

Biological psychology applications



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SOCIAL NEUROSCIENCE AND THE COMPLEMENTING NATURE OF SOCIAL AND BIOLOGICAL APPROACHES

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Part A

What careers other than psychology, would benefit from a foundational knowledge of biological psychology?

There are a variety of professions that would benefit from the foundational knowledge of biological psychology, particularly, the guidance counseling field. A guidance counselor is an individual whose job description is to assist in guiding children toward making successful choices. Guidance counselors provide the support that is needed to help children who may be experiencing an unstable and/or somewhat confusing time in their lives. Children are offered additional support that provides the child with the foundation to thrive, instead of becoming yet another statistic. When it comes to the biological aspect of this particular career path, behavior definitely plays an important role in determining a child's actions, a child's emotions, as well as the child's ability to learn within a classroom setting. " Biological psychology is the branch of psychology that studies the relationships between behavior and the body, particularly the brain" (Garrett, 2015, pg. 3).

A Mental Health counselor would also benefit from the foundational knowledge of biological psychology. A mental health counselor that chooses to work within a school environment would be able to provide further assistance. He or she is a critical link between the school faculty and " the child". He or she has the background through his or her education and interactions with other children to better aid staff who may be unfamiliar

with this area of study, to better understand the principles of human development, psychology, and mental health and change theories. Mental health counselors are also skilled in the assessment of people and situations, diagnosing, and providing referrals for treatment of mental disorders. Mental health counselors are experienced with effectively working with children who need the extra support beyond the services that have previously been available to them. Children that are also at a disadvantage academically, due to behavioral reasons are in dire need of more extensive interventions and can benefit tremendously from the prior knowledge and experience of a competent Mental Health counselor. A student's inability to make good, solid behavioral choices often interferes with his or her ability to stay within the classroom setting, often affecting his or her opportunity to benefit from crucial instructional time. Children who take medication, may also struggle with ADHD or a plethora of other diagnoses, need the extra support. This somewhat levels the playing field so to speak, and give students with special needs the same opportunity to become as successful as their peers.

What are the practical applications of biological psychology?

When it comes to the practical applications of biological psychology, biological psychology combines research from genetics and physiology in order to be able to understand human behavior. “ When it comes to how individuals think such as making decisions and choices, there's a compelling theory that is a “ mind” behind it all”. (Garrett, 2015, pg. 3). Biological psychology has many practical applications in the understanding of how the human brain functions. Understand and explaining how the brain works can be very complex. The brain interacts with so many aspects of the body to

include: movement, body sensation, an individual's speech, hearing, vision, and language. The brain functions in such a diverse and complex manner, which explains why many individuals would consider the subject psychology to be a very broad and controversial area of study when it comes to the relationship between the brain and an individual's behavior.

How will you apply what you have learned in this course to your life?

How will I apply what I have learned throughout this course in my life? I know I will personally benefit from the foundational knowledge of biological psychology because of my current profession, as well as my future career goals. I currently work within an elementary school setting with students in grades kindergarten through fifth grade. North Charleston Elementary School is predominantly an African-American school, with only a small percentage of Caucasian students or students from other ethnic backgrounds. The school's staff is well diversified, which in turn helps students who may come from other schools that aren't as culturally diversified within the faculty population. I am now better able to relate to all students, regardless of race, gender, ethnic, or socioeconomic status compared to when I first started working as an educator. I am now confident in my ability and skills to not only relate, but differentiate between adversities that an individual student might be facing at home or within the classroom. Students often show a range of behaviors, both positive and negative, and tend to go through many phases, such as peer acceptance and peer-pressure. " Behavior results from the interaction of many wide spread areas of the brain" (Garrett, 2015, pg. 7).

For the past seven years, I have spent my time as an educator working in a number of diverse elementary schools. Many of the schools were considered “high poverty” schools due to the number of students receiving primarily free or reduced lunch. I have had the opportunity to work with students, who despite living in high poverty areas, still came to school eager to learn and receive their education. Often times, their poverty stricken lifestyle was a motivating factor in encouraging them to get a quality education so that they could eventually break the cycle of poverty and strive to attain whatever goal they set. I have also had the opportunity to experience what it was like to work in more affluent areas of Charleston. There is a huge disparity between the two school environments. I believe that I have an advantage over individual coming from off the street without any experience. I believe that the experience that I have gained throughout these past years and all of the knowledge that I have acquired throughout this course will be advantageous to me in the near future. I am now able to better understand a child’s individual needs from a different perspective.

When I first started working for the school system, one of the biggest issues that resonated with me was the lack of a support system in high poverty areas. The schools received less assistance and student interventions than the schools in the high income areas. I strongly believe that school’s physical location and/or culture dissimilarities should not dictate the amount of funds or resources available to a particular school is allocated. All schools should be equitable in financing and also, in meeting the needs of its student population and community. Every child deserves an equal opportunity to obtain a quality education. The current generation is our future and we need

to become fully vested in it. If we invest our time, resources, and money into guiding our students now to eventually become our great leaders of the future.

Studies have shown that we can choose to allocate our resources now to provide children with additional support and therapeutic interventions early on in their life that will lay the foundation for future success. Or, we have the option of ignoring our population of youth with the greatest needs to continue to be passed on from teacher to teacher or school to school, forcing us to have to invest more time and financial resources on remediation later on in their lives. The choice is ours! Success has always been my responsibility! As an educator, I will encourage, promote, support, and share in the ownership of a student's success. Students should feel at ease when going to school, and never have to fear for their safety. Having the knowledge and skills needed to maintain order within a classroom are key factors when it comes to understanding the foundational knowledge of biological psychology. Insight into the foundational knowledge of biological psychology can contribute too many fields of study and career paths.

