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Machines, Bodies and Invisible Hands. Metaphors of Order and Economic Theory in Adam Smith

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Chapter 1

INTRODUCTION

Though this book does not present a systematic account of the work of Adam Smith and its interpretations, it does offer an interpretation of how Smith dealt with what he saw as a fundamental problem: an explanation of the economic order in commercial societies of the late eighteenth century. The main lines of this re-reading of Adam Smith's thought go back to my doctoral dissertation of many years ago and have been further developed in various articles over the years. However, the content of this volume is not a summary of what has already been written, but introduces new content and presents new arguments to support my previous analyses.

In the late eighteenth century, Smith was not the only one who felt the need to explain the formation of modern societies. However, he was probably the author who was best able to express the concept of economic and social order, which—he asserted—should be understood as the unintended coordination of individual behaviors. The image that summarized this perspective is, as is well-known, the invisible hand, a concept that, Vaughn (1989: 170) remarks, has three features: 1) “human action often leads to consequences that were unintended and unforeseen by the actors”, 2) “the sum of these unintended consequences over a large number of individuals or over a long period of time may, given the right circumstances, result in an order that [...] appears as if it were the product of some intelligent planner”, 3) “the overall order is beneficial”.

This book's thesis is that concepts associated with the invisible hand must be examined as part of a very complex process of forming ideas, in which metaphors as well as philosophical analysis play a role. Theoretical analysis and metaphorical investigation cannot be clearly distinguished; on the one hand, the conceptual approach of metaphors served as the basis of the theoretical construction, and on the other, philosophical analysis stimulated both the creation of new metaphors and the revitalization of old ones. To understand these phenomena, we will draw on a vast literature that has shown how metaphors play a conceptual role in organizing our ideas about the world, both in daily life and in scientific investigation.

In fact, metaphors are cognitive tools that (at least provisionally) direct research and help identify the causal links that explain complex phenomena. And Smith used the metaphors of the machine, the body and the invisible hand to explore the nature of a particular complex phenomenon: the relationship between individuals and the social system, in a setting where market societies were emerging. The three conceptual metaphors, while exhibiting different characteristics, recur in Smith's system but none is explicitly indicated as dominant. However, they can be ranged in a logical order, as if some of the problems connected with the use of the metaphor of the machine were better dealt with by using the metaphor of the body, and the problems connected with the metaphor of the body were better framed by assuming the perspective of the invisible hand.

As will be shown in Part I of this book, metaphors of the machine had a long tradition, and in the seventeenth century they were used to conceptualize the hierarchical order of the universe and of States. While retaining some aspects of the old metaphor of the machine (especially the idea that the machine is a model of coherence between parts and the whole), Smith revitalized this image. Smith's machine evolves over time, it does not represent a static system. The machine also represents the beauty of order and harmony, and this property, perceived by individuals, triggers behaviors that unintentionally produce beneficial results. However, the machine can only be modified and improved by an outside hand. Thus, its limitation as a metaphor consists in the fact that it is unable to conceptualize the processes of self-adjustment.

The metaphor of the body has some interesting connotations in Smith. In the 1600s, mechanistic philosophy had reduced the body to a machine. However, even in the cultural framework of a dominant mechanism, medical and organic metaphors were used to interpret the physiology of the “body politick” in other than mechanical terms. Smith’s metaphor of the body, while reutilizing several arguments from old medical metaphors, emphasizes some properties of living systems that could not be conceptualized using the metaphor of the machine: self-organization and self-preservation.

Lastly, the invisible hand is the metaphor that better represents order as an unplanned result of the behavior of many agents. While with metaphors of the machine and of the body, order is the underlying assumption for analyzing the functions performed by the parts (gears or organs), with the invisible hand order is the result of a process which is arrived at by considering the freedom of movement of the parties (individuals). Order pre-exists in the machine and in the body, and its component parts perform unchangeable functions, without which the system’s functioning is compromised. By contrast, in systems of the “invisible hand” type, the system is self-generating and self-regulating, and coordination between the functions performed by the parties is not predetermined.

In short, machine, body and invisible hand can be seen as three theoretical “candidates” that were used as heuristic tools for exploring the causes of the social order’s formation and its changes over time.¹ Although they were not only distinct but also competing, so to speak, in Smith’s work they overlapped; the beauty of the machine was seen as a factor that set processes in motion that would lead to an unintended order, while the body was used to represent self-organizing properties of systems, an idea that also characterized the model based on the invisible hand.

The invisibility of the “hand” refers to the fact that behind social phenomena there is an organizing force that the literature on Smith has interpreted in various ways. Part II of the volume intends to show how the notion of “invisible” in the late eighteenth century played an important role in various fields of knowledge, especially those such as political economy and the life sciences, whose theoretical foundations were changing radically. What united Smith’s economy and the life sciences of the time was the belief that the visible aspects of phenomena (the interdependencies that characterize both economic relations and the various aspects of life) had to be explained by underlying invisible principles of organization. In the seventeenth and early eighteenth century, the prevailing idea was that nature would be more intelligible as its visibility increased. Nature would reveal itself in its fullness as closer observation revealed its hidden aspects. Microscopes, telescopes, and experiments would make nature increasingly visible, and therefore intelligible. Similarly, from Petty to Quesnay, the anatomy of society and economic interdependencies would have made the nature of economic systems observable, and therefore more understandable. However, in the approach taken by Smith and the life sciences of the late eighteenth century, analysis was not based on the simple visibility of phenomena, even when achieved through appropriate techniques and procedures. It was no longer enough to reduce economic phenomena to “Number, Weight, and Measure”, nor to have increasingly accurate taxonomies of living beings. Rather, it was necessary to refer the visible to invisible principles of organization. However, defining these principles was formally far from simple. For this reason too, metaphors were used to conceptualize the relationship between perceptible phenomena and the causes that generate them. Invisibility, like the force of gravity, was a kind of experience, a conjecture capable of orienting research and organizing ideas about the phenomena of self-regulation and development. The invisible hand, that is to say the idea that human actions unintentionally produce order and not chaos, to some extent reflected these beliefs.

Lastly, Part III of the book deals with the relationship between the invisible hand and time. Social and economic orders develop over time, and the invisible hand describes how the market’s time—ever faster, ever more complex—is at the basis of individuals’ inability to predict future scenarios. In other words, this metaphor seems to respond to the problem

¹ As for the different sets of metaphors in Smith’s work, Cremaschi maintains that “Adam Smith worked with a blissful combination of metaphors [...] that helped in widening the scope of economic theory, imagining counterintuitive connections among separated fields, and shaping new hypotheses to be tested” (Cremaschi 2002: 89).

of how to conceive an order that, by continuously reconfiguring itself, is scarcely predictable. All this implies a temporal dimension, in which the time of the market is integrated into centuries-old historical time. Societies, in fact, tend towards the “natural order”, but—says Smith—this takes place irregularly. Modern societies, based on the division of labor, can govern the rhythm of time, they can plan it, compress and organize it, especially in productive activities; but historical time, against which the realization of the “natural order” is measured, cannot be planned. Therefore, considering time in economic thought was a further theoretical challenge; order had to be conceived in dynamic terms, and this made it less predictable.

In conclusion, the volume is based on the idea that one interesting aspect of the metaphor of the invisible hand is its ability to capture the logic of a discourse that pervades much of Smith’s work. As a metaphor, it was unable to explain in definitional terms a phenomenon such as the self-regulation of market systems in space and time. However, the hand was able to portray it ostensively. Something similar occurred in the life sciences of that era, for example in Vitalism. Smith’s work can thus hardly be separated from the great cultural events that characterized the era in which he wrote. Accordingly, this book attempts to interpret the history of Smith’s thought as an “internal” history that looks at the process of the theory’s creation, in relation to the broader sweep of intellectual and scientific history in the seventeenth and eighteenth centuries.

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