## Nonlinear Sciences > Adaptation and Self-Organizing Systems

## The Non-linear Dynamics of Sociological Reflections

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Actors are embedded in networks of communication: the relations of the actors can be represented as the rows of a matrix, while the column vectors represent their communications. The two systems are structurally coupled in the co-variation: each action can be considered as a communication with reference to the network. Co-variation among systems if repeated over time, may lead to co-evolution. Conditions for stabilization of higher-order systems are specifiable: segmentation, stratification, reflection, differentiation, and self-organization can be distinguished in terms of developmental stages of increasingly complex networks. The sociological theory of communication occupies a central position for the clarification of the possibility of a general theory of communication, since it confronts us with the limits of reflexivity in human understanding and reflexive discourse. The implications for modelling the relations among incommensurable discourses (e.g., paradigms) are elaborated.

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