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## EPISTEMIC INDETERMINISM AND METHODOLOGICAL INDIVIDUALISM: A COMPARISON BETWEEN KARL POPPER AND FRIEDRICH HAYEK<sup>1</sup>

José F. Martínez Solano

**Abstract.** This paper explores the link between the case for indeterminism in an epistemological fashion and methodological individualism in the thought of two defenders of both stances: Karl Popper and Friedrich Hayek. The relation between these issues has not received much attention before and even less so with regard to these two thinkers. First, Popper's defence of indeterminism from an epistemic viewpoint and Hayek's views about the indeterminism of action are studied. Second, their positions about methodological individualism are considered. Finally, several comparative questions are aired.

**Key words:** Indeterminism, methodological individualism, Popper, Hayek.

Karl Popper and Friedrich Hayek share the case for indeterminism from an epistemic point of view. Both thinkers regard this kind of indeterminism as a necessary condition to understand their own positions in relation to the methodology of the social sciences. They also coincide in accepting individualism mainly from a methodological point of view. But they root this methodological principle for the social sciences in epistemological soil, which both place in an indeterminist conception. However, there are relevant differences between the two philosophers when they address the relation between epistemological indeterminism and methodological individualism.

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## 114 Freedom and Determinism: Social Sciences and Natural Sciences

From the very beginning of his career as a philosopher, Popper was very aware of the philosophical implications the debate about the existence of indeterminism or determinism had for all the realms of reality.<sup>2</sup> Initially,<sup>3</sup> he rejected indeterminism — due to his interpretation at that time of the development of physics from the beginnings of the Twentieth century — and he accepted physical causality (and the determinism it implies) as a methodological rule, although both have a mainly metaphysical character.<sup>4</sup> But that situation did not last long, for he was to change his mind and favour a clear indeterminist position.<sup>5</sup>

Popper's change of mind became apparent after he undertook investigations in the field of the human and social sciences.<sup>6</sup> Those investigations focused on the criticism of historicism — a philosophical stance according to which the main task of the social sciences is predicting the future course of human history —<sup>7</sup> and he plainly defended methodological individualism.<sup>8</sup> Later, he went deeper into his indeterminist position which he applied beyond questions related to physics.<sup>9</sup>

Hayek was a conspicuous figure in the Austrian School of economics. His

<sup>2</sup> Cf. POPPER, K. R., *Logik der Forschung*, Springer, Vienna, 1935.

<sup>3</sup> Cf. *Logik der Forschung*, p. 168.

<sup>4</sup> Cf. POPPER, K. R., *Logik der Forschung*, p. 195.

<sup>5</sup> Cf. POPPER, K. R., "Indeterminism in Quantum Physics and in Classical Physics," *The British Journal for the Philosophy of Science*, v. 1, nn. 2 and 3, (1950), pp. 117-133 and 173-195 respectively.

<sup>6</sup> On the changes in the philosophy of Popper, see GONZALEZ, W. J., "La evolución del Pensamiento de Popper," in GONZALEZ, W. J. (ed.), *Karl Popper: Revisión de su legado*, Unión Editorial, Madrid, 2004, pp. 23-194.

<sup>7</sup> Cf. POPPER, K. R., *The Poverty of Historicism*, Routledge and Kegan Paul, London, 1957. See on this GONZALEZ, W. J., "La interpretación historicista de las Ciencias Sociales," *Anales de Filosofía*, v. 2, (1984), pp. 109-137.

<sup>8</sup> Some Popper's followers extended his ideas on methodological individualism and produced to some extent different versions of it, cf. AGASSI, J., "Methodological Individualism," *The British Journal of Sociology*, v. 11, n. 3, (1960), pp. 244-270; and WATKINS, J. W. N., "Ideal Types and Historical Explanation," in FEIGL, H. and BRODBECK, M. (eds.), *Readings in the Philosophy of Science*, Appleton-Century-Crofts, N. York, 1953, pp. 723-743. On the one hand, Agassi tries to improve the relation between individualism and the existence of institutions, whilst on the other Watkins is a defender of individualism but from a psychologistic viewpoint, cf. UDÉHN, L., "The Changing Face of Methodological Individualism," *Annual Review of Sociology*, v. 28, (2002), pp. 479-507; particularly, p. 488.

<sup>9</sup> Cf. POPPER, K. R., *The Open Universe. An Argument for Indeterminism*, Routledge, London, 1982. The book belongs to the *Postscript to The Logic of Scientific Discovery* and was written





libertarian philosophical principles led him to give a particular methodological interpretation for the social sciences, and singularly to economics. Methodological individualism has an important role in it, which was the main reason he rejected socialism and methodological holism,<sup>10</sup> as he rooted his study in human freedom and used it as a guide-principle. He also offered a contrary view to determinism. That view had an epistemological flavour since he emphasized the importance that limitations in the knowledge individuals have when they make decisions and also for the work of the social scientist, who studies the results of such decision-making.

This paper focuses on two main elements and their consequences. First, it analyses two thematic aspects in parallel: on the one hand, Popperian epistemological indeterminism — which is the axis of his argument against historicism in the social sciences — and, on the other, Hayekian position about the indeterminacy of human action in whose defence he uses epistemological arguments. Second, it compares the Popperian position on methodological individualism with that of Hayek. Third, several questions about the relationship between both philosophical stances arise from the previous analysis.

