EDITORIAL
A New Feature in *JUNE*: Sharing the Amazing Papers of Neuroscience

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One year ago, the first article of a novel format was published within this journal (Harrington et al., 2015). That article was an anthology of descriptions of papers from the neuroscientific literature that had proven useful to the teaching of their contributors. The anthology was motivated by a request from one of Bill Grisham's undergraduate summer research students to read the greatest papers in neuroscience. Not knowing which paper best fit the request, Bill put the question to the FUN community on its listserv. Following a lively exchange amongst the FUN membership, we reached out to the participants and others and asked whether they would be willing to make a formal contribution to appear in *JUNE*. In the end, the article included fourteen short contributions on topics that ranged from cellular physiology to moral reasoning, with source articles whose publication dates ranged from 1889 to 2013.

It was clear from the outset that there would not be, and, likely, could not be, a unanimous decision on the question of which paper was most deserving of the superlative, "most amazing" [1]. The good news—and perhaps it is all good news—is that this lack of unanimity can be turned to our collective benefit. When *JUNE's* editorial board met at the SfN Meeting in Chicago last fall, it was decided that the 'Amazing Papers in Neuroscience' would become a recurring feature in the journal. Since then, we have issued several calls for manuscripts through the FUN listserv and worked through the submissions received. As is often the case when trying something for the first time, we found our guiding principles for the feature evolving as our vision confronted reality. That having been said, this issue of the journal includes five 'Amazing Papers' articles that exemplify the spirit and range of this feature as we now see it, and we will use this space to articulate those characteristics in a practical way. Hopefully, this statement of mission will be useful to those wishing to make such contributions in the future, and for helping to ensure the new feature's viability.

Considered generally, the guiding principle of all submissions to the Amazing Papers is that the reviewed source material provides excellent content for our teaching. But this principle is actually two sub-principles that we'll consider separately. The first principle, and the one that has not changed, is that the featured sources need to be more than just amazing, they must be amazing for teaching. We expect that most of our readers will appreciate this distinction. There are, for example, papers that we have used in our own research that are often detailed, technical, and absolutely essential, but that would be of little value for teaching undergraduates. These often appear in our personal collections yellowed by age, dog-eared and torn, and coffee-stained. Such papers might be amazing, but, if they are of little value in our classes, they are not appropriate for the Amazing Papers.

The second principle, and one that has been clarified as we have reviewed submissions, is that the featured sources should provide amazing content for our teaching, rather than being instructive in how to teach amazingly. The distinction here is a little more subtle than the last, but has to do with providing the raw material for what we do in the classroom, rather than changing the mechanisms by which we work with those raw materials when teaching. It is the difference between changing what we use (i.e., our content) and changing how we use it (i.e., our pedagogical approach). This is not to diminish the importance of the teaching and learning literature (including reviews of this literature) that helps to refine the methods and practices of instruction, but rather to emphasize that such articles already have a home in *JUNE* and it is not the Amazing Papers.

Although not explicitly stated in our earlier calls for submissions, the emphasis for this feature is on the empirical literature, but that is not to exclude more theoretical papers that satisfy the main principles just described. The door is open to reviews of reviews of empirical papers as well, and there are two examples of such Amazing Papers articles in this issue (Kennedy, 2016; Sable, 2016). In one case the contributor has described a historical review of how the brain processes words, written by one of the field's most eminent researchers (Sable, 2016). In the second case the contributor first described a paper that reviewed the health effects of stress, and then described a separate study that looked at the effects of hippocampal damage on stress responses (Kennedy, 2016). Again, so long as the source material being reviewed provides students with valuable information or conceptual structures that might influence their ways of organizing information (as might be the case with more theoretical source material), the source would be acceptable. We are also open to submissions that vary in the number of source articles they review. Although some of this diversity was evident in the original anthology (Harrington et al., 2015), it is better exemplified in the current issue by the longer-form contribution from Cecala (2016) that describes the role of the superior colliculus in the control of eye movements. The two remaining

contributions cover changes in gustatory neurons in cockroaches (Bies, 2016), and genetic and environmental enhancement of learning and memory (Flinn, 2016). At present, therefore, the spectrum of contributions ranges from reviews of a single empirical source or review article to reviews of several such articles with a common theme. Regardless of the numbers or types of papers reviewed, all submissions for this feature should be written so as to be accessible to non-specialists.

In closing, the Amazing Papers feature is intended to provide a forum in which undergraduate neuroscience educators can share those articles that have proven most effective and influential for their students either directly, as students engage with the material through reading, writing, research, and discussion, or less directly, as it might influence the teaching content or research plans of the instructors. If you have particular papers that have been useful in your teaching of undergraduate neuroscience and that have not yet been featured in *JUNE*, we ask you to consider preparing an Amazing Papers review. Don't hesitate to contact us if you have questions about the feature that have not been addressed here.

FOOTNOTE
[1] In the interests of full disclosure, at least one of us had briefly entertained the possibility of deciding the matter by way of a bracket-style tournament in which winners would be decided by way of votes between pairs of competing articles. We could have called it "Neuroscience Madness." The idea was abandoned for a host of practical and theoretical reasons.

REFERENCES
Bies AJ (2016) Cockroaches now evading death by getting bitter about sweeteners. J Undergrad Neurosci Educ 15:R17-R18.

Cecala AL (2016) Introducing students to subcortical sensory, motor, and cognitive processes associated with saccades using a series of papers by Goldberg and Wurtz. J Undergrad Neurosci Educ 15:R4-R11.

Flinn JM (2016) Both genetic and environmental changes can enhance learning and memory. J Undergrad Neurosci Educ 15:R14-R16.

Harrington IA, Grisham W, Brasier DJ, Gallagher SP, Gizerian SS, Gordon RG, Hagenauer MH, Linden ML, Lom B, Olivo R, Sandstrom NJ, Stough S, Vilinsky I, Wiest MC (2015) An instructor's guide to (some of) the most amazing papers in neuroscience. J Undergrad Neurosci Educ 14:R3-R14.

Kennedy (2016) Psychosocial stress, health, and the hippocampus. J Undergrad Neurosci Educ 15:R12-R13.

Sable (2016) Cognitive neuroscience and single-word processing. J Undergrad Neurosci Educ 15:R19-R20.

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