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Editorial introduction to 'Collectivist planning' by Michael Polanyi (1940)

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Michael Polanyi

COLLECTIVIST PLANNING (1940)

ABSTRACT

After an esteemed academic career as a chemist, Michael Polanyi switched to the social sciences and made significant contributions to our understanding of the nature and role of knowledge in society. Polanyi's argument concerning knowledge led him to emphasise the vital importance of decentralized mechanisms of adjustment and coordination, including markets. His article on 'Collectivist Planning' (1940) enters into debates about the possibility (or otherwise) of centrally planning scientific and economic activity. This early article also foreshadows post-war debates within the Mont Pèlerin Society (formed in 1947) concerning the economic role of the state and the future of liberalism.

EDITORIAL INTRODUCTION

1. Polanyi's life and career

Michael Polanyi was born in Budapest in Hungary in 1891. He died in Northampton, England in 1976. He was the fifth child of Jewish parents. One of his older brothers was Karl Polanyi, the author of *The Great Transformation* (1944).

The two brothers have had major impacts on twentieth century thought. But while Karl's work is often celebrated by social scientists,¹ Michael's has received less attention. An accomplished physical chemist, Michael also made contributions to economics and to the philosophy of science. As Mary Jo Nye (2011, p. xviii) noted: 'Karl's stress on the role of institutions in economic systems eventually found an echo in Michael's work on the social dimensions of science.' In addition, Michael made contributions to the economic analysis of socialism, Keynesian economics and liberal political theory.

At first, Michael studied to be a physician. He then obtained a scholarship to study chemistry at the Technische Hochschule in Karlsruhe, Germany. During the First World War, he served in the Austro-Hungarian army as a medical officer. While on sick leave in 1916, he

¹ See Dale (2010) and Block and Somers (2014) for useful discussions of K. Polanyi and his work. For a critical analysis of Polanyi's conceptual framework see Hodgson (2017).

wrote a PhD thesis on adsorption. His research was encouraged by Albert Einstein. In 1919 he received a doctorate from the University of Budapest.

His other wide-ranging research included chemical kinetics, x-ray diffraction, and adsorption of gases. He pioneered the theory of fibre diffraction analysis in 1921. In 1926 he became a chemistry professor at the Kaiser Wilhelm Institute in Berlin.

He became interested in how sciences worked as systems of social institutions. In an interview with Thomas Kuhn in early 1962, Polanyi recollected how his theory of absorption had been dismissed by Einstein in the 1920s because it did not fit with the new electron-valence theories developed by Irving Langmuir and others. As late as 1932 Polanyi was still giving lectures showing that the evidence was consistent with his own theory. But these claims were largely ignored. In the same year, Langmuir received the Nobel Prize for Chemistry for his rival theory of absorption.

Without any apparent bitterness, Polanyi explained to Kuhn that consensus as well as diversity were necessary for science. Such a degree of agreement and authority were prerequisites of intensive, probing specialization and cumulative advance (Nye 2011, pp. 109-111). Polanyi's insight dovetailed with Thomas Kuhn's (1962) famous account of 'normal science' and 'scientific revolutions', but Polanyi gave greater emphasis to science as a system of institutionalised practices. While fully accepting the importance of theoretical diversity for innovation in science, Polanyi also stressed the essential roles of institutional power, authority and consensus.²

Polanyi's interest in science as a social system coincided with a widening curiosity about social science and philosophy. His engagement with economics was further stimulated by his visits to the Soviet Union in the 1930s. He was invited there as an accomplished chemist. He observed at first hand the difficulties inherent in planning large-scale complex economies from the centre.

On one Soviet visit he met Nicolai Bukharin, who proposed that just as the economy was directed from the centre, science in the Soviet Union should also be centrally planned. As well as his criticisms of central planning of the economy, Polanyi argued that the central planning of science would be ineffective and counterproductive. His response drew on his developing view of how science worked through social institutions.

Escaping from Nazism, Polanyi took up a chair in chemistry in 1933 at the University of Manchester in England. In 1948 he grasped an opportunity to exchange his chair in chemistry for a Professorship in Social Studies at the same university. By then he had published several papers in economics and a small book outlining Keynesian arguments (Polanyi 1941, 1944, 1945, 1948).

He had also been noted for his criticism of central planning. For example, he had taken criticised Sidney and Beatrice Webb for their favourable account of the Soviet planning system (Webb and Webb 1935; Polanyi 1940, pp. 96 ff.). In 1951 Polanyi accepted the offer of a chair in social philosophy at the University of Chicago, but he was unable to take up the position because he was denied a visa.

² A similar argument on the trade-off between pluralism and consensus in science is made by Kitcher (1993), but with only one passing reference to Polanyi in the entire book. The insights of Kitcher and Polanyi on the tension between pluralism and consensus are applied to heterodox economics in Hodgson (2019c).

Polanyi remained in the UK and was involved in debates concerning science policy. Leading British socialists argued that governments should plan scientific activity (Nye 2011, ch. 6). Polanyi developed a sophisticated understanding of the nature and role of knowledge and the importance of devolved adjustments within large-scale polycentric systems. He stressed the complexity of large-scale decision-making and the cognitive limits of the human brain. He also developed the crucial concept of tacit knowledge (Polanyi 1962a, 1962b, 1967).

2. Polanyi, Hayek and the Mont Pèlerin Society

Karl Polanyi was a classical socialist. Sceptical of markets and private property, he believed in common ownership (Dale 2010). By contrast, Michael was a liberal, believing that private property and markets were part of the economic foundation of a free society.

In the 1920s and 1930s, liberalism was squeezed on two global fronts. On one side there was the Soviet Union and its supporters, with a rising popularity for socialist ideas. On the other side there was insurgent fascism in Italy, Germany, Spain, Japan and elsewhere. The Allied victory in the Second World War in 1945 marked a major defeat for fascism. But liberalism was still threatened by expanding support for Communist and Socialist Parties throughout Europe, the installation of Soviet-style regimes in Eastern Europe from 1948 and the victory of Mao's Communist Party in China in 1949.

The Mont Pèlerin Society first met in 1947 in the Swiss resort of that name. Its founding mission was to defend and promote liberalism. Organised by Friedrich Hayek, it brought together a broad spectrum of liberal opinion. The Austrian economists Hayek and Ludwig von Mises were joined by Chicago economists such as Frank Knight, Milton Friedman and George Stigler. There were also representatives of what is now called German ordoliberalism, as developed by Franz Böhm, Walter Eucken, Wilhelm Röpke and Alexander Rüstow. Ordoliberalism considered the state structures and policies that are necessary to sustain a just and effective market economy (Vatiero 2010). Other Mont Pèlerin founders included Karl Popper and Michael Polanyi. Overall, they encompassed a diversity of views, including on central questions such as the meaning of liberty and the economic role of the state.³

Polanyi communicated extensively with Hayek. During the 'socialist calculation debate' in the 1920s and 1930s, Mises and Hayek had argued that a planned economy could not establish meaningful prices, thus thwarting well-grounded resource allocation decisions by the centre. They pointed out that much knowledge was irretrievably dispersed throughout the economy and it could not all be gathered together by the central planners. Polanyi enhanced and added to these arguments.⁴

While Hayek had emphasised the importance of dispersed and context-dependent knowledge, he did not use the term 'tacit knowledge' until later (Oğuz 2010). It is difficult to be sure who used the term first, but Polanyi emphasised it from the 1950s and headlined it

³ This initial internal diversity is underestimated in Mirowski and Plehwe (2009) but given due emphasis in Burgin (2012).

