Is the System Badly Named?
Noise as the Paradoxical (Non-)foundation of Social Systems Theory

Justine Grønbæk Pors[1]

Through an analysis of the concept of noise, this paper argues that Niklas Luhmann's systems theory is not only a theory built on binary oppositions such as system/environment, but also a theory full of paradoxical *third things* that challenges any idea of systems as stable, systematic entities. To revitalise the concept of noise I trace the concept back to the sources that Luhmann draws on, namely Heinz von Foerster and Henri Atlan. Moreover, I introduce Michel Serres's theory of noise to emphasis that noise is not just an outside to orderly systems, but the unstable ground of always changing orders. Through this synthesis I conclude that systems should not be understood as predictable entities or identities with pre-given boundaries, but rather as autopoietic processes driven by indeterminacy and paradoxes.

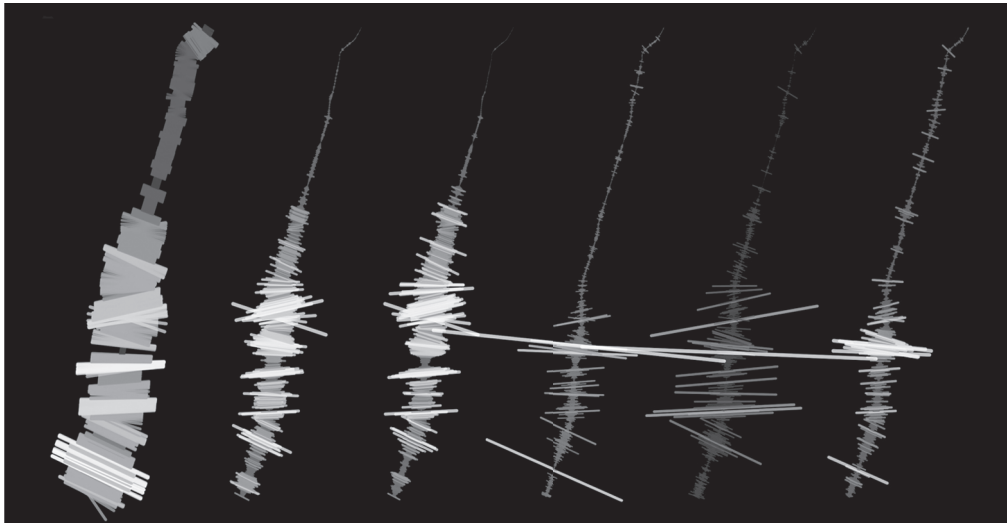**Keywords:** Niklas Luhmann, noise, Henri Atlan, Michel Serres, social systems theory