### **1. POPPERIAN INDETERMINISM AND HAYEK'S VIEW**

Around the mid 1950s, Popper wrote a prologue for his book *The Poverty of Historicism* where he proposed what he thought was a definitive argument against historicism and in which he included epistemological elements.<sup>11</sup> By then he had also written a *Postscript* for his first published book in which he stressed that epistemological argument from an indeterminist perspective applied to physics as well as to the social sciences.

For his part, Hayek had stressed from the thirties a peculiar position about during the fifties, when his first published book, *Logik der Forschung*, was being translated into English.

<sup>10</sup> Cf. HAYEK, F. A., “Scientism and the Study of Society,” *Economica*, v. 9, n. 35, (1942), pp. 267-291; *Economica*, v. 10, n. 37, (1943), pp. 34-63; and *Economica*, v. 11, n. 41, (1944), pp. 27-39. Later published as HAYEK, F. A., “Scientism and the Study of Society,” in HAYEK, F. A., *The Counter-Revolution of Science. Studies in the Abuse of Reason*, Free Press, Glencoe, 1952, pp. 11-102 and pp. 207-221 for endnotes.

<sup>11</sup> Cf. POPPER, K. R., *The Poverty of Historicism*, pp. xi-xiii.





## 116 Freedom and Determinism: Social Sciences and Natural Sciences

the influence knowledge of the individuals has when they make decisions that affect their actions. His stance took as its point of departure the cognitive limitations of those individuals.<sup>12</sup> Later, during the fifties, he linked that idea with a thesis against determinism and about the impossibility of exact prediction in the social sciences.<sup>13</sup>

It is within that historic and systematic framework that indeterminism in both thinkers is broached here. First we begin by studying the different kinds of determinisms according to Popper's own classification. His criticisms on determinism are the starting point because — in his opinion — if it is refuted, then we may defend indeterminism. Popperian epistemic argument against determinism is also dealt with. In the end, with the acceptance of indeterminism, Popper wanted to open the way to the existence of freedom and the possibility of human creativity from a philosophical point of view. Later, in the second part of this section, Hayek's position is considered. He is in favour of the absence of determinism in human action. The Austrian economist's arguments are also epistemological, although from the point of view of cognitive psychology.

### 1.1. Karl Popper's Indeterminism: An Epistemic View

Popper distinguishes three different kinds of determinism:<sup>14</sup> religious, physical or "scientific,"<sup>15</sup> and metaphysical.<sup>16</sup> In his opinion, the first is the oldest

<sup>12</sup> Cf. HAYEK, F. A., "Economics and Knowledge," *Economica*, v. IV, (1937), pp. 33-54. Compiled in LITTLECHILD, S. (ed.), *Austrian Economics. Vol. III*, E. Elgar, Aldershot, 1990, pp. 28-49.

<sup>13</sup> Cf. HAYEK, F. A., "The Theory of Complex Phenomena," in BUNGE, M. (ed.), *The Critical Approach to Science and Philosophy*, The Free Press, N. York, 1964, pp. 332-349; particularly, pp. 346-347.

<sup>14</sup> Cf. POPPER, K. R., *The Open Universe. An Argument for Indeterminism*, pp. 5-8.

<sup>15</sup> Popper calls *physical* determinism the same kind of determinism he had called "scientific" in *The Open Universe*, cf. POPPER, K. R., "Of Clouds and Clocks," in POPPER, K. R., *Objective Knowledge*, Oxford University Press, Oxford, 1979, pp. 206-255; particularly, p. 210. He uses quotation marks in "scientific" because he thinks that that character is only alleged. For him, it has no scientific base, cf. *The Open Universe*, p. xxi.

<sup>16</sup> Popper points out the existence of yet another kind of determinism, which he calls philosophical or psychological and attributes to Hume. According to Popper, that Humean position maintains that "like causes produce like effects." However, he refuses to take it into account due to a lack of philosophical burden. Moreover, he considers it compatible with physical indeterminism, cf. POPPER, K. R., "Of Clouds and Clocks," p. 220.





form of determinism. With the exception of Christian theology, initiated by Saint Augustine and continued later by Catholicism,<sup>17</sup> religious determinism stresses basically that all events in the world has been decided or known in advance by God, who consequently is omniscient and omnipotent regarding them.

The second form of determinism — physical or “scientific” — is the main aim of Popper’s criticisms. He thinks that this form of determinism might be characterized as the doctrine that the structure of the world is such that every event can be rationally predicted, with any desired precision, if a complete description of the past events is given to us, along with all the laws of nature.<sup>18</sup>

Popper thinks that sort of determinism is indeed a version of the first one, where God’s omniscience and omnipotence is attributed now to nature. But there is a crucial difference, for if human being could know all the details of nature’s working, then he or she will be able to predict its behaviour. Because of that, Popper overemphasizes in this respect the possibility or not of knowing in detail all the conditions in which reality is.

The third way of understanding determinism is labelled by Popper as “metaphysical.” According to his characterization, metaphysical determinists maintain that all the events of the world are fixed, are inalterable and are predetermined. Popper thinks that this kind of determinism is in fact included in the previous ones due to its logical weakness. He says that this weakness is mainly due to its lack of falsifiability, because of its metaphysical character.

Popper considers all the cases, particularly “scientific” determinism, as baseless and that the analysis he makes incapacitates them. His arguments make possible a general defence of indeterminism,<sup>19</sup> not only for the human and social sciences but also for the natural sciences. The main argument is epistemological as it is based on the limitation of the knowledge of individuals, with special reference to scientific prediction.<sup>20</sup>

<sup>17</sup> Cf. POPPER, K. R., *The Open Universe*, p. 5.