⁴ On the socialist calculation debate see, for example, Vaughn (1980), Lavoie (1985), Steele (1992). On M. Polanyi's contribution to this discussion see Hodgson (2019b). See also the earlier arguments on the unfeasibility of democratic socialism by Albert Schäffle (1870, 1892, 1908; Hodgson 2007).

in the 1960s (Polanyi 1962b, 1967). The extent of irretrievable tacit knowledge undermines the possibility of comprehensive and effective central economic planning. Tacit knowledge makes substantial decentralized coordination unavoidable. Hayek made use of Polanyi's insights in this area.

In both scientific disciplines and economic systems, local adjustment mechanisms are vital to deal with problems with fragmented and dispersed knowledge. As Polanyi (1962a, pp. 57, 60) put it, knowledge and competent judgment are 'not held by any single human mind' but, being 'split into thousands of fragments'. In scientific institutions, knowledge is 'held by a multitude of individuals, each of whom endorses the other's opinion at second hand, by relying on the consensual chains which link him to all the others through a sequence of overlapping neighbourhoods.' In markets, 'coordination by mutual adjustment' relies to a greater degree on price signals.

Polanyi (1948) used the term 'spontaneous order' before Hayek, although earlier precedents stretch back to John Stuart Mill and others (Jacobs 2000; Bladel 2005; D'Amico 2015; Jacobs and Mullins 2016). Polanyi was influenced by related phenomena in chemistry and physics. For example, Franz Serafin Exner gave a lecture in Vienna in 1908 where he argued that Boltzmann's kinetic theory of gases showed that order could arise out of the unplanned interaction of individual molecules (Nye 2011, p. 145).

3. Polanyi's path from Mont Pèlerin

Unlike Hayek and others, Polanyi advocated Keynesian macroeconomic policies in a market economy, alongside a substantial redistribution of income and wealth. Socialist doctrine had diverted attention from developing a better capitalism. As Polanyi (1945, p. 146) put it: 'the equalisation of incomes and the curtailment of inheritance might have gone further but for the fact that progressive thought was misdirected for some time past toward the idea of nationalisation and took little interest in reforms under capitalism'. Polanyi also rejected a universal reliance on market solutions, seeing it as a mirror image of the socialist panacea of planning and public ownership. In the essay reprinted below, Polanyi (1940, p. 57-58) attacked 'crude Liberalism':

For a Liberalism which believes in preserving every evil consequence of free trading, and objects in principle to every sort of State enterprise, is contrary to the very principles of civilization. ... The protection given to barbarous anarchy in the illusion of vindicating freedom, as demanded by the doctrine of *laissez faire*, has been most effective in bringing contempt on the name of freedom ...

Polanyi objected to the definition of liberty – promoted by Mises, Hayek and Friedman among others – as the absence of coercion. Instead, Polanyi saw liberty more positively as involving the conditions for individual fulfilment. He developed the concept of *public liberty* to refer to these social conditions that were necessary to sustain individual freedom. As R. T. Allen (1998, p. 154) put it: 'Polanyi's liberalism is primarily one of institutions, spontaneously formed and functioning, in which individuals together work out the implications of the principles which these institutions embody and serve.'⁵

⁵ See M. Polanyi (1951), Mirowski (1998), Burgin (2012, p. 116), Jacobs and Mullins (2016).

In its early years, the Mont Pèlerin Society hosted wide-ranging debates on the possible role of the state in promoting welfare, on financial stability, on economic justice, and on the moral limits to markets. Like Polanyi, Röpke and other ordoliberalists argued that the state was necessary to sustain the institutional infrastructure of a market economy. The state should serve as a rule-maker, enforcer of competition, and provider of basic social security. While they received a more sympathy from Hayek, Ludwig Mises regarded Röpke's views as 'outright interventionist'. Mises became so frustrated with these arguments in favour of a major role for the state that he stormed out of one Mont Pèlerin Society meeting shouting: 'You're all a bunch of socialists.'⁶

Polanyi had drifted away from the Mont Pèlerin Society by 1955. He criticized its inadequate solutions to the problems of unemployment and economic inequality and its narrow view of liberty as the absence of coercion.

Angus Burgin's (2012) history of the Mont Pèlerin Society shows how its early period of relative inclusivity was followed by schisms, departures, and a narrowing of opinion. Eventually the primary locus of the Society shifted to the US, with greatly increased corporate funding under the rising intellectual leadership of Milton Friedman and the Chicago school.

Hence the Mont Pèlerin Society evolved from a broad liberal forum to an organisation that promoted a narrow version of liberalism that emphasised individual self-interest and advanced a minimal role for the state. Despite their claims to the contrary, their views were unrepresentative of even classical liberals (Rosenblatt 2018).

4. The place of Polanyi's 1940 essay in the evolution of his thought

Written shortly after the outbreak of the Second World War, Polanyi's 1940 essay is a critique of collectivist planning, of science as well as of economic systems. It was originally published as a chapter in a book (Polanyi 1940, ch. 2). In this contribution he repeated warnings by others – as later and famously by Hayek (1944) – concerning the institutional concentration of political will and economic power required by collective planning. Inevitably it delivers results that are below expectations, leading in turn to the suppression of dissent and the totalitarian control of civil society.

Using the example of an army, Polanyi pointed to the complexity of large-scale organisation. Problems with administrative coordination or planning of complex organisations were raised by Hayek and others, but Polanyi gave them more detailed attention, citing arguments taken from management and administrative science.

Polanyi adopted the concept of 'span of control' from administrative science. He cited researchers who claimed that number of subordinates that can be effectively supervised by a superior is about five.⁷ In a later work, Polanyi (1948) placed the organization in a dynamic

⁶ M. Polanyi (1940, pp. 35 ff.), Röpke (1960), Burgin (2012, pp. 80-86). The Mises remarks are reported in Burgin (2012, pp. 84, 121).

⁷ M. Polanyi (1940, p. 31 n.) cited a foundational paper by Graicunas in Gulick and Urwick (1937). After Polanyi (1948) expanded the 'span of control' argument, Mackenzie (1978) and Jaques (1988) addressed the same issue in management. Polanyi's general emphasis on cognitive limitations is redolent of the work on bounded rationality by Simon (1947, 1957). Relatedly, Dunbar (1993, 2010, 2011) suggested a cognitive limit to the

context, subject to exogenous shocks or internal changes. These require behavioural adjustment within the system. Communication within the organization concerning its best response is limited by its hierarchical structure. Markets, by contrast, permit more dynamic adjustment.

Notably, in this article, Polanyi does not characterise the fundamental choice as between collectivist planning and markets. Instead it is in part between collective planning and 'supervision'. Instead of trying to plan everything from the centre, 'regulative or supervisory authority ... presupposes human activities which are initiated from a great multitude of centres, and it aims at regulating these manifold impulses in conformity with their inherent purpose. It achieves this by making generally available social machinery and other regulated opportunities for independent action, and by letting all the individual agents interact through a medium of freely circulating ideas and information' (Polanyi 1940, p. 32).

For Polanyi, markets are a special case of supervisory authority, based on the use of legal contracts and explicit prices. But he also suggested that markets require some supervisory or regulatory authority. As Polanyi (1940, p. 50) wrote: 'The State supervises commerce by controlling the standard forms of contracts through which it operates and by supporting the organization of markets which offer scope for public competition.' Polanyi was emphatic about the necessary role of the state in any market economy. On this he went even further than the ordoliberals, by advocating Keynesian state intervention as well as supervision of the institutional structure of the market system.

