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Preserved critical ability and free will in deep hypnosis during oral surgery

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ABSTRACT

Free will is a complex construct that includes critical reasoning, sense of ownership, and agency. The whole history of hypnosis has been linked to suggestibility. Little agreement has been reached, however, on exactly what we mean by suggestibility, and its role in hypnosis, despite the abundance of studies, hypotheses, and theories published to date.

We report on a highly hypnotizable patient with a previous allergy to lidocaine and paradoxical reactions to pharmacological sedation, who underwent oral surgery with mepivacaine for local anesthesia, and hypnosis for sedation. During the procedure, she felt some pain and the hypnotist recommended bupivacaine to ensure lasting anesthesia. While remaining under deep hypnosis, the patient refused to change anesthetic and decided autonomously to continue with mepivacaine (for which she had previously been tested for allergy). Our case clearly shows a preserved, exemplary reasoning and ability to make autonomous decisions diverging from the hypnotist's advice while under deep hypnosis.

KEYWORDS

Free will; hypnosis; motivation; rapport; suggestion

Interest in the relationship between hypnosis, suggestibility and free will has a long history and a key role in our understanding of the nature of hypnosis. Bernheim and Liébeault, who played an essential part in the difficult task of defining and explaining hypnosis in the 19th century, claimed that suggestibility is the core feature of hypnosis, to be seen as an inclination to accept and submit to a hypnotist's commands. Freud, for one, questioned this unproven interpretation (Freud, 1889, 1921, Ch. 4). Either way, the belief that hypnosis could impair or suppress free will persist like a sort of refrain until recently, in the minds of people generally, and of many health professionals. This is despite several authors (from James Braid to Bernheim himself) having clearly reported since the 19th century that hypnotized individuals could not be forced to act against their will. To date, only a few papers have been published on hypnosis and free will. They deal with the impairment of sense of agency – i.e., the feeling of behaving with intentionality and control over actions – and the still ill-defined role of suggestibility, taking both theoretical and experimental approaches (Haggard, Cartledge, Dafydd, & Oakley, 2004; Haggard & Clark, 2003; Libet, 2006; Oakley & Haggard, 2006).

Free will is a complex and intriguing construct that includes judgment, independent decision-making, sense of agency and ownership (feeling of being the owner of one's

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body, experiences and actions, and being tied to material and immaterial things, perceived as belonging to oneself). All these factors are closely related to the Self, and to the concept of identity – which remains a philosophical conundrum (Facco, Al Khafaji, & Tressoldi, 2019; Gallagher, 2000), while the variety of meanings attributed to it has made the term ambiguous, favoring confusion rather than clarity (Morin, 2017; Zahavi, 2007). The whole topic of consciousness, the Ego-I-Self continuum, and free will therefore remains a huge philosophical-scientific problem with profound epistemological and metaphysical implications.

As concerns agency (an important aspect of free will), it is well known that it can be influenced by hypnosis. From the neuropsychological standpoint, will and agency are related to a complex pattern of brain activation-deactivation mechanisms starting much earlier than their perception. Movement intention begins unconsciously in premotor areas, the limbic system, the basal ganglia, hypothalamus, and frontal lobe, while a circuit involving the temporo-parietal junction, the supplemental motor area, precuneus, insula, and dorsomedial prefrontal cortex gives rise to the sense of agency. As a result, the awareness of intention and will to move starts after a certain delay from the activation of complex unconscious circuits yielding the action (Hallett, 2016). Following the pioneering work by Libet (1991, 1992, 1999, 2006), the available data as a whole clearly show that both will and agency are conscious, late perceptions of a process begun much earlier on an unconscious level. This being the case, loss of the sense of agency under hypnosis might not reflect an impaired or illusory condition with respect to ordinary consciousness, since the normal sense of will and agency are actually more illusory than has been commonly believed. It had already been conjectured by Schopenhauer, who said that "*Man can do what he wills but he cannot will what he wills*", i.e., human freedom is relative rather than absolute (Schopenhauer, 1841).

The debate on free will come about caused by Libet 's work reflects the inclination to separate and reify conscious and unconscious processes as two distinct components of the human mind-brain (a tendency rooted in the dualistic ego-centered stance of Western metaphysics). Instead, these processes engage in a ceaseless reciprocal exchange, necessarily making the experience of agency that results from their dynamic interactions incomplete and fallible (Gomes, 2007). The *Bereitschaftspotential* (readiness potential) observed by Libet and colleagues – which appears on the EEG before any volitional movement or awareness of intending to make it – also exists in post-hypnotic voluntary movements unaccompanied by any sense of agency and will (Schlegel et al., 2015); in other words, they share the same physiological pattern. Terhune and Hedman (2017) reported finding that the sense of agency of highly hypnotizable individuals is less sensitive to manipulations of their perceived control. This would suggest an altered meta-awareness of agency, a feature observed outside hypnosis, and belonging more to their personality when in a state of ordinary consciousness than to the state of hypnosis.