<sup>18</sup> Cf. *The Open Universe*, pp. 1-2.

<sup>19</sup> He propounds two arguments (the approximate character of scientific knowledge and the asymmetry between the past and the future) before dealing with which he considers definitive in the case for indeterminism, cf. *The Open Universe*, pp. 41-47 and 55-57.

<sup>20</sup> On scientific prediction in Popper, see GONZALEZ, W. J., “The Many Faces of Popper’s Methodological Approach on Prediction,” in CATTON, PH. and MACDONALD, G. (eds.), *Karl Popper*:







## 118 Freedom and Determinism: Social Sciences and Natural Sciences

Popper's general argumentation runs along the lines of the logical impossibility for the agents to anticipate their knowledge of the future: that agents know at one precise moment what they only can know after time goes by. Hence, those individuals cannot predict the future state of their own knowledge about the situations they are involved in and, therefore, they cannot control the ultimate consequences of their actions,<sup>21</sup> because, in such a case, they would control them at the same moment they knew them, so prediction would not be necessary.

For Popper, individuals cannot predict what they are going to know in the future, because in that case they would already know at that precise moment what they allegedly are going to know only at a later moment, when whatever events are happening. In his opinion, "*we cannot predict, scientifically, results which we shall obtain in the course of the growth of our knowledge.*"<sup>22</sup>

From that point of view, what Popper is maintaining is that the human future is *open*,<sup>23</sup> so it only depends on chance. In this sense, for Popper future is indeterminate, in other words it is objectively not fixed.<sup>24</sup> Popper particularises that idea for the case of human decision-making, i.e., for the case of human and social issues. In that sense, he maintains that "*we cannot replace our decisions by scientific predictions about our own future actions (since predictions of this kind are impossible).*"<sup>25</sup> In other words, it is not possible for us not to make decisions and use prediction about what is going to happen or about what we are going to provoke in the future. But, furthermore, we cannot control the consequences of

*Critical Appraisals*, Routledge, London, 2004, pp. 78-98.

<sup>21</sup> As may be seen, Popper's arguments against determinism rely heavily on the question of predictability. It is precisely that idea that has been considered a flaw in his argumentation for there is no reason why there has to be a relation between the impossibility of prediction and absence of determinism. Cf. EARMAN, J., *A Primer on Determinism*, Reidel, Dordrecht, 1986, pp. 8-10 and 242-243; WEATHERFORD, R., *The Implications of Determinism*, Routledge, London, 1991, pp. 154-158; and CLARK, P., "Popper on Determinism," in O'HEAR, A. (ed.), *Karl Popper: Philosophy and Problems*, Cambridge University Press, Cambridge, 1995, pp. 149-176; particularly, pp. 152-153.

<sup>22</sup> POPPER, K. R., *The Open Universe*, p. 62. Italics are Popper's.

<sup>23</sup> Professor Clark casts doubts also upon the relation Popper establishes between the alleged openness of the world and the impossibility to predict, cf. CLARK, P., "Popper on Determinism," p. 158.

<sup>24</sup> Cf. POPPER, K. R., *A World of Propensities*, Thoemmes Press, Bristol, 1990, p. 18.

<sup>25</sup> *The Open Universe*, p. 80. Popper's italics.





our actions either.<sup>26</sup>

This plainly epistemic defence of the existence of freedom is also the definitive argument in the case for physical indeterminism.<sup>27</sup> The very existence of *rational knowledge* is the touchstone in his defence of indeterminism.<sup>28</sup> From the Popperian viewpoint, “we are ‘free’ [...] not because we are subject to chance rather than to strict natural laws, but because the progressive rationalization of the world — the attempt to catch the world in the net of knowledge — has limits, at any moment, in the growth of knowledge itself which, of course, is also a process that belongs to the world.”<sup>29</sup> But indeterminism itself is not enough to explain freedom and human creativity in Popper’s opinion.<sup>30</sup>

Sustaining those two human traits, Popper resorts to ontological arguments, in particular a conception about reality of his own. He thinks reality is divided in three realms: World 1 (physical), World 2 (mental) and World 3 (among other elements, the world of scientific theories). He strongly believes that physical world 1 is related to the other two. It is precisely that causal openness of these three realms what — in his opinion — guarantees that human world is a space for *actions* and not simple behaviour. This is the key element in understanding the Popperian thesis about the existence of an open universe.<sup>31</sup>

Therefore, although the argumentative thread in Popper’s defence of indeterminism is epistemological, indeterminism is not only epistemological in his approach. It certainly includes the acceptance of ontological indeterminism, which not only affects phenomena of a human and social kind but also includes events of a natural kind. In this sense, Popper says that there are propensities in the world. These propensities justify the possibility of the human being acting

<sup>26</sup> This is the problem Popper calls the ‘Oedipus effect,’ which is set out in POPPER, K. R., *The Poverty of Historicism*, p. 13.

<sup>27</sup> Popperian defence of the existence of freedom is mainly in POPPER, K. R., “Of Clouds and Clocks,” pp. 206-234.

<sup>28</sup> Cf. POPPER, K. R., *The Open Universe*, p. 80. However, in Professor Clark’s opinion, Popper’s argument about non-predictability also shed doubts about the rationality of science itself, cf. CLARK, P., “Popper on Determinism,” p. 153.

<sup>29</sup> POPPER, K. R., *The Open Universe*, p. 81.

