

1st Edition

# **The Routledge International Handbook of Clinical Hypnosis**

Edited By Julie H. Linden, Giuseppe De Benedittis, Laurence I. Sugarman, Katalin Varga

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## **Chapter 63**

### **Hypnotic Horizons**

Richard Hill

Daniel Short

Kathryn Lane Rossi

Roxanna Erickson-Klein

Laurence Irwin Sugarman\*

#### **Abstract**

As society evolves so does hypnosis. In this final chapter, a diverse group of authors speculate about the “growing edge” of hypnosis. We consider hypnosis as, all together, a social construct, a methodology, and a cultural phenomenology. Within this framing, we distill some essential and distinctive features of hypnotic practice and experiences (relatedness, responsivity, extraordinariness) that represent its sustained core and power to affect us. Generally, we imagine that the co-evolution of these characteristics is projecting towards more idiosyncratic, person-based, systemic, integrative, and effective applications. We also explore exciting challenges and opportunities in the biological and social sciences, professional education, and clinical utility of hypnosis.

### Hypnotic Horizons

Hypnosis has a long, fabled history of turning out to be something other than what it first seems. The earliest forms of what we now call hypnosis can be traced back to shamanic/spiritual healing rituals in nearly every culture since the beginning of recorded history. With unlimited ritualistic variations, practices have in common the power to convey extraordinary, therapeutic mind-body changes and beneficial social outcomes. In early Western medicine, through emphasizing suggestion effects, hypnosis focused on obedience to and compliance with an authority figure. Increasingly over the last half-century, this focus has shifted to individual empowerment, personal growth, and the interactional/relational aspects of such encounters (Erickson & Rossi, 1976/2010; Diamond, 1987; Varga, 2021). As we seek to learn more about hypnosis and consider its future trajectory, we need to consider how hypnosis is fundamentally distinct from other therapeutic methodologies and how distinctions drive science and society to continually update and redefine the phenomenological experiences of hypnosis.

Unlike hard sciences, hypnosis scholars continue to debate its precise definition. Accordingly, hypnosis keeps evading consensual boundaries. Despite contentions, the clear practical value of hypnosis is its power as a shared idea to serve specific, individual needs, while keeping pace with the zeitgeist of a changing society. Hence, as the conditions and intentions of hypnosis evolve, so does the significance of its phenomena and therapeutic applications. As with any other social construct (such as health or justice), perceptions and performance of hypnosis continue to evolve both publicly and professionally.

From the earliest history of hypnosis, a key feature of fascination, investigation, and identification is the concept of non-volition— a perceived lack of free individual choice (Fromm & Nash, 1992). The authors contend that this issue of “agency”—the attributed source of ideas and suggestions—in hypnotic interactions is a critical factor in the evolution of hypnosis. Over the last decade, a shift in published definitions now places lesser emphasis on the element of suggestibility and more on the evocation of self-direction, self-efficacy and mastery within a problem-solving contexts (Hope & Sugarman, 2015; Short, 2022a; Sugarman, 2021).

Despite this shift towards evocation, a lingering public perception of hypnosis is one in which verbal communication is used by one individual to manipulate another. This perspective has contributed to a great deal of misunderstanding about the nature and limitations of hypnosis. Such misunderstandings, and in many instances, misrepresentations, have attributed special hypnotic powers to the hypnotist, such as the capacity to override another individual’s facility for decision-making or physical control of one’s own body. The seductive appeal of such power has spread hypnosis to non-therapeutic settings including ambitions in romance, marketing, workforce productivity, war interrogation, cults and undue influence (see Schefflin & Hassan and Hassan & Schefflin in this volume). We contend that this deep fascination has to do with how the relational power of hypnosis permeates boundaries of self.

Hypnosis is solidly based on an incumbent human ability to be unconsciously susceptible to social influence. That is why it is possible to elicit behaviors that, while consistent with naturally developed capacities, may seem novel or even contrary to existing patterns of behavior. As with all hyper-social animals, human society has evolved so that a majority comply automatically with acts of leadership. This is why phylogenetic behaviors—eye-contact, mimicry, certain gestures—are utilized in hypnosis. However, pluralistic models

of hypnosis indicate other beneficial, person-centered, and individually empowering operations of influence can serve as a vital nexus for health and care (see Short, 2020 for a conceptual overview).

