Francesco Di Iorio’s *Cognitive Autonomy and Methodological Individualism* is a revised version of his doctoral thesis and investigates Hayek’s contribution to methodological individualism and the *Verstehen* paradigm. The latter conceives of individual actions to be understood as being caused by an active process of interpretation on the part of the subject. Focusing on issues related to the philosophy of action, Di Iorio strives to offer an original reading of Hayek.

According to Di Iorio, methodological individualism has often been misunderstood, having been confused with an atomistic conception of society. While Di Iorio acknowledges that an atomistic variant of methodological individualism does exist (e.g. standard economic models), he argues that methodological individualism cannot be reduced to this atomistic variant because there is a long and authoritative philosophical and sociological individualistic tradition that is non-atomistic. This non-atomistic individualistic tradition is long-standing and includes Adam Smith, Bernard Mandeville, David Hume, Montesquieu, Alexis de Tocqueville, Karl Menger, Georg Simmel, Max Weber, Herbert Spencer, Alfred Schütz, Ludwig von Mises, Karl Popper, Robert C. Merton, Friedrich Hayek, Raymond Boudon, Michel Crozier and Jon Elster.

The book discusses two fundamental assumptions concerning (non-atomistic) methodological individualism. The first, the concept of “autonomy”, as applied to the social agent. “Autonomy” is understood as “self-determination”; meaning that the cause of the action is not to be found in the external environment, but in the individual. Accordingly, this assumption, challenges various holistic paradigms in that individuals cannot be “pigeonholed” in a given environment and considered to be devoid of freedom. The second assumption is that social phenomena cannot be understood only as the planned results of human action because the consequences of individual actions are often unintentional and unpredictable.

Di Iorio explains that methodological individualism, as understood by Hayek, posits that social phenomena cannot be regarded as predetermined; they must be explained in terms of a spontaneous order. The inherent complexity of social phenomena is one of the main reasons why Hayek criticizes social planning and political constructivism. The interesting thing about Di Iorio’s thesis is that it highlights the dialectic between human actions and their unintentional consequences, focusing on how Hayek conceives of action. According to Di Iorio a detailed study of Hayek’s theory of action has often been neglected in the scholarly literature:

The history of methodological individualism is the history of the attempt to eradicate the concept of hidden determination from the study of society, and make the human being the starting point of social analysis. Methodological individualism rests on the understanding that the social order is the unintentional product of many autonomous human actions. On this reading, the conflict between sociological holism and methodological individualism may be interpreted as a conflict between a theory of heteronomy and a theory of autonomy (p. 3).

Di Iorio’s originality lies in his linking Hayek’s theory of human autonomy and methodological individualism to cognitive science, specifically to enactivism, via Hayek’s theory of the sensory order that considers the human mind to be a self-organizing complex system. The book is a good example of interdisciplinary dialogue between cognitive science and sociology, usually treated independently.
Chapter 2 deepens Hayek’s critique of the holistic approach to the social sciences. Holism denies the intentional dimension of human action, maintaining that social order is predetermined by social laws—laws that control the individuals. Hayek takes holists to task for not understanding that the social world is largely the result of unintentional purposeful human actions. Di Iorio clarifies the cognitive presuppositions of action from the standpoint of non-atomicistic methodological individualism. Di Iorio illustrates the agreement between Hayek and Gadamer regarding the interpretative nature of knowledge, stating that Hayek’s theory of the sensory order is consistent with the hermeneutical theory of knowledge: “Hayek and Gadamer also agreed that, since the human being is an interpreter, he/she is hermeneutically free” (p. 12), i.e., a self-determined being.