<sup>30</sup> Cf. *The Open Universe*, p. 114.

<sup>31</sup> Cf. POPPER, K. R., *The Open Universe*, pp. 128-130.







## 120 Freedom and Determinism: Social Sciences and Natural Sciences

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freely and for his/her decision not to be completely shaped by previous events, but that does not permit the control of the results of those actions, for they would be completely unexpected. In his view, “past situations, whether physical or psychological or mixed, do not determine the future situation. Rather, they determine changing *propensities that influence the future situations without determining them in a unique way.*”<sup>32</sup>

### ***1.2. Hayek’s Position: Limits in Knowledge and Indetermination in Human Action***

Hayek’s approach also focuses on the question of the case for human freedom from an epistemic perspective. In effect, he starts from the idea of the scarce information individuals have access to when they make decisions in the situations they find themselves. For Hayek, there is a “constitutional limitation of man’s knowledge and interests, [an individual] cannot know more than a tiny part of the whole of society and that therefore all that can enter into his motives are the immediate effects which his actions will have in the sphere he knows.”<sup>33</sup>

That limitation in knowledge has both direct and indirect consequences. Among them one, in his opinion, is that which leads to “an attitude of humility toward the impersonal and anonymous social processes by which individuals help to create things greater than they know.”<sup>34</sup> In other words, individual agent creativity can go far beyond what they themselves might think, for the parts — agents — produce a whole — society — only partially known by individuals.

Hayekian defence of human freedom and his approach to it have as basic framework that central issue: the constitutive limitation of knowledge that human beings have. For him, “the case for individual freedom rests chiefly on the recognition of the inevitable ignorance of all of us concerning a great many of the factors on which the achievement of our ends and welfare depends.”<sup>35</sup>

<sup>32</sup> POPPER, K. R., *A World of Propensities*, pp. 17-18. Popper’s italics.

<sup>33</sup> HAYEK, F. A., “Individualism: True and False,” in HAYEK, F. A., *Individualism and Economic Order*, Routledge and Kegan Paul, London, 1949, p. 14.

<sup>34</sup> HAYEK, F. A., “Individualism: True and False,” in HAYEK, F. A., *Individualism and Economic Order*, p. 8.

<sup>35</sup> HAYEK, F. A., *The Constitution of Liberty*, Routledge, London, 1960, p. 29.





To the situation of ignorance that accompanies every human being — his or her inability to grasp all social contexts — Hayek adds limitations in the very capacity to know due to the very functioning of the human mind. The key in this point is that, when the human mind tries to know reality, it faces phenomena of great complexity (the understanding of its own workings included). There is a restriction of knowledge because of the complexity of phenomena, a limitation that arises in the first place on the realm of the external world.

That limitation can be clearly seen in the possibility for individuals to give a detailed explanation of a fact or a particular situation. Hayek applies this at two levels: a) in the case of individuals that *act* in a particular situation; and b) in those that *study* the behaviour of those individuals. In his view, reality has levels of complexity, which makes it difficult to explain many of its aspects. In this sense, he deems it impossible, for logical reasons, to explain situations or elements of a concrete complexity by using instruments that are of a lesser complexity than the reality to explain.<sup>36</sup>

Hayek thinks that “any apparatus of classification must possess a structure of a higher degree of complexity than is possessed by the objects which it classifies.”<sup>37</sup> But this is not the case when we try to account for a complete image of the world, because “a complete explanation of even the external world as we know it would presuppose a complete explanation of the working of our senses and our mind. If the latter is impossible, we shall also be unable to provide a full explanation of the phenomenal world.”<sup>38</sup>

This inability to grasp the whole thing also happens when the one who explains is the social scientist. In this case, Hayek thinks that there is “no explaining agent who can ever explain objects of its own kind, or its own degree of complexity, and, therefore, that the human brain can never fully explain its own operations.”<sup>39</sup> So it

<sup>36</sup> On Hayek’s thoughts about scientific “explanation,” cf. HAYEK, F. A., “Degrees of Explanation,” *The British Journal for the Philosophy of Science*, v. 6, (1955), pp. 209-225. Compiled with additions in HAYEK, F. A., *Studies in Philosophy, Politics and Economics*, Routledge and Kegan Paul, London, 1967, pp. 3-21.

<sup>37</sup> HAYEK, F. A., *The Sensory Order*, Routledge and Kegan Paul, London, 1952, p. 185.

<sup>38</sup> *The Sensory Order*, p. 194.

<sup>39</sup> HAYEK, F. A., *The Sensory Order*, p. 185.





## 122 Freedom and Determinism: Social Sciences and Natural Sciences

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is not a circumstantial limitation but a structural one.

