ESSAY

Hypnosis in the Theory of the Bicameral Mind

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What Is Hypnosis and Why Is It So Easy to Hypnotize?

At every induction the hypnotist is more amazed than the hypnotized about how easy and how rapid it is to induce modified consciousness, that special interpersonal relationship which — whether right or wrong — we call "hypnotic trance." We might wonder why humans are so predisposed as to enter such a state only on the request of another. It is my opinion that this question cannot be answered without taking into account anthropological reflections.

Egoic Consciousness

If hypnosis is modified consciousness, we must first of all ask ourselves what is consciousness and where does it come from. The subjective (or egoic) consciousness is that particular function that makes us aware of ourselves. How difficult it is, states Jaynes in his *The Origin of Consciousness in the Breakdown of the Bicameral Mind* (Houghton Mifflin, 1976), to define consciousness. This is, of course, a conscious process in itself that leads us to believe that the consciousness pervades the whole mind. In reality, subjective consciousness is neither omnipresent nor always present. It is rather an intermittent phenomenon, even if in some obscure way it appears to us to be continuous. We prefer to think we are always conscious, but to disillusion ourselves it would be enough to consider that neurons have sporadic rather than continuous discharge. Most of the time we are not conscious, or if we are, we are only partially so. Just as it does not exist throughout the day, subjective consciousness has not always existed throughout the evolution of humankind. At first mention this seems like a paradox, but looking closely it is quite obvious. From primates evolved hominids, and then from these emerged three human species (*habilis, neandertalensis, sapiens*) until the appearance of *Homo sapiens sapiens*, or us. Since animals are not conscious and humans are, it is evident that in the course of evolution, at some stage, subjective consciousness appeared. After manifesting itself consciousness then remained thanks to its evolutionary advantage.

Jaynes's Theory

What is still to be clarified is when this process actually took place. Jaynes's thesis is that this evolutionary (and revolutionary) process concluded rather recently, not — as was thought — in the prehistoric age, but in the historical age. This hypothesis is based on archaeological findings, the analysis of ancient texts and chronicles of the age, and anthropological reflections. According to his hypothesis, there was a time in which humankind did not feel the will but simply acted upon instinct, which is what still happens in animals. Then, very slowly, a non-conscious mentality developed which produced an interior life fertile but still non-conscious. Early humans, still without conscious will, had a non-conscious will, and acted in response to commands coming from the non-conscious: voices, of which obviously they were not aware of, and therefore very probably similar to the voices heard today under stress by schizophrenics and by many normal people. Also in today's psychotics, the voices usually are numinous and indisputable (in short, they are accepted and obeyed without question). For early humans probably had the effect of neurological commands, such that hearing and obeying were the same. Jaynes believed that these voices/commands originated from the right hemisphere (which was, at the time, more separate and dominating from a functional and perhaps also anatomical point of view than it is today) and were heard — non-consciously understood — by the left (or bicamerality).

We can imagine this individual divided into two parts (both non-conscious), one authoritative, imposing, directive, and the other acquiescent, subject. Only much later the voices fell silent and ended up being incorporated into a new, unusual function that never existed before, in which the subject part and the directive part of the brain were united giving life to the functioning of *subj*ect and direct*ive* together, that is the *subjective* function, which we now call consciousness. To this synthesis several factors may have contributed, both biological and social: the dimensions of the brain (increasing progressively up to the

current potential of 10^{15} dendritic connections), neuron plasticity with environmental adaptability, agriculture which supplied nutrition for the development of genetic instruction, spontaneous mutations, natural selection in favor of humans who along the way had become conscious, human migration, but — above all — language, writing, and the onset of the capacity to be abstract. Abstraction arose for very concrete reasons, such as recognizing strands of yellow grass in the savanna from the yellow strands of the lion's mane or between the black and yellow patches of the forest and the cheetah's markings. Individuals with the capacity to abstract had a better chance for survival and procreating; they are surely the ancestors of modern humans capable of abstraction. From very concrete origins, abstraction lead to narratization and sophisticated concepts such as life, death, the dead and their voices, speaking totems, and evocative pyramids. Today we define "abstract" as being what we are unable to perceive through the senses; at the time "abstract" was what was perceived or better still experienced as intuitive immediacy without the need of the senses, because it was immanent. From abstract immanence come metaphors which were then organized in the meta-metaphor called egoic consciousness. This process, that is in part cultural and natural, is repeated today for every new human being.

Now the point is that the emergence of the consciousness took place, as first noted, quite recently, after the invention of writing that is in the height of the historical age. In the meantime, non-conscious individuals had for thousands of years spoken, sung, hunted, dominated fire, composed music and poems, fought wars, eaten, built cities, discovered cheese, wine and the wheel without having consciousness.

Non-Conscious Life in Ancient and Modern Times

What is summarized above is certainly plausible; but is it demonstrable or nothing more than a hypothesis? If it is difficult to demonstrate the existence of non-conscious, it is even more difficult to demonstrate experimentally that non-conscious activity can take place in everyday life. Certain neurological diseases can be helpful in this regard. For instance, showing a subject with right optical cortex lesions (therefore suffering from blindness of the left side of the world) an object on his left side, he will say that he cannot see it, but on demand he can touch it with precision (blind vision). The explanation of this apparent mystery is very concrete: the fibers coming from the ocular bulb go to the optical cortex then onto the parietal lobe (the conscious "area of how"), the temporal lobe (the "conscious area of what"), and finally to the superior colliculus (the "ancient non-conscious way"). The ancient non-conscious way works also when the conscious optical cortex is lesioned, giving non-conscious visual information. This blind vision shows that it is possible to carry out non-conscious activities absolutely consistent (e.g. catching in response to external events) without being conscious; catching of a man with blind vision must be slightly similar to that of the non-conscious individuals taking action (*Brain* 2006; 129: 1822–1832). Non-conscious information can be memorized also in the absence of conscious activity.

