Nonlinear Dynamics, Psychology, and Life Sciences

CALL FOR PAPERS: Special Issue: Optimum Variability

Most of the scholars receiving this call have already seen *NDPLS*' call for review articles:

http://www.societyforchaostheory.org/ndpls/CFP-<u>ReviewArticles.pdf</u>

One topic group that received an exceptional positive response was **Optimum Variability:** It is now well known that healthy heart rate variability is chaotic and not rigidly oscillating. The principle of healthy variability has extended to other biomedical and psychological phenomena. What is the status of the research in any of the application areas? To elaborate further, some thought has been given to the idea that optimum variability results from a combination of the minimum entropy or free energy principle that pushes in a downward direction, and Ashby's Law of Requisite Variety that pushes in an upward direction.

As a result, NDPLS would like to expand the scope of this particular topic into a special issue. Certain aspects of this topic area have been well subscribed already, and manuscripts by several author groups are in progress. Articles that we would like to add next are: (1) New empirical studies that expand our understanding of one or more applications of the optimum variability principle. The usual requirements for originality and rigor of data collection and analysis would apply. (2) Review studies that are specific to applications of the optimum variability principles in social psychology, abnormal psychology, organizational behavior, and economics. (3) Empirical studies in the areas of (2) above.

Manuscripts need to be explicit in their use of nonlinear concepts such as the following: attractors, bifurcations, chaos, fractals, solitons, catastrophes, self-organizing processes and emergence, entropy, cellular automata, genetic algorithms and related evolutionary processes, neural networks, agentbased models, and provide clear definitions of the concepts used.

The purview of the journal is critical to the inclusion of articles: Nonlinear Dynamics, Psychology, and Life Sciences publishes papers that augment the fundamental ways we understand, describe, model, and predict nonlinear phenomena in psychology and the life and social sciences and examine their relevance in a wide array of scientific disciplines. Additional information for the preparation of articles for submission can be found on the journal's web site: <u>www.societyforchaostheory.org/ndpls/</u>. The project is planned on the following schedule:

- Abstracts are requested prior to submission in order to assist with the organization of the issue contents. Send abstracts by e-mail to Dr. Stephen J. Guastello, <u>stephen.guastello@</u> <u>marquette.edu</u> Editor in Chief, by November 10, 2014, or any time before, if you have not already done so.
- Full-text papers need to have arrived by December 20, 2014. Manuscripts should be prepared in APA style. Key style points and small variations that are specific to the journal can be found in the Instructions for Authors on the journal web site.
- Reviews completed by May 30, 2015 or sooner to the extent possible.
- Revisions and final edits should be received by July 31, 2015.
- The plan in motion is to complete the review and revision process in time for publication in October, 2015.

As always, NDPLS invites all the empirical, methodological, and theoretical studies that fall within our purview year round. We look forward to hearing from you at your soonest opportunity.

Best regards,

Stephen J. Guastello, Ph.D. Professor of Psychology, Marquette University