Science systems also involve the use of supervisory or regulatory authority, but prices and contracts are less prominent. Polanyi argued in his 1940 essay that science involves a great mass of specialised and contextualised knowledge, which cannot be adequately understood or amassed by a central planning authority. In later works Polanyi (1958, 1962a, 1967) expanded greatly on this insight. He argued that science operates as an unplanned order, through mutual adjustment of devolved authorities.⁸

Toward the end of the 1940 essay, Polanyi prefigured his disputes with Hayek and others in the Mont Pèlerin Society in 1947-57. Polanyi (1940, p. 59) wrote:

The orthodox Liberals maintain that, if the market is limited by the fixation of some of its elements, then it must cease to function, the implication being that there exists a logical system of complete *laissez faire*, the only rational alternative to which is collectivism. That is precisely the position which collectivists want us to take up when asserting that none of the evils of the market can be alleviated except by destroying the whole institution root and branch.

Accordingly, Polanyi rejected the notion that 'the alternative to the planning of cultural and economic life is not some inconceivable system of absolute *laissez faire* in which the State is supposed to wither away'. Instead, 'the alternative is freedom under law and custom as laid

number of people with whom one can maintain close and stable social relationships. This is larger than the span of control, constituting a finite cognitive limit – of about 150 – to the number close human interactions.

⁸ In an email to G. Hodgson in April 2018, János Kornai suggested the term 'decentralized coordination mechanism' to express the Polanyi-like idea of some general ontological commonality between markets, science systems and other devolved arrangements.

down, and amended when necessary, by the State and public opinion.’ Polanyi thus rejected the idea that market economies can work without substantial state interference.⁹

Polanyi’s 1940 essay gave a foretaste of ideas that he was going to develop much more fully in his later work. By necessity, both science and modern economies are decentralized coordination systems operating by mutual adjustment by devolved agents.¹⁰ This commonality does not negate the important differences between varied decentralised coordination mechanisms. In particular, science is not a market (Hodgson 2019a) – it relies more on reputational than pecuniary motives. Both the communalities and the differences are important. The general ontology of such knowledge systems has been relatively neglected. The topic cries out for further exploration. The work of Polanyi (1940, 1941, 1945, 1948, 1951, 1957, 1958, 1962a, 1962b, 1967, 1997) in this area is a major resource for this venture.

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⁹ Strikingly, his brother Karl echoed the minimal-state liberals by claiming that ‘the most startling peculiarity of the [market] system lies in the fact that, once it is established, it must be allowed to function without outside interference.’ Again, without supporting argument, he asserted further: ‘A market economy is an economic system controlled, regulated, and directed by markets alone.’ This implies a lack of political interference or regulation (K. Polanyi 1944, pp. 41, 68). But in places he seemed to contradict this by suggesting that a pure self-regulating market system cannot endure. Hodgson (2015) argued that the state historically and necessarily has played a central role in the development of capitalism.

¹⁰ In Polanyi’s (1940) text, reprinted in its entirety below, numbers in square brackets were added by the editors to indicate the beginning of a page in the original. All footnotes are in the original text.

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Michael Polanyi

COLLECTIVIST PLANNING (1940)

The whole of society will have become a single office and a single factory with equality of work and equality of pay. ... we have a right to say with the fullest confidence that the expropriation of the capitalists will inevitably result in an enormous development of the productive forces of human society. Lenin, *State and Revolution* (1917).

When I say we are stopping the economic retreat I do not want to suggest that I have for a moment forgotten the hellishly difficult conditions in which we find ourselves. Lenin, *Report of the Central Committee* (March 1922).

The great collectivist powers have established themselves by revolutionary forces, which, thrusting aside the claims of individualist liberties as ignoble and unintelligent rudiments of the past, heralded in an era of ruthless efficiency. In Russia the spearhead of the thrust was the demand for social justice, in Italy and Germany it was the demand for national power; but the difference was only one of emphasis, the result being a nationalist Socialism on the one hand, and a socialist Nationalism on the other. In either case a State was established which, in principle, assumes the complete responsibility for the culture and welfare of its citizens. This is totalitarianism; a regime absorbing the whole life of the people, who live by it and live for it entirely.

Many reject such predominance of the State yet admire the efficiency of collectivist methods. The idea of planning the whole cultural and economic life of a country from one centre has a profound appeal for the contemporary mind; it fascinates above all the intelligent, the energetic, the forward looking [28] minds, and makes them contemptuous of traditional individualist liberty.

Planning as opposed to aimless drifting is the natural inclination of a purposeful scientifically trained mind. Modern engineering is an inspiration to grandiose planning. The cutting of the great artificial waterways, the construction of modern dams and power stations, the erection of skyscrapers, the building of huge liners – these are the examples which fashion the engineers' approach to society. Here are great works achieved by forethought; a clear aim, a social good being recognized, a plan is conceived to attain it and an authority invested with the powers to carry it out. Why not deal in this way with society as a whole? The organization of production in modern factories also affords stirring examples of planned action. Hundreds of working phases must fit together with clockwork precision to result in a modern locomotive. The whole process is planned in every detail by hundreds of separate workshop drawings. No wonder that the energetic man of the factory manager type will think of social reform on similar lines.

Comprehensive, provident action appeals also to moral feelings. Both the unselfish servant of a great enterprise and the leader resolutely imposing his authority for the sake of the public good are dedicated to noble forms of action. A unified purpose, which lifts the whole State to a higher plane, gives comfort to the individual who puts his trust in it, and diffuses widely a sense of public duty. These moral values are prominent in war-time, in

particular in modern war, with its complete regimentation of whole peoples, and accordingly war and war [29] preparation have been a constant source of inspiration for collectivism.

The military spirit is prevalent in the Fascist forms of collectivist planning; the Socialist form represented by Soviet planning has a more civilian outlook, being mainly influenced by American ideas of extreme mechanization and of large-scale construction and management. But technical enthusiasm, as represented by Futurism, also plays a part in Fascism; and on the other hand Lenin regarded the measures of rationing, commandeering, and industrial conscription taken in the World of 1914-18 as pointers to Communism.¹ The Five Years' Plans have at all times been guided by military exigencies, to no less an extent than Germany's and Italy's economic regime.

The more explicit and more extreme forms of planning are professed by Socialism, as represented by the Soviet Union. Their Five Years' Plans, in which every single branch of production is given its task by the central directing authority, have created a profound impression on our age, and are largely responsible for the popularity of planning in the western countries. Less well known perhaps are the efforts made in Soviet Russia to plan cultural life and in particular the progress of Science. But these also are highly significant, as representing the fundamental claim of the Collectivist State to dominate all mental efforts for its own purposes. These claims have been widely reaffirmed and [30] expounded in the West by Marxist scientists of eminent standing.

In this essay I will first try to lay bare the exact meaning of planning, as demonstrated by such obvious cases, as, for example, the planning of a military action. This analysis should show that planning is not the only method of ordering human affairs, and that the alternative method is Supervision, which is almost the opposite of planning, in that it ultimately relies on a multitude of individual initiatives which planning would subordinate to a central will. We will then observe the course of some attempts at collectivist cultural and economic planning, and will see how the authorities, after having failed in this direction, turn to the establishment of general oppressive supervision of people's lives – from which only a Liberal revolution can set them free again.

Military Examples of Planning

The largest organization directed to a single purpose, and firmly controlling all its members, has at all times been the army. When at war the State fights for its existence, and for this purpose it mobilizes the full power of its population. But the distribution of arms alone bestows but little military power on a people. An unorganized swarm of men advances blindly wherever it finds no resistance, or else where it succeeds in overcoming it; such an army is an easy prey to a skilfully operating opponent, who, by creating diversions, disperses its masses and destroys its disjointed parts, one after the other.

The power of an army, arising from its organization, lies in its capacity for planned manoeuvres. [31] These are operations, executed at the orders of one man, the Commander-in-Chief, in which the various parts of the army are purposefully co-ordinated.

