

1 Introduction to part I

Summary

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1.1 Categories and concepts

In this work, we develop a somewhat novel and heterodox view of the global evolution of capitalism and socialism by critically extending the basic interpretative framework of the modern classical economic theory and proposing a partial reinterpretation of the category of the mode of production, in light of the lessons stemming from historical developments in the 20th and early 21st centuries.

We begin our journey by reviewing a number of key stylized facts emerging from recent developments in various scientific fields, which have traditionally been regarded as very distant from social sciences and political economy (see Chapter 2). We show that, when stock is taken jointly and judiciously of these major multidisciplinary findings, the overall *weltanschauung* underpinning the microfoundations of orthodox economic theory is untenably shaken. Therefore, we have to move the landmarks and boundaries of the range of thinkable and scientifically plausible evolution paths for the evolution of human societies. In this context, we focus in particular on the sub-set of emergent phenomena constituted by presently existing and (possibly) newly established economies that are significantly different from the classic capitalist model.

In this introductory section, we propose a few ancillary and taxonomic *operational categories*, which will be further developed and discussed in the following chapters, along with the (always debatable) concept of *socialism* in its entirety.

In this respect, a brief methodological and epistemic digression is warranted. The term *category* is to be understood in the Kantian sense of “ontological

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predicate,” meaning anything that can be said about an object. More specifically, we use the expression *operational categories* to refer to

the criteria and rules to formulate concepts that give support to the search and application of meaningful operations as procedures. Operational categories...specify the boundaries of replicability of the scientist’s actions regarding the production of facts and their communication to the members of the same linguistic community.

(Ribes-Iñesta 2003)

In the same work, Ribes-Iñesta also ingeniously clarifies the subtle semantic relationship among the terms concept, word, and category:

Scientific theories are special systems for building technical uses for words and expressions denoting and describing the conceptual objects and properties under analysis. The construction of a theory not only involves the identification of empirical referents, but also the definition of how words are used in relation to the properties and features of those referents to yield concepts. To do so, the function of concepts and expressions in scientific language is acknowledged in terms of the logical role they play regarding phenomena and events being referred to, described by, or defined by a theory. These logical boundaries delimiting the use or function of words as concepts are called ‘categories’

We welcome such a rigorous semantic approach and try to maintain a basic consistency with it in the remainder of this book. However, as our discourse often unfolds at a relatively low level of abstraction, we occasionally use the terms category and concept in a substantially interchangeable way.

1.2 **Operational categories**

The first operational categories we introduce are *socialisticity* and *socialist orientation*. The terms *socialisticity* (a noun) and *socialistic* (an adjective) are very ugly, yet they do exist in English and are useful. The adjective *socialistic* means in accordance with socialism, having the property of being socialist.¹ By construction, *socialistic* is a *comparative* adjective, which cannot be used in a dichotomous and absolute fashion (as opposed to the adjective *socialist*). That is, you can say that country A is *moderately socialistic*, or *more socialistic than country B*, but you cannot say country A is socialistic tout court.²

Its origin is not a happy one, as it was introduced by Abalkin in 1988 to indicate the degree of approximation to what should be socialism, at a time when the USSR was already about to implode.³ However, Abalkin used the term only with reference to property rights, while in this work we employ it in a more holistic sense.⁴

Different from socialisticity and socialistic, the pair of terms *socialist orientation and socialist-oriented* are easily understood in their ordinary significance. *Per se*, they are rather vague, aspirational terms that refer to a moral, cultural, and voluntaristic attitude favorable to socialism. However, in the context of the argument developed in this book, we propose to attach to them an additional specific and dichotomous connotation. According to this connotation, an object is socialist-oriented or is not.⁵ We define as socialist-oriented those contemporary and formerly-existing national economies that comply with two necessary and sufficient conditions:

- a) are (or were) run by political forces claiming officially and *credibly* to be engaged in a process aimed at establishing, strengthening, or improving and further developing a socialist socioeconomic system, and
- b) can (or could) in fact be considered to be *reasonably socialistic*, i.e. to have *advanced* towards socialism along at least some (mainly positive) measurable dimensions in a multi-vectorial space representing key structural economic and social characteristics (see Box 1. 1).