Part B

State the research problem

The research problem expresses that approaches to human behavior cannot be fully explained by social or biological approach alone but as a multi-level integrative analysis. Researchers state, “ Social and biological approaches to human behavior have contrasted as if the two maybe antagonistic or mutually exclusive” (Cacioppo & Bernston, 1992, pg. 829). These contrasts have surfaced within the field of psychology. Tensions between biological

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and social approaches surface in behavioral neuroscience and social psychology. Human biology is rooted in concrete anatomy and genetics while the social science is completely opposite. Social approaches are based upon an abstract set of actions by different groups and societies and their influences. The research will be rooted and based on the differences in both approaches and how they can and do work together toward understanding human behavior.

Provide an effective literature review of other studies done on the same research problem

Science brief written by Kristen Jacobson, Ph. D. in Human Development and Family Studies summarizes that genetics and social environment are not only important to human development but can also play an integral role in the resilience to specific behavioral and psychological disorders. This study is comparable to the research problem because it complies with the idea that these approaches are not always mutually exclusive. The brief also supports the research hypothesis that the biological and social approaches must work as part of an integrated system of processes to better understand human development and behavior. (Kristen Jacobson, 2009)

Discuss the importance or implications of this research problem

The importance of the research problem is the understanding of human behavior. Understanding human behavior by using social or biological approaches may help to shed light on matters of violence, education, economics and environmental factors. Human behavior is said to occur from the interactions of many wide spread areas of the brain. Human behavior is susceptible and affected by contact and relationships with others. The

human brain allows us to recognize faces but it is “ language, the bedrock of complex social interactions”, that will nevertheless develop in all humans thusly affecting behavior. (Cacioppo & Bernston, 1992, pg. 831)

State the hypothesis

The hypothesis for this article is that researchers want to determine whether or not “ mechanisms underlying the mind and behavior are not fully explicable by a biological or a social approach alone but rather than a multilevel integrative analysis may be required” (Cacioppo & Bernston, 1992, pg. 829). Researchers surmise that all human behavior at some level is biological. Others dispute that not only is human behavior biological but affected by social settings and environments. Research that has been gathered by both the psychological and biological fields have shown that human development and behavior is affected by both social and biological approaches. The study of animal behavior has also been utilized to further support this hypothesis.

Discuss research method and rational for research method to be used in this study

One research method that was used within this article was the experimental method.

“ An experiment is a study in which a researcher manipulates a condition which is expected to produce a change in the subjects’ behavior” (Garrett, 2015, pg. 97). Researchers found that animal studies provide the best experimental evidence for social influences on cardiovascular disease. Researchers used cynomolgus monkeys and found that in a series of studies,

social disruptions promoted coronary atherogenesis. This implicates that the sympathetic nervous system is behaviorally induced.

Discuss how the study would be designed to verify the hypothesis

Design of the study would need to involve the consideration of social influences on biological processes, experiments with animal and/or human subjects to explain and quantify these findings. Utilizing various age, social and economic groups to differentiate the studies. Studies would be centralized around how extreme environmental factors play a role in human behavior and the biological effects.

Describe how the validity of the research will be ensured

Comparison and citation of similar studies done on the hypothesis may help to further validate the research. Expanding research groups from a localized setting to a global setting would help to ensure that the research is covering a broader audience. Research groups would contain not only age, economic and social variations but geographical influences as well. Results from this broader variation of test subjects would help to ensure that there is no bias in the research findings.

Discuss the necessary criteria to ensure the study will be conducted safely and ethically

I do not believe that any of these particular experiments were conducted in an ethical fashion. In my opinion, using animals, rodents etc. should never be considered an ethical approach to science. Animals have similar sensory receptors and while they may not be able to verbally report pain like humans, they most certainly “sense” or feel the pain. This can be observed in an animal’s response to pain. While an animal may not be able to convey

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in spoken words to a researcher that they are in physical or emotional pain, they can create audible sounds and display muscular reflexes that clearly confirm their discomfort. There was an experiment that was conducted using rodents such as rats or mice, in order to determine whether animals such as mice or monkeys had the same effect that humans may have when it comes to the social and biological approach. Although, I strongly disagree that the use of animals is safe or ethically safe, “ research states that animals provide among the best experiment evidence for social influences on autonomic function and cardiovascular disease” (Cacioppo & Bernston, 1992, pg. 829). Therefore, some of the implications and findings from research that requires the use of animals may potentially be somewhat accurate due to the in-depth studies that have already been conducted.

Conclusion

Biological and social approaches and how they work in conjunction to display their effects on human behavior have been the topic of discussion amongst researchers and psychologist. As there is a dispute between psychologist and biologist on which approach is most effective, both approaches have shown to be sufficient techniques in defining human behavior. Science studies research groups and experiments have been conducted to show these approaches are part of a multilevel system of analysis. Although both approaches have traditionally been viewed as opposing techniques, research studies have proven that there are complimentary.

References

Cacioppo, J. T., & Bernston, G. G., (1992). Social psychological contributions to the decade of the brain: *The doctrine of multilevel analysis* . American Psychologist. 47, 819-1028.

Garrett, B. (2015). Brain and behavior: *An introduction to biological psychology* (4th Ed.). Thousand Oaks, CA: Sage.