Introduction

The concept of *noise* is arguably one of the cornerstones in Niklas Luhmann's theory of social systems. The fact that systems depend on noise is a well-known systems theoretical proposition. Indeed, according to Luhmann a system can only become a system by partially overcoming meaningless noise, and, thus, owes its very existence to noise (Luhmann, 2000, p. 258; Stäheli 1996, p. 8). As he states: "Without noise, no system" (Luhmann, 1995, p. 116). The concept of noise and the idea that systems depend upon noise was initially developed in information theory and cybernetics. In his seminal paper from 1960, "On Self-organising Systems and Their Environments," von Foerster famously coined the slogan *order-from-noise* (von Foerster, 1981, p. 17). The slogan describes the idea that systems construct themselves by relating to noise in their environments. What drives systems to reconstitute and re-organize themselves are meaningless disorder and noisy events. Only from noise can systems renew themselves through processes of creating order from noise (von Foerster, 1984; Luhmann, 2000, p. 258). As von Foerster put it "self-organizing systems do not only feed upon order, they will also find noise on the menu" (von Foerster, 1960, p. 43). Also theoretical biologist, Henri Atlan concurs: "the task of making meaning out of randomness is what self-organization is all about" (Atlan, 1984, p. 110). Furthermore, we find the same idea in Gregory Bateson's work. In his formulation: "All that is not information, not redundancy, not form and not restraints—is noise, the only possible source of new patterns" (Bateson, 2000, p. 140).
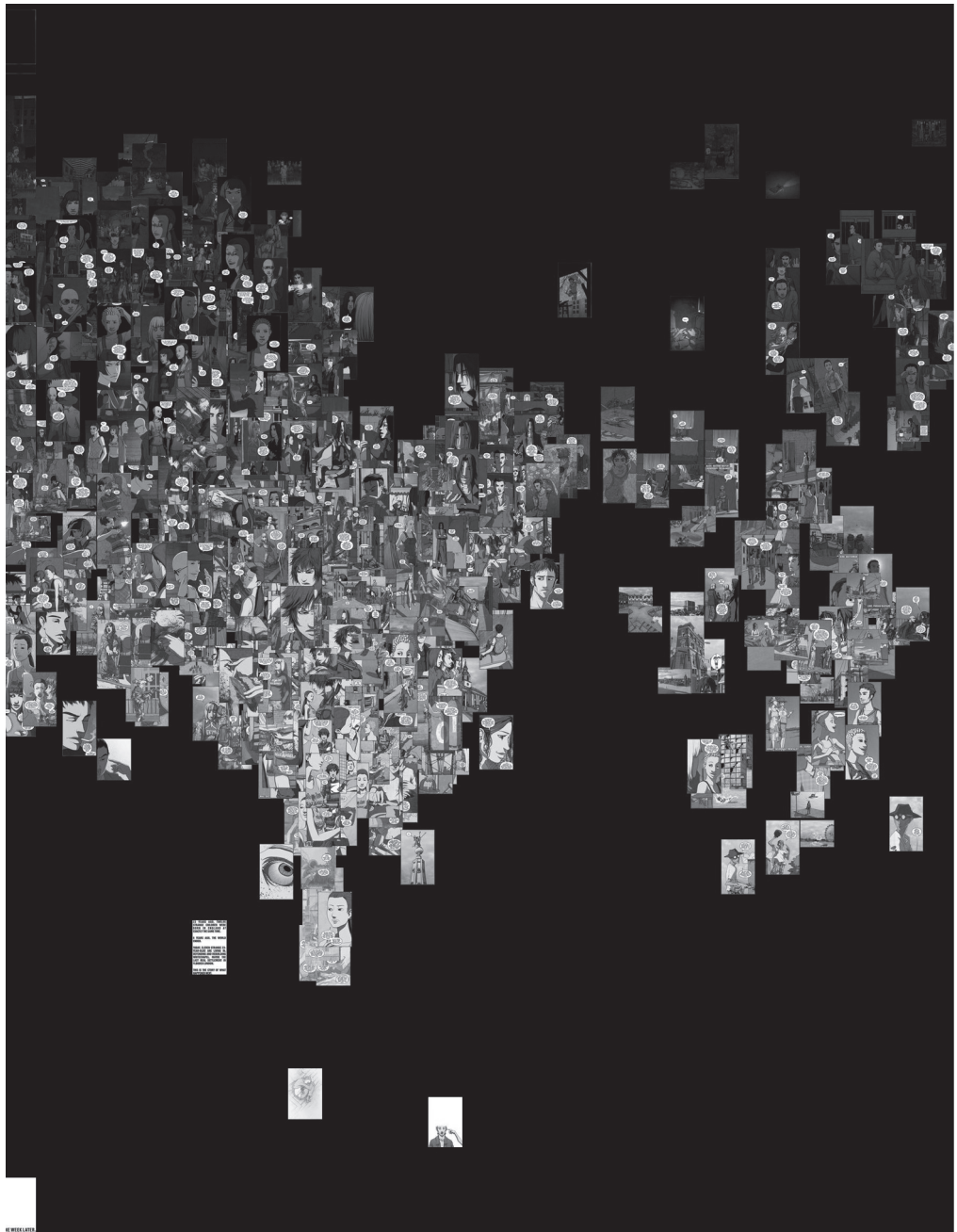
---

1. Email: jgp.mpp@cbs.dk

Luhmann, N. (1995a). *Social systems*. Stanford, CA: Stanford University Press.