The data reported above have raised increasing doubts about the nature of both consciousness and hypnosis, as they have been defined until recent years. In fact, the sense of agency and free will are much weaker and more illusory than commonly believed and, as a consequence, hypnosis might result to be a less "altered" state of consciousness than deemed in the past from the ruling positivist-objectivist perspective. Thus, in the century-old process of comprehension of hypnosis, the role of suggestibility, agency, and free will play a key role for its proper definition. Here, we

report on an uncommon case that clearly shows a preserved capacity for independent decision-making – and therefore for free will – in a patient with dental phobia under deep hypnosis for sedation during oral surgery.

Case report

The patient, a 42-year-old female, underwent surgery involving the fashioning of a periodontal flap, open debridement, and crown lengthening of the left inferior first molar. At the preoperative anesthesiological visit, she reported previous allergic reactions to latex and lidocaine. The Corah's Dental Anxiety Scale was used to check her fear of the dentist. This scale is made of four questions related to the dental scenario (how one feels: 1 – on the day before the intervention; 2 – when waiting in the attending room; 3 – when sitting on the dental chair while the dentist gets his drill ready; 4 – when being about to have teeth cleaned, by scraping the teeth around the gums). The subject's choices are scored in a range from 1 to 5 reflecting an increasing level of anxiety and the total score – made up of the sum of all subject's choices – defines the overall level of dental anxiety; its range is 4–20, where scores above 12 indicate a high level of anxiety, and scores of 17–20 indicate dental phobia (Corah, Gale, & Illig, 1978; Facco et al., 2013; Facco, Zanette, & Manani, 2008). The patient scored 16, corresponding to a phobic level of anxiety. Conscious sedation according to the Manani protocol was proposed (Manani et al., 2005; Manani, Bacci, Zanette & Facco, 2012), including presedation with oral delorazepam at a dose of 2 mg plus conscious sedation with iv. titrated doses of diazepam. The patient refused this approach due to a previous paradoxical reaction to iv. sedation. She was referred to the allergist to test her tolerance for local anesthetics other than lidocaine, and mepivacaine was found to be well tolerated.

As the patient refused pharmacological sedation, hypnosis was proposed. Her written informed consent to hypnosis and surgery was obtained. The latter – as a standard protocol used in our hospital for all surgery in sedation and general anesthesia – included the acceptance of possible intraoperative changes of the surgical procedure, should they prove necessary in the exclusive interest of the patient and if they were better than interrupting it. The Hypnotic Induction Profile (HIP) (Spiegel & Spiegel, 2004) was administered by the first author (EF) to check her hypnotic ability: her induction score was 9 (on a scale of 0–10), indicating that she was highly hypnotizable.

On the day of the surgical procedure, hypnosis was induced (by EF) in a latex-free operating room using the eye-roll technique (as done for the HIP). The hypnotic state was deepened with suggestions of complete relaxation, bliss, awareness of breathing, and the idea of being in a safe place (on a beautiful tropical beach), according to our protocol (Facco, 2019). The patient was invited to speak to the hypnotist and dental surgeon about anything she wished remaining in eyes-open deep hypnosis. Then, local anesthesia with mepivacaine was administered and the dentist started the procedure.

After about 45 minutes, the patient opened her eyes and, while remaining perfectly calm, she told the operators she felt mild pain. The anesthesiologist, who was also performing the hypnotic intervention, advised the surgeon to use bupivacaine (a longer-lasting local anesthetic than mepivacaine) to ensure full analgesia for the duration of the procedure, and prevent further pain. At this point, the patient (who appeared fully relaxed under deep hypnosis) reopened her eyes and reminded the

surgeon that she was allergic to lidocaine, that she had only been tested by the allergist for mepivacaine, and so she only wanted mepivacaine to be used.

At a later stage in the procedure, the surgeon told the patient in rather technical and scarcely comprehensible terms that he was going to modify the scheduled intervention in order to save her tooth. The patient opened her eyes and laughed, saying she had not understood a word, but she trusted him, and she gave him permission to proceed as he thought fit (anyway, having understood that the change aimed to save her tooth). In both circumstances, she closed her eyes again immediately after voicing her decision, remaining under deep hypnosis.

Throughout the operation, the patient's hemodynamic parameters remained steady, showing no stress reaction to the surgery and pain (Figure 1). When she was dehypnotized at the end of the surgical procedure, she reported feeling perfectly calm and at ease. Asked to estimate how long the operation had taken, she said that time had lost its meaning while she was under hypnosis, but she thought it had been quite quick, no longer than 20 minutes. She was incredulous when she realized that about 2 hours had elapsed, showed signs of an altered perception of time.

Here is the patient's first-person perspective report of her experience:

> My relaxation started from your (EF's) voice … with an immediate feeling of peace. When you started counting from 0 to 10, while suggesting I go down a ladder towards a beach, it was as if a sort of hand was taking my mind, guiding me down … I imagined myself lying on pearly white, fine, warm sand. The image was so clear, so true that I could feel its warmth on my back. I love the sea, it relaxes me … That was exactly the way I felt during the procedure: tranquil, relaxed, dare I say almost detached … I was fully aware of everything that was happening in the operating room, but I perceived it as something that was not mine, as if could see and hear it from afar. What impressed me was the awareness of having not lost touch with reality … All the time I clearly felt the blood pressure cuff continue to inflate and deflate … I clearly heard what the doctors were saying, which is why I could ask the surgeon to use the same anesthetic … you know my fear of anesthetics … and yet even then I was perfectly calm, as if I knew that nothing

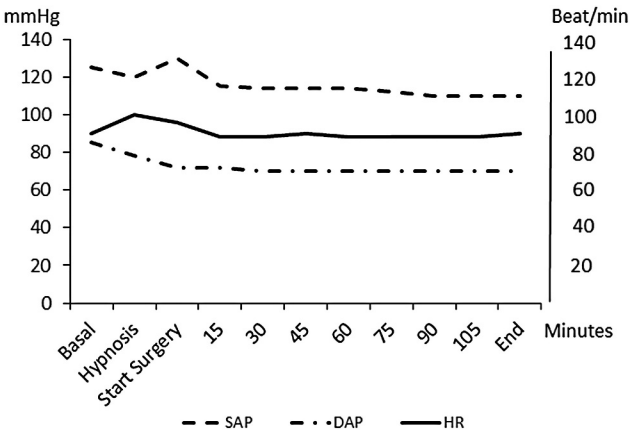

Figure 1. Blood pressure and heart rate in a patient submitted to oral surgery with hypnosis for sedation: the steadiness of hemodynamic condition can be observed, with a slight blood pressure decrease during the intervention showing the absence of intraoperative increased sympathetic tone (SAP = systolic arterial pressure; DAP = diastolic arterial pressure; HR = heart rate).

bad could happen to me … It was a deep feeling of inner peace … hard to put into words. At the end, when you let me open my eyes, I felt as if I had just come back from a spa, light, calm … happy. I don't think I've succeeded in expressing myself very well. Being under hypnosis is an experience so powerful that words can hardly describe it.

Discussion

Theorists have approached the construct of suggestibility from different angles, making the literature on suggestion and suggestibility difficult to interpret. According to Tasso and Perez (2008), despite numerous hypotheses and theories being advanced over more than a century, there is little agreement on exactly what suggestibility is, and the part it plays in hypnosis. It is also still unclear whether suggestibility is a stable personality trait or a flexible skill amenable to the influence of attitudinal factors, including beliefs and expectations (Lifshitz, Howells, & Raz, 2012). In this regard, the way individuals act on a given hypnotic suggestion has been described as a blend of trait-like and non-trait variables (Balthazard & Woody, 1992). On the other hand, there have also been reports of a lack of correlation between suggestibility and absorption (Kirsch, Milling, & Burgess, 2000), i.e., the relationship between absorption and hypnotizability is variable and context-dependent (Facco et al., 2017).

Besides a good responsiveness to suggestion – usually checked observing subject's behavior from third-person perspective – a crucial aspect of hypnotic ability is the capacity to qualitatively and quantitatively change our experience, a fact calling for taking into account the first-person perspective report. Low hypnotizable subjects remain in a state of mind more similar to their ordinary one; Medium hypnotizable subjects report an increased rate of bodily sensations and images, and High hypnotizable ones may describe stronger spontaneous imagery and experiences of an affective, fusional, and even transcendent flavor (Cardeña, Jönsson, Terhune, & Marcusson-Clavertz, 2013).

