

## Intellectual Merit Criterion

### Overall Assessment of Intellectual Merit

Very Good

### Explanation to Applicant

Applicant clearly has impressive intellectual, academic, and research ability. Lots of experience presenting research, and work writing articles up (not especially convinced by the inclusion of in prep and submitted manuscripts on CV, however--but not a bad thing!) As a whole, the set of recommendations from faculty advisers was quite strong.

## Broader Impacts Criterion

### Overall Assessment of Broader Impacts

Excellent

### Explanation to Applicant

Applicant's personal statement makes his potential broader impacts clear. His dual interests in law and neuroscience, and efforts as a student to meet and discuss these topics, suggest the applicant has the ability to contribute to interdisciplinary work. A little unclear from the whole application package whether applicant wishes to go into psychology or law for graduate work. Very impressed with the USC Neuroscience and Law Society work.

### Summary Comments

The applicant's excellent package suggests that he would be an excellent fit for graduate research in psychology. Good academics, great grades, impressive research experience, good recommendations, and the potential for broader impacts: This applicant has it all.

## Intellectual Merit Criterion

### Overall Assessment of Intellectual Merit

Excellent

### Explanation to Applicant

The applicant is has an exceptionally strong research background, as is indicated by his recommendations, publications, and academic record. The proposal investigates how social influence can affect risk conformity. Using fMRI, the study uses a gambling paradigm and presents the participants with information about how many others made specific risky choices. This study is clearly presented with good experimental and methodological detail. In addition, the purpose of the study is nicely motivated with clear neurologically-based predictions tying behavior to neural activation; missing were competing hypotheses and analyses with individual difference that could be relevant for understanding the characteristics of individuals who are more and less sensitive to conformity information. The applicant could conduct this research and expand it into a larger program of research at a number of Ph.D. programs and labs that have access to a research magnet.

## Broader Impacts Criterion

### Overall Assessment of Broader Impacts

Excellent

### Explanation to Applicant

The proposed work has implications for cognitive neuroscience and neuroeconomic models of risky behavior because it adds in a

social conformity component. The outcomes of this study might be of interest to non-scientific communities as well as social science as it is relevant to risky decision making, how social factors influence people's propensity for risky behaviors, and potentially public policy. The applicant co-founded a student organization for law and neuroscience. The applicant has a strong research trajectory which is promising for a career in or using research.

### **Summary Comments**

Neuroeconomics is a hot topic in cognitive neuroscience. This is a well-conceived and explicated proposal that cleverly investigates the neural bases of social risk taking and in particular, the influence of social influence on risk conformity. The applicant has a strong research background and the requisite skills to conduct this study as long as the graduate laboratory has access to a research magnet. Given the strength of the candidate and the availability of fMRI-compliant facilities, this applicant will most likely be accepted into a strong research Ph.D. program and will be able to conduct this project successfully.

### **Intellectual Merit Criterion**

#### **Overall Assessment of Intellectual Merit**

Excellent

#### **Explanation to Applicant**

Mr. Castellon proposes to continue working on important research exploring the neurocognitive bases of decision making in legal settings. His work is impressively well grounded in both the neurocognitive and legal decision making literature. Although the methodology of the proposed research is clearly articulated, there is insufficient focus on the hypotheses, the rationale for each, and the pattern of results that would support each. It is also unclear what competing hypotheses might exist and what pattern of results might support these.

### **Broader Impacts Criterion**

#### **Overall Assessment of Broader Impacts**

Excellent

#### **Explanation to Applicant**

Mr. Castellon has already had an unusually broad range of experiences in both research and applied settings. The applicant is clearly interested in and capable of applying and implementing the broader implications of this research.

### **Summary Comments**

This is an excellent proposal by an applicant who has already established for himself, a solid background in the proposed area of research.