For Di Iorio, Hayek’s originality resides in that he was one of the first thinkers who sought to establish a link between a theory of individual autonomy analogous to hermeneutics and phenomenology with cognitive psychology. Di Iorio argues that the epistemological implications of Hayek’s *The Sensory Order* (1952) have not been sufficiently analysed by social philosophers. In his view, the connections between Hayek’s theory of mind and the *Verstehen* tradition are relevant from the standpoint of the individualism-holism debate precisely because Hayek’s theory of mind supports human autonomy as understood by methodological individualism: “One of the goals is to demonstrate that Hayek’s reflections on mind include a very original argument in favor of Verstehen, an argument that has been rather neglected within the philosophy of the social sciences” (p.1). Hayek conceives of the mind as a complex dynamic system—a system that can only be explained through an “explanation of the principle” (p. 40). The logic of this system determines the existence of consciousness from a neurophysiological point of view as well as the cognitive autonomy of the agent.

Hayek’s philosophy of the mind is inconsistent with the mind-computer analogy. Those who believe that the mind works like a computer assume that every cognitive function is due to a “decision-making center,” i.e., to the Central Processing Unit (CPU) which controls every mental activity through a predetermined “protocol.” Hayek’s vision is diametrically opposed to this:

the mind is made up of billions of components—neurons—whose activity is not pre-programmed but self-determined. The neurons do not follow specific instructions, but work in a sense in an independent manner. They build up the perceptive categorizations by connecting spontaneously to each other. They create complex chains of impulses that correspond to the different kinds of “patterns” humans are able to recognize (p. 40).

Taking Hayek’s idea of mind as a self-organizing-system, Di Iorio illustrates how Hayek uses the idea to criticize some cognitive theories, such as behaviorism and, especially, methodological holism. Despite their differences, these two approaches share the basic assumption that the cause of action must be sought outside the individual: “Behaviorists consider action to be determined mechanically by physical reality, understood as a pre-given reality, while sociological holists consider action to be determined mechanically by the socio-cultural environment, which they similarly regard as a pre-given reality” (p. 55).

Both approaches deny the interpretation that social agents give their surroundings is relevant and that the mind is a self-organizing system that acts as a “cause of itself”, meaning it is self-determined and cannot be perturbed by external factors (p. 44). This is where the connection between *Verstehen* sociology and Hayek’s cognitive psychology comes into play. According to Hayek, the social context does not determine the actions of individuals, but how they interpret the context is what causes their actions. Di Iorio further explains that for Hayek human interpretative autonomy is not absolute. Social factors play a role in the cognitive process and influence individual action. However, their influence is not mechanical because there is always a dialectic between these factors and the way in which the individual interprets them.

Chapter 3 investigates in more detail the relevance of Hayek’s *The Sensory Order* to the individualism/holism debate. Hayek argued that methodological holism and behaviorism are governed by the same mechanistic paradigm, that denies the interpretative activity of the individual. Di Iorio, interestingly, connects Hayek’s theory of mind to that of Maurice Merleau-Ponty who also argued that the mind is a self-organizing system and that action is always determined by the interpretation by the subject, and on that ground criticized sociological holism. Hayek and Merleau-Ponty (a phenomenologist strongly influenced by Edmund Husserl), are commonly regarded as being very dissimilar to each other. However, Hayek claimed that Merleau-Ponty developed a perspective very similar to his own. As Di Iorio stresses, both these thinkers shared a critique of the objectivist conception of knowledge and explained the mind in terms of self-organizing system and interpretative
device: “Merleau-Ponty studied in greater depth the issue of the impossibility of explaining consciousness as an epiphenomenon of sociality” (p. 6), i.e. in holistic terms. And “Consequently, reading Hayek in the light of Merleau-Ponty is extremely useful for understanding why the idea that mind is a complex self-organizing system and an interpretative apparatus implies a criticism of sociological holism” (Ibid.).