From its conception, hypnosis was meant to be an extraordinary, unexpected, and somehow spectacular experience. The practical benefit of this construction of hypnosis is that participation in novelty can often lead individuals to activate beneficial growth-oriented mindsets, and behavioral potentials that were previously unrecognized or under-utilized (Rossi, 2004; Sugarman, 2021). However, as societies and individuals change so does the realization of what constitutes an extraordinary experience, thus hypnosis's ongoing metamorphosis.

In this final chapter, we consider hypnosis as both a social construct and a methodology. First, we look inward toward the hypnotic processes that occur between and within us. Next, we look outward toward how those subjective processes can be measured and studied. Finally, we look forward, projecting a potential future in which hypnosis takes its place at the heart of health and care.

### Looking Inward

Having progressed from spiritual forces, to magnetic energies, to nervous system pathology, and then to sleep and suggestion, we can see how hypnosis has been enacted and reified as if it is immutable. This clearly is not the case. Rather, we see the invisible hand of shared belief, expectancy effects, psychobiological reflexes (e.g., dissociation) and social mimicry. Speaking to a broader class of social phenomena, Jaynes (1976) introduced the term "collective cognitive imperative" to describe culturally agreed on behavioral constraints and roles to be acted-out in the absence of conscious intention. Interestingly, as far back as 1852, James Braid came to the realization that hypnosis is not an altered state of consciousness but rather the result of expectancy effects and imitation (social mimicry). However, Braid lacked the language needed to translate his insights into a compelling paradigm shift (see Short, 2022b).

History and cultural comparisons show that the methodology of hypnosis is much more diverse than the directive, stepwise, problem-centered rituals employed in research, coached in professional training, and, consequently, enacted in clinical practice. Many chapters of this book have outlined the parameters of a more capacious domain for hypnotic interaction that includes idiosyncratic and multilevel conversations *as well as* scripted protocols (for a conceptual overview see also Teleska & Roffman, 2004). As complexity theory starts to replace Immanuel Kant's notion of an entirely conscious empirical self (see Smith, 2021) a more complex and less determinate ecology of interactions (e.g., embodied cognition and an adaptive unconscious) will continue to emerge across the social sciences. Similarly, hypnosis further develops its own empiric research and teachable skills.

### Validating Hypnosis

The practical value of hypnosis is that it is uniquely different from other psychotherapies and medico-surgical interventions. This distinction can be made using universally meaningful terminology, without recourse to unconventional jargon. Milton Erickson described hypnosis simply as:

...a special but normal type of behavior encountered when attention is directed to the body of experiential learnings acquired from or achieved in

the experiences of living. In the special state of awareness called hypnosis, the various forms of behavior of everyday life may be found differing in relationships and degrees, but always within normal limits. There can be achieved no transcendence of abilities, no implantations of new abilities, but only the potentiation of the expression of abilities which may have gone unrecognized or not fully recognized. Hypnosis cannot create new abilities within a person, but it can assist in a greater and better utilization of abilities already possessed, even if these abilities were not previously recognized. (Erickson, 1964/2008/2021, p. 67)

While some techniques of persuasion may have some similarities with hypnosis, and while some misconceptions that the hypnotizer possesses some sort of exceptional power may have some therapeutic applications, we invite a more expansive view of therapeutic hypnosis, which includes active states (Bányai, 2018), collaborative dialogue (Short, 2018), as well as other measurable interactional aspects of hypnotic relationship (Varga et al., 2006).

Today's hypnosis, particularly when utilized for clinical or therapeutic outcomes, is a *dynamic relational process enriched by experiential communication wherein the participant's attention is drawn inward with the intention of accessing personal internal experiential resources to generate adaptive adjustments*. Insights, understandings, and behavioral changes that accompany adaptive adjustments are problem-solving in nature and contribute to enhanced well-being and clarity.