¹ 'We have received the means and weapons from the capitalist State at war – the grain monopoly, the bread cards, and the universal labour service.' Lenin, *Can the Bolsheviks Retain State Power?* October, 1917 (*Selected Works*, Vol. 6, p. 269).

The first precondition of manoeuvring an army is, therefore, a division into parts, each under a separate subordinate commander, each of which can move independently of the others, at the directions of the C.-in-C.. A manoeuvre is the conjunction of such movements. In principle, then, the larger the number of sections into which the army is divided, the greater the complexity of the manoeuvres of which it is capable. But actually this advantage cannot be increased indefinitely, because a complexity, which is too great to be comprehended by one man, cannot be utilized by its Commander; and an organization which tends towards such complexity will only cause confusion. The number of subdivisions which is found to reach the limit of the span controllable by one man is about five;² in what follows we will use this number for the sake of illustration.

An army, then, of say half a million men, divided into five army corps, marches on the enemy. Each corps is given its programme by the supreme commander; it fulfils a certain function in a movement conceived as a whole. Operations will, in general, try to fix the enemy at an awkward point, then to engage him fully where he is least prepared for it, and finally to throw in all reserves as a last hammer--blow against a vital position. All these movements are consistently planned and replanned – that is, [32] directed and co-ordinated – at every stage by the C.-in-C. The five corps form a joint instrument at his command, like the five fingers of a hand; their joint movements, precisely timed and placed, must fit together according to his intentions; these movements, quite meaningless in themselves, may gain in this conjunction the supreme power which military genius can impart to an army.

We see here the essence of comprehensive planning. A situation in which hundreds of thousands of men participate is reflected in the mind of one man, the leader, in a few bold outlines. If he is the right man the picture thus drawn will fully comprise the essence of the available military data, their complete joint significance. Based on this general aspect of the situation the leader conceives his plan, again in general outline only; and from stage to stage, as the campaign develops, he redraws his plans in similar terms, always preserving a general perspective.

It is the same in all kinds of planning; whether it is the planning of a house, of a machine, of a town, or even of a work of art; the simple terms of one general idea which can be conceived and handled by one man dominate a mass of details; the general idea is the plan, the details follow from it as its execution.

In the case which we are considering these details are filled in by the five corps commanders, in execution of the several programmes assigned to them by the chief. Each of these undertakes to solve, in accordance with prevailing circumstances, the definite task committed to him. The solution is issued by them in the form of sub-tasks to the divisions contained in the army corps; there will be four or five divisions to a corps. The division commanders reformulate the [33] sub-tasks assigned to them, in terms of tasks of the third order which they give to subordinate brigades. And thus the tasks go on branching out further, right down to the platoon and the private in the line. No stage adds anything to the original plan as conceived by the one man at the top, every further and further detail fits in

² For 'Span of Control' in administration see Graicunas in *Papers on the Science of Administration*, edited by Luther Gulick and L. Urwick, Columbia University, 1937.

to it, and has significance only as its execution; the plan does not change by being put into effect.

The chief directs his five army corps as wholes, not interfering with the way in which their commanders execute the tasks assigned to them in his plan; such interference would be beyond his capacities, since his full span of mental control is engaged already by the co-ordination of the five units as wholes. And as the plan branches out vertically in the course of its execution each commander in his turn sees below him only his four or five immediate subordinates, and their sections as wholes, the internal arrangements of each sub-section being left to the subordinate commander. Hence also reports, to be relevant to the superiors, must relegate internal affairs of the reporting unit to the background, emphasizing only its position as a whole. As reports are handed on upwards a summary is made at each stage, sieving out all that is irrelevant in this sense, so that finally the supreme chief receives only five brief reports from which he forms his comprehensive view of the military situation.

No authority can co-ordinate the movements of its subordinates, unless they obey its orders; discipline, therefore, is essential to planning. Some mutual contacts between equals under direction of the same command are, of course, necessary for an intelligent [34] execution of orders; but such contacts must not modify the plan which they are helping to execute.

In an organization acting according to plan there can be, therefore, only one channel for essential communications: the vertical line of authority, through which orders travel downwards and information is given upwards. To the extent to which lateral communications in the horizontal plane are permitted to affect the movement of those receiving them, planning is being relaxed; if lateral impulses become essential, planning will have ceased to take effect and the authority above, hitherto executing a plan, will change into an authority responsible for supervisory functions, as described in the next section of this essay.

We can illustrate the change over of a central power to a supervisory function in the case of military operations when, instead of freely manoeuvring troops, as described before, we consider trench warfare, with two lines of soldiers pressing against each other all along the border between warring territories. In such a battle of lines a breach made at any point in the opposing line is followed up by putting all reserves into action, first those locally available, then, as and when further successes are achieved, adding the reserves available farther and farther back, until the whole of the available forces may be absorbed by the action. Capt. Liddell Hart, describing this method of the 'expanding torrent,' remarks that its semi-automatic mechanism leaves the initiative to the lower commands, and these again leave it to their subordinates, so that the effect is an 'anonymous battle.' Marshal Foch many years before this [35] (when holding only the rank of a colonel) already noted with apprehension the possibility of future 'wars of the line' in which the supreme command would be ineffective – since, as he says, the battles would be won by the private soldiers individually.³

³ 'Anonymous battle' and 'expanding torrent' are described by Liddell Hart in *The Defence of Britain* (1939). For 'battle of the line' see Foch, *The Science of War*. Other parts of this section are based on Foch's 'unity of time and place' as the essence of manoeuvre.

Supervisory Authority

We have shown that the essence of planning is the absorption of the actions held under control by a single comprehensive scheme imposed from above. It is a co-ordination of these actions by means of vertical lines of authority which impose a specific task on each subordinate unit. As the lines of authority branch out at each successive stage of their downward course the scope of these tasks is narrowed down to an insignificant detail of the total operation. The plan is not communicated to the subordinate unit, which must not consider the general purpose in which it participates, but attend exclusively to the execution of the specific orders received. The subordinate, who is thus entirely cut off from the fundamental ideas which he is serving, is also separated from other subordinates in equal positions. Vital lines of vertical authority admit no direct horizontal contacts; two units on the same plane are connected only through the circuit of a slender thread where high up in the scale of the hierarchy there is a commander common to both.

These characteristics sharply distinguish the [36] functions of a planning authority from those of a regulative or supervisory authority, the task of which is, in fact, of an almost opposite nature. Supervision presupposes human activities which are initiated from a great multitude of centres, and it aims at regulating these manifold impulses in conformity with their inherent purpose. It achieves this by making generally available social machinery and other regulated opportunities for independent action, and by letting all the individual agents interact through a medium of freely circulating ideas and information.

It is evident that such functions of public authority can be exercised only in a Liberal society to which the cultivation of widely dispersed sources of initiative is essential and in which mental communications are open throughout the community. Public supervisory powers are in fact the vital safeguards of independent forces of initiative in society, the integrity of which they are to protect against private corruption as well as against oppression by collectivist tendencies of the State.

This is why collectivist thinkers ignore or deny the principles of supervisory authority.⁴ They can see in supervision only a veiled method of domination which the collectivist State would achieve more honestly and efficiently by the method of straightforward planning. The true scope of supervision [37] is therefore of crucial importance for the issue of social planning.

Supervision is in the first place the method by which the cultivation of things of the mind is regulated. We may see it at work – while avoiding for the moment any major issues – by observing the harmless case of the cultivation of chess. Chess organizations arrange contests, subsidize players, elucidate and codify the rules of the game, record advances in chess problems and chess moves, and generally encourage the discussion and dissemination of the theory of chess. In short, they do all in their power to provide the best opportunities for the practice and perfecting of chess-playing, but they would never think of directing the individual games of chess, which, indeed, would be a useless, if not altogether meaningless, thing to do, and would certainly not contribute to the cultivation of the game.

