1086-91-765 **Donald G. Saari\*** (dsaari@uci.edu), SSPB, University of California, Irvine, CA 92697-5100. Reductionist argument: Unexpected mathematical complexities.

The modeling of social interactions, or machine-human connections, or just about anything in the mathematical social sciences proves to be complicated. This suggests adopting versions of the "reductionist argument" that is widely used in the physical sciences: This is where a complex problem is reduced to several more tractable "parts." But, as known in areas from nanotechnology to industrial organizations and social interactions, this approach can be accompanied with complexities. A mathematical reason for this is explained. (Received September 12, 2012)