**MY WORK WITH THE INTERNATIONAL ACADEMY FOR SYSTEMS AND CYBERNETIC SCIENCES**

Stuart A. Umpleby

President of the Executive Committee

International Academy for Systems and Cybernetic Sciences

[www.iascys.org](http://www.iascys.org)

I taught systems science and cybernetics at George Washington University from 1975 to 2014. In fall 1983 I spent a sabbatical semester at the Busch Center in Philadelphia, commuting each week from DC. Russ Ackoff’s books and lectures greatly influenced my thinking. Russ’s thinking evolved from research methods to operations research to participatory methods. As a student I studied at the University of Illinois in Urbana-Champaign with Heinz von Foerster and Ross Ashby. My thinking has evolved from an effort to advance cybernetics to an effort to broaden the assumptions underlying our conception of science.

After I retired from GWU in 2014 I was asked to serve as president of the Executive Committee of the International Academy for Systems and Cybernetic Sciences ([www.iascys.org](http://www.iascys.org)). The Academy was created as an honor society by the International Federation for Systems Research ([www.ifsr.org](http://www.ifsr.org)) in 2010. The members of the Academy work to advance the field of systems and cybernetics through articles, books, conferences and academic programs.

As a result of my work with the Academy I have travelled to systems and cybernetics conferences in several countries, making presentations on the history of systems problem solving and attempting to advance cybernetics and systems science. At these meetings I listen to the topics being discussed and the theories and methods being used. I then share what I have learned at subsequent conferences.

The field of systems and cybernetics is currently making good progress—journals, societies, conferences and books are doing well. But there are still very few academic programs in universities. The large systems program at the Open University in UK is an important exception.

The term cybernetics is based on the Greek word for governor. The intent of cybernetics is to develop a theory of control and communication somewhat parallel to physics which describes matter and energy relations. Cybernetics aims to provide a general theory of information and decision-making in animals, machines and social systems.

For the academy I have prepared presentations on

1. The history of systems problem solving
2. How systems and cybernetics have contributed to traditional disciplines, in particular management, social science, and philosophy of science
3. How to expand science so that it more successfully encompasses the social sciences
4. How systems science, cybernetics, and complexity science are neighboring fields that can benefit by working together

Second order science is based on the difference between inanimate objects (physical science) and thinking participants (social science). The desire to create knowledge of social systems has led to an interest in participatory methods such as Ackoff’s interactive planning and Stafford Beer’s syntegrity. There are other group process methods. I have used most often the Technology of Participation, a set of methods created by the Institute of Cultural Affairs, an organization that worked to create model villages in countries around the world.

In recent years I contributed working papers to the first National Academy of Sciences decadal study of the social sciences in an effort to increase awareness of systems and cybernetics among people in more traditional disciplines. As a result of working with the Academy and attending systems conferences in several countries, I have become aware of the different philosophical traditions in the US, the UK, Europe, China, and Russia. Due to more interest in and knowledge of the history of philosophy I find that Europeans approach problem solving with a wider range of conceptual possibilities than do Americans. As we continue into an information age, I think this is a difference that Americans should be aware of and seek to diminish.

I have also worked on creating theories and philosophies that explain and justify the expansion of the concept of science to include multiple observers with different perspectives. I believe this work is quite compatible with Russ’s interests and concerns. I am very glad to know that the graduates of the Busch Center are continuing to work in this direction. I look forward to welcoming graduates of the Busch Center into the Academy. To learn how to be nominated and selected, read the left column of the website, [www.iascys.org](http://www.iascys.org).