Condition a) belongs to the political and historical domain. Therefore, the credibility caveat fully depends on the observer's informed judgment on each country's specific political-historical situation. Condition b), conversely, is predicated on quantitative socioeconomic evidence. Some of this evidence can be relatively straightforward to access (i.e., official statistics on the relative weight of public and private ownership in various sectors, human development indicators). Yet, a deeper, holistic interpretation of quantitative and qualitative evidence also depends, to a considerable extent, on the observer's informed judgment. For instance, in the case of China, there is plenty of statistical information on State-Owned Enterprises SOEs and on industrial and technological policies. Yet, foreign and even Chinese observers markedly disagree on a key issue: whether or not the State exerts (directly and indirectly) a decisively hegemonic role in steering the national economy. This is obviously a crucial (although not exclusive) benchmark to gauge to which extent China's economy can be considered *socialistic*.

We acknowledge that no definition of the term socialist-oriented is bound to be universally accepted. Even if this were the case, *a fortiori*, different observers would likely disagree among them when applying conditions a) and b) on a specific real-world economy. The most obvious example is again that of China. Even accepting in broad terms our definition, some observers would regard China as the most egregious instance of a socialist-oriented economy, and actually one that has advanced a lot towards becoming more *socialistic* in many domains. Others, however, would dismiss China's official claims and declare strategic intentions as meaningless and cynical, and regard its socioeconomic fabric as one more authoritarian variant of market-based capitalism. Nevertheless, notwithstanding its caveat and limitations, we deem that the

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category of *socialist-oriented* economy fits our analytical goals, as it will become progressively clearer in the remainder of the book.

We now turn to the term Socioeconomic Formation (SEF). For the sake of this introduction, this term is to be understood straightforwardly as referring to a socioeconomic system endowed with a certain degree of internal consistency and stability, which historically prevails in a given locus identifiable in time and space, with the latter corresponding to a specific nation-state – i.e., a country.⁶ If they are (were) endowed with a sufficient degree of stability and resilience, socialist-oriented economies can be regarded as socialist-oriented SEFs.

In this respect, it is always important to remind that real-world socioeconomic systems only approximately match their abstract archetype. This token applies a fortiori to systems that have come to life historically as the product of long political struggles carried out by the teleological-oriented organization that put forward a strongly characterized project of societal change (as it is the case for those that originated from socialist revolutions).⁷

There are no examples of “pure,” or full socialism. This hardly surprising observation is obvious if socialism is understood in a very strong sense (according to the time-honored normative and humanistic cultural tradition of worldwide socialist and communist movements), as a state of things where major and demonstrable progress has already been achieved in all areas of societal life towards eliminating any form of need-dependency, exploitation, alienation, discrimination, and political or cultural repression, and towards an extraordinary expansion of the freedom of each individual along all her/his existential dimensions.

Alternatively, or complementarily, the property of being socialist might be understood in a much weaker sense, as applying exclusively to the domain of income/wealth distribution. According to such a far less ambitious criterion, a nation-state where the principle to each according to her work is universally applied and no forms of private property and of non-labor personal incomes exist⁸ could be regarded as fully socialist. It is clear that such a purely socialist distributional structure does not exist in any place in the contemporary world.⁹

Therefore, in order to avoid extreme nihilism, and to develop a discourse on socialism that is not blatantly anti-scientific, we maintain that the use of the apparently convoluted term *socialist-oriented* is often necessary to at least strive to approximate a realistic analysis of our subject.

1.3 Capitalism and primitive socialism under the meta-mode of production

Neither the US and the former leading imperial/colonial powers nor any small and middle-sized core industrialized country has ever embarked on a non-capitalist path.¹⁰ However, hard-fought historical progress in several areas – such as the quasi-universal¹¹ spread of core elements of the welfare state,¹² the formal (and, in part, substantial) overcoming of institutionalized racial and gender discriminations,¹³ and the expansion of sexual and reproductive

freedom and of civil rights – profoundly improved the social conditions of working class majorities and underprivileged minorities in the North. Yet, many of these gains were subsequently lost¹⁴ with the advent of the “neoliberal”¹⁵ counterrevolution. The multiple evils of this setback are now self-evident: a progressive deterioration of income and wealth distribution has pushed back inequality to pre-war levels in most countries,¹⁶ paving the way for the present scenario characterized by social disruption, the rise of racism, and the substantial hollowing out of the traditional edifice of liberal democracy.

