TIME AND MIND

Dreams, psychoanalysis, and neuroscience

IN PRINT

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Preface

The scientific approach in the neurophysiology of dreams only dates back to the middle of the twentieth century. It was then that Nathaniel Kleitman and Eugene Aserinsky succeeded in establishing the connection between dreams and rapid eye movements during sleep. To be exact, this discovery did not concern dreams as such, but their neurological mechanisms. Scientists were then led to dismiss the idea according to which sleep occurs when “the flashing shuttles” of the brain begin gradually to go out so that the mind, supposed to be like an “enchanted loom”, can reach an optimal point of rest (Sherrington, 1942, p. 178). At the same epoch, Freud upheld the contrary view, regarding sleep as the high place of mental activity.

Following the historic discovery by Kleitman and his pupil, neurophysiological laboratories throughout the world began to study the relation between eye movements and dreaming in greater depth. From that point on, the Freudian theory of dreams became the privileged target of attacks and refutations. Wish-fulfilment and the unconscious mechanisms that govern it had no equivalence or counterpart in these electroencephalographic research studies. It was none the less the psychoanalytic theory of dreams that was targeted and not Freud’s original approach concerning the dream process itself which, for its part, was in many respects in keeping with the new neurophysiological research. Thanks to the ambiguity of the term dreaming, this research tended to confuse dreams and sleep, whereas Freud had clearly established the connection between them. According to him, the dream makes use of the altered state of consciousness during sleep in order to have access to unconscious desire. This is one of its principal functions. Researchers in the neurophysiology of sleep, such as Robert McCarley and Allan Hobson, who manifested their open hostility to Freud’s ideas, maintained the contrary. According to these authors, the dream is a superfluous neurological production without importance, a sort of roaming of the nervous cells at the level of the brain stem. The forebrain more or less takes charge of these
cells and tries to give them some meaning by drawing on the dream’s day residues. Other researchers, constituting a minority, sought to prove the contrary by assigning the forebrain with the principal role in the occurrence of dreams, without however interesting themselves in psychoanalytic theory. It was necessary to wait for the contributions of other researchers to realise that one could not simply assign the immense mental activity required in dream formation to one part of the brain.

It is no doubt too soon to judge, but one would not be mistaken in asserting that *the study of dreams is likely to turn the whole field of investigations in the brain sciences upside down*. Contrary to the postulate of neuroscience according to which the encephalon is constituted at birth as a mere receptacle of the external world, researches into the neurophysiology of dreams have constantly shown the contrary, discarding the dominant theory based on the *tabula rasa* of the mind. We shall see throughout the present book how scientists came, not without surprise, to recognise that the brain was first and foremost endowed with an intrinsic and self-referential system. What was even more astonishing for them was that the pre-existent constituents of the brain are far from deprived of contact with the external world, since they have been acquired during the course of evolution from this same ambient world, not by means of simulation as is generally believed, but by actively emulating the living (*le vivant*) in its intimate interaction with external stimuli (*Umwelt*). Ethology has really taught us a great deal on the subject of the living. That is why I will be giving it a prominent place in the first part of this book. The question of the living and of its fundamental correlate, time, is approached in it from the angle of philosophy but also from that of the life sciences. It is in this connection that I will be led to speak of a renewed trend in neurophysiology that places temporality at the heart of every aspect of the functioning of the organism.

We shall also see how the most recent research, drawing on the neurophysiology of sleep, has succeeded in contributing decisive elements of response to the question of consciousness. Just like Freud, researchers have come to consider the dream as a curious alteration of consciousness. The exceptional state of attention and memory emphasized in these investigations tends to give credit to the idea of an increased activity of unconscious impulses during paradoxical sleep when the majority of our dreams occur. And so, it would not be surprising if one day soon, by virtue of these discoveries, we can approach the Freudian unconscious on different bases or along other lines that are unsuspected today.

