

The Moon and Madness by Niall McCrae. Charlottesville, VA: Imprint Academic Philosophy Documentation Center, 2011. 177 pp. \$34.90 (paperback). ISBN 9781845402143.

Mathi—Tamil word with two meanings, *knowledge and moon*
(*Tamil is one of the ancient languages of the world, spoken in South India*)

The word *Mathi*—how it got two meanings is unknown to me. Interestingly, many traditional and cultural practices associated with the moon are still in practice in South India. These two things came to mind when I first sighted this book. The Moon and its charisma allows no one to remain silent: Poets describe it, artists paint it, numerous folklore tales and legends continue.

The author has provided an overall review of lunar studies that have been done through the years, and brings to the lay reader a critical analysis of the chaos, obfuscations, and intricacies relevant to the influence of the Moon. It is a lively presentation of the various beliefs and ideas over the entire history of philosophy, science, and medicine from ancient civilizations to the modern age. It takes us on a journey to learn about the knot that ties our lives with the cosmos.

There are nine chapters, a Foreword by Dr. Paul Crawford (University of Nottingham), and an Introduction. In the Preface, Niall McCrae gives us an account of his acquaintance with the influences of the Moon. In the Introduction, he describes the current position of scientific knowledge regarding the acceptance of traditional knowledge about the Moon. The first half of the book covers knowledge of the Moon in primitive civilizations, and how that later transformed after the Renaissance and the Reformation. The second half of the book is devoted to an in-depth analysis of lunar studies and to alternative thinking in science about the Moon. There is a strong non-acceptance of traditional knowledge in Western science. Most scientific journals and scientists strongly reject the lunar influence without having a questioning mind about it. Before starting an experiment one should have an open mind, which is the spirit behind this book.

The Moon was worshipped as a deity in early civilizations, and many fantasies were associated with Moon. The Moon was strongly correlated with astrology, body functions, and mental health. When astrology was studied by European physicians, they drew astrological charts but never bothered with the treatment aspects, even when patients were in critical condition. With the help of the telescope, the Moon was described as having rough terrain, valleys, and mountains, and as a result a paradigm shift occurred. With the advancement of reason, philosophy, medicine, and science, the previous fantasies associated with the Moon were abolished.

Initially, alienists (physicians who pronounced on the mentally ill) were introduced to treat lunatics in asylums. They were the first people who observed the

mentally ill and devised methods to assess human behavior. The author has serious questions about how the present practice of psychiatry is able to determine human behavior based on assessment. The author critically argues for the incorporation of human experience and behavior which is widely ignored in the current practice of psychiatry. All remember Spencer's terminology "survival of the fittest" but forget Wallace's theory in which survival was determined by the suitability of the environment. The incorporation of the social sciences and a positivistic approach would enable improvements in the treatment of psychiatric patients. McCrae's viewpoints in this area are geared toward the benefit of mankind not just science.



McCrae's view is that a psychiatric disorder should be treated as a social disorder and not as a mere biochemical aberration. He also explains the controversies and politics related to drug trials and the need to regulate them. Psychiatry should not be victimized for the optimum operation of Pharma companies. Psychiatrists should consider the knowledge of nurses since they spend more time with patients and know their behavior well. Current psychiatry neglects the knowledge and experience of nurses and individual patients. It provides for more priority to be given to quantitative research than to qualitative research. How psychiatry treats fellow human beings and how that deviates from a humanistic approach is a deep concern of this book.

Jürgen Aschoff (co-founder of chronobiology) opposed the development of specialized symposia and journals. Science should not be compartmentalized and specialized since most of the specialists never interact with each other. McCrae believes difficulties in science should be shared so that they can be rectified and lead to proper scientific research methods. This book urges the need to develop a unified science.

Most correlations in lunar studies have not been replicated. After a huge number of studies, there is no clear satisfactory answer proving or disproving lunar influence on humans. The book substantiates statistical errors and technical errors correlated with the influence of the Moon. It seriously asks for a new way of approaching studies of the Moon and its influence on human beings. The final chapter provides a broad view on the problems, defects, flaws, and requirements in lunar studies. The author wants to see a methodology in future studies that takes account of all previous studies' flaws and defects.

In concluding remarks, the author asks that more trustworthy lunar inquiries be done with an open-minded approach crossing professional and department lines. The evidence so far begs for a more consistent and developed methodology. This book is a shot in the arm to those who are "tired of lunar research" and encourages young investigators to pursue lunar studies. Most

of the beliefs from two thousand years ago and before have declined and diminished as science has evolved. But the possibility of lunar influence still persists in the minds of people as well as in the scientific community. It still fascinates lots of researchers—What is the reason behind this? McCrae never provides a conclusion about lunar influence, leaving the question to the reader, but he believes that further investigation on lunar research is warranted.

Earth-generated circadian rhythms is in our genes. Is there any impact of the rotation and revolution of the Moon also in our cells and genes? What could be the adaptation of human physiology and behavior to the Moon? Does it have a common effect on all of us, or does it influence only a small group of the population? These were the questions I asked before constructing a hypothesis on lunar influence. Initially, I started my research on the clock gene polymorphisms associated with schizophrenia and bipolar affective disorder. During visits to the mentally ill, nurses and administrative staff told me of the association of lunar influence with mentally ill patients. Initially, I didn't believe it as I had never heard of such a thing. Later on after frequent visits, I witnessed the behavioral changes in emotionally unstable people associated with lunar phases.

The human brain is the most complex organ produced in the process of evolution. Since emotions vary among people, could anyone establish a list of standard protocols to qualify or quantify human emotions? Probably not.

Two possible factors, gravity and light, have been mentioned as the effecting agents of the Moon. Normal light beams do not affect the sleep of normal persons but do affect the sleep of those with sleep disorders. There are reports that light conditions could affect all primates' sleep behavior. So perhaps emotions can be elevated in certain people at the Full Moon and the New Moon. Lunar influence depends not only on the individual but also on time (my speculation). Obviously, more studies should be done.

Difficulties associated with lunar studies include:

1. Lunar studies will not fetch any project grants.
2. People should be monitored continuously 24-7.
3. There is a need to use a lunar day schedule.
4. Long-term studies are needed, since the same lunar position will not recur and so results are not easily reproducible.
5. There is a need to check for influences at the New Moon, Full Moon, and the last quarter. Looking at only one time of the month would cloud the results.

Perhaps if we can puzzle out the cause and effects of lunar influence, we would be better able to treat psychiatric patients as well as other patients.

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