Luhmann, N. (1995b). *The paradox of observing systems. Cultural Critique,* Nr. 31, pp. 37-55.

Luhmann, N. (1997). *Die Gesellschaft der Gesellschaft*. Frankfurt, Germany: Suhrkamp Verlag.

Luhmann, N. (1998). *Observations on modernity.* Stanford, CA: Stanford University Press.

Luhmann, N. (2000). Sociale systemer [Social systems]. Copenhagen: Hans Reitzels Forlag.

Luhmann, N. (2006). System as difference. *Organization, 13*(1), 37-57.

Martin, R. J. (2011). Education as recursive cycles of learning to see through acting and learning to act through seeing: The influence of Heinz von Foerster. *Cybernetics & Human Knowing, 18*(3-4), 123-128.

Müller, K. H. & Müller, A. (2011). Foreword: Re-discovering and re-inventing Heinz von Foerster. *Cybernetics and Human Knowing, 18*(3-4), 5-16.

Müller, K. H. (2011). Heinz von Foerster and the self-reflexive turn. *Cybernetics and Human Knowing*, *18*(3-4), 133-138.

Paulson, W. R. (2000). Michel Serres's utopia of language. *Configurations, 8*, 215-228.

Paulson, W. R. (1997). Writing that matters. *SubStance, 26*, 22-36.

Paulson, W. R. (1988). *The noise of culture. Literary text in a world of information.* London: Cornell University Press

Philippopoulos-Mihalopoulos, A. (2007) *Absent environments. Theorising environmental law and the city.* Abingdon: Routledge-Cavendish.

Philippopoulos-Mihalopoulos, A. (2010): *Niklas Luhmann: Law, justice, society.* Nomikoi Critical Legal Thinkers Series. London: Routledge.

Pors, J. G. (2011). *Noisy management. A history of Danish school governing 1970-2010.* PhD Series: No. 24.2011. Frederiksberg, Denmark: Copenhagen Business School.

Serres, M. (2007). *The parasite*. Minneapolis, MN: University of Minnesota Press.

Serres, M. (1995). *Genesis.* Ann Arbor, MI: The University of Michigan Press.

Serres, M. (1991). *Rome: The book of foundations.* Stanford, CA: Stanford University Press.

Shannon, C. E., & Weaver, W. (1949). *The mathematical theory of information*. Urbana, IL: University of Illinois Press.

Stäheli, U. (1996). From victimology towards parasitology: A systems theoretical reading of the function of exclusion. *Recherches Sociologiques*, *27*(2), 59-80.

Stäheli, U. (2003). Financial noises: Inclusion and the promise of meaning. *Soziale Systeme, 9*, 244-256.

Teubner, G. (1992). Social order from legislative noise? Autopoietic closure as a problem for legal regulation. In G. Teubner & A. Febbrajo (Eds.), *State, law, and economy as autopoietic systems.* Milan: Dott. A. Giuffré Editore.

Von Foerster, H. (1960). On self-organizing systems and their environments. In M. C. Yovits & S. Cameron (Eds.), *Self-organizing systems.* London: Pergamon Press.

Wolfe, C. (2007). Introduction. In M. Serres, *The parasite* (xi-xxvii)*.* Minneapolis, MN: University of Minnesota Press.

Manovich, L., Goddemeyer, D., Stefaner, M., & Baur, D. (2015). *Data Spine.* Screen shot of initial plots exploring the juxtaposition of various data layers. Project: On Broadway; http://www.on-broadway.nyc/

Manovich, L., & Douglass, J. (2009-2010). *Freaking Angels Plot*. Visualization of 342 consecutive pages of the web comic *Freakangels*. Project: Freakangels.