Thus, hypnosis is much more than a simple matter of suggestion, while suggestion is an ill-defined concept that may lead to misconceptions regarding its nature, especially when approached from a third-person perspective only. In fact, suggestibility is not specific to hypnosis, nor does it implicate an altered state of consciousness marked by a lower critical capacity and awareness. This latter idea stems from the positivist-objectivist inclination, which is not without an element degree of naïve realism (common sense or perceptual realism).

When hypnotizability scales are concerned, it is worth mentioning that Weitzenhoffer himself stated, "[the SHSS Form C] … *is nothing more than a suggestibility scale that can be used with and without an induction of hypnosis. It becomes a hypnotic and a conventional depth scale only when used with a presumably hypnotized individual*" … *Because the presence of suggestibility does not depend on hypnosis having been induced* … [it] *cannot directly tell us whether the individual is or was hypnotized*" (Weitzenhoffer, 1997).

In short, the definition of both hypnosis and hypnotizability may be regarded as a work in progress involving huge historical and epistemological issues; it can be metaphorically compared to a process of destructive distillation, where new approaches, facts, and hypotheses allow to progressively crack and remove previous wrong ideas and prejudices.

Our case report clearly shows that an individual under deep hypnosis remains capable of perceiving and critically analyzing facts, and making autonomous decisions. Three aspects are especially worth noting:

(a) If hypnosis was characterized by suggestibility (in the sense of a decreased awareness and/or passive acceptance of suggestions), then our patient would have readily accepted the use of bupivacaine, as proposed by the hypnotist to improve analgesia (EF). Instead, she refused it on the grounds of solid reasoning, despite the excellent rapport and trust between the two parties.
(b) Later on, she allowed the surgeon to adapt the procedure to better suit her needs. Her acceptance was based on a good doctor–patient relationship, and trust in his skill, so she was able to make a decision; in fact, she understood that the change of procedure was aimed to save her tooth, even though the technical details were not understandable. Therefore, she was able to make different, opposite decisions case-by-case, a fact hardly assignable to a simple matter of proneness to professionals' suggestions.
(c) The fact that she remained under deep hypnosis is clearly shown by her calm reaction to feeling pain, which enabled her to cope perfectly with the surgery, and also make appropriate decisions diverging from the hypnotist's advice about the use of a local anesthetic. Had she come out of her hypnotic state, it can be assumed that she would have been unable to stay calm (given her pain perception and dental phobia). The depth of hypnosis is confirmed by her altered perception of the time elapsing and the duration of the surgical procedure after dehypnotization.
(d) The hypnotic instruction to open her eyes and speak while remaining in eyes-open hypnosis when needed allowed her to feel free to tell what she felt and wished during the operation; this seems to have something in common with the Hilgard's concept of hidden observer (see below).
(e) On the whole, hypnosis enabled the patient to exert a remarkable self-control (including her reactions to pain and anxiety), while preserving her capacity for critical reasoning, and coping with the surgical procedure – the opposite of what might be expected of mere dissociation, hypofrontality, and an impaired awareness and executive control.

Our findings point to the need to reconsider the enhanced response to suggestion under hypnosis from a hopefully more positive perspective, taking into account the concept of rapport, which is the indispensable basis of an operator-subject hypnotic relationship (Baker, 2000; Baker & Spiegel, 2020). The debate traditionally tends to consider both the psychoanalytic concept of transference and hypnotic suggestibility as the result of a patient's reaction – meant as an independent, individual experience – disregarding the interpersonal matrix of bidirectional, reciprocal interactions between the hypnotist and the patient. With time, the limitations of this approach have come to light, and more comprehensive models of hypnosis have been introduced, such as the biopsychosocial one (Jensen et al., 2015).

As concerns suggestion, Bernheim himself was well aware that subjects had to accept a suggestion before they could implement it, and that they could resist doing so. This being the case, the power of suggestion used to mean the result of a lessened critical capacity or impaired free will is untenable. Furthermore, as mentioned earlier, the role of suggestibility in clinical hypnosis remains uncertain, ill-defined, and not specific to hypnosis (Tasso &

Perez, 2008). A meta-analysis of clinical trials identified only a weak (but significant) association between hypnotic suggestibility and treatment outcome, where suggestibility accounted for about 6% of its variance, casting doubts on the usefulness of hypnotic suggestibility and its assessment in clinical contexts (Montgomery, Schnur, & David, 2011). It is worth noting that hypnotic suggestibility seems to be more closely related to responsiveness to suggestions in experimental studies (Oakley & Halligan, 2013), so it might be self-referential – bearing in mind that hypnotic susceptibility scales (like the SHSS) are based on the construct of suggestibility. If this is the case, it raises some concern about the scales' clinical validity.