Consequently, Hayek thinks that, despite the knowledge scientists have about the workings of the human mind, it is impossible to establish the whole set of particular facts that bring about a particular action of an individual at a given moment. In that case, human personality (which he understands in the sense of the whole of the human mind) remains an unapproachable phenomenon. So specific actions of the individuals cannot “predict or control, because we could not obtain the information on all the particular facts which determined it.”<sup>40</sup>

This limitation, which Hayek understands from a cognitive point of view, has other epistemological consequences for the issue at stake here. It is a means for Hayek to reject that any kind of determinism can be proved in science. In this sense, he says that “there may well be valid and more grave philosophical objections to the claim that science can demonstrate a universal determinism; but for all practical purposes the limits created by the impossibility of ascertaining all the particular data required to derive detailed conclusions from our theories are probably much narrower. Even if the assertion of a universal determinism were meaningful, scarcely any of the conclusions usually derived from it would therefore follow.”<sup>41</sup>

For Hayek, the outcome of the study of the workings of cognitive phenomena is that it is not possible to know whether we are determined in our actions or not. So it may occur that there is an indeterminacy of action from the point of view of actors. In that sense, Hayek says that “even though we may know the general principle by which all human action is causally determined by physical processes, this would not mean that *to us* a particular human action can ever be recognizable as the necessary result of a particular set of physical circumstances.”<sup>42</sup>

But Hayek avoids giving a clear personal solution with respect to the classical debate between those who defend the existence of determinism and those who are for the possibility that human will is free. So from an ontological point of view

<sup>40</sup> HAYEK, F. A., “The Theory of Complex Phenomena,” in HAYEK, F. A., *Studies in Philosophy, Politics and Economics*, p. 37.

<sup>41</sup> HAYEK, F. A., “The Theory of Complex Phenomena,” p. 37.

<sup>42</sup> HAYEK, F. A., *The Sensory Order*, p. 193. Italics added.





Hayek neither denies determinism, i.e., the position according to which reality (and we in it) is causally closed (something Popper does), nor does he want to state openly and categorically that human will is free. He regards that maintaining that “the will is free has as little meaning as its denial and that the whole issue is a phantom problem, a dispute about words in which the contestants have not made clear what an affirmative or a negative answer would imply.”<sup>43</sup>

Nonetheless, when he deals with the dispute between determinists and supporters of the freedom of the will, Hayek seems to be closer to the latter. He states that “the voluntarists are more nearly right, while the determinists are merely confused.”<sup>44</sup> That is why he attacks them, saying that “all those factors whose influence is sometimes inconsistently denied by those who deny the ‘freedom of the will,’ such as reasoning or argument, persuasion or censure, or the expectation of praise and blame, are really among the most important factors determining the personality and through it the particular action of the individual.”<sup>45</sup>

In fact, Hayek takes a wary position before the ontological problem about whether there is determinism or freedom, an issue he regards as irresolvable.<sup>46</sup> However, that does not mean that Hayek does not think there is indeterminism in the decision that agents make, i.e., that individual freedom is possible from the point of view of the subjective possibility of choice or even from the moral and legal dimension of human action. Because, as he sees it, “to us human decisions must always appear as the result of the whole of a human personality — that means the whole of a person’s mind — which, as we have seen, we cannot reduce to something else,”<sup>47</sup> and that *human personality* is regarded by Hayek as “essential to the conception of freedom and responsibility.”<sup>48</sup>

The peculiar indeterminism that Hayek defends has then a clear

<sup>43</sup> HAYEK, F. A., *The Constitution of Liberty*, p. 73.

<sup>44</sup> *The Constitution of Liberty*, p. 73.

<sup>45</sup> HAYEK, F. A., *The Constitution of Liberty*, p. 74.

<sup>46</sup> Professor Gray highlights the fact that Hayek did not seem to want his arguments in favour of the existence of freedom in human action to be of help in resolving the debate between freedom and determinism, cf. GRAY, J. N., “F. A. Hayek on Liberty and Tradition,” *The Journal of Libertarian Studies*, v. IV, n. 2, (1980), pp. 119-137; particularly, p. 122.

<sup>47</sup> HAYEK, F. A., *The Sensory Order*, p. 193.

<sup>48</sup> HAYEK, F. A., *The Constitution of Liberty*, p. 72.





## 124 Freedom and Determinism: Social Sciences and Natural Sciences

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anthropological sense, because it affects mainly the realm of human action and is considered only from the point of view of the individual. Moreover, that view of indeterminism represents a ground for his defence of methodological individualism,<sup>49</sup> for it explains individual ability to act without being compelled (not even subconsciously) by the context he or she is in.

Thus, it can be said that Hayek defends a methodological indeterminism as a basic assumption for the method of research in human action. In this author there is also a defence of an epistemological indeterminism insofar as we cannot know all the elements that will influence our decisions as agents and therefore those decisions are undetermined. The same happens regarding scientific research on human action: We cannot know all the elements at stake when an agent or group of agents makes decisions and which these decisions might be, which makes prediction in detail impossible.

But Hayek does not defend indeterminism from an ontological perspective, because — coherent with his own approach — he regards it as an unsolvable problem, for the cognitive limits of human beings affects the root of the very issue. The preference for the epistemological key in his approach makes one think of Kantian roots of his thought.

### 2. METHODOLOGICAL INDIVIDUALISM IN HAYEK AND POPPER

Within the methodology of the social sciences, methodological individualism has been propounded as a fundamental principle by authors belonging to rather different streams of thought.<sup>50</sup> But the general question about how to understand the notion of “individualism” has not been easy to clarify (and maybe it still is not at all clear). This principle entails both epistemological aspects (the knowledge of individuals who act in social situations) and purely methodological (how to increase our knowledge about those social situations, which require individual actions) and even ontological (the very individuals and the reality of their

<sup>49</sup> More on this in DI IORIO, F., “*The Sensory Order* and the Neurophysiological Basis of Methodological Individualism,” in BUTOS, W. N. (ed.), *The Social Science of Hayek's The Sensory Order*, Emerald, Bingley, 2010, pp. 179-209; particularly, pp. 189-192.