A recent current of research in neurobiology has in fact developed out of an original approach that has remained a minority position since the beginning of the twentieth century. Drawing on scientific experiments, it puts temporality at the centre of the inquiry concerning the physiological functioning of the living. It established itself by rejecting from the outset
the Pavlovian principle according to which the nervous system is based on the model of the reflexes and their conditioning. We know that the neurophysiology of the twentieth century was and still continues to be inspired by the reflex arc. Behaviourism made a great deal of it by dismissing any means of recourse apart from the stimuli/response system for studying the living. Notwithstanding its refutation of the behaviourist approach, cognitivism remained a prisoner of it by denying, in its turn, any intrinsic constitution to the human soul. Its quest for objectivity on the model of the exact sciences removes its possibility of turning towards a possible subjectivity in living beings in general and in man in particular. It is always behaviour that remains its sole means of investigation. Cognitive psychology is thus condemned to conduct research that denies all interiority to the individual from the moment he is said to be more than just his visible and calculable behaviour. This rejection of interiority is translated, on the level of social and individual life, by the principle of conformity whereby any original behaviour is likely to be considered deviant in relation to the established norms.

Let’s return now to the minority current of research in neurophysiology which is distinguished by its opposition to Pavlovism. It reveals in a new light the remarkable dynamism of a living being, which, far from being passively at the mercy of the external world, shapes it in its own manner while forging itself in its image. It intervenes in it as much as it depends on it. This requires, and we will see how, that the living is endowed with a temporal aptitude which does not exist as such in the purely physical universe. This approach to temporality led the advocates of this minority current to interest themselves in the highly elaborate reflections of the phenomenon of time in the work of philosophers of phenomenological inspiration. I will attempt to show, in the course of the present book, the singular proximity between the phenomenological approach and that which prevails in this branch of research. We will also find that the theme of temporality is part of their specific approach.

I shall therefore be taking temporality as a principal purpose of the dream process. By inquiring into neurophysiological research, the discoveries in ethnology, as well as philosophical investigations, I will try to draw on the clinical psychoanalytic experience of dreams in order to locate time at the centre of any study concerning the human soul. This will lead me to put forward a new theory of dream activity, based on the postulate of a specific temporality which is in keeping both with the Freudian discovery and with Lacanian articulations. As for the neurophysiologist, we will see that far from being in contradiction with psychoanalytic clinical practice, his investigations may be said, in fact, to back it up.

The enormous expansion of the sciences since the Renaissance results from the fact that our gaze has turned on all sides towards external reality. Will the central place that is occupied today by research into dream activity
succeed in decentring our investigations in such a way as to question this reality from the perspective of our dark nights, which seem to give us access to it in a different way? It is precisely such a challenge that was the inspiration behind the present book.

I have endeavoured to write this book in a manner that is accessible to a wide public. I would like the lay reader to be able to find his/her mark in it just as much as the specialist, merely as a dreamer who may find him/herself challenged by my questionings throughout the different perepeteia of the book. In order to facilitate his/her task, I have included nearly one hundred clinical examples and dreams derived from my own clinical practice each time that it seemed necessary.

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Preface to French edition

This book sets out to give a scientific consistency to the question of time and to find out how time determines brain functioning. Neurological investigations since the mid-20th century into dreams and sleep have challenged our scientific conception of living beings. On this basis, I have been led to review the foundations of modern neurophysiology in the light of other trends in this field that have been neglected by actual cognitive sciences. These trends seem to be increasingly confirmed by recent research. I begin to give a historical view of fundamental questions such as the nature of the living being according to discoveries in ethology as well as in other domains of research. These findings seem to be consistent with the issue of time as it has been considered in some major contemporary philosophies. My project has been to apply theme to the domain of dreams and to demonstrate in what way the latter could elucidate, in its turn, the question of time.

