Psychology

THE EFFECTS OF PSILOCYBIN ON THE BRAIN AND THE ROLE OF THE DEFAULT MODE NETWORK: A POTENTIAL TREATMENT FOR DEPRESSION. M. N. Huss, R. W. Campbell, & D. W. Harrison, Department of Psychology, Va. Polytechnic Inst. & State Univ., Blacksburg VA 24061. Psilocybin, the active agent in *Psilocybe* mushrooms, has shown to be a useful therapeutic agent for several brain disorders and is now being investigated as a potential treatment for depression. Current treatment for depression is slow to action and at times is completely ineffective. Thus, the Monoamine Theory of Depression is most likely oversimplified and many researchers have begun to study depression in regards to the Neurotrophic Theory of Depression. It has also been found that the Default Mode Network (DMN) is hyperactive in depression. The DMN is a set of anatomically distinct brain regions that consistently are more active during self-referential processing and internal cognitions. This is consistent with the observation that often people with depression report constant rumination of the self, personal past experiences, and plans for their future. In recent studies, psilocybin has shown to have a significant effect on perception of self and life including elevated mood, reduced stress, increased life-satisfaction, and other anti-depressant effects. Interestingly it has also shown to suppress DMN activity therefore inhibiting constant self-referential processing. Consequently, psilocybin is now being investigated for its potential as a treatment for depression. The exact mechanisms of psilocybin's quick and long-lasting therapeutic effects as well as appropriate methods of administration are yet to be determined and warrant further study.

THALAMIC PAIN SYNDROME: CASE PRESENTATION, TREATMENT, AND FUTURE DIRECTIONS. Kelly M. Corwith, Ransom W. Campbell & David W. Harrison, Department of Psychology, Va. Polytechnic Inst. & State Univ., Blacksburg VA 24061. Thalamic Pain Syndrome (TPS) is a neurologic condition that is both complex and difficult to treat. Thalamic pain syndrome (TPS), also known as Dejerine Roussy syndrome, is a subset of central pain syndrome. It is generally caused by damage to the thalamus from a thalamic stroke, although other causes can lead to this syndrome. Characteristics of TPS include, but are not limited to, severe pain contralateral to the site of thalamic damage, often presenting with feelings of hyperesthesia, allodynia, numbness, and tingling. A review of the literature on the thalamus, TPS, case presentations, as well as current and future proposed treatments has been created in hopes of creating a larger awareness of this syndrome as well as promoting ways to help those suffering from it. Discussion of case presentations involving typical damage to a 63 year old male, atypical damage to a 23 year old female, as well as atypical symptom presentation in a 76 year old male, current treatments such as simple pharmaceutical based regimes, proposed comprehensive treatment plans for patients and their families, and newer proposed treatments such as electroacupuncture and deep brain stimulation are the focus of this review. A concise paper on the current research on TPS may help those suffering, their families,

physicians, neuropsychologists, and students fully understand this syndrome and the progressions being made to help. Lastly, another benefit of this review is the correlations for treatments that may help those suffering from other chronic pain syndromes/disorders.

Posters

FORCASTING ERRORS IN STUDENT MEDIA MULTITASKING DURING HOMEWORK COMPLETION. Christopher A. Baker, Brittany E. Noah, Charles C. Calderwood, Jeffrey D. Green, Jennifer A. Joy-Gaba & Jaclyn M. Moloney, Department of Psychology, Virginia Commonwealth University, Richmond VA 23284-2018. Many students report that they multitask with media while doing homework, but we know very little about why they engage in these behaviors, when considering that they are damaging to their homework performance. We conducted a study to explore the nature and accuracy of students' predictions regarding media multitasking during homework completion. Sixty-one participants from an undergraduate psychology class predicted their mood and performance if they were and were not allowed to multitask. Participants then worked on their homework in the lab while providing mood ratings. We also obtained student permission to access homework grades. It was found that students predicted they would experience lower negative mood and performance if allowed to media multitask, but overestimated the impact of media multitasking on negative mood.

Statistics

SIMPLE GRAPHS IN POLICY PERSUASION: EXAMPLES FROM HARRISONBURG VIRGINIA AND THE U.S. SENATE. Panayotis Giannakouros[1], Lihua Chen[2], [1]Center for Computational Mathematics & Modeling, James Madison University, Harrisonburg VA, 22801, [2]Department of Mathematics & Statistics, James Madison University, Harrisonburg VA, 22801. The American Statistical Association's Ethical Guidelines for Statistical Practice call upon statisticians to "improve the public climate for, understanding of, and respect for the use of statistics throughout its range of applications." This includes supporting sound statistical practice toward serving the needs of society. In this regard, challenges can range from distrust of statistics to an over-reliance on technical procedures that can distort how problems are analyzed or can present a false sense of authority. This talk reports on a research program addressing such challenges by promoting, particularly to policy oriented economists, sensitivity to the philosophy of science and emphasis of the role of communication and data analysis to steer toward a sound and effective balance in statistical practice. We illustrate by showing how simple graphs have been provided by us in this spirit to support policy decisions in Harrisonburg Virginia and others to advocate for policy on the floor of the U. S. Senate.