<sup>50</sup> Cf. UDÉHN, L., “The Changing Face of Methodological Individualism,” pp. 480-497.





interactions).<sup>51</sup>

Among the epistemological aspects is included the tendency to think that in social sciences it is not possible to know future actions of the individuals because those actions — as they are free — are not determined or conditioned except for the decisions individuals make or by the complexity of the particular situations in which they are produced. Consequently, it is very difficult to predict scientifically in those realms. This thesis connects methodological individualism with ideas that presuppose the acceptance of some kind of indeterminism in society which should be accounted for by social sciences.<sup>52</sup>

Friedrich Hayek and Karl Popper occupy an important place in the treatment of the question of individualism. From their respective approaches they have thought about methodological individualism, in close relation to an epistemological one, and have also reflected on ontological individualism. Both have insisted mainly on the methodological vein of individualism and have delved deeper into the epistemological foundations, which they locate in a view that has an indeterminist ground.

### ***2.1. Hayek's Methodological Individualism***

According to Hayek, historically we can find two different types of general approaches on individualism, one of which he considers as true and the other as

<sup>51</sup> Recently, Professor Lars Udéhn has proposed a general classification for the kinds of individualism. He regards there are four types: 1) *Natural or atomistic individualism* that historically coincides with the different theories of social contract and with the thesis of general equilibrium. That type of individualism has not accounted for socio-cultural aspects and their explanations. 2) *Social individualism* that is represented among others by the Austrian School, including Hayek himself. In that position the idea of individuals as social beings is accepted and their interrelations studied, including cultural aspects. 3) *Institutional individualism* that Udéhn identifies with Popperian approach although he is thinking of Agassi's version. The study of institutions is the core of this kind of individualism. And 4) *Structural individualism* that coincides with James Coleman position and is common among methodological individualists close to sociology and neomarxian currents in that discipline. In his view, types 1 and 2 are strong individualism whereas he qualifies 3 and 4 as weak. He considers there is a jump from strong to weak methodological individualism and says it is very difficult to talk about individualism and holism as opposite doctrines. Cf. UDÉHN, L., "The Changing Face of Methodological Individualism," pp. 499-500.

<sup>52</sup> Cf. ARROW, K. J., "Methodological Individualism and Social Knowledge," *The American Economic Review*, v. 84, n. 2, (1994), pp. 1-9; especially, p. 4.







## 126 Freedom and Determinism: Social Sciences and Natural Sciences

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false. Both approaches have their roots in two different ways of understanding society and its study in the social sciences. In Hayek's opinion, there is a *true individualism* which is rooted in the British philosophy of the Seventeenth and Eighteenth centuries — John Locke, Bernard Mandeville, David Hume, Josiah Tucker, Adam Ferguson and Adam Smith; and there is a *false individualism*, which has its origin in the philosophy of Descartes and its development in European continental philosophy.

Apart from properly historical questions, what Hayek names “true individualism” is indeed a *theory* of society. With it, he tries to understand the forces that rule human social life.<sup>53</sup> This presupposes starting from the individual and moving to the whole. He considers that there is no other way to understand those social phenomena: only through the comprehension of the individual actions directed towards other persons and guided by the behaviour is it expected of them.<sup>54</sup>

From this starting point, Hayek views that the main reason to say that individualism is the correct method to study social issues is that these issues are the unforeseen result of individual actions.<sup>55</sup> Unlike “false individualism,” which is chiefly maintained by continental rationalist thinkers, the order noticed in society and its institutions is not — according to Hayek — at all due to any kind of deliberate design, rather the contrary.<sup>56</sup> So individuals are the ones who, with their free decisions, gradually and inadvertently built up society and the institutions that make it work.

Beginning with the general and dual approach about individualism, Hayek proposes a particular methodological aspect. In its origin, the expression “methodological individualism” was coined by Joseph Schumpeter, who introduced the term in 1908 to use it in the realm of his studies in

<sup>53</sup> Cf. HAYEK, F. A., “Individualism: True and False,” pp. 1-32; particularly, p. 6.

<sup>54</sup> Cf. “Individualism: True and False,” p. 6.

<sup>55</sup> Cf. HAYEK, F. A., “Individualism: True and False,” p. 8.

<sup>56</sup> Cf. HAYEK, F. A., “The Results of Human Action but not of Human Design,” in HAYEK, F. A., *Studies in Philosophy, Politics and Economics*, Routledge and Kegan Paul, London, 1967, pp. 96-105. In accordance with Hayek, that “order” is “spontaneous” and is rooted in the free action of individuals, cf. HAYEK, F. A., “The Principles of a Liberal Social Order,” in HAYEK, F. A., *Studies in Philosophy, Politics, and Economy*, Routledge, London, 1967, pp. 160-177.





economics.<sup>57</sup> Hayek embraced it and during the 1940s intended to develop Schumpeter's idea within his discipline and sought to apply it also to political philosophy.<sup>58</sup> He also saw the potential of this principle as a methodological resource in his writings on the methodology of the social sciences.<sup>59</sup>

Hayekian methodological individualism frontally objects the way of understanding methodology of holist scientists: *methodological collectivism*. This particular methodological position considers that the task of the social sciences is the study and analysis of wholes with which we can categorize social reality. In the Hayek interpretation, methodological collectivism is the "tendency to treat 'wholes' like 'society' or the 'economy,' 'capitalism' (as a given historical 'phase') or a particular 'industry' or 'class' or 'country' as definitely given objects about which we can discover laws by observing their behaviour as wholes."<sup>60</sup>

Hayek goes further: he regards "wholes" as pseudo-entities that holist scientists misunderstand as facts. He refutes that social ontology: those wholes do not exist, i.e., there is no "Society," "Capitalism" or "Bourgeoisie," etc.<sup>61</sup> In this sense, he states that "the error involved in this collectivist approach is that it mistakes for facts what are no more than provisional theories, models constructed by the popular mind to explain the connection between some of the individual phenomena which we observe."<sup>62</sup>

Against that holistic methodological view, of which he completely disapproves, Hayek proposes his version of methodological individualism. He

<sup>57</sup> Cf. UDÉHN, L., "The Changing Face of Methodological Individualism," p. 484; and HODGSON, G. M., "Meanings of Methodological Individualism," *Journal of Economic Methodology*, v. 14, n. 2, (2007), pp. 211-226; particularly, pp. 211-212.