What were bicameral individuals like? Probably they were very similar to modern schizophrenics, who are actually able to lead an apparently normal life. But the modern schizophrenics can also have a very well developed ego most of the time, and a subjective consciousness as well, while the bicameral individual lacked these: his life was regulated by a non-conscious mental organization which we can call *personae* in the Latin sense of the term (in rare cases, modern individuals may become completely non-conscious following an ischemic brain phenomenon or a neoplasia; the description of such cases gives precious indications of how a bicameral individual must have seemed). The early psychological form — affirms Jung — is different from the modern one for the fact that it did not have a developed consciousness; functions like thinking, willing and so on were undifferentiated and pre-conscious (*Einfuchrung in das Wesen der Mythologie*, Leipzig, Amsterdam, 1941). Conscious thought did not exist, and thoughts simply presented themselves. The spontaneity of the cognitive action did not depend on consciousness but rather non-conscious processes. Due to the chronic crepuscular state, it was impossible to establish whether a man had dreamed doing something or if he had actually done it (in actual fact, this query was absurd). He did not invent myths, he lived them as revelations of the pre-conscious soul, unintentional proof of non-conscious processes which did not express a mental life but were themselves the formation of a mental life. In time, the non-conscious

personae were able to integrate themselves into a recursive auto-referential structure.

This process of internalization of voices/personae required the preliminary development of an internal space that had never existed in which the world could be portrayed. Within this analogous world — in which, as on a road map, every mental point corresponds to a point in the world — those metaphors which are our mental representations operate. And, as on a map it is plausible to draw a cross and say *I am here*, a meta-metaphor of these internal metaphors was able to emerge saying *I am here*, therefore becoming the ego. Writing greatly contributed to this development, on one hand allowing the vision of what could only be heard before, and on the other hand driving internalization and memory. Consciousness created time — recalling from the past and transmitting to the future things that before were conserved in an eternal present — and space. Things, that in the physical-behavioral world of bicameral individuals had no spatial quality, acquired it in the consciousness. If the hypothesis of progressive internalization of the *personae* and metaphors within a functioning-consciousness is correct, if the *directive* part has really been imbricated with time by the *subject* part in the non-conscious melting pot producing the meta-metaphor of consciousness, and if all this took place very recently (in the blink of an eye in respect to the evolution of humankind), then we have to consider that voices, language, and metaphors still mean much today. We might also add that consciousness is an active phenomenon that consumes energy, requires libido, tires easily (calling for, in industrialized societies, nothing more than periodic sleep, but in pre-industrialized populations interruptions also during waking periods) and must be actively passed on, from parents to children, from aunts and uncles to nephews and nieces, through stories, from myths and today also through advanced media, such as television.

Why Is Language So Powerful? The Basis of Modern Hypnosis

Consciousness favors the survival of the species, but it is also accompanied by epiphenomena that are not always welcome, such as the awareness of the immanence of death, the passing of time, guilt, regret: in short, the loss of Eden. This loss is so recent, consciousness so precarious (this ship on the non-conscious sea) yearning for the return of the preconscious paradise on earth, that it takes very little to "forget" the real state of the emancipated humans and go back temporarily to the latent bicameral condition below: cerebral ischaemia, electric stimulation of the brain (*Science* 1959; 129: 1719-1725), any daily routine event with a dissociating potential, poetry, music, certain rituals of numinous value, symmetrical body movements — such as dancing, running, or eye movement desensitization and reprocessing (*J Traum Stress* 1998; 11: 3-24), and the practice of hypnosis. The person performing hypnosis momentarily takes over the bicameral voices, temporarily annulling the role of consciousness that over the last three thousand years has shaped society. This allows the individual to return to being subject*ed*, renouncing for a while being subject*ive*; an operation that the hypnotized is more than happy to undergo, having an enormous desire to abandon the tiring consciousness and return to Eden.

Studies on functional imaging show that, in hypnosis, areas of the right hemisphere corresponding to that which — in the left hemisphere — is the Wernicke's area are activated. These are the same areas that, if electrically stimulated, produce the perception of voices and the sense of the numinous. And the commands of the hypnotist are irresistible and accepted without complaint just as it must have been with the bicameral non-conscious voices and also as it is today in certain cases with the voices of modern schizophrenics. For schizophrenics the inner voices are numinous, just as the hypnotist's voice is numinous for the hypnotized subject. This explains how "word" is so effective in the hypnotic frame. Bànyai's research on active-alert hypnosis in movement (*J Abnorm Pychol* 1976; 85: 218-224) fits in well, reproducing a condition similar to that which must have been the normal state of the pre-conscious bicameral individual: vigilant, able to work and avoid danger, busy and alert in daily activity, guided by the voices/personae of his own gods or ancestors.



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