Here, we differ slightly but significantly from Erickson's "special state of awareness" (Erickson, 1964/2008/2021, p. 67; Short, 2019). We refer to hypnosis as the *process*, not a state and not its effects. Non-consciously derived experiential processes such as insights, inspirations, and decisions to change one's behavior can and do occur without hypnotic interactions. We identify hypnosis as that *dynamic relational process* that purposefully facilitates the utilization of embodied emotions, cognitions, and conditioned learnings as resources.

Further, because hypnosis operates within a complex system of dynamic and embodied networks that underlie and join our consciousness and our biology (from thought to genome) it fills what has traditionally been a "mind-body gap." That gap has existed primarily in the therapeutics and practice of western biomedicine, but not within the integrated systems of the human organism. Hypnosis contrasts with most psychotherapies and medical/surgical approaches by deliberately leveraging the resources of the embodied mind. Thus, the effects of *problem-solving* are not, and cannot, be limited to decisions about behavior or emotions—as if the domain of psychology is disembodied—but necessarily apply to embodied functions such as inflammation, metabolism, cellular-repair, and genomics. In this way, hypnosis is an essential relational interaction for ongoing adaptability and homeostasis.

It is important to distinguish "therapeutic hypnosis" as distinct within the broader social construct and methodology called hypnosis. As Schefflin and Hassan ([*chapters referenced in this book*]) have demonstrated, any given individual's innate abilities are the qualities that respond to suggestion and influence. This sets parameters that define an individual's "suggestibility," something which can be, and sometimes is, effectively evoked to harm. However, many didactic interactions in the process of providing medico-surgical care —such as giving risk information, sharing findings that evidence disease, preparing for procedures, and obtaining informed consent—inadvertently harm (Lang et al, 2005; Zech et

al, 2019). As a higher standard, therapeutic hypnosis points to practical outcomes that are evocative, effective, and beneficial. Briefly speaking, therapeutic hypnosis helps people help themselves.

### Responsiveness versus Suggestibility

Hypnosis is distinct in that it seeks to evoke change through activation of innate resources. It is not about what answers are sought, rather it is a process of stimulating an internal search, thus accessing the individuals' embodied resources and talents. As a dynamic relational process, hypnosis is at least as much about what questioning *does* than what an answer *is*.

When academically framed as a linear, cause-effect, monistic ritual, hypnosis has been validated in terms of compliance with specific directives or "suggestions" and correlated with quantitative measures of "suggestibility" as well as "hypnotizability." However, there is circular logic in this construction. It restricts the definition of hypnosis to overt responses to influence and then tests one's ability to respond as expected. In short, hypnosis is compliance with behavior that the operator deems to be hypnotic. However, as argued by Short (2018), suggestibility is not equivalent to "responsivity," let alone plasticity. There is always incongruity—and sometimes discontinuity—between the hypnotic directive and innate abilities.

Teleska and Sugarman (2014) argue that most known "hypnotic phenomena" do not correlate closely with an individual's "hypnotic abilities." To move hypnosis towards further effective benefit, the current trajectory needs to shift towards tailoring the hypnotic interaction such that it evokes and activates innate resources rather than proxies for compliance. This paradigm shift is not optional if practitioners of hypnosis wish to maintain credibility within the context of twenty-first century health care, and beyond.

As declared in standards set by the American Psychological Association (APA) in the most recent publication of the guidelines for evidence-based therapy, "Psychotherapists must prioritize understanding their patients, recognizing them as agents of change within sessions, supporting them as self-healers, and intentionally shaping their interventions based on being attuned to the patients' experiences of psychotherapy" (Cook et al., 2017, p. 540). This principle applies just as much to medicine when "psychotherapist" is replaced by "clinician" and "psychotherapy" is replaced by "medical and surgical care." For therapeutic hypnosis—in both psychology and medicine—this means that the utilization of responsivity is merely a *first step* in a greater process of mental activation that ultimately results in what interpersonal neurobiology terms *self-organizing processes*, an evolutionary imperative recognized across the broad disciplines of mental health, medicine, and organizational functioning (Siegel, 2019).

Future "looking inward" research will need to include those signals or common denominators that correlate with an individual's responsive behaviors and signify plasticity and reorganization within the embodied mind and beneath conscious awareness.

