Recent Advances in Cognitive Neuroscience: A Perspective on the Bio Behavioural Model System

Nicka Stein*

Department of Neurology, University in Leuven, Leuven, Belgium

Corresponding Author*

Nicka Stein
Department of Neurology,
University in Leuven, Leuven,
Belgium,
E-mail: stein.n@gmail.com

Received: November 24, 2022, Manuscript No. NCOA-22-81165; **Editor assigned:** November 28, 2022, PreQC No. NCOA-22-81165 (PQ); **Reviewed:** December 12, 2022, QC No. NCOA-22-81165; **Revised:** February 21, 2023, Manuscript No. NCOA-22-81165 (R); **Published:** February 28, 2023, DOI: 10.4172/2469-9780.23.9.1.192

Introduction

The emphasis on numerous levels of analysis that is prevalent throughout this discipline is one of the things I appreciate most about studying psychology for the rest of my life. Since the field of cognitive neuroscience has developed into one of the most active areas of psychological inquiry, this has become increasingly true. The behavioural sciences are special in that they acknowledge that our location in the universe can be seen from perspectives or levels ranging from sub-atomic to cosmic. To advance in our understanding of the nature of the brain and behaviour, we both need to be able to and must examine these various levels.

This is why it is important that this new journal, brain, behaviour, and cognitive sciences, be introduced. The bio psychosocial model of behaviour is a multi tiered approach to psychological research that psychologists have long emphasized. This journal places itself smack dab in the middle of that framework and acts as a vehicle for the quick dissemination of findings that are related.

Description

All areas of psychology incorporate the bio psychosocial model. For instance, the development of our understanding of addiction processes demonstrates how the bio psychosocial approach broadens our comprehension of behaviour and the value of the theme of this journal for such a purpose.

Millions of people around the world suffer from addiction, a serious behavioural health problem. According to studies, the overall 12 months prevalence of some type of maladaptive addiction among US adults ranges from 15% to 61%. This is an ideal illustration of the necessity for a multi-level analysis approach to comprehend, prevent, and treat this kind of disorder. Many years ago, it was thought that addiction was nothing more than a moral failing displayed by the weak. Therefore, there was no reason for or interest in comprehending the nature of the issue. There was primarily a social "level of analysis" at play; there was little knowledge of or interest in biological underpinnings, and there was no need for research at the behavioural level because addiction was clearly the result of moral failure. The solution was eliminating drugs on a social level, which solved the issue. Prohibition's brief appearance in the US during this time was one outcome of this way of thinking. The introduction of the addiction disease model was one factor that gradually altered this situation. Encouragement to study the disorder at the biological level and treat the individual at the behavioural level came with the recognition that addiction was a disease, not just a moral issue.

A further development in our knowledge of addiction's causes, effects, and methods of prevention and treatment followed, and that development was the creation of the dependence model. In accordance with the dependence model, a person becomes an addict once they have consumed enough of a substance to develop a physiological addiction to it (and other substances of a similar nature). Since it gave strong credence to the biological level's primary role in the nature of addiction, this represented a significant shift in society's perspective on addiction. Now that we had this understanding, we could see that addiction was a disease with specific biological causes that had an impact on a variety of personal behaviours. Unfortunately, there was a significant issue with the dependence model. Studies on the neuronal mechanisms of reward at the biological level are prompted by a focus on the positively reinforcing experience at the behavioural level. Studies on the risks for people in various group or social settings also fit in well with this. For instance, it is well known that social context influences the physiological effect of drug tolerance. This design has some flaws. For instance, whether or not a substance will act as a reinforce in the first place depends on genetics. But up to this point, it has been successful in helping us understand addictions and create treatment plans. Notably, many of these programmes give consideration to the bio, psycho, and social levels of analysis.

Conclusion

The distinctive approach of psychological thought, which promotes much more than just deepening knowledge of a particular aspect of ourselves and the environment in which we live. Our understanding of behavior, its biological underpinnings, and its effects on society have greatly advanced as a result of psychologists' desire to investigate and, critically, integrate information from various levels of analysis. The launch of this journal should enable researchers in these fields to publish their work on schedule and thus advance this important field of study.

Cite this article: Stein N. "Recent Advances in Cognitive Neuroscience: A Perspective on the Bio Behavioural Model System". J Neurosci Neuropharmacol, 2023, 9(1), 1.