The psychological factors involved in hypnotic ability are still unclear, despite a wealth of published studies. Several of them have been identified, including: absorption, dissociation, empathy, expectations, motivation, proneness to fantasy, imaginative involvement, cognitive and emotional flexibility, reaction time in a go/no-go task, rapport, sensitivity, and attitude to hypnosis (Braffman & Kirsch, 1999; Facco et al., 2017; Jensen et al., 2015; Patterson, Adcock, & Bombardier, 1997; Spiegel & Spiegel, 2004; Testoni, Facco, Ronconi, Alemanno, & D'Amico, 2020). Among them, motivation may play an important part in hypnosis, especially in clinical practice, but it has only seldom been investigated. Braffman and Kirsch (1999) reported a positive correlation between response to hypnotic suggestions and motivation, rated in a 5-point Likert scale assessing "*the degree to which* [the subject] *wanted to experience*." We might therefore wonder whether hypnotizability relates less to suggestibility, and more to subjects' motivation, trust, and ability to perform a proposed task, since these factors would lead them to follow the same hypnotic suggestions for totally different reasons. In turn, motivation and trust depend on rapport, which is a *conditio sine qua non* for hypnosis. Motivation to face surgery and to recover from a disease or disorder that is causing suffering may be a powerful factor too, that has possibly not been considered in experimental studies.

Our patient was strongly motivated to have dental surgery with as little medication as possible, given her previous adverse reactions to lidocaine and sedatives. The latter are known to carry a dose-dependent risk of paradoxical reactions, which occur in up to 20% of cases in the case of iv. diazepam and midazolam (Dell'osso & Lader, 2013; Gardos, 1980; Mancuso, Tanzi, & Gabay, 2004; Roelofse, Stegmann, Hartshore, & Joubert, 1990; Short, Forrest, & Galletly, 1987; Weinbroum, Szold, Ogorek, & Flaishon, 2001). Following the use of hypnosis for her sedation, the same patient recently asked to have further oral surgery with hypnosis as the sole anesthetic. After a single training session to check hypnotic focused analgesia, according to our protocol (Facco et al., 2011; Facco, Pasquali, Zanette, & Casiglia, 2013), this was done successfully, with full hypnotic intraoperative analgesia, no need for postoperative analgesic medication, and negligible postoperative edema (unpublished data).

Our patient's preserved critical capacity brings to mind the neodissociation theory and concept of the "hidden observer" introduced by Hilgard (Hilgard, 1977a, 1977b, 1984; Hilgard, Morgan, & MacDonald, 1975), as well as the Anbar's concept of the "subconscious as therapist" Anbar (2008, 2017) and the "inner advisor" by Hammond (1990, pp. 318-20). Perhaps, they are different nouns and interpretations reflecting the same still ill-known phenomenon; in this regard, it is worth noting that the concept of "internal witness" had been already well-defined in the Patañjali's *Yoga-sūtra* 2,000 years ago (Facco, 2017; Facco et al., 2019; Patanjali, 2009).

Hilgard argued that hypnosis might affect both executive and monitoring functions, as well as the balance between them. The hidden observer has prompted much debate over the years. Several authors saw it as the result of instructional cues, a byproduct of suggestion – such as the contradictory suggestion of analgesia while perceiving pain – yielding a sort of dual task (Laurence, Perry, & Kihlstrom, 1983; Spanos, Gwynn, & Stam, 1983; Spanos & Hewitt, 1980). The discussion between supporters and opponents continued (Kihlstrom, 2003, 1998; Kirsch & Lynn, 1998; Woody & Sadler, 1998), making it necessary to combine the available theories into a wider view, also encompassing the neurocorrelates of hypnosis. In fact, the neurophysiology of pain, and the mechanisms of hypnotic analgesia were still unknown when Hilgard presented his hypothesis of the hidden observer, and so were the default mode network, the salience network, and the central executive network, with their complex mutual relationships [for further details see (Facco et al., 2019)].

Taken together, the neuropsychological theories of hypnosis in terms of dissociation and hypofrontality have partly justified the idea of hypnosis as a condition of enhanced suggestibility, reduced awareness and inaccurate higher-order thoughts, given its association with deactivation of the left dorsolateral prefrontal cortex (Dienes & Hutton, 2013) or transient deregulation of the prefrontal cortex (Dietrich, 2003).