### Self-hypnosis and Hetero-hypnosis

The aforementioned issues of influence and agency that are inherent in hypnosis arise in the questions of whether self-hypnosis is as effective or different from as hetero-hypnosis (i.e., hypnosis induced in one person by another) and whether self-hypnosis represents the variant of the same phenomenon or if it is a separate phenomenon (De Benedittis, 2022).

Some claim that hetero-hypnosis is a pre-cursor of self-hypnosis (Laidlaw et al., 2005; Naito et al., 2003). Others identify self-hypnosis as a self-administered hetero-hypnosis or as a by-product of the same (Crasilneck et al., 1985; Erickson, 1955; Ruch, 1975; Werner, 2013). Fromm & Khan (1990) consider hetero and self-hypnosis as completely distinct entities. Diametrically opposed is the widespread conception that the vast majority of hetero-hypnotic procedures can be recognized as self-hypnosis (Barber, 1985; Orne & McConkey, 1981; Sanders, 1991). These questions are all parsed from a larger discussion about the notion of “self” and its elusive boundaries (Wickramasekera, 2015, see also Nyiri & Lynn in this volume).

Conceptually, self-hypnosis can include negative self-talk. This adverse self-influence is accumulated from life experience and formative relationships. In that sense, one might call all hypnosis hetero-hypnosis, which we internalize as self-hypnosis. It follows then that hetero-hypnosis, when therapeutic, can be understood as cultivating more beneficial self-hypnosis. Future studies should consider how to develop hetero-hypnotic interactions that are less inhibitory and more facilitative of beneficial self-hypnosis.

Future research into the question of whether hetero-hypnosis is, in effect, guided self-hypnosis, or the reverse, is likely to yield the answer that it depends on the persons involved. This is another hypnotic horizon.

### Agents of Change

The difficulties specific to the ethical practice of hypnosis are that a significant part of the process of change occurs outside of conscious awareness within the embodied mind. This includes a sense of involuntariness or automaticity as change occurs. These phenomena can lead to attribution errors (see Weinberger et al. 2022). The ethical questions that are specific to hypnosis are associated with changing perspectives of suggestibility and attribution of agency within the hypnotic interaction.

Hypnosis is one of a variety of unorthodox treatment modalities affected by drifting cultural attitudes according to Schefflin (2019). Hypnosis endures periods of public favor and scorn, including, in the therapeutic context, innovation and stagnation. At the heart of these waves of acceptance and rejection is the ethical question: Does hypnosis cause harm? Schefflin (2019) and Hammond (1995) have identified the formidable challenges for both clinicians and researchers to generate a legal parameter that does not stifle or smother therapeutic innovation. Again, we require methods to assess innovative treatments that work outside of conscious awareness, within the adaptive unconscious and embodied mind (Smith, 2021). The concept of therapeutic responsibility becomes even more complex when it is recognized that hypnotic suggestion can be influential whether or not formal trance induction/awakening is used, and regardless of whether the hypnotic process is hetero- or self-hypnotic in nature (Short, 2018). This leads to practical procedural questions. Should antiquated, domineering terminology (such as “induction”) be discarded in favor of more modern, relationship-oriented language (such as “invitation” or “hypnotic conversation”) that more accurately describes a process of voluntary participation, personal empowerment, and shared responsibility? More fundamentally, should all health care interactions include explicit education, awareness, and advocacy on the part of both clinicians and people in care that we share relational influences on healing? How might this change the process of obtaining pre-operative consent forms or informing about prognosis? Answering such questions will require parameters for determining responsivity and

plasticity that do not depend on technique, but on how a given person in care changes their embodied mind.

### Looking Outward

As can be seen in the shift away from direct suggestion towards the growing use of open-ended exploratory processes, including hypnotherapeutic imagery (Short, 2022a), the basic accessing questions (Rossi & Rossi, 1996/2024, metaphor (Fabre, 2022), and story (Casula, 2022); self-directed learning and unconscious deliberation will eventually supersede the emphasis on suggestibility that we know today. Already it is generally accepted that suggestibility is not a therapeutic end unto itself but rather a means of enhancing responsiveness to positive treatment expectancies; focusing attention; engaging imagination; strengthening rapport; bolstering personal resources; stimulating spontaneous psychobiological activity with novel associations; and facilitating self-regulation (Lynn et al., 2022).