<sup>58</sup> Cf. HAYEK, F. A., *The Road to Serfdom*, George Routledge and Sons, London, 1944.

<sup>59</sup> Cf. HAYEK, F. A., *The Counter-Revolution of Science. Studies in the Abuse of Reason*, Free Press, Glencoe, 1952.

<sup>60</sup> HAYEK, F., *The Counter-Revolution of Science*, p. 53.

<sup>61</sup> Nonetheless, Hayek does not maintain an atomist position with his version of methodological individualism. Like other thinkers in the Austrian School, he is well aware that social interaction of the individuals is what constitutes his object of study. On the general question about whether methodological individualism is to be understood strictly in relation to individuals or should take into account their social interaction, see ARROW, K. J., "Methodological Individualism and Social Knowledge," pp. 1-9; and HODGSON, G. M., "Meanings of Methodological Individualism," pp. 211-226.

<sup>62</sup> HAYEK, F., *The Counter-Revolution of Science*, p. 54.





## 128 Freedom and Determinism: Social Sciences and Natural Sciences

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holds that the methodological starting point of all social science has to focus on concrete individuals and the decisions they make in the environment they belong to at every moment. In his view, individualism as a method is to direct the focus towards mechanisms ruling particular decisions of the subjects when they act — that would be the characteristic component in methodological individualism — which Hayek relates to a clear-cut *subjectivist* position.<sup>63</sup> That subjectivist approach is specified in the idea that the study “starts [...] from our knowledge of the inside of these social complexes, the knowledge of the individual attitudes which form the elements of their structure.”<sup>64</sup>

Thus, for Hayek, the proper way of explanation in the social sciences has to start from that idea, which is particularized in the individuals and their decisions. In the long run, those decisions are what shape the results of those social complexes or institutions, although in a completely unforeseeable way.<sup>65</sup> This presupposes creativity in the social milieu and difficulties for scientific prediction, which in Hayek opinion should be oriented to the identification of patterns instead of particular events.

### 2.2. Popper's Methodological Individualism

Popper adopted methodological individualism as a primary principle for his methodology of the social sciences in the papers he published with the title *The Poverty of Historicism*.<sup>66</sup> He was influenced by a paper — *Scientism and the Study of Society* —<sup>67</sup> that Hayek published also in three parts a few years before in *Economica*, the same journal as Popper did later. Unlike Hayek, who confers on methodological individualism a general character within the social-scientific framework, Popper uses it in a restricted way. He is interested only insofar as it can be useful as a means to apply his own falsificationist position

<sup>63</sup> Cf. *The Counter-Revolution of Science*, p. 38.

<sup>64</sup> HAYEK, F., *The Counter-Revolution of Science*, p. 53.

<sup>65</sup> Cf. HAYEK, F. A., “The Results of Human Action but not of Human Design,” pp. 96-105.

<sup>66</sup> Cf. POPPER, K. R., “The Poverty of Historicism I,” *Economica*, v. 11, (1944), pp. 86-103; “The Poverty of Historicism II. A Criticism of Historicist Methods,” *Economica*, v. 11, (1944), pp. 119-137; and “The Poverty of Historicism III,” *Economica*, v. 12, (1945), pp. 69-89. See also POPPER, K. R., *The Poverty of Historicism*, p. 149.

<sup>67</sup> See footnote 10.





in the social sciences.

For Popper, methodological individualism is “the quite unassailable doctrine that we must try to understand all collective phenomena as due to the actions, interactions, aims, hopes, and thoughts of individual men, and as due to traditions created and preserved by individual men.”<sup>68</sup> Expressed in a more tangible methodological perspective, methodological individualism is — in Popper’s view — the thesis that stresses “that the ‘behaviour’ and the ‘actions’ of collectives, such as states or social groups, must be reduced to the behaviour and to the actions of human individuals.”<sup>69</sup>

The view of Popper presupposes a methodological position that is both reductionist, which was already in the Hayekian version, and nominalist. It is a reductionism in that explanation of the social facts is reduced to the actions of particular individuals. In this sense, Popper adds that “institutions (and traditions) must be analysed in individualistic terms — that is to say, in terms of the relations of individuals acting in certain situations, and of the unintended consequences of their actions.”<sup>70</sup>

At this level, Popper also includes in his approach the relevant Hayekian notion of the “unintended consequences” of actions, but adds an idea that is not explicitly in Hayek: actions take place in a situation.<sup>71</sup> For him, individual actions have to be framed within a particular situation or problem-situation. This is the link Popper establishes between his general methodology of science and his methodology of the social sciences: individuals act to solve problems and they do it according to the *logic of the situation* they are involved in.

