

## EDITORIAL

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# Keeping the “Cognitive” in Cognitive Neuroscience, the “Affective” in Affective Neuroscience, and the “Behavioral” in Behavioral Neuroscience: The *CABN* Mission for the Next Five Years

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The fields of cognitive, affective, and behavioral neuroscience have been with us for many years now, and have served to spawn an ever growing body of research that has helped to clarify the mechanisms by which the brain gives rise to the diverse processes that govern our thoughts, emotions, and behaviors. These fields of research have grown exponentially as more and more tools have become available for invasive and noninvasive measures of brain function in both humans and animals, and as information about the human and animal genomes has increased. These advances in neuroscience-based tools have clearly advanced our knowledge and understanding of brain–behavior relationships. However, there is also a danger that lurks in the shadows of these methodological and empirical advances. This danger is that the enticement of understanding neural processes sometimes leads us to forget about the exact phenomena that we ultimately wish to understand and explain—namely, cognitive, affective, and behavioral processes. What do I mean by danger? I mean the concern that we often seem to prioritize the sophistication of our neural and genetic tools and theorizing over our psychological tools and theorizing, and that we may overlook the absence of linkage between neural (e.g., imaging results at a range of levels) or genetic findings and well-grounded psychological theories about specific cognitive, affective, or behavioral mechanisms. In other words, we can be seduced by the “call of the brain mechanism,” without a reminder of the phenomena we wish to explain.

How do we address such concerns and dangers? We do it by placing as much priority and importance on well-articulated and sophisticated psychological theory and methods as we do on neural theory and methods. Not a *higher* priority, but not a *lower* priority either. Both are critically important, and the best advances in the fields of cognitive, affective, and behavioral neuroscience take place when both sides of the equation are given equal importance. In order for us to fulfill the promise of cognitive, affective, and behavioral neuroscience in helping us to understand how the brain instantiates the psychological processes in which we are interested, we must insist on the importance of both sides of the equation, and not settle for work that gives short shrift to either end. Accordingly, the mission for *CABN* over the next 5 years is to be the premier outlet for *psychologically AND neurobiologically* sophisticated research in the fields of cognitive, affective, and behavioral neuroscience. What exactly does this mean? This means that *CABN* will publish research that brings the best of both levels of analysis together to help bridge the gaps in our understanding of brain–behavior relationships. It also means that *CABN* will promote the publication of studies grounded in sophisticated, and sometimes complex, psychological theory, just as we will promote the publication of studies grounded in complex neurobiological methods and theories. What are the practical implications of this mission? First, it means that *CABN* will be happy to publish longer papers that require added space to lay out a theoretical framework, when it is clear that the science will be advanced by this longer format. In other words, we support the view that sophisticated theories, whether psychological or neurobiological, cannot be easily explained in a shorter paper, where little room is allocated for introducing and grounding predictions.

A second implication of this mission statement regarding the content focus of *CABN* is my desire to also promote the publication of theoretical as well as empirical work. The explosion of empirical results in our field is often in search of a good theory, and integrative theoretical work can do as much for the advancement of a field as exciting new empirical findings can, if not more. Again, our priority

will be for work that brings together psychological and neurobiological mechanisms and provides frameworks that help to spawn advances at both the psychological and the neural level. It is my hope that such theoretical perspectives will also often include computational frameworks that provide explicit implementations of the theory, though I recognize that not all theoretical work uses such an approach. Further, we will continue our practice of having special issues that focus on critical and emerging topics in relevant research areas. Special issues can serve to advance a domain of inquiry by providing needed integration across multiple approaches to a common question or set of questions, and help researchers to see either the emerging consensus in a domain, or the set of unresolved questions that need to drive subsequent research.

Historically, one of the important tools available to cognitive, affective, and behavioral neuroscientists has been work with individuals who have damage to specific brain regions (e.g., the lesion approach). This is still a critical tool in the arsenal of scientists in our field. However, another avenue for this type of research comes from studies involving individuals with neurological and psychiatric disorders that do not necessarily result from an obvious lesion (e.g., depression, anxiety, schizophrenia, genetic disorders, etc.). The primary emphasis of *CABN* will continue to be work that helps us understand the basic mechanism that gives rise to specific cognitive, affective, and behavioral processes. However, it is my belief that work in a range of special populations, not just those with easily identifiable brain lesions, can help to promote our understanding of basic mechanisms and can provide a means for testing and elaborating theories about these mechanisms. Of course, an added advantage of such work is that it helps to remind the field (and our funding agencies!) of the important contribution of basic science toward the goal of eventual clinical applications, and the need to understand how things normally work in the mind and brain, so that we can eventually understand the causes and consequences of disruption.

In sum, our mission is to build and expand the outstanding efforts of John Jonides in starting this journal. The goal for the next 5 years will be to make *CABN* the world's premier outlet for psychologically sophisticated research in cognitive, affective, and behavioral neuroscience. I take this goal quite seriously, and we will do our best to achieve the promise of integration that is inherent in the journal's name.