Today, therapeutic hypnosis often involves ongoing feedback as the process unfolds. This interaction empowers a person in care with the opportunity to either endorse or reject various elements of the experience. As the experience of choice and spontaneity is elicited, and further developed at every turn, the client's sense of responsibility for treatment outcomes is greatly enhanced, presumably along with the experience of self-efficacy (Bandura, 2000). Furthermore, when procedural dogma is replaced with emergent co-creative processes, both client and therapist are free to explore. This variability, and what might be described as inconsistency, in a co-created experience presents a challenge to traditional forms of research that look for reproducible and consistent protocols "done to" a passive and hypnotizable client. With this complexity, research is challenged to explore and document the nature and effectiveness of this type of more dynamic and idiosyncratic hypnosis.

Two critical but generally undervalued aspects of the progressive evolution of hypnosis are hypnosis with children and the role of development. From Erickson's (Erickson & Rossi, 1976/2010) initial advice to "go with the child" (p.149) to the compelling research showing the enduring effectiveness of hypnotic interventions with children (Kohen & Olness, 2022) it is clear that not only are we most innately adept at changing our embodied minds when we are young, but such conditioning during our first two decades significantly affects all those subsequent. Further, if hypnosis cultivates and influences plasticity, developmental tasks—especially when we are young—can be understood as a "governing influence in trance. It determines how and why we 'go plastic'" (Sugarman et al, 2020, p. 151). Research and application of developmentally-oriented hypnosis with young people has far-reaching and very practical implications for addressing chronic disease, trauma and the development of resilience throughout the lifespan.

### Creativity Markers

Hypnosis research has by and large aligned with the biomedical model in which consistent and replicable allopathic intervention is introduced in an otherwise controlled context. However, to extend the definition, operation, and creativity of hypnosis beyond a prescribed linear procedure requires a shift in our research paradigm. Allowance must be made for a more person-centered evocation of an array of individual abilities – even indeterminate and idiosyncratic ones. This shift entails *moving the nexus from between the hypnotic act and the person's response to the interpretive responses of the participant.*

For example, Ernest Rossi and others have attempted to correlate dependent variables of immediate early gene expression (through RNA micro-arrays) and inflammatory markers (Cozzolino & Celia, 2021) as biomarkers of plasticity within the embodied mind. Notably, the independent variable in these experiments is a relatively non-directive set of invitations for inner exploration using the Mind Body Therapy Transformation Scale (MBT-T) (Cozzolino & Celia, 2021). This approach allows for a more individualized and heuristic search compared to compliance with specific directives.

Although this research is still preliminary, expensive, and currently lacking controls, it moves us in the direction of finding common denominators of plasticity that originate within a person's innate resources..

### Subjectivity and Observation

Responses to hypnosis are highly subjective and personal, yet indicators of hypnosis have traditionally relied on outside observation of specific hypnotic phenomena. It is common for subjects to offer fanciful dream-like narratives in response to hypnotic sessions. While it is possible that such internal journeys may be an indicator to help us better appreciate the nature of hypnosis, no methodology has yet been reported that correlates subjective reports of creative autonomy, expansive self-awareness, and growing self-trust. Though logic suggests these elements are associated with adaptive growth, they are not yet concretely measurable hypnotic phenomena.

Further, the way expectancy contributes to therapeutic outcome cannot be overlooked. The integration of hypnosis into a therapeutic alliance brings with it a multitude of useful assets including mobilization of the subjects' own internal hope and positive expectancy. Therapeutic alliance affects the potential for placebo or nocebo effects on individuals. Studies by Carlino and colleagues (2014) using brain imaging have shown that capitalizing on the placebo effect has a dramatic effect on patient response to treatment and subsequently to clinical outcome. In the ideal therapeutic context, hypnosis mobilizes internal experiential associations, enhancement of internal capacity to problem-solve, and may even result in a sensation that problems magically self-resolve.

