

Philosophy of Collaboration and the Collaborative Hierarchies

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In Polterovich (2015, 2018a), there was proposed a concept of evolution of the three main mechanisms of coordination - competition, power and collaboration. According to this concept (named the philosophy of collaboration) in the New and Modern times in the Western world, the interaction of cultural and institutional factors, technological progress and the level of welfare leads to a reduction in the role of power and competition through an increased role of collaboration. The question arises as to the limits of this process. Will the first two mechanisms be finally replaced by the third one, or are there fundamental constraints to this trend? This paper attempts to advance the understanding of this issue. More specifically, we consider whether the need to establish governance hierarchies is an insurmountable obstacle to significantly strengthening the role of collaboration.

The most important difference between the three coordination mechanisms is the nature and extent of the use of coercive instruments. The total transaction costs - the sum of the costs of those who are subjected to coercion and the social costs of maintaining the apparatus of violence - depend on the level of coercion. Non-coercive power as well as competition, in which losers do not bear the losses, both are naturally considered as variants of collaboration. We mean that this is positive collaboration - not directed against third parties. Thus, the question is as follows: "Are effective governance hierarchies not based on coercion possible?"

The trend towards a greater role for collaboration has been reinforced by the development of digital technologies. In countries with a high level of civil culture, the digital revolution leads to further strengthening of generalized trust, development of tolerance, altruism and cosmopolitanism, and extension of individual planning horizon (Polterovich, 2018b). This decreases the likelihood of free rider problem, which is the main obstacle to the formation of effective mechanisms for positive collaboration. Digital revolution contributes to the growth of human capital, expand opportunities for obtaining and processing information, and improve decision-making procedures that take into account the interests of participants. These changes are expected to reduce the role of coercion and thus the transaction costs of collaboration compared to those of competition and power mechanisms.

Peer-to-peer (P2P) collaboration mechanisms are now widespread, with all agents having the same rights and obligations. These include communication systems and social networks; mechanisms for collaborative consumption - carsharing, peer-to-peer accommodation, couchsurfing (Botsman and Rogers, 2011); decentralized financial systems (blockchain, etc.); scientific collaboration systems. In this regard, some authors, reviving the ideas of anarchism,

speak of a "third way" of production organization, different from capitalism and communism (Bauwens, 2005).

However, when managing large multifunctional systems, the hierarchical structure has significant advantages.

Compared to peer-to-peer mechanisms, hierarchy provides a more differentiated and, therefore, more complete use of agents' capabilities, their qualifications, and ability to make decisions. Specialization allows the agent to limit himself to only a small part of the information, which is necessary for the implementation of his role in the hierarchy, and this leads to faster decision-making, which is especially important in stressful situations.

We call hierarchically organized mechanisms of collaboration as collaborative hierarchies (see also Antony et al., 2018; Tenbengel, 2005).

Such mechanisms may turn out to be unstable. Inequalities in positions pose a risk of creating egoistic, rent-seeking elite. In this case, discontent at the lower levels of the hierarchy arises inevitably, leading to opportunistic behavior of the governed. The conflict forces the elite to use some form of coercion, and collaboration degenerates into a mechanism of power.

There are, however, a number of factors that contribute to the stability of collaborative hierarchies. The high level of civic culture, mutual trust, tolerance, and altruism of participants sharply reduce the likelihood of rent-extracting behavior. A high place in the hierarchy turns out to be attractive because it makes a possibility to contribute more to the "common cause" but not because it provides a higher level of personal welfare or power over colleagues. The role of cultural factors is reinforced and strengthened by positive feedback arose due to selection of leaders based on their level of collaborativeness (Antony et al., 2018).

Stability of collaborative hierarchies is also achieved due to a number of formal organizational principles used in the decision-making procedure. These include frequent changes of focal points (e.g. the UN Security Council President is replaced monthly), the consensus rule (by which the most important decisions of the European Council are taken), and the integration of peer-to-peer mechanisms for monitoring managers into the hierarchy.

We analyze examples of stable and unstable collaborative hierarchies in the digital world; in particular, we consider collaborative platforms - two-tier hierarchies in which the coordinator or platform owner establishes rules for interaction between participants (Ansell, Gash, 2018).

Besides, we propose and discuss the hypothesis that the formation of mixed collaborative structures combining features of collaborative hierarchies and peer-to-peer mechanisms is a promising option for the development of consensual political systems (according to Lijphart); this option could become a constructive response to the crisis of modern democracy.

Литература

Antonioni A., M. Pereda, K. A. Cronin, M. Tomassini, A. Sánchez (2018). Collaborative hierarchy maintains collaboration in asymmetric games. *Scientific reports*. <https://www.nature.com/articles/s41598-018-23681-z>

Ansell Ch., Gash A. (2018). Collaborative Platforms as a Governance Strategy. *Journal of Public Administration Research and Theory*. Volume 28, Issue 1, 16-32.

Bauwens, M. 2005. The political economy of peer production. <http://www.ctheory.net/articles.aspx?id=499>

Botsman R., Rogers R. (2011). *What's mine is yours*. New York, NY: Collins.

Polterovich V. M. (2015). From social liberalism towards the philosophy of collaboration. *Obshchestvennye Nauki I Sovremennost*, 4, 41–64 (In Russian).

Polterovich V. (2018a). Towards a general theory of social and economic development: Evolution of coordination mechanisms. *Russian Journal of Economics*, Vol. 4, Issue 4, 346-385.

Polterovich V. M. (2018b). Internet, civic culture and the evolution of coordination mechanisms. *Herald of CEMI*. 2018. Issue 1 (In Russian).

Tenbense T. (2005). Multiple Modes of Governance: Disentangling the Alternatives to Hierarchies and Markets. *Public Management Review* · Vol. 7 Issue 2 , 267 – 288.