⁴ The cultivation of liberty under the law has been greatly clarified by Walter Lippmann in his *Good Society*. The collectivist denial of such a possibility was forcibly expressed by Lenin in *State and Revolution* (1917), approving of Engels, who ‘mercilessly ridiculed the absurdity of combining the words Freedom and State,’ and continuing: ‘While the State exists there is no freedom. When freedom exists there will be no State.’

In a Liberal society there is a wide domain of activities in which ideas are cultivated under the supervision of organizations or public authorities. Artistic pursuits, religious worship, the administration of justice, scientific research are the main manifestations of the permanent principles to the cultivation of which such a society is pledged. Supervising authorities guard the occasions and regulate the channels for these manifestations, and they keep communications free for public discussion and instruction concerning them, but must not interfere with their substance.

When, for example, legal justice is administered, the State provides the machinery of the police, of the courts and prisons, and also sanctions legal [38] procedure and lays down the law to be applied, but it rigorously guards the decisions of the courts from public influence. The courts are sole masters of their conscience and interpretations under the law which they are required to apply, and as they make their decisions, these are instantly added as amplifications, valid throughout the land, to the law from which they have just been derived.

Thus, wherever permanent principles of society are cultivated under public supervision, the authorities set up machinery and lay down rules as channels for their manifestation, leaving it to individuals, who are called upon by virtue of their special gifts, or else just as ordinary citizens, to make use of these opportunities; to write, to preach, to address meetings, to give evidence in court, or to undertake any other of the numerous tasks which offer expression to general guiding principles. It is by the devotion of men and women to these tasks that the fundamental ideas cultivated by society are continuously elucidated and advanced. Under supervision the individual action springs forth from direct communion with the social heritage, and its outcome returns directly to the same common fund. This is in complete contrast to the way in which a subordinate unit obediently follows the lead of a single vertical line of authority, which keeps it ignorant of the general plans of those in command and at the same time isolates it entirely from its fellows placed under the same authority.

A further function of supervision lies in the economic field. It represents here the method for ordering the satisfaction of individual needs in [39] accordance with personal wishes. In so far as a State consents to grant such satisfaction – and none can entirely refuse it – it recognizes yet another field in which it submits to a diversity of decisions by a multitude of individuals. This field, therefore, cannot be managed by the imposition of a governmental plan, but must, on the contrary, be cultivated by a supervisory authority which assures the individuals of suitably regulated opportunities for giving effect to their desires. Supervision in the case of individual economic desires is embodied in the machinery of commerce, operating through the market which keeps commercial ideas and information in universal circulation. This machinery will be discussed later in more detail.

Meanwhile we may sum up the position now reached. There are two alternative methods of ordering human affairs: Planning and Supervision. In an ordered society every activity which affects the community is either subordinated to an authoritative scheme or is, on the contrary, stimulated to individual manifestations under the protection of public supervision. As long as certain guiding principles – of truth, of justice, of religious faith, of decency and equity – are being cultivated, and as long as commerce is protected, the sphere of supervision will predominate and planning will be limited to isolated patches and streaks. Conversely, if comprehensive planning were to prevail, this would imply the abolition of both the cultivation of guiding principles and the pursuit of commerce, with all the liberties inherent in these forms of life. Hence collectivist revolution must aim at the destruction of

liberty, and in particular must [40] suppress the privileges under which Universities, Law Courts, Churches, and the Press are upholding their ideals, and attack the rights of individual enterprise under which trade is conducted.

This outline may be borne in mind while we pass on to describe some entanglements to which collectivist planning has led in practice. In the course of these we shall see the authorities recoiling at various points from the destruction of wealth and culture caused by their attempts at total planning, yet rallying to a general campaign of hostile supervision for the dragooning of the lives which they are unable to dominate – but dare not set free.

Planning of Science

It is usually thought that a poem or a painting, or else a scientific discovery, springs from a unique mental situation which is entirely personal, and humanity used to respect such solitary inspiration.

But collectivists do not recognize the inherent autonomy of the creative act. For example, in science they would not be content that the State should provide opportunities for research, leaving the scientist to choose his own task, but would wish to subordinate scientific research to a general plan devised by a central authority. The isolation of various discoveries, they say, is only apparent; their results are found to fit together and to produce important joint consequences. Much better, therefore, that research should be consciously co-ordinated even while discovery is in progress.

In order to consider this collectivist suggestion I will survey the main facts of scientific life as it is conducted to-day. [41]

The mental situation which produces scientific discovery is built up laboriously by the scientist through a number of years. From a general scientific education he tends at an early stage to turn towards a side which appeals to the play of his first tentative efforts. Roamings in this direction over various fields finally confirm an even more definite interest. Thus attracted, the young scientist comes in contact with the living masters of the selected branch, and may join the team of a research school. There follow years of study under, a master's guidance, and of devotion of body and soul, day and night, to patient research work. As this goes on, the young scientist may begin to feel his way to independence. He has been settling down more and more to the type of work suitable to his special gifts, and intimations of the problems around him are now taking shape in his mind. These first intimations will probably be the humus from which his whole life's work will grow. As he follows one or the other of them the fascination becomes more intense, the preoccupation more passionate, and his mental position becomes more and more unique. He now sees daily such things as no one saw before him. He has established a new line of research, which is his own personal, his own vital contact with nature. On the inherent fruitfulness of this contact, as on his own skill and unfailing vigilance, will depend the discoveries which he will henceforth make.

Discoveries, as well as minor observations, are published as soon as they are sufficiently assured to be of use to other scientists. It is the scientist's ambition to secure credit by anticipating his rivals, but he is restrained from publishing preliminary [42] speculations or results which as yet lack confirmation, because these would cause more confusion than their useful stimulus might justify. The personal intuitive feelings, which are the most valuable

element of the creative situation, cannot be appreciated by anyone but the most intimate associates, and are therefore not to be discussed in public.

Since thus from the moment of its birth all new knowledge becomes common property, the ground from which all lines of research take their origin is the same all over the planet. It is usual, therefore, to find lines which run parallel, as mental efforts, however intensely personal, are bound to do, when starting from identical premises. It happens every day that two men fall in love with the same woman from the very depth of their hearts; the course of creative imagination is determined by the objective situation in which it arises.

The mutual consistence between discoveries made simultaneously or in close succession to one another requires no explanation to those who recognize the existence of Truth. A statement which is part of Truth will always be consistent with another part of Truth; and both parts together will reveal a further, more comprehensive aspect of Truth. This is just as necessary as that two pieces which fit into neighbouring gaps of an unfinished jigsaw puzzle must also fit to one another.

We recognize here that a large number of independent activities can form a system of close co-operation. In fact we see that this type of co-operation must necessarily prevail if, as in the case of science, the workers all intercommunicate by rapidly publishing the results achieved in cultivating different [43] parts of the same major task. This is the co-operation of independent minds devoted to the pursuit of an aim which, though it is beyond the perception of any, yet is jointly guiding their several thoughts. It is the co-operation which arises by the pursuit of truth and other parts of human culture.

In the Liberal State the cultivation of science is a public concern, in the performance of which the community is guided by scientific public opinion. Recognized scientific ability forms a claim to official support, and new branches of knowledge are similarly taken up officially, once they are recognized by science. Thus science governs itself under the goodwill of Society. The State fulfils its supervisory duties by protecting and subsidizing science as a whole, while letting the administration of scientific affairs operate under the control of scientific opinion.

