
André LeBlanc
hypothèses et interprétations proposées semblent repose sur des preuves parcellaires. Par exemple, dans les sections sur les politiques microscopiques et macroscopiques de gestion des budgets, le lecteur s’attend à trouver des séries de données appuyant les propos des auteurs. Or, la mention de chiffres, de pourcentage ou de moyenne est accessoire et les rares données présentées le sont sans mention de sources. À titre indicatif, nous avons repéré huit références à des données numériques dans la section sur les budgets du CTEC-Devon et aucune d’entre elles n’est accompagnée d’un renvoi à la source d’information utilisée. Les auteurs nous demande ni plus ni moins que de leur faire confiance… aveuglément!

Finalement, bien que l’approche de niveau méso développée dans Strategic Science in the Public Interest soit intéressante et originale, nous doutons de ses vertus heuristiques. Elle est le résultat des études de cas, le produit de leur mise en ordre et le moyen de leur donner un sens. En d’autres termes, elle ne constitue pas une « grille d’analyse » ou un cadre conceptuel qui pourrait servir à appréhender d’autres institutions ou organisations scientifiques. Il s’agit donc d’une approche résolument inductive difficilement généralisable à d’autres cas, mêmes semblables. Néanmoins, le livre de Doern et Kinder a le mérite de jeter un éclairage nouveau sur une partie importante mais méconnue du système national d’innovation canadien, soit les laboratoires fédéraux.

MIKE ALMEIDA


Many of us have heard of REM sleep, a cyclical stage of sleep associated with dreaming and Rapid Eye Movements. The term has even penetrated popular culture through a well-known rock band of the same name. Yet despite its relative fame among psychologists and pop-music fans, not to mention the centuries of interest in sleep and dreams, the phenomenon of REM was only first discovered in 1953. Why only then? Such is the kind of question Kenton Kroker sets out to answer in his sophisticated study of the past 2500 years of sleep research. He sees this history as the progressive transformation of sleep into an object of scientific knowledge. Each successive transformation is contingent upon not only the ingenuity of scientists, but also the unique configurations of intellectual, institutional, methodological and instrumental forces that
shaped the peculiar trajectory of sleep research. Kroker’s “‘long view’ of
the unfolding of sleep as a scientific object” (p.309) examines every
serious study of sleep from antiquity to the present, revealing much that
had been previously overlooked, such as the importance of sleep to Ivan
Pavlov’s work and that of the EEG to the development of psychiatry. But
it is in the development of its central theme—the transformation of a
hitherto hidden, mysterious and private phenomenon into something
increasingly visible, measurable and public—that sets this richly detailed
work apart.

Chapter one begins with the study of sleep and dreams among the
ancient Greeks and Romans, and runs quickly through the investigations
of the Middle Ages, Renaissance and Enlightenment. By the end of
chapter two, with seven chapters to go, the book has already reached the
turn of the twentieth century. Kroker’s emphasis on the recent history of
sleep research is eloquently justified, however. Dreams were of
diagnostic and personal importance to Galen (he sought professional
advice from the Gods in his dreams) but they were not objects of study in
their own right. For Augustine, dreams were about self-discovery and
metaphysical questions but they were “not part of systematic objective
investigation” (p.48). Indeed, until well into the nineteenth century, most
students of sleep did not even consider it as belonging to the realm of
experience; rather, sleep was seen as an absence of experience, a state in
which consciousness had all but disappeared, leaving nothing for the
researcher to investigate.

Sleep would become increasingly tangible, however, as it came under
the gaze of new forms of investigation. Freud’s work was crucial to the
rise of sleep research, Kroker informs us, because it introduced the idea
that dreams served a purpose, that of protecting sleep from the
unconscious’ need to have its urges represented. Evolutionary theory
would offer another way of turning sleep into an object of knowledge in
the work of the Swiss psychologist Edouard Claparède who set forth an
adaptive view of sleep. We sleep, Claparède theorized, as William James
had previously done for emotion, not because we are tired, but to avoid
tiring the body. But the biggest boost to sleep research at the turn of the
century would come from the application of a formula famously
developed by Claude Bernard: induce a pathological state and infer the
normal. Thus, when the French psychologist Henri Piéron began
systematically observing the physiological effects of sleep deprivation in
dogs, sleep finally emerged as a full-fledged object of scientific
knowledge. The study of sleep came of age, Kroker observes, when
researchers began investigating its opposite—sleep deprivation.
Much about sleeping and dreaming still remained hidden, however. This would change with the advent of the EEG and its use in the study of sleep by the University of Chicago researcher Nathaniel Kleitman. With the EEG, “sleep was entering the era of mechanical reproduction,” (p.229) as the private experience of sleep became visible for the first time. The next major development in sleep research came from a private sleep laboratory in a home at Tuxedo Park, New York. Here researchers made use of a giant kymographic drum, allowing them to see at a glance the recording of EEG readings for eight hours at a time. Once they began recording brain activity all through the night, it soon became clear that sleep came in stages, each with its own EEG signature. The private and invisible experience of sleep had become visible and public as never before. “At Tuxedo Park, sleep achieved objective existence for the first time.” (p.290)

Despite the all-night observations conducted at Tuxedo Park in the late 1930s, REM still escaped the attention of researchers. It would take a new intellectual climate, generated by renewed interest in finding the neurophysiological correlates of psychoanalytic theory, before researchers finally discovered REM and its association with dreams. Gradually, a research programme would develop with REM and EEG monitoring at its centre. Sleep research would undertake a steady expansion as it brought the study of narcolepsy (chapter 7), insomnia (chapter 8) and sleep apnea (chapter 9) within the purview of the sleep laboratory.

_The Sleep of Others_ is itself a model of contingency: it could not have been written without Kroker’s enormous talent, dedication and love for his craft. It is meticulously documented (the notes, bibliography and index run over 100 pages), written with wit and verve, and replete with fascinating historical connections between sleep research and topics as far ranging as hypnosis, the Dreyfuss Affair and Pavlov’s dogs, who kept falling asleep during conditioning experiments. Kroker’s remarkable combination of historical rigour and depth will remain the reference of choice in the history of sleep research for years to come, and an exemplary contribution to the history of science.

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