Exploration and applications of hypnosis within the clinical context bring with it agreements between the professional and client seeking treatment. Erickson (1964/2008/2021) first wrote that the burden of effective responsibility for psychotherapy is primarily to be borne by the client. Ernest Rossi later expanded this principle by adding that it was the task of the therapist to let go of this responsibility, return it to the client and make all effort to not interfere with the client's natural problem-solving activity. The professional provides guidance and encouragement to facilitate awareness of the client's internal curiosity and personal search. These discoveries and new associations can directly and positively impact the client's decisions and actions without resistance (Hill & Rossi, 2017). The client bears the burden to discover their ever-growing ability of self-agency within the process of creative adaptive adjustments.

Clinical hypnosis is both a science and an art. Researchers have forged the evolving process of seeking concrete identifiers to verify and better understand the nature of hypnosis. The therapeutic practice of hypnosis involves the cooperative process of assessment and adaptive adjustments to an ever-changing perspective of mind-body healing. While professional roles of the researcher and clinician differ, they are united in the commitment to advance understanding, efficacy, and the reliability of hypnosis.



Therapeutic hypnosis embraces the concept that both clinicians and clients can learn to use a variety of hypnotic techniques for the purpose of enhancing health. Hypnotic techniques involve recognition and engagement of biological energy cycles, novelty, participation, broadening of perspective and suggestive inferences to promote problem resolution and beneficially adaptive adjustments (Rossi, 1993).

#### Expanding Hypnosis through Evolving Scientific Studies

As mentioned earlier, the construct that we currently refer to as therapeutic hypnosis has progressed from shamanic rituals towards scientifically studied medical procedures. As we seek to provide ethical guidelines and to better understand the nature of hypnosis, there are growing opportunities to explore some of the ritualistic traditions that bear similarities to the hypnotic process. Given the variety of ways that the social construct of hypnosis can be integrated into care, recognizing, studying their effects, and integrating such practices within a hypnotic frame improves cultural competency in health and care, and perhaps, outcomes.

Current trends are leaning in the direction of integrated care as medical professionals seek to unite wholistic experiences of the mind and body. This orientation opens doors for treatments in which a psychotherapeutic approach can enhance desired physiological responses (Hartman & Zimberoff, 2011). Throughout the history of medicine, hypnosis has consistently contributing to stress reduction, pain management and other therapeutic outcomes (NIH, 1996). Today, a recognition for honoring the bio-psycho-social integrity of an individual requires integration of qualitative methodology, which is becoming more widely accepted in academia. Several significant works, such as Erika Fromm's Chicago Paradigm (Fromm & Kahn, 1990) and Dan Short's (2021) Core Competencies, seek to bridge the gap of bringing together qualitative research and individual experiences while providing a scientific platform. These essential individual perceptual experiences are clearly fundamental to hypnosis and the healing process.

An integral part of investigating the nature and efficacy of hypnosis is incorporating developing technological resources and identifying significant biomarkers correlated to the hypnotic process. Current methods include fMRIs, brain wave assessment, and activity-dependent and RNA gene expression sequences. These and other quantitative indicators provide documentation of changes mediated by the hypnotic process.

Numerous Functional neuroimaging studies (fMRIs) show how hypnosis affects brain attention by modulating the conflict monitoring and cognitive control functions in the anterior cingulate cortex (Terhune, Cleeremans, Raz & Lynn, 2017). Hypnosis-induced altered reality perception and the central role of mental imagery in hypnosis are associated with activation of the occipital and temporal brain cortices, precuneus, and other extrastriate visual areas. In contrast, non-hypnotically-delivered motor commands are processed differently. Functional neuroimaging also shows that posthypnotic suggestions alter cognitive processes. Further research should investigate the effects of hypnosis on other executive functions and personality measures (Casale et al., 2012).

Jensen and colleagues (2017) succinctly summarize the discussions amongst a group of contemporary hypnosis researchers on two decades of ongoing neurophysiological exploration on the nature of hypnosis. Chief among their recommendations, they urge sharing data and tighter collaboration.

