
Session VII: Crisis Response (3)

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This session consisted of a single paper by Woodcock and was followed by a session chaired by Visco and Cherry that discussed a possible research agenda for the Cornwallis Group.

- *Cooperation, Competition, and the Challenge of Post Conflict Reconstruction* by Professor Alexander E.R. Woodcock, Ph.D., BAE SYSTEMS, Fairfax, Virginia, U.S.A.

The ability to undertake post conflict reconstruction in countries of interest will be determined by the willingness of individuals and organizations to work together under conditions of societal destruction caused by competition and conflict. Models based on catastrophe theory provide a basis for understanding societal behavior needed to chart a course for societal reconstruction and sustained growth. It is expected that further development of these models could provide a basis for assessing the likely outcome of actual post conflict reconstruction activities funded by international sources. A series of “thought experiments” are undertaken and used to identify cooperation, competition, conflict, and conciliation as determinants of overall behavior. Catastrophe theory is used to provide a synthetic modeling environment that incorporates these properties into a common framework for the modeling and analysis of societal behavior. Each of these properties is represented as a control factor associated with synthetic modeling entities called catastrophe landscapes.

Catastrophe landscapes represent the complete ensemble of all stationary state conditions drawn on a grid system representing the key influences at work in a particular system. Catastrophes with an even number of controls can model societies that are inherently stable, those with an odd number can model inherently unstable societies. Thus cooperation in the absence of any other influence is inherently destabilizing. Competition, a second factor, serves to stabilize the situation, while the emergence of conflict as a third factor is a destabilizing influence. Conciliation, which involves non-bellucose conflict resolution mechanisms is a fourth factor that provides stability.

The ability of catastrophe theory-based models to describe the inherent stabilizing and destabilizing effects of key societal influences can provide interesting insights into the nature of actual political systems. The catastrophe theory-based approach implies that societies involving the action of an odd number of key societal influences are inherently unstable while societies with an even number of influences are inherently stable. The consequences of such an observation are explored in a number of actual political situations. The catastrophe theory-based approach to modeling the stability and instability of

political structures described earlier in this paper can illustrate the phenomenon of failing and failed political states and the emergence of new state-like entities. Failing states are characterized by a failure of the government structures to provide security, protection, and an environment that supports the growth of a wide range of societal processes and the catastrophe theory-based modeling framework is used to examine the causes and effects of such failure.