We can now take up in contrast with this the collectivist demand for a central planning of scientific research. In its logical form its meaning is quite clear; it says that, just as the head of a research department directs half a dozen collaborators who form his team, thus the whole of science ought to receive directions for its daily tasks from a central authority. Collectivists point out that the usefulness of team-work being proved by the case of the research school, there is no reason not to expand this method to the whole of science under a central authority.

To this must be objected that a small team of collaborators is merely an extension of the physical possibilities of the director of research; they help him in his experiments and carry out measurements [44] set up under his supervision. A leader of research who extends the number of collaborators to a point where he cannot actually see their experiments being performed, but has essentially to rely on their reports, is in danger of losing the solid ground of his work. Once he gives up wrestling at close quarters with the data of observation he relaxes his hold on reality, like a judge who has no time to examine witnesses and relies on hearsay evidence. Few scientists can do good work with more than a dozen personal collaborators, and there is in consequence no large scientific institution in the world the scientific work of which is directed by one scientist.

But what if, in spite of all such experience, the State, guided by collectivist passion, should nevertheless erect a central authority for the planning of science? What would be its function? Clearly the authority would first have to form a view of the position of science as a whole, then to conceive a plan for the progress of science as a whole; and to give orders to the different parts of science to advance according to this plan.

The information available to the central authority for establishing the position of science as a whole is the aggregate of available text-books and publications. This is accessible to everyone, but no one has yet been able to obtain from it a comprehensive conception of the position of science, nor any idea as to the direction in which it should advance as a whole. In fact these phrases are meaningless to a scientist, because it is of the essence of science, in contrast to scholastic speculation, that it advances piecemeal, by extending knowledge wherever discoveries can be made and not with reference to a [45] central problem. Science has emerged from mediaeval scholasticism precisely by abandoning such comprehensive tasks as the search for the Philosopher's Stone and for the Elixir of Life, and by applying itself instead to specialized pieces of research, knowing that the parts of truth thus discovered must form a joint pattern in the end. A comprehensive view of science is a superficial and an ignorant view of all parts of science; it is a view which contains no working knowledge of science, and from which no suggestions for research can be made which would not be recognized by scientists at a glance as either impracticable or childishly mediocre.

Unless the central authority is prepared to go to the extreme of pressing suggestions of this kind on scientists, and thereby putting an end to all real research and replacing it by futile performances, it will have to give up the planning of science. But it may then try to save its face by calling on individual scientists to send in their own plans, which it would send back endorsed with its approval. This useless procedure has actually emerged in Soviet Russia, where, the initial attempt at centralized planning having failed, a system called 'decentralized planning' was introduced on the above lines. The term 'decentralized planning' is, however, contradictory. The essence of planning is unity achieved by control from a centre. The decision about what is to be done cannot be made both centrally and locally, and hence, if the essential decisions are local, the central decisions can be of no importance. The central authority can then retain only functions of a supervisory nature. How far the supervision entailed in this pretence of planning becomes oppressive [46] depends on the temper of the political situation and of the persons partaking in this procedure.

To assess this, we must remember that behind the pretence of planning there lurks the determined denial by collectivism of that independence of thought of which modern science is the child and the representative. In every politically difficult period, therefore, there is likely to come a sharpening of the conflict. Thus successive waves of suspicion rose up against the intelligentsia in the U.S.S.R. in the years 1918-20, 1927-30, and 1935-37, leading to persecution of every kind. Some of its members were imprisoned, others shot, the rest were forced to demonstrate their loyalty by fervent declarations in support of the official philosophy of the State. But naturally the more extravagant such declarations become, the less their sincerity is trusted by the authorities. Nothing can appease the collectivist, who

knows that his victim cannot be sincere so long as he is oppressed, but who dare not set him free, well knowing that there can be no peace between collectivism and free thought.⁵ [47]

Economic Planning

The classical aim of collectivism is the placing of all production and distribution under control of the [48] State. The resources of the community should be exploited not for commercial gain but according to a central plan which aims directly at the satisfaction of the needs of the population as ascertained by the authorities. To examine this programme I will first

⁵ By a decree of November 1926, the Communist Academy was constituted as the highest of All-Union learned institutions, charged with the strict advocacy of the standpoint of dialectical materialism both in the social and the natural sciences. Membership was confined to the party. The central planning of science having proved impracticable, 'decentralization' was decreed in 1932, under which planning is delegated to individual scientific institutions (S. and B. Webb, *Soviet Communism*, pp. 959, 967, 969). This system is described by J. G. Crowther (*Manchester Guardian Commercial*, 2nd June 1934) in connection with the Physico-Technical Institute of Kharkow: 'Each department draws up a plan for work from January 1 to December 31 of each year. The plan is given in detail for each quarter, and there must even be a suggestion of what will be done on each day. At the end of each month, the research worker assesses what percentage he has accomplished [47] of his plan. This is usually about 80 per cent to 90 per cent, and the assessments are notably honest. The workers in each department are organized as a team or brigade, and each holds frequent meetings to discuss its own work and the policy of the institute.'

This disgusting comedy was, of course, only a pretence kept up for the satisfaction of official requirements; on my various visits to scientific institutions in the U.S.S.R. I never heard it mentioned except in contemptuous jokes; yet the procedure is reaffirmed in J. D. Bernal's *Social Functions of Science*, by Ruhemann in the Appendix (p. 447). The political atmosphere of this attempt to subject science to the orders of the authorities is characterized for the year 1930 by S. and B. Webb (l. c., p. 553) as follows: 'This much-discussed prosecution of Professor Ramzin and his colleagues inaugurated a veritable reign of terror against the intelligentsia. Nobody regarded himself as beyond suspicion. Men and women lived in daily dread of arrest. Thousands were sent on administrative exile to distant parts of the country. Evidence was not necessary. The title of engineer served as sufficient condemnation. The jails were filled' Meanwhile 'the strengthening of the dictatorship in philosophy' by the imposition of dialectical materialism (J. G. Crowther, *Manchester Guardian*, 19th March 1935) proceeded apace. Recent evidence of the type of ideological lip service by which eminent scientists were forced to propitiate the authorities was published by Professor A. V. Hill (*New Statesman*, 17th February 1940) from the *Astronomical Journal* of the Soviet Union, December 1938:-

'(1) Modern bourgeois cosmogony is in a state of deep ideological confusion resulting from its refusal to accept the only true dialectic-materialistic concept, namely, the infinity of the universe with respect to space as well as time.'

'(2) The hostile work of the agents of Fascism, who at one time managed to penetrate to leading positions in certain astronomical and other institutions as well as in the press, has led to revolting propaganda of counter-revolutionary bourgeois ideology in the literature ' ... and so on.

At the outbreak of the present war a considerable number of scientists were kept imprisoned in the U.S.S.R. Though no mention of this is made in Marxist literature, it is involuntarily revealed in a footnote on p. 371 of the [48] *Modern Quarterly* (1938), which blandly mentions that the publication of a scientific bibliography was cancelled on account of the number of names included of scientists under political persecution. 'In a bibliography of genetical literature which has been prepared, the publishing office pointed out that a number of names were included of scientific workers who had either been convicted of Trotskyism or who had long been resident in capitals such as Paris or Berlin. While it was not seriously contended that the work of such men roust be so deeply vitiated by their political ideas or their residence abroad as to justify their original papers being omitted from the bibliography, the office could yet not bring itself to take the responsibility of publishing the full list, and the bibliography has not so far appeared.'

briefly summarize the principal features of economic life based on individual enterprise and individual choice.