On the other hand, when hypnosis is associated with specific tasks, such as hypnotic focused analgesia, it involves activation of the right dorsolateral prefrontal cortex (Casiglia et al., 2020). This is an indication of top-down, intentional, introspective activity capable of deliberately altering the pain neuromatrix, and yielding a complete blockage of pain inputs to the somatosensory cortex. Evidence of hypnotic analgesia also blocking all pain components, including the sympathetic hemodynamic response and allowing for surgery (Casiglia et al., 2017, 2016, 2007, 2012; Facco et al., 2013), supports that the theory of the hidden observer was a byproduct of delivered suggestion. Indeed, Hilgard based his theory on the observation that analgesia in the hidden observer experiment was paralleled by the same hemodynamic changes occurring following normal perception of pain (Hilgard, 1973).

It is worth emphasizing that right dorsolateral prefrontal cortex activation with default mode network deactivation is also a feature of decontextualized processes and metacognitive awareness (Fleming & Dolan, 2012; Gerrans, 2014), while metacognitive ability for perceptual decisions seems to relate to enhanced connectivity between lateral regions of the prefrontal cortex and right dorsal anterior cingulate cortex (Baird, Smallwood, Gorgolewski, & Margulies, 2013). This is consistent with the reports of an increased connectivity between the dorsolateral prefrontal cortex and the salience network in highly hypnotizable subjects (Hoeft et al., 2012; McGeown, Mazzoni, Vannucci, & Venneri, 2015). Therefore, the above data on hypnotic analgesia may be better interpreted as the result of an intentional management of higher-order processes and deliberate decoupling of executive control, enabling one to follow suggestions and let irrelevant stimuli go, an experience common to both meditation and hypnosis (Facco, 2017; Markovic & Thompson, 2016).

In conclusion, our data allow us to hypothesize that hypnosis may involve the ostensibly paradoxical result of an enhanced metacognitive control, enabling one to intentionally suspend the executive control when relevant to one's goal, rather than a matter of impaired critical capacity and awareness.

A sentence written by Spiegel (2013) well summarizes the above considerations: "[Suggestibility] … *does not mean that the hypnotized person is unable to exert control over what they think and do, but rather that they are inclined to go along with hypnotic*

suggestions because they are less likely to . . . analyze the context of the suggestions . . . people focus more on 'what' than 'why', so compliance is more likely." When people are strongly motivated to reach their goals, and they have trust in the hypnotist's skill and uprightness (i.e., a good rapport and therapeutic alliance have been established), they have no reason to question the suggestions they receive until or unless they perceive that something is wrong. This is similar to the relationships between master and disciple, guide and explorer, priest and believer, trainer and athlete: they are all based on a critical acceptance and sharing of a goal and how to reach it, for as long as the leader deserves the follower's trust.

Of course, our results, being based on a single case report, can only suggest the need for further study in order to better define the role of metacognitive control and reappraise (and perhaps leave) the idea of suggestibility. Anyway, our patient clearly shows the possibility to keep an exemplary reasoning and critical capacity in deep hypnosis, diverging from hypnotist's suggestions when deemed to be wrong.

In this regard, it is worth mentioning that hypnosis is far from being a single monomorphic procedure and what the hypnotist and the patient actually do depends on several factors, such as: a) patient's hypnotic ability, personality, and values; b) the rapport with the hypnotist (with his own personality features, values, professional formation, and skills); c) cultural factors, i.e., what hypnosis is considered to be and how to manage it at any given time. In fact, the *Weltanschauung* (the view of the world) and the adopted concept of hypnosis may strongly change the way it is used and its performance, leading to opposite conceptions in the history of hypnosis. The first was a strongly directive and, let us say, egocentric approach, considering hypnosis as the power of hypnotist – ranging from the Mesmer's idea of a magnetic fluid transmitted by the hypnotist up to the pathological view of Charcot. In fact, Charcot, with his strongly directive approach, led his docile, acquiescent patients to follow his orders and reproduce hysterical crises, fainting, and epileptic-like symptoms on demand (Basaglia et al., 1975). On the opposite side, we find the modern wise, naturalistic approach of Erickson (2009), which makes hypnosis an entirely different procedure. In the long process of the definition of hypnosis and hypnotizability, we think that the time is ripe to start reexamining the construct of suggestibility and hypofrontality, taking into account subject's critical acceptance of suggestions, rapport, motivation, and metacognitive control.

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