In addition to that reductionist component, Popperian analysis has a

<sup>68</sup> POPPER, K. R., *The Poverty of Historicism*, pp. 157-158.

<sup>69</sup> POPPER, K. R., *The Open Society and Its Enemies. Vol. 2: Hegel and Marx*, Routledge, London, 5th edition, 1966, p. 91.

<sup>70</sup> POPPER, K. R., *The Open Society and Its Enemies. Vol. 2: Hegel and Marx*, p. 324, note 11.

<sup>71</sup> Popper found inspiration in the *logic of choice* of Hayek’s economic theory to draw up his idea of the *logic of the situation*, cf. POPPER, K. R., “Models, Instruments, and Truth. The Status of the Rationality Principle in the Social Sciences,” in POPPER, K. R., *The Myth of the Framework*, Routledge, London, 1994, pp. 154-184; particularly, p. 181, note 1. There he warns this idea does not include any determinist element, for it is based on the choices individuals make when they are in a particular situation.





### 130 Freedom and Determinism: Social Sciences and Natural Sciences

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nominalist element as well, for — in his opinion — “the task of social theory is to construct and to analyse our sociological models carefully in descriptive or nominalist terms, that is to say, *in terms of individuals*, of their attitudes, expectations, relations, etc.”<sup>72</sup> The “nominalism” (i.e., non-essentialism) that Popper is defending here is methodological insofar as it tries to describe and explain how the objects under study behave. But, from a metaphysical point of view, Popper’s position goes further and considers there are no essences in these alleged social objects, i.e., there is nothing universal in them.

Popper’s account of methodological individualism — as well as Hayek’s — has received several criticisms.<sup>73</sup> They focus on the general character of Popperian methodological individualism and its lack of precision. In this line of thought it has even been thought that Popper’s view is not really “methodological individualism.” Possible inconsistencies between this methodological principle and the institutionalist bias the Popperian approach relies on have also been addressed,<sup>74</sup> because the Popperian account can be used to understand the existence of social institutions. However, these elements are indeed wholes within which individuals have to act according to rules. Popperian insistence on institutions seems to dissolve individualist basis in Popperian thought.

### 3. POPPER’S AND HAYEK’S APPROACHES COMPARED

In comparing Popper’s and Hayek’s approaches it remains quite clear that, in principle, they maintained pretty similar positions about methodological individualism. Nevertheless, there is a crucial difference to be seen between them. For Hayek, methodological individualism has a clear subjectivist component, so in social research what really matters is the beliefs and attitudes of individuals

<sup>72</sup> POPPER, K. R., *The Poverty of Historicism*, p. 136. Popper’s italics.

<sup>73</sup> Among them stands out LUKES, S., “Methodological Individualism Reconsidered,” *British Journal of Sociology*, v. 19, n. 2, (1968), pp. 119-129.

<sup>74</sup> In this sense, Popper says in the context of his criticisms of psychologism that “if motives (or any other psychological or behaviourist concepts) are to be used in the explanation, then they must be supplemented by a reference to the general situation, and especially to the environment. In the case of human actions, this environment is very largely of a social nature; thus our actions cannot be explained without reference to our social environment, to social institutions and to their manner of functioning,” POPPER, K. R., *The Open Society and Its Enemies*, p. 90.





and the method should be that of *verstehen*. In contrast, Popper is more worried about the objective aspects, as he is seeking to find the logic of individuals' actions in order to explain social life.

Yet there is a thematic link between both thinkers, which is their concern about the idea of *freedom*. It is there where both the Austrians coincide in their defence — either implicit or explicit — of indeterminism. For Popper, indeterminism is closely related to the traditional problem of “free will;”<sup>75</sup> whereas for Hayek his concern is the defence of freedom, even from political stances.

Both positions on indeterminism come together in both thinkers with special reference to the problem of predictability in human actions. This convergence takes place when two elements are linked: i) their views on individualism as a social-scientific method; and ii) an epistemological stance in which the limits to the knowledge subjects have of their situations are stressed.

Nonetheless, there is a clear difference between them related to that indeterminism they are defending. On the one hand, Popper supports a position that proposes a physical indeterminism, i.e., he strongly believes in the ontological perspective of the problem and applies it to nature as well. On the other, Hayek rejects determinism as a possibility of restriction to human freedom, but his point of view is restricted to the purely social realm, without entering the question of a more general indeterminism and without bringing it to nature.

Despite their differences, the joint contribution of Hayek and Popper — that in my opinion makes their points of view alive and current today — is in the defence they make of human freedom from a general anthropological perspective: their interest — in a way yet not explicit enough — in recovering the idea of “person.” Individualism, in which they include an indeterminist ground, connects with the moral claim that human action is not in fact determined, not even by our own desires, but that it is open to creativity and the evolution of human thought. There exists a risk, however, of following the mainstream of those who, through

This approach might lead Popperian methodological individualism to amount to nothing because in some way it dissolves his individualist viewpoint. That is the reason why Professor Udéhn qualifies Popperian methodological individualism as *weak*, cf. UDÉHN, L., “The Changing Face of Methodological Individualism,” p. 500.

<sup>75</sup> Cf. POPPER, K. R., *The Open Universe. An Argument for Indeterminism*, p. xix.








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**132 Freedom and Determinism: Social Sciences and Natural Sciences**


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the abuse of reason — in Hayekian words — put it above particular individuals by so causing (probably inadvertently) the elimination of freedom.

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**134 Freedom and Determinism: Social Sciences and Natural Sciences**

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