Socialism, as a mode of production,¹⁷ has taken roots only in some areas of the global South and is still in its infancy. Many large-scale revolutions have taken place in some areas of the periphery and semi-periphery, since the first decades of the past century.¹⁸ Various types of experimental forms of non-capitalist relations of production and exchange striving to overcome capitalist class power have been emerging, following an uneven pattern. Some of them eventually collapsed due to endogenous and exogenous factors,¹⁹ while others have proved resilient (at least so far), and new ones have emerged.

Embryonic forms of socialism – along with capitalism and pre-capitalist modes of production – are now present in some developing countries. Consistently, we refer to them as socialist-oriented SEFs, structured around relatively similar market-socialism models in spite of the very uneven level of development of their respective productive forces.

It can be cautiously and provisionally (due to the little time they have been in existence so far) posited that, in at least some of these countries, the present state of development will be seen in the future, with the benefit of hindsight, as having represented in fact a primitive stage of socialism.

As a result of the uneven and non-linear unfolding of historical processes in the center and the periphery, the contemporary world is characterized by the existence of multiple nation-states and various forms of inter-state cooperation and rivalry. However, taking into account the inescapable, yet evolving constraints imposed by the present global context, where international trade and financial relations are predominantly market-based, significantly different socioeconomic systems and super-structural articulations²⁰ are developing in various countries, and no trend towards universal convergence à la Fukuyama is discernible.²¹ The most likely global scenario in the XXIst century – barring a catastrophic major military confrontation, a far from unlikely eventuality – is constituted by the continuing presence of diverse socioeconomic formations in evolutionary movement and reciprocal contestation.

1.4 Socialist-oriented socioeconomic formations

Several national economies, including the one which might become the largest in the world in the third decade of the XXIst century, are already characterized to a large extent by diverging nation-state-specific mixed socioeconomic systems. In these countries, the capitalist and the socialist mode

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of production co-exist, in the framework of a socialist-oriented development strategy where the State exerts a high degree of direct and indirect control over the national economy (see Box 1.2).²²

Our approach develops the idea of multilateral coexistence of different modes of production in a global context where the capitalist mode is likely to remain the dominant one, at least for a long period of time. Such a multiform and evolving world economic system is endowed with sufficient degrees of freedom to allow different socioeconomic structures to develop in different points of space and time.

Market-based relations of production and exchange prevail worldwide, especially in the realm of international trade and financial relations. Yet, they do not mechanically force all national socioeconomic systems to conform to one standard mold. Diverse and idiosyncratic socioeconomic formations pivot around different loci in the market-planning continuum, embarking on uneven development paths and engaging in various forms of inter-state cooperation and rivalry. New varieties of hybrid socioeconomic formations are likely to emerge in the future.

We frame the roots of our analysis in an evolutionary approach that follows in the cultural political economy tradition pioneered by the classical economists and Marx.^{23, 24} Yet, we also try to embody some key lessons based on recent findings in biology, social psychology, neural networks and cognitive science, neuroscience, and behavioral economics.²⁵ In this endeavor, we consider appropriate a relatively high degree of abstraction and aggregation to analyze large and complex systems such as modern human societies. Our main findings are consistent with those that have been advanced by critical political economists since at least the 1960s – contributing inter alia to deal a final blow to the fictitious *homo economicus* anthropology that underpins the hyper-individualistic micro-foundations of the whole edifice of neoclassical economics. Yet, we also propose some innovations that we deem necessary to adapt to the lessons of history and to the reality and challenges of the contemporary world. The core of our argument is that the market-based constraints of the *meta-mode of production* (see below, Chapter 7) cannot be superseded in the present historical phase, and might be progressively overcome only in a very long-term scenario. However, these constraints do not necessarily and exclusively imply the eternity and universality of capitalism. In particular, under socialism (or, more conservatively, under a socialist-oriented strategic development framework) it is possible to accelerate the progress of productive forces, to rein in the irrationalities of capital markets, to overcome to a large extent class-based exploitation in labor markets, and to gradually restrict the operation of the law of value in consumer goods markets. In turn, these achievements can be harnessed to pursue a key normative goal, such as advancing towards a more egalitarian, needs-based, and ecologically sustainable production and distribution system. In fact, unless we find a planet-wide path beyond the presently-dominant mode of production, which is still overwhelmingly capitalist at the global level, *the anthropocene* period may be the end of humanity and of many other species.