Humanity living in society earns its livelihood by divided labour; hardly any human being could survive in Europe if each adult had to provide himself with his own shelter, clothing, and tools. In any case the population would be decimated and its residue levelled down to a brutish existence, if deprived of the device of divided labour. Such division implies the exchange of products between the producers, and as the division of labour becomes increasingly differentiated the exchange of products becomes more complex. To-day few of us consume anything that we produce ourselves; we live entirely by making things for others, or giving services to others, in order to receive from them in exchange the means of our livelihood. The process is performed by use of the market. On the market we sell our produce, [49] or else it is sold on our behalf by the manager of the firm or head of the institution in the work of which we participate. We spend the proceeds in the same market to cover our needs. Thus the total exchange takes place. Looking at it in greater detail, we should see the goods in the production of which we took part distributed among thousands of customers of our firm. Sometimes, being used as raw materials, they are handed on from the first customer, after being used in a process of manufacture, to a second set of customers, and often this process is repeated before the product is finally used up. And the connections established by our daily purchases are equally complex. In the course of a year we buy thousands of different types of merchandise and services which require for their production hundreds of different raw materials. Tracing these to their ultimate producers we should see that the most modest of us draws supplies from millions of his fellows on this planet. These supplies, we know, are received in exchange for what was distributed by ourselves, or on our behalf, as the product of our labour. Since our customers, to which this distribution went, are not the same people from whom we make our purchases, it follows that our outline of the circle of exchange is yet incomplete; that we have to add to it a series of exchanges between those to whom we sell and those from whom we buy. The entire multitude of all these exchanges, running into millions, are required to implement the existing division of labour, when any of us makes his living to-day. Selling and buying is by agreement. The sum of both is commerce, comprising all agreed exchanges which arise from the [50] division of labour. The State supervises commerce by controlling the standard forms of contracts through which it operates and by supporting the organization of markets which offer scope for public competition.

Apart from this production for individual use, there are, of course, provisions made by the authorities for communal use. Things which can be used only in common, like roads, town halls, and armaments, are obvious cases in point. But the modern State goes far beyond this in making common provisions: it considers, in particular, that the care for children, for the sick, the old, and the unemployed is a public concern, and it provides services for these from public funds. Wherever a comprehensive interest of society can be demonstrated, which is distinct from the sum of satisfactions given by the exchanges made through the market, there is a recognized obligation for the public authorities to safeguard it; this, in general, will involve public expenditure and thus imply a certain amount of central economic functions. The great majority of human satisfactions are, however, of distinctly individual character, and are parcelled out through the market to individual consumers on a commercial basis.

Let us now turn to the idea of collectivist planned economy. This would base a system of divided labour with subsequent exchange of products not on the mutual agreement of those exchanging them, but on a plan based on a comprehensive view of economic life as a whole. Economic life, however, consists of the satisfaction gained by millions of individuals in thousands of different ways which [51] have no comprehensive meaning, such as can be given to millions of bricks shaped to a house or to millions of soldiers operating as an army. The compilation of statistics on objects consumed, comprising the number of handkerchiefs, spectacles, prayer books, and countless other kinds of merchandise, are as meaningless from this point of view as would be the valuation of the National Gallery by square yards of canvas or pounds of paint. Production statistics may be related to satisfaction so long as the market functions well enough to attribute comparative values to each item, but they mean next to nothing unless that condition is fulfilled. Those who try to interpret the statistics of the Soviet Union, where the market has not recovered from its periodic suppressions by the State, know how profoundly the significance of production statistics has been impaired thereby. The prices given in roubles have become almost meaningless, and a laborious and uncertain process of reassessment of every available item by reference to British or American prices is necessary in order to obtain even a rough estimate of the value of production. In his *Critique of Russian Statistics* Mr. Colin Clark finds, in the course of an analysis of this kind, anomalies of Russian valuation which even within one group of articles of consumption amount to more than tenfold distortions of relative values. Assuming that no vestige of market valuation would be remembered nor be available in another country, it would be impossible to gather anything but the vaguest idea of the satisfaction which a certain list of goods gives or may give to a population. As in the case of science, the comprehensive view is not an essential view but [52] a superficial view and an ignorant view. From it not a single business proposition could be made which would not be rejected out of hand by any business man of special experience as grossly unprofitable, and which hence – in nine cases out of ten – would not also be grossly wasteful from the point of view of society as a whole.

Far from being able to summarize the essence of an economic situation independently of the autonomous exchanges which go on in the course of marketing, and to replace their operations by a comprehensive scheme of its own, the Government finds that all it can see of economic life is based on the valuations arising from these exchanges. While it might feel able to correct these valuations here and there, where the participants are taking a too narrow point of view, the Government must recognize that it has no comprehensive set of alternative valuations to replace them. It is unable, therefore, to remove the course of economic life from the essential control of individual agreements, and to subordinate it instead to a co-ordination according to a central plan of its own.

In view of this position, there are, as in the somewhat analogous case of the attempted planning of science, two courses open to the Government. The one is to give up actual planning and to content itself with a more or less oppressive supervision of the autonomous operations of commerce, while adding to this sphere of individual use, which will supply the main livelihood of the people, as many public works and services for communal use as possible. Or else it may take the ruthless course of imposing its determination to plan, at least to the extent that it [53] puts an end to all exchange by mutual agreement – by destroying the functions of the market. It may take over plants, and, refusing to sell their

products, ration them out to consumers; it may make trading illegal and debase currency to the point of making the use of money impossible.

But, since the Government can possess no point of view of its own by which it could direct the millions of exchanges entailed in the maintenance of divided labour, its efforts to do this will be grossly ineffective. Therefore, if the suppression of the market is inexorably put into effect, the consequence is an almost complete stoppage in the exchange of goods, followed by a total breakdown of production and widespread famine, as occurred in 1921 in consequence of the measures by which the Soviet Government had paralysed trade.

Soviet Communism

The attempt made in Russia twenty years ago to abolish the market broke down in disaster. 'We have suffered,' said Lenin in 1921, 'a defeat on the economic front more severe than any previous military reverse.' With this he gave the signal for that new economic policy which he called the great retreat from Communism. Its purpose was to re--admit so much commercial life as was necessary to restore a minimum of prosperity, while at the same time systematically learning to use 'capitalist methods ' in the conduct of State enterprise.

The lesson which was then learned at the sacrifice of millions of lives that the market, far from being a [54] domain of anarchy, is the vital principle by which alone ordered co-operation can be maintained in a system of divided labour, ought to be a permanent acquisition of the human mind. It means that economic life by divided labour is a business to be settled mainly between the multitude of individuals dividing the labour between them, and that planning which would prevent this spells disaster.

Unfortunately this lesson was demonstrated under a dictatorship the political strength of which is nourished by a fanatical hatred of the market and a prophecy of salvation through its final destruction. Thus the surge of prosperity gained by re-admission of trading was a political peril to the Communist Government.

In order to reassert its waning power, the Soviet Government therefore again went on the offensive in 1927. Private shops and enterprises were again destroyed and a vast programme of State enterprises was launched. Three years after this a new economic disaster forced Stalin once more to a retreat. Again the market was re-introduced, but this time State ownership in industry and commerce was fully retained. Thus the experience of the Soviets has now proved that, even though the State is owner of all enterprises, it yet cannot decide on its own accord what to produce, but has to rely on the profitability of sales to indicate the usefulness of every particular activity. Commercial management is now revealed as far more fundamental than the system of ownership, which can vary widely while the market persists.

Clearly, for political reasons, the Soviet Government must do everything in its power to prevent [55] the honest recognition of this state of affairs.⁶ Hence the confusion, the

⁶ In a recent publication (*Two Systems: Socialist Economy and Capitalist Economy*; 1939; by Eugene Varga) the following official explanation is given by the Soviets. The transfer of products from one enterprise to another and to the final consumer is by sale and purchase (p. 97). But, it is not competition which decides the price and it is not the prospect of profits which determines which goods are to be produced (p. 96). We are also told that planning is guided by the trend of purchase (p. 120) but no explanation is given as to how this is done, while disregarding profits. Actually nothing is mentioned about the way in which planning is accomplished except in a footnote which says that it is too complicated to be explained briefly (p. 225).

obscure war permeating its whole life. Production based on the individual efforts of the many State enterprises and the millions of peasant organizations could go on well enough and gradually restore a measure of prosperity. But the Government, intent on imposing its initiative on economic life, must ever again renew its spectacular efforts at huge investments. It must be constantly 'showing off.' Where the consequent dislocation causes confusion it suspects sabotage; to suppress it, it spreads terror, causing more confusion and creating further suspicion of sabotage, and so on. If, to prevent complete catastrophe, the Government then once more relaxes its hold, the wave of consequent recovery restores the position of a more or less free business life with an inherent tendency to escape from the control of the Government and to accumulate political power in opposition to it. Thus the struggle must be renewed; collectivist fanaticism fighting for its life against the necessity of the market and the independence which commerce restores in the people.⁷ [56]

The Return of Liberalism

Is it, then, time for Liberalism to return to the charge, with the fervour of its early intransigence, which it professed up to about seventy years ago, before beginning to give way to the growing claims of collectivist ideas? I believe this to be justified to a certain extent.

Extreme Liberalism in all its crudity is a source of material and moral blessings when it serves to release [57] society from mediaeval fetters or from paralysis by State-imposed restrictions of trade. The phenomenal success gained at the beginning of the nineteenth century by the opening of the channels of trade could be once more achieved to-day merely by wiping out the collectivist structure of industry and commerce in Russia, Germany, and the countries around them – along with a few hundred tariffs and exchange regulations all over the planet. Such a New Economic Policy, to call it by the name of the first retreat from collectivism in Russia, would bring an immeasurable increase of wealth and liberty to Europe. In this sense the revival of crude Liberalism would be as justified and desirable to-

⁷ The contention that the market should be used and combined with economic planning in the Socialist State has [56] become fairly common among the younger Socialist Economists. The presentation of this doctrine in its recent and perhaps most able formulation by H. D. Dickinson (*Economics of Socialism*, 1940) vividly recalls the course of events in the Russian Revolution. At the beginning (pp. 14-15) there is an emphatic declaration of economic planning. A Supreme Economic Council will decide what is to be produced and to whom it is to be allocated, on the basis of a comprehensive survey of the economic system as a whole. 'In the ultimate analysis the responsibility for economic decisions must be single and undivided ... and ... must create a deliberate conscious control of economic life.' But as the torrent widens towards the ocean, we come (on page 222) to the following summary of the Socialist system in its final form. 'In one or two matters, perhaps, considerations of social policy would be planned on their merits. (But even here the tendency would be to make specific grants to particular undertakings or to lay specific burdens upon particular branches of production, and then to leave them to the quasi-automatic working of market forces.) In all other matters, and in all questions of detail even within the special schemes, the normal indices of prices and cost would be decisive. The great majority of lines of production would be carried on automatically within the given framework of costs and prices so as to supply goods to consumers according to their preferences as indicated by the market.'

The upraised fist of Moscow dissolves into the invisible hand of the old days. Unfortunately, in real life, once revolutionary powers are called forth to dominate every particle of the people's life, they do not renounce their position when realizing the necessity of free commerce. Their resistance keeps the State in perpetual struggle, within and without.

day as it was 150 years ago; but in this sense only. For a Liberalism which believes in preserving every evil consequence of free trading, and objects on principle to every sort of State enterprise, is contrary to the very principles of civilization.

The fact that certain individual actions are under public protection does not characterize them as private affairs. On the contrary; while it is true that private matters deserve protection, they require it only in exceptional cases, when they attract unjustifiable public interest and this interference or intolerance has to be averted. Public protection should, as a rule, be given to such individual actions in which there is a real public interest to preserve; and naturally not in disregard of the action's social consequences, but precisely because of them. Disregard of social consequences is equivalent to anarchy, which may amount to barbarism. The protection given to barbarous anarchy in the illusion of vindicating freedom, as demanded by the doctrine of [58] *laissez faire*, has been most effective in bringing contempt on the name of freedom; it sought to deprive it of all public conscience, and thereby supported the claim of Collectivism to be the sole guardian of social interests.

Liberalism was misled to extremism mainly by its failure to understand unemployment. It believed that this evil could be avoided by the prevalence of free trade. This view arose as a vague generalization of the theory of maximum benefit which is provided by an economic equilibrium, freely established. It was thus held that all measures reducing the income of the rich and increasing that of the poor must produce unemployment; and most of the other proverbially dismal and inhuman conclusions of economic science arose from this central error. Among them the most important, because most recent, was the attitude of Liberal economists to the last World Crisis, in which they maintained that it was the duty of the State not to interfere, if it did not wish to aggravate the depression. I believe that the adoption by Brüning in 1932 of a policy of retrenchment and deflation, conforming to this error of extreme Liberalism, was one of the most potent immediate reasons of the Nazi revolution, which might have been avoided by a policy of financial expansion, as inaugurated by Roosevelt a few months later.

There is an element of superstitious fear in the idea of orthodox Liberals that the market takes revenge on society for any interference with its mechanism, by inflicting on it the curse of unemployment, and this mystical element seems akin in its origin to the obsessions of collectivists about the evil powers of [59] the market. The orthodox Liberals maintain that, if the market is limited by the fixation of some of its elements, then it must cease to function, the implication being that there exists a logical system of complete *laissez faire*, the only rational alternative to which is collectivism. That is precisely the position which collectivists want us to take up when asserting that none of the evils of the market can be alleviated except by destroying the whole institution root and branch.

Instead of accepting this joint view of orthodox Liberals and collectivists, I consider that the alternative to the planning of cultural and economic life is not some inconceivable system of absolute *laissez faire* in which the State is supposed to wither away, but that the alternative is freedom under law and custom as laid down, and amended when necessary, by the State and public opinion. It is law, custom, and public opinion which ought to govern society in such a way that by the guidance of their principles the energies of individual exertions are sustained and limited. The benefits of culture in the form of science, of religion, of the arts, and of the manners of intercourse are developed by individuals protected by law and encouraged by the response of society. The division of labour and the many commercial devices for the exchange of products are all subject to law and custom;

money is a legal invention, and so are all the forms of contract, of company laws, all the statutory forms of business life. Supervision is a positive, ancient, and fundamental responsibility of Society which it must accept with respect to every individual action affecting wider circles. In fact, civilization consists [60] mainly in the system of behaviour by the observance of which men and women will benefit rather than injure their fellows while pursuing their own personal interests in life.

General planning is wholesale destruction of freedom; cultural planning would be the end of all inspired enquiry, of every creative effort, and planned economy would make life into something between a universal monastery and a forced labour camp. Our aim must be not to destroy the mechanism of liberty but to amend it by renewing the rules and principles on which individuals are called upon to act. Common sense will not admit that the only alternative to unemployment, to unjust gains, and to undeserved poverty is to bind ourselves hand and foot, to gag our mouths and blindfold our eyes. But common sense will not be heard until we rid ourselves of magic beliefs. We must realize that planning, as applied to social affairs, does not, in general mean order and intelligent foresight; and at the same time we have to reduce the market in our minds to its proper position of an element of social machinery, subordinate to our will, so long as it is used in conformity with its inherent mechanism.

A more sober approach may not in itself eliminate conflict, but it will replace conflicting obsessions for which there is no solution, by conflicting interests which admit of compromise and by rival valuations to be adjusted by mutual toleration.