

The Problem of Scale

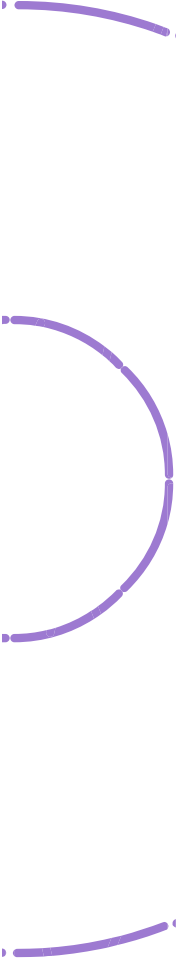
by **Bassem Saad**

An epistemological position espoused by contemporary left-wing and socialist theorists, in response to the neoliberal problematization of planning, argues that if during the time of the Soviet Union there wasn't enough computational power to access the necessary information for a planned economy to be successful, there just might be enough computational power to do so at the moment or in the near future. This has been referred to as the calculation problem, which we may or may not have enough silicon to resolve. The direct heirs of scientific socialism maintain that the currently-existing logistics systems of mega-platforms, such as Amazon or Google, might be repurposed to solve the

calculation problem, giving central planners in a socialist future the ability to calculate the quantities of goods being produced, circulated, and consumed.¹ Any argument about a newfound possibility of technology to solve the calculation problem is positivist-evolutionary, and may rightly be considered technologically deterministic. It assumes that a certain threshold of technological advancement is a prerequisite for the restructuring of the totality of socio-economic relations.

Also latent among these views is a conflation between questions of epistemology and knowledge on the one hand, and questions of control and government of persons on the other.² Understanding the input and output variables of an economy does not equate to having the ability to control or change said variables. Additionally, enforcing centralized control in a planned economy would still necessitate the forceful management of labor-power, that is the mass surveillance, firing, and hiring of the workers responsible for that labor-power.

Thinkers of decentralized planning who profess autonomist inclinations, such as the Italian mathematical physicist Matilde Marcolli and the American writer Jasper Bernes, are not so keen on this prospect of an authoritarian distribution of workers among productive sectors, one that operates independently of workers' own professed desires and voluntary associations. Yet they agree that reckoning with problems of scale will



necessitate computational forms of optimization that are not based on profit. Here, the distributed decision support system commissioned by the Allende government in 1971 and designed by the British cybernetician Stafford Beer, Cybersyn, is often invoked as a past future foreclosed too soon. Cybersyn aimed to grant maximum autonomy to worker-owned factories while minimizing centralized control. Along with OGAS, the unrealized Soviet network, Cybersyn anticipated the arrival of the internet, not in the service of atomized consumption, but towards large-scale decentralized planning sourced from bottom-up inputs.

Drawing on both Cybersyn and OGAS, Marcolli grapples with the problem of scale in decentral planning by conceiving of two types of instruments to connect between individual cooperatives, defined as nodes of a decentral network. Instruments of connectivity, such as P2P networks and public transportation, increase the degree of causal influence between nodes. While instruments of complexity, such as cultural products that are not generated by market dynamics, increase the effective complexity of a network.³ In this vein, the decentral speculator-planner may forge ahead not by imagining mega-structural systems run solely by socialist government, but by thoroughly considering the bridges, exchanges, and causal connections between currently existing cooperatives and interest groups.

1. William Paul Cockshott and Allin Cottrell, *Towards a New Socialism* (Nottingham, UK: Spokesman, 1993).

2. J. Bernes, "Planning and Anarchy", *South Atlantic Quarterly* 119, no.1 (2020): 53-73. doi:10.1215/00382876-8007653.

3. A. Apolito, "The Problem of Scale in Anarchism and The Case for Cybernetic Communism" (2020).