, B., Kohlhoff, J., & Hunt, C. (2014). Emotional flooding and hostile discipline in the families of toddlers with disruptive behavior problems. *Journal of Family Psychology*, 28(1), 12-21. doi.org/10.1037/a0035352
- Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and emotion*, 27(2), 77-102. doi.org/10.1023/A:1024515519160
- Milgram, S., & Gudehus, C. (1978). *Obedience to authority*. Retrieved from <https://www1.psych.purdue.edu/~willia55/120/LectureSocialF10.pdf>
- Millan, C., & Peltier, M. J. (2006). *Cesar's way: The natural, everyday guide to understanding and correcting common dog problems*. New York: Harmony.
- Miller, W. (2000). Motivational interviewing: IV. Some parallels with horse whispering. *Behavioural and Cognitive Psychotherapy*, 28(3), 285-292.
- Pithers, R. T. (1985). The roles of event contingencies and reinforcement in human autoshaping and omission responding. *Learning and Motivation*, 16(2), 210-237. doi.org/10.1016/0023-9690(85)90013-X
- Posner, M. I., & Petersen, S. E. (1990). The attention system of the human brain. *Annual review of neuroscience*, 13(1), 25-42. doi.org/10.1146/annurev.ne.13.030190.000325
- Rashid, M. (2017). *Finding the Missed Path: The Art of Restarting Horses*. Trafalgar Square Books.
- Roberts, M. (1996). *The man who listens to horses*. New York: Random House.
- Rosen, S. (Ed.). (2010). *My voice will go with you: The teaching tales of Milton H. Erickson*. New York: WW Norton & Company.
- Sapolsky, R. M. (2005). The influence of social hierarchy on primate health. *Science*, 308(5722), 648-652. doi.org/10.1126/science.1106477
- Sargeant, A. B., & Eberhardt, L. E. (1975). Death feigning by ducks in response to predation by red foxes (*Vulpes fulva*). *American Midland Naturalist*, 108-119. doi.org/10.2307/2424542
- Schino, G. (2001). Grooming, competition and social rank among female primates: a meta-analysis. *Animal Behaviour*, 62(2), 265-271. doi.org/10.1006/anbe.2001.1750
- Schrammel, F., Pannasch, S., Graupner, S. T., Mojzisch, A., & Velichkovsky, B. M. (2009). Virtual friend or threat? The effects of facial expression and gaze interaction on psychophysiological responses and emotional experience. *Psychophysiology*, 46(5), 922-931. doi.org/10.1111/j.1469-8986.2009.00831.x
- Shor, R. E. (1971). Expectancies of being influenced and hypnotic performance. *The International Journal of Clinical and Experimental Hypnosis*, 19(3), 154-166. doi.org/10.1080/00207147108407165
- Short, D. (2010). *Transformational relationships: Deciphering the social matrix in psychotherapy*. Phoenix, AZ: Zeig, Tucker & Theisen.

WHISPERING HYPNOSIS

- Short, D. (2016). Resistance: Solving Problems During Hypnotic Inductions. In G. R. Elkins (Ed.), *Handbook of Medical and Psychological Hypnosis: Foundations, Applications, and Professional Issues*, 77-82. Springer Publishing Company.
- Short, D., & Erickson-Klein, R. E. (2015). Ericksonian Therapy. In E. S. Neukrug (Ed.), *The Sage encyclopedia of theory in counseling and psychotherapy* (pp. 356-362). Thousand Oaks, CA: SAGE Publications.
- Short, D., Erickson, B. A., & Erickson-Klein, R. E. (2005). *Hope & Resiliency: Understanding the psychotherapeutic strategies of Milton H Erickson MD*. Norwalk, CT: Crown House Publishing.
- Skinner, B. F. (1957). *Verbal behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Spiegel, D. (1988). Dissociation and hypnosis in post-traumatic stress disorders. *Journal of traumatic stress, 1*(1), 17-33. doi.org/10.1002/jts.2490010104
- Spiegel, D. (1994). Hypnosis. In R. E. Hales & S. C. Yudofsky (Eds.), *The American psychiatric publishing textbook of psychiatry* (pp. 1112-1154). Washington, D.C.: American Psychiatric Pub.
- Stajkovic, A. D., Locke, E. A., & Blair, E. S. (2006). A first examination of the relationships between primed subconscious goals, assigned conscious goals, and task performance. *Journal of Applied Psychology, 91*(5), 1172. doi.org/10.1037/0021-9010.91.5.1172
- Taylor, C. A. (1991). Defining the scientific community: A rhetorical perspective on demarcation. *Communications Monographs, 58*(4), 402-420. doi.org/10.1080/03637759109376238
- Thompson, R. K., Foltin, R. W., Boylan, R. J., Sweet, A., Graves, C. A., & Lowitz, C. E. (1981). Tonic immobility in Japanese quail can reduce the probability of sustained attack by cats. *Animal Learning & Behavior, 9*(1), 145-149. doi.org/10.3758/BF03212037
- Waal, F. (1999). Anthropomorphism and anthropodenial: Consistency in our thinking about humans and other animals. *Philosophical Topics, 27*(1), 255-280. doi.org/10.5840/philtopics199927122
- Wagstaff, G. (1981). *Hypnosis, compliance, and belief*. New York: St. Martin's Press.
- 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*(1), 47-59. doi.org/10.1080/00029157.2010.10401746
- Wark, D. M., & Reid, D. B. (2018). Looking at Alert, Conversational Hypnosis. *American Journal of Clinical Hypnosis, 61*, 85-87. doi.org/10.1080/00029157.2018.1506636
- White, R. W. (1941a). A preface to the theory of hypnotism. *The Journal of Abnormal and Social Psychology, 36*(4), 477. doi.org/10.1037/h0053844
- White, R. W. (1941b). An analysis of motivation in hypnotism. *Journal of General Psychology, 25*, 145-162. doi.org/10.1080/00221309.1941.10544364
- Wilson S.C., Barber T.X. (1981) Vivid Fantasy and Hallucinatory Abilities in the Life Histories of Excellent Hypnotic Subjects ("Somnambules"): Preliminary Report with Female Subjects. In: Klinger E. (eds) *Concepts, Results, and Applications*. Springer, Boston, MA. doi.org/10.1007/978-1-4684-3974-8_10

WHISPERING HYPNOSIS

Woody, E. Z., Bowers, K. S., Lynn, S. J., & Rhue, J. W. (1994). *A frontal assault on dissociated control* (pp. 52-79). New York: Guilford Press.