## Looking Forward

Our future orientation to research requires a shift to the systemic study of how each unique individual generates recognized (behavioral and technological) signals of their own (person-based) plasticity and away from signals derived from hypnotic rituals (procedure-based). Such study will help illuminate how to reliably reproduce those phenomena in a variety of ways (new, progressive rituals) and towards recognition of interpersonal factors to best promote beneficial use of hypnosis across the continuum of health and care. In one sense, this type of interpersonal and contextual tailoring of therapy can be viewed as amplifying the placebo effect (see also Benedetti in this volume). Because we are cultivating one's innate plasticity in the service of healing, Moerman's and Jonas's (2002) term "meaning effect" may be more apt. This research trajectory also aims to expose the interface between the intervention, its meaning to the individual in care, and what makes it therapeutic.

While we expect treatment technology to continually evolve, *it is important to recognize that the phenomenology used to define hypnosis is also evolving*. Thus, throughout this chapter, as well as across the broader science of hypnosis, we see new lines of inquiry, from systems theory, gene expression, and electrodynamics adding new dimensionality to the social construct collectively known as hypnosis. More specifically, the domineering hypnotherapist directing the thoughts and actions of a groggy hypnotic subject, who uncritically responds with compliance, is an image of the past. This pre-systemic, unilateral model of influence is being replaced with more dynamic forms of interpersonal engagement that prioritize connectedness and collaboration along with individual resources and co-creation (BoVee-Akyurek, 2017; Hasan et al., 2014; Short, 2021). For the duration of this chapter, we will speculate on what might be on the horizon for hypnosis.

### Professional Education: Thinking in a Systems Context

Engel's (1977) revolutionary biopsychosocial paradigm was derived from an attempt to provide a method of training young physicians that includes a person's lived experiences and critical relationships in their care. Because therapeutic hypnosis operates intentionally within the embodied mind – where biology and experience are one – education and training in therapeutic hypnosis necessitates a conceptualization of such a complex evolving system. It must progress from the teaching of linear, stepwise inductions, deepening-suggestions, etc. (all based upon diagnosis and condition-based directions and protocols) toward teaching an expanding array of conversational skills that tailor to individual abilities and responses. One can foresee experiential learning that is focused on developing both relational skills and the evocation of plasticity guided by real-time data provided by a combination of autonomic, brain-based, and even genomic sensors.

Instead of learning inductions and suggestions for given types of problems, in given types of people, in specified clinical contexts, hypnosis training can be a series of interpersonal exercises that teach how to safely explore and evoke the behaviors and underlying mechanisms that correlate with how a given individual changes their mind.

Given our understanding of the psychobiology of meaning, modern hypnotic practice can entail that clinicians are sensitive to the fit of the cultural narrative of peoples' own understandings of health or of identified problems.

From a technological perspective, we can foresee a future in which the power of artificial intelligence and quantum computing enhances individual tailoring, and thus effectiveness of care. Interpersonal communication is required to evoke and cultivate each

individual's capacities for altering those most germane immune, genomic, neural, cardiovascular, and autonomic responses in beneficial ways. Embedding hypnosis within care can be integrated into digital therapeutics that construct and render holographic, virtual realities, tailored to depict those components that best evoke an individual's healing potentials.

We can anticipate hypnosis contributing to an individual thriving in ways that go far beyond the "diagnose and treat" model to more wholistic paradigms, such as the "risks and resources" model (Sugarman, et al, 2020). In this lifespan-based developmental model, everyone is born with and accumulates biological, environmental, behavioral, and relational risk factors for health conditions. Eventually we all meet criteria for several diagnoses. But we are also each born with, and can accrue, a variety of lived-experiences that can be evoked, cultivated, and utilized to modify and ameliorate those risk factors. Not too long from now, those health risks might be routinely catalogued and well-known to both clinician and the person in care. Traditionally, treatment begins when diagnostic criteria are met. But the challenge of wholistic health is not on this allopathic front. In these emerging models, therapeutic interaction is focused on the ongoing cultivation and agency of bringing individual resources to bear – something that hypnosis does very well.

