

Czesław Mesjasz
Cracow University of Economics
Cracow, Poland
mesjaszc@uek.krakow.pl

Common knowledge, ignorance and reduction of complexity of conflicts

(Abstract for Satellite Symposium “Complexity of Conflicts and Crime, CCS’2018)

Complexity of social phenomena together with development of behavioral and cognitive sciences at the same time demand and allow for extending traditional approaches to social conflicts. There are two basic directions of extending and deepening the studies of conflicts. Both of them are associated with broadly defined complexity. The first one is focused upon increasing complexity of conflicts resulting from non-cognitive factors, i.e. number of participants, number of issues, their interactions, emerging phenomena in the context of conflicts and in the conflicts themselves depicted with “hard”, operationable characteristics. The second area of complexity is associated with cognitive factors of conflicts, which are deriving from a deeper understanding of complexity of such concepts as information and knowledge. This kind of research is called knowledge representation and reasoning about knowledge and in addition to a deepened analysis of logic of reasoning about knowledge, it goes as deeply as to the challenges of computational complexity of properties of knowledge. When common knowledge is taken into account in conflicts, and as in any human interactions it is extended to reasoning about reasoning of the others and about their reasoning about me/us.....till infinity.

Those two kinds of complexity concern conflicts at all levels of societal hierarchy and their applications in the studies of two-actor conflicts can deliver valuable theoretical insights and practical recommendations. The present study is focused upon the second area of complexity of conflicts although, wherever necessary, the first type of complexity is considered.

Formulating hypotheses in a classical sense is not always possible in a conceptual survey paper. Instead, a number of conjectures may be proposed. The main conjecture: Under the present status of increasing complexity of social phenomena it is necessary to develop methods of modelling of cognitive processes in conflicts between individuals as well as collectivities treated as unique actors. The following supporting conjectures may be proposed:

First, complexity of modern social systems and especially the information overabundance, awareness of the role of self-reflexivity and of limitations of understanding of knowledge and information create conditions for deeper studies of cognitive processes in conflicts. Second, development of constructivism, especially in its “moderate”, more universal form together with double hermeneutics, and results deriving from cognitive science make possible a deeper understanding the cognitive processes in conflicts. Third, deepened analysis of cognitive processes in conflicts occurring in modern society can be performed with the use of the concept of common knowledge, with awareness of variety of its interpretations. Fourth, the changes in modern social systems together with development of studies of society and individuals contribute to necessity of considering not only knowledge and information in conflicts but also ignorance. Fifth, including ignorance into the discourse on common knowledge in studying conflicts would allow for their deeper understanding and for more efficient conflict management. Thus, the main novelty of the paper is to include ignorance into the reasoning about reasoning by the others in conflicts. Sixth, due to its properties ignorance can be studied only at two levels. I know that I do not know, I do not know that I do not know. The latter situation brings about the question: “Why I do not know that I do not know? The proposal of considering ignorance in the applications of the concept of common knowledge is treated as an introduction both to deepened formal studies and to simplifying approaches. At the same time it is built upon already presented formal models of common knowledge, reasoning about reasoning about knowledge and formal reasoning about ignorance.