My inquiry has been then to know if dreaming could be considered as a drive. Based on the Freudian discovery of the unconscious and Lacan’s teachings, I have attempted to provide a better understanding of the drives in general and dreams in particular. That is why I have tried to explore neuroscience in terms of its development as well as its discoveries in the function of dreaming as an altered mode of consciousness. The challenge of confronting psychoanalysis with neuroscience forces us to go beyond their division and their opposition. Psychoanalysis cannot overlook what has now become a worldwide scientific approach. Neuroscience, just like the cognitive sciences, will be further advanced by acknowledging the desiring dimension of man as essentially related to the question of time. It is precisely this dimension that is at the core of psychoanalytic practice.

Freud never moved away from the scientific spirit. Even when his approach embraces a mythical form, it remains quite conform to his scientific spirit. Neuroscience, however, seems to be ambiguous from the epistemological point of view. Its researches are not always conducted on solid theoretical bases. One wonders if such an ambiguity is deliberately intended or simply neglected. Some will claim that this manner of questioning is beyond the scope of science.

The relation between dream and sleep refers to that of body and mind. The dream, like the drive, lies on the frontier between the mental and the physical. In this respect, I will examine the researches undertaken in the neurophysiology of sleep and, through various clinical examples, try to analyse the relevance of those researches in the light of psychoanalytical theory. Dream drive is supposed to create such a bond between the neurophysiological theories developed since the 1950s and the discovery of the unconscious. As we will see, this connection underlines a new theory of sleep. While acknowledging the constitutive elements of Freudian drive theory, I will argue that this new theory also happens to be naturally consistent with the discovery of REM sleep. Neurophysiologists will be surprised to realize they have been so close to the psychoanalytic approach.

More radically, I will attempt to investigate the temporality of the drive, which is supposed to reveal the very essence of unconscious motions. Nothing but time can bring us closer to them, since they have been concretely lived by the subject and have been constituted for him as true events. We will find out that the past – the object of psychoanalytic clinical practice – only makes full sense when viewed from the horizon of the future. The fact that unconscious is a continual vector where the past is determined over and over again will lead us again to the high temporal dimension of man. What are we waiting for in the darkness of the night? What do we
seek in the ambiguity of dreams? Here, darkness is the condition of any openness to the world, a clearing where human subjectivity expands.

The meaning of the dream is intimately related to a specific mode of temporality. As we will see, this meaning is very different from the common-sense as well as the scientific understanding. This is where a new theory will emerge, enabling both the layman and the expert to recognize the characteristics of dreams. I would like the lay reader to know that this book is also aimed at him as a dreamer and that despite a few difficulties he will be able to follow my attempt in challenging the secret of dreaming. I have tried to make his task easier by including more than a hundred dreams taken from my own clinical practice in order to illustrate my investigations when needed. The first version of the book was turned down by many publishers, asking me to shorten and popularize it. So I only agreed to reduce the philosophical part. My concern was first and foremost to keep the clinical aspect.

We will see that the vicissitudes of our drives during sleep have to do with specific rules as to what we choose to call dream logic. Whether it is a hypnological image or a proper dream, this logic enables us to see if the so-called classification of the various stages of sleep is still relevant. Here lies the exact difference between the dream and sleep. This distinction tends to be lost during neurophysiological researches.

It is a matter of bringing out the logic inherent in the dream image; where the subject appears in a notable form is something we will have to determine. This is how the dream image must be distinguished from any other kind of representation.

Based on a careful study of the neurophysiological research and theories, I will try to establish a parallel between the discovery of the unconscious and the incredible enthusiasm for neuroscience. As we will show, such a parallel is already being established in the United States, whereas the opposition between psychoanalysis and neuroscience continues in France.

I would like to thank my patients, children and adults alike, without whom I would not have been able to deepen my questioning while giving it form and consistency. I hope they will forgive me if I have sometimes been forced to disguise some details about their subjectivity and personal data.

I am also very grateful to Alain Didier-Weill for his support and the interest he kept showing in my work and researches.

Finally, I would like to thank my friend, the late André Jarry, who agreed to be my first reader and whose comments and suggestions have proved extremely helpful.

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