The future of hypnotherapy will likely be shaped by clinicians and researchers who expand their own capacity for curious exploration. To fully find its place in the science of health and care, hypnosis must be personalized and operationalized for sufficient continuity that allows meaningful research. The ongoing development of core competency principles is one way of providing a framework in which individual clinicians, regardless of their cultural orientation, can give individual qualitative and quantitative information to join the quest to work together to contribute to a shared body of knowledge (Short, 2021).

#### [Building Tomorrow on Yesterday](#)

In modern medicine, clinicians and researchers are challenged to find indicators that identify the effects of hypnosis on the individual. Leonard Ravitz discovered a valuable electronic signature of hypnosis in experiments done with Milton H. Erickson in the 1940s (Ravitz, 1950). Ernest Rossi further explored electrodynamics with Ravitz (Rossi & Ravitz, 1980) and then in private practice research with Kathryn Rossi (Rossi & Rossi, 2016). Recognizing this uniqueness of the individual has ushered in a future of gene-expression-based personalized medicine where pharmacotherapy is tailored to individual needs and abilities. The same can be true with hypnosis.

Seminal work initiated by Ernest Rossi indicates that gene expression might provide biomarkers for hypnosis. Chronobiological rhythm patterns, particularly ~90-120-minute ultradian cycles, are significant variables that enhance effects of hypnotic work and underpin all life processes (Rossi, 1993). These chronobiological discoveries were further advanced with groundbreaking pilot studies done by Ernest Rossi and colleagues to form the field of psychosocial genomics (e.g., Cozzolino et al., 2014; Rossi, et al, 2008; Rossi & Rossi, 2014) that demonstrate activation of gene expression responsiveness by hypnosis immediately following a hypnotherapy session and with many more health generating genes expressed 24 hours later. While this work is preliminary, uncontrolled, and requires replication by others, it holds exciting possibilities for uniting the scientific and experiential worlds of hypnosis.

Each of these discoveries brings us forward in the direction of not only understanding the process of hypnosis, but also in the direction of new discoveries waiting

to be conceptualized. The future of therapeutic hypnosis is to develop research protocols where individual clinicians can participate. Ideal statistics for this are Bayesian, wherein the individual subject acts as their own baseline (Rossi, et al., 2015). Future research will use case-by-case measures to make inferences that can collectively contribute to longitudinal studies.

#### What Can We Imagine into Reality?

The challenge for the idealized future clinician-trainee reporting to their interdisciplinary team about a given person in their care is not whether they have all the diagnosis-related clinical data together but how they have learned about and helped the person in care activate their embodied abilities. We can imagine that the feared question on rounds in a professional peer group is not, “Do you have the diagnosis?” but is instead, “What do you know of their relevant innate resources?” Not, “What is the pain level?” but, “How did you inquire about their pain?”

Finally, we can imagine that this future trajectory of hypnosis in health and care drives a shift from exemplifying the power and agency of the clinician/shaman/hypnotherapist to more egalitarian, mutually beneficial relationship in health and care. As we use hypnosis to recognize and amplify the capacities of individuals for changing their embodied minds, *the role of clinician changes from an operator working on a subject to a creative evocateur exploring the outer margins of human potential.*

#### Clinicians Become the Sorcerers' Apprentices

The traditional wisdom that dominated the field in the last century was that hypnosis is a technique, rather than a full-fledged approach to treatment. Therefore, it must always be embedded within some other healing tradition, such as hypnoanalysis, cognitive behavioral hypnotherapy, or as an adjunct to pain management or anesthesia. However, as the growing integration of various methodologies replaces strict adherence to theoretical dogma, and as the individualization of treatment becomes more common across the field, the segregation of hypnotic treatments from general psychotherapy and biomedicine has become more difficult to justify. Furthermore, hypnosis has been shown to enhance other treatments (Kirsch et al., 1995), flipping the current delivery model upside down. If this trend continues, we could see hypnosis develop into an umbrella approach that encapsulates many different treatment methodologies. If we begin to recognize the importance of acknowledging and utilizing unconscious processes during every problem-solving endeavor – from anxiety to wound-healing - then we see that hypnosis is not *less than* (merely a technique) but rather *more than* – an approach to problem-solving that adds unexpected possibility to all other methods of treatment.

Can you imagine that?

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