**2019**

Umpleby, Stuart. How Cybernetics is Contributing to Traditional Disciplines ([Slides](https://blogs.gwu.edu/umpleby/files/2019/07/2019-ASC-contributions-to-three-fields-6.pptx))

Umpleby, Stuart. Systems, Cybernetics and Complexity: Advancing the Systems Movement ([Slides](https://blogs.gwu.edu/umpleby/files/2019/07/2019-ISSS-Umpleby-ASC-day-3.pptx))

**2018**

Umpleby, Stuart. “2018 Annual Report on the Activities of the International Academy for Systems and Cybernetic Sciences” ([Paper](https://blogs.gwu.edu/umpleby/files/2016/11/2018-IASCYS-annual-report-4-1bwoplp.docx)) ([Slides](https://blogs.gwu.edu/umpleby/files/2016/11/2018-EUS-Brussels-intro-to-IASCYS-5-2a8iaim.pptx))

Umpleby, Stuart. “A Global Strategy for Human Development: Another Way to do Social Science Research” ([Slides](https://blogs.gwu.edu/umpleby/files/2016/11/2018-RC51-Global-Strategy-and-2OS-3-1rbbru8.pptx))

Umpleby, Stuart. “Expanding Science and Advancing Reflexive Government: Two Current Projects in Cybernetics” ([Paper](https://blogs.gwu.edu/umpleby/files/2016/11/2018-GMU-Umpleby_reformatted_v3-_2_-2jm2lq7.pdf)) ([Published Version](https://blogs.gwu.edu/umpleby/files/2016/11/Umpleby-JPCS-4.2-2334eyg.pdf))

**2017**

Umpleby, Stuart. “Expanding the Conception of Science in Accord with the Correspondence Principle” ([Slides](https://blogs.gwu.edu/umpleby/files/2016/11/2017-RAS-Expanding-science-3-1w7nthu.pptx))

Umpleby, Stuart, Papers submitted to the National Academy of Sciences Decadal Survey of the Social Sciences

“Reconsidering Cybernetics” ([Paper 1](http://blogs.gwu.edu/umpleby/files/2016/11/Reconsidering-Cybernetics-1cw3png.pdf))

“Action Research” ([Paper 2](http://blogs.gwu.edu/umpleby/files/2016/11/2016-NAS-ActionResearch-27qxy3k-1-282c79e.pdf))

“Two Systems of Ethical Cognition” ([Paper 3](http://blogs.gwu.edu/umpleby/files/2016/11/2016-NAS-Ethical-Cognition-w-title-p-2ml12xb-218e6p0.pdf))

Stuart A. Umpleby. “Creating a Science of Purposeful Systems” ([Paper](http://blogs.gwu.edu/umpleby/files/2016/11/2017-WOSC-Umpleby-expanded-abstract-5-1uhg3qy.pdf))

Umpleby, Stuart. “How Science is Changing.” ([Paper](https://blogs.gwu.edu/umpleby/files/2016/11/2017-CHK-How-science-is-changing-1efojwr.docx)) ([German](https://blogs.gwu.edu/umpleby/files/2016/11/lo100-04-nachgedacht-clipped-2e775bt.pdf))

Alexander Riegler, Karl H. Mueller, & Stuart A. Umpleby (eds.). *New Horizons for Second Order Cybernetics.* World Scientific. (Book)

Kauffman, Louis and Stuart Umpleby, “Prologue:  A Brief History of (Second Order) Cybernetics” ([Paper](http://blogs.gwu.edu/umpleby/files/2016/11/2017-Preface-for-World-Scientific-book-8-w-title-p-1a6cyu0-2-zntkap.pdf))

Umpleby, Stuart, “Second Order Cybernetics as a Fundamental Revolution in Science” ([Paper](https://blogs.gwu.edu/umpleby/files/2016/11/2016-CF-Umpleby-final-submission-15-2-w-title-page-2ih9s71.docx))

Karl H. Müller, Stuart Umpleby & Alexander Riegler. “Epilogue:  Possible Futures for Cybernetics.” ([Paper](https://blogs.gwu.edu/umpleby/files/2016/11/Epilogue-final-draft-5-q6vpef.doc))

Umpleby, Stuart. “Systemic Solutions for Systemic Problems.”  ([Paper](http://rdcu.be/s3Zm))

Umpleby, Stuart. “Reflections on Systemic Problems and Solutions.”  ([Paper](http://em.rdcu.be/wf/click?upn=KP7O1RED-2BlD0F9LDqGVeSKTpOTkmbXBL-2BxXtFAjCfLk-3D_GjTkf3qnPiW2TrpkWrI9C6oTIE8dx6JFxjyi1Nkw4fpRh-2BakrApAIf4eAMiccMW5XMJUEWRsqPpOiJHh45QMIY22BanILeSmpLtU-2BQgsn-2BAXbfzN7WtZ4DXEHmMJHp-2BO0rfRx5b4fRAch9-2FCw4KG5B49eZSrF3HXlVIO9955lPPLJ3JD7Yu3QFJM5XN-2FhO7eRDNVA7gLMmf7xiW7KZHWBA-3D-3D))

**2016**

Umpleby, Stuart, “Vladimir Lefebvre’s Theory of Two Systems of Ethical Cognition”([Paper](http://blogs.gwu.edu/umpleby/files/2016/11/2016-VL-festschrift-just-subtitles-sdson4-155zczl.pdf)) ([Slides](http://blogs.gwu.edu/umpleby/files/2016/11/2016-WMSCI-Lefebvre-theory-4-1yba17i-q7cyca.pdf))

Umpleby, Stuart, “A Global Strategy for Human Development as an Example of Second Order Science” ([Paper](http://blogs.gwu.edu/umpleby/files/2016/11/2016-WMSCI-Global-Strategy-with-pictures-svjkq3-1130j7s.pdf)) ([Slides](http://blogs.gwu.edu/umpleby/files/2016/11/2015-ISSS-Global-Strategy-and-2OS-2-1sttque.pdf))

**2015**
Umpleby, Stuart,  “How cybernetics ‘ended’ in the U.S. but continued elsewhere”  ([Book Review](http://blogs.gwu.edu/umpleby/files/2016/11/2015-Amazon-review-of-Kline-book-B-10y7wop-1-tepcub.pdf))

Umpleby, Stuart, “Intellectual Washington Today” ([Paper](http://blogs.gwu.edu/umpleby/files/2016/11/2015-JWAS-Intellectual-Washington-Today-TNR-t5qfz6.pdf))

**2014**

Umpleby, Stuart, “Second Order Science: Logic, Strategies, Methods” ([Paper](http://blogs.gwu.edu/umpleby/files/2016/11/2014-CF-Second-order-Revisions-re-Riegler-8-zfyo5n.pdf)) ([Video](https://vimeo.com/38045114)) ([Slides](http://blogs.gwu.edu/umpleby/files/2016/11/wmsci_sos3-1-1zzgssr.pdf))

Umpleby, Stuart, “Identifying a Philosophy and Methods for Second-Order Science” ([Paper](http://blogs.gwu.edu/umpleby/files/2016/11/2014-CF-Reply-to-OPCs-Riegler-10-1swcsye.pdf))

**2013**

Umpleby, Stuart, “Second Order Cybernetics Then and Now ”  ([Abstract](https://blogs.gwu.edu/umpleby/files/2016/11/2013-HVF-Second-Order-Cybernetics-announcement-1d9cspl.pdf)) ([Slides](http://blogs.gwu.edu/umpleby/files/2016/11/2013-HVF-Second-Order-Cybernetics-5-1-1tqqoyr.pdf)) ([Video](https://www.youtube.com/watch?v=mIJsY5-Q5wc)) ([pic1](https://blogs.gwu.edu/umpleby/files/2016/11/pic-1-pxpnrx.jpg), [pic2](https://blogs.gwu.edu/umpleby/files/2016/11/pic-2-18wp1iu.jpg), [pic3](https://blogs.gwu.edu/umpleby/files/2016/11/pic-3-1nkup1r.jpg), [pic4](https://blogs.gwu.edu/umpleby/files/2016/11/pic-4-296p4qn.jpg), [pic5](https://blogs.gwu.edu/umpleby/files/2016/11/pic-5-2l7yb4m.jpg));