Chapter 4 analyses “how the interpretative autonomy of the actor is related to the systemic structure of the social world” (p. 76). Following Hayek, this “chapter attempts to clarify the theory of social systems as intended by non-atomistic methodological individualism, and the way that this approach reconciles the indeterminism of action and existence of social conditioning” (Ibid). The reductionist interpretations of (non-atomistic) methodological individualism developed by various authors (e.g., Roy Bhaskar, Harold Kinkaid, Lars Udehn) in the last few decades are carefully analysed and criticized. This chapter reconstructs the intellectual roots of both individualism and holism. Following Hayek, Di Orio targets Hegel and Comte, two very different thinkers, but who shared an organicist conception of society: “In spite of the strong and undeniable differences between Positivism and Idealism, Comte and Hegel nevertheless share some common points. In particular, both defend a theory of action based on the idea of heteronomy and connected to a deterministic conception of historical development” (p. 79). Di Iorio states that:

Comte’s and Hegel’s organicist theory of society is related to their concern for the profound social changes of their epoch. Their organicism must be considered, among other things, as a conservative reaction to the French Revolution, its subversive ideas and the destructive egoism of modern industrial society. Both Comte and Hegel, in spite of their philosophical differences, developed a collectivist and historicist theory to provide a reassuring view and drive out the fear of chaos (p. 87).

On these grounds, society is conceived as something that transcends the individual; it is ‘emancipated’ from its individual components. It is seen as an independent phenomenon that controls individuals from outside and makes harmony and social order possible. Comte and Hegel have influenced, albeit in different ways, several social theories that came later, from Durkheim to Bronislaw Malinowski, Alfred Radcliffe-Brown and Talcott Parsons. These authors have conceived society in holistic terms and regarded action as determined by holistic macro-laws that control the individual and make the social order possible. Even structuralism is affected by this holistic approach: the idea that the societies of each historical period are characterized by the presence of ‘structures’ that determine a particular cultural and economic order has at its base the conception originally developed by Hegel and Comte.

In Chapter 5, Di Iorio stresses that methodological individualism has often been confused with a utilitarian theory of action and criticized because of its commitment to utilitarianism. According to Di Iorio, the confusion between methodological individualism and utilitarianism must be avoided because utilitarianism is only one variant of methodological individualism. Hayek and other methodological individualists such as Mises and Boudon do not agree with utilitarianism and support a broader conception of rationality, claiming that all human actions, including those carried out without a utilitarian purpose, not based on an instrumental rationality, must be considered rational. Following Hayek and the Verstehen tradition as understood by hermeneutics and interpretative sociology, Di Iorio defends a broad concept of rationality. He considers rationality to be a general feature of human action and assumes that even religious beliefs, ethical choices, and attitudes that cannot be explained in utilitarian terms and that are commonly regarded as irrational, are actually rational because they always presuppose “an intelligent process of interpretation and meaning-construction” (p. 125). Action must never be seen as an uncritical adherence to existing cultural models because it always presupposes an active role on the part of the social agent. As argued by Boudon and Gadamer, the agent’s rationality is not necessarily utilitarian and Cartesian. It can also be argumentative, fallible and characterized by a certain vagueness. This second kind of rationality is termed by Boudon as “cognitive” or “ordinary” rationality.

The final chapter of the book deals with the relationship between interpretation and explanation. It attempts to answer the following question: “Is the interpretative approach of methodological individualism compatible with the methodology of the natural sciences?” (p. 8). Following Hayek, Popper, Mises and Carl Hempel, Di Iorio argues “that the interpretative approach is not incompatible with the use of covering laws, and more generally with the methodology of the natural sciences” (Ibid.). While Hayek and Mises are sometimes ambiguous on this issue, some of their writings “imply a belief in a common methodology between the so-
cial and the natural sciences” (Ibid.). Hayek’s epistemology is compared to Mises’ and Popper’s ideas. Following Barry Smith, and Hayek himself, Di Iorio criticizes “the widespread thesis that the epistemological views of these two authors are radically incompatible” (p. 8) and stresses “that Mises’ apriorism and Popper’s fallibilism are reconcilable” (p. 9). On these grounds, Di Iorio argues “that Hayek’s defense of fallibilism must not be interpreted as a radical critique of Mises” (p. 9).

Di Iorio’s book is an original and valuable contribution to the philosophy of social science that breaks new ground in our understanding of Hayek’s thought and of methodological individualism more generally. One of the great merits of the books is that it demonstrates why many biases on the account of which methodological individualism is usually criticized must be rejected as being both logically and historically unfounded.