**BOX 1.1 A non-dichotomist, heuristic concept of socialism:
towards an index of socialistic development**

One convenient way to conceptualize the differences among socioeconomic systems consists in characterizing them²⁶ according to their position in a multidimensional space, determined by vectors that represent key structural economic and social properties.²⁷ Such characteristics have both positive and normative²⁸ components. Some of these components can be straightforwardly quantified, such as those that convey information on income distribution and human development. Some other ones are usually, such as those that evaluate the overall shares of various ownership in different sectors of the economy. Still other ones can be evaluated only tentatively, on the basis of heuristic assessments which are arbitrary to some extent. This is the case, for instance, of indicators that attempt to quantify synthetically the degree of direct and indirect control on the national economy exerted by private and public actors.²⁹

Socioeconomic vectors belong to two categories. The vectors of the first category represent structural features of social relations of production and exchange, and are thus essentially positive in nature. One of the most important vectors describes the relative weight of the State and of the market respectively in regulating economic activities³⁰—taking for granted that the space of possible states of the world excludes the extremes “no state” and “no market” as they are not sustainable. Another structural vector describes the distribution of the ownership of the main means of production. A third vector, strictly related to, yet not identical to the second one, identifies the class(es), or social group(s) controlling the economy as whole, and determining the joint process of accumulation and technical progress. Other vectors could be identified, referring to other, less crucial positive aspects of a country’s economic and social reality.

The vectors of the second category are normative, and represent the degree of achievement of intermediate (e.g., GDP growth, energy consumption, speed of technological change) and final goals (such as poverty elimination, universal satisfaction of basic needs, equity in opportunities, an ethically and socially satisfactory income distribution, environment protection).

Each country’s socioeconomic system can be identified by a given point in the multidimensional space described above. Many of both positive and normative characteristics described by the corresponding vectors can be seen as describing a higher or lower level of approximation to a pure socialist archetype (a society where the *principle to each according to her work* is fully and universally applied, there are no

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forms of private property, and no non-labor personal incomes exist). Necessarily, even the criteria which might allow to define a country's socioeconomic system "*more socialistic*" than that of another country are arbitrary to a large extent, and not all observers can necessarily be expected to agree on their choice. Nevertheless, it is likely that the majority would accept two very schematic criteria, each one valid only in its own sphere (positive and normative respectively).

The positive criterion can be summarily synthesized as follows: the more relevant the socioeconomic role of the state, and the lesser that of private property, the more a country's system is "*socialistic*", i.e. the higher its *degree of (effective) socialistic orientation*. From a normative viewpoint,³¹ the *degree of socialistic orientation* is directly correlated to the measurable achievement of the traditional and relatively less traditional goals of the international socialist movement, such as low social and economic inequality (both in terms of possibilities and outcomes), the universal satisfaction of basic needs, environmental sustainability, and the like.

The concept of (effective) socialistic orientation is based on real and (albeit imperfectly) measurable characteristics of socioeconomic systems, and as such it is juxtaposed to the aspirational and teleological socialistic orientation of individuals, movements or political parties. *Effective* socialistic orientation is conceptually related to complex and multi-dimensional theoretical categories, but it could also be translated into an empiric operational indicator susceptible to statistical measurement.³²

This concept is to be used in a relative, continuous, and heuristic analytical context. In the simplest case, it synthesizes a holistic evaluation. That is, saying that "economy A has a higher (overall) degree of socialistic orientation than economy B" would be like saying "*economy A is 'more socialistic'*" than economy B. The term can also refer in a comparative way to various characteristics that jointly allow observers to make a value judgment on the extent to which an economy exhibits socialist characteristics. For instance, the proposition "*economy A has a higher degree of socialistic orientation than economy B from the vantage point of positive characteristics, but a lower one from that of normative characteristics*" would be tantamount to state "*economy A is more socialