## Complexity and Arms Control

## John Borrie

Diplomats love to talk about the complexity involved in their endeavours. But they usually do it in a rhetorical sense, without realizing that complexity is actually a domain of scientific research and that complex phenomena have particular features.

But what's complicated isn't the same as what's complex. A better understanding among arms control practitioners, for instance, about what complexity is - and recognising the hallmarks of complex social phenomena - could, we think, help make their work more effective. And it has implications for human security thinking.

In our third volume of research, my colleague Aurélia Merçay and I explored some of these issues in a chapter on the "physics of diplomacy". Our intention was to communicate in plain language some concepts of physical complexity (Aurélia is a physicist) to multilateral practitioners (I have a background as an arms control negotiator). In a separate chapter, Aurélia tooks these concepts further, in order to develop a model of local demand for guns in a way radically different from most current research about demand for small arms and light weapons. This non-linear modelling of small arms proliferation is conceptual, and underlines some of the inherent difficulties in making meaningful predictions about complex social phenomena while describing some counter-intuitive features of the interactions of core factors influencing demand.

These chapters underline the importance of inter-disciplinary perspectives in addressing issues of human insecurity and, particularly, how insights from the natural and behavioural sciences have potential to help policy makers reframe what it is they are trying to do. In carrying out this research, we were inspired by the writings of physicist, science writer and broadcaster Philip Ball ("Critical Mass") and the economist Paul Ormerod, among others.

Copyright © 2007 John Borrie

Philip and Paul graciously agreed to come to Geneva in late September to present their views at a workshop on "Complexity and arms control diplomacy: Understanding the implications for arms control" held as part of the Disarmament Insight initiative. This initiative is a collaboration between the Geneva Forum and a project I lead entitled 'Disarmament as humanitarian action: Making multilateral negotiations work', which is supported by the governments of Norway and The Netherlands.

The aim of this workshop, as in past Disarmament Insight events, was to engage with diplomats from Missions, personnel from international organisations like the UN and representatives of civil society. It was a thoroughly interesting day, and the first of our podcasts of the presentations is now online - Philip Ball sharing some insights on the physics of social behaviour."

John Borrie, a senior researcher and project manager at the United Nations Institute for Disarmament Research in Geneva, Switzerland.

## Links

"Physics of Diplomacy" http://www.unidir.org/bdd/fiche-article.php?ref\_article=2584

"Non-linear modelling of small arms proliferation" http://www.unidir.org/bdd/fiche-article.php? ref\_article=2585

"Complexity and Arms Control Diplomacy: Understanding the Implications for Arms Control" http://disarmamentinsight.blogspot.com/2007/09/complexity-and-arms-control-diplomacy.html

"Disarmament as Humanitarian Action: Making Multilateral Negotiations Work" http://www.unidir.org/bdd/fiche-activite.php?ref\_activite=275

Podcast: "The Physics of Social Behaviour" http://disarmamentinsight.blogspot.com/2007/10/new-podcast-physics-of-social-behaviour.html

UNIDIR podcasts: http://web.mac.com/john\_borrie/iWeb/Disarmament%20Insight%20pod %20cast%20site/Podcasts/Podcasts.html