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# ALTERNATIVE THEORIES OF CHANGE IN SOCIAL AND POLITICAL ENVIRONMENTS

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# ALTERNATIVE THEORIES OF CHANGE IN SOCIAL AND POLITICAL ENVIRONMENTS

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**ABSTRACT:** This is a collection of academic articles and books addressing alternative approaches to explaining change in politics and development arenas. The articles focus on complexity theory, chaos theory and design theory. Examples of journals include *Public Management Review*, *Educational Philosophy and Theory*, *Child Development* and *Canadian Journal of Sociology*, among others.

Any citations without a PDF link may be obtained from the KSC.

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## SUMMARY

A non-traditional theoretical approach to explaining change in political, social and economic systems may focus on the idea that predictable trends common to a whole system may not be so predictable after all. Complexity theory and its counterpart chaos theory are often a research application along this vein while design theory is similarly transplantable from the hard sciences and engineering.

Complexity theory is a way to see the world differently because it adjusts for fluxuations and instability, thus improving upon more traditional social science models of the past.<sup>1</sup> Looking at complex systems, one sees a whole system rather than just separate components, and studying whole systems permits a more nuanced view. Systems are more sensitive to initial conditions, making any early measurements more critical to compensate for the impact of seemingly insignificant factors will produce later on future behaviour (the 'butterfly effect'). Finally, complexity theory is typically interdisciplinary in application making possible use in social sciences<sup>2</sup> and even development work.

International development practitioners have integrated ideas from complexity theory is such programs as conflict resolution and climate change, making a case for a new paradigm that could help improve understanding of the nature of change processes and modify expectations with regard to development policies and projects.<sup>3</sup> Amartya Sen has particularly emphasized a need for a more enhanced understanding of poverty by addressing other factors like income consumption, deprivation of capabilities linked to health, education, mortality, under-nourishment, illiteracy and participation.<sup>4</sup> All are variables that might be minor at first but later might interact and have profound effects on the whole system of a country.

Chaos theory is perhaps more recognizable than complex theory, having been introduced in the natural sciences. Chaos theory has application in studies of international relations and state behaviour, in political party organization and in elections where reoccurring cycles provide fractals or scales of change in events.<sup>5</sup> Conflict scholars might apply the hypothesis that more diverse possibilities exist in a given situation, in terms of both actors' roles and their interactions and that the greater the likelihood of peace and peace occurs, because of the existence of high entropy (increasing disorder and randomness actually causes more peace than order and predictability).<sup>6</sup>

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<sup>1</sup> Cairney, Paul. Complexity Theory in Public Policy. Political Studies Associations Conference University of Edinburgh April 1. P. 3.

<sup>2</sup> Ibid. P. 3 of PDF.

<sup>3</sup> Hendrick, Diane. 2009. Complexity Theory and Conflict Transformation: An Exploration of Potential and Implications. Centre for Conflict Resolution Working Paper 17. P. 16 of PDF.

<sup>4</sup> Sen, A. 1999. *Development as Freedom*. New York : Knopf, 1999.

<sup>5</sup> Pere Plaza i and Font, Joan. 2006. Chaos Theory and its Application in Political Science. IPSA AISP Congress Fukuoka, 9 – 13 July. P. 18.

<sup>6</sup> Ibid. P. 16

Broadly speaking, chaos theory is a tool and method that permits a graphic analysis of events common to dynamic political systems.

Finally, design theory has established application in building sciences, technology and products manufacturing. Product development or engineering works well with design theory in that a larger goal or objective is set early with subsequent planning stages implemented to reach the goal. The entire process is evolutionary in that each stage represents a new modification or adaptation.<sup>7</sup> In other words, rather than an automobile or computer operating system, a design model/theory might also be applicable to development projects if those projects are carefully evaluated for progress and any changes precisely attributed. One example is the decades-old governance and institution-building project of European political development, more specifically the European Union. The goal was to build a whole system with components represented by various states using transgovernmental relations over the traditional interstate approach.<sup>8</sup>

## **ALTERNATIVE THEORIES OF CHANGE IN SOCIAL AND POLITICAL ENVIRONMENTS**

### **ACADEMIC ARTICLES AND PAPERS**

**Cairney, Paul. Complexity Theory in Public Policy. Political Studies Associations Conference University of Edinburgh April 1.**

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<sup>7</sup> Vajna, Sándor, Clement, Steffen, Jordan, André and Bercsey, Tibor. 2005. The Autogenetic Design Theory: An evolutionary view of the design process. *Journal of Engineering Design* 16(4):423-440.

<sup>8</sup> Whytock, Christopher. 2005. A rational design theory of transgovernmentalism: The case of E.U.-U.S. Merger Review Cooperation. *Boston University Law Journal* 23.

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(This is a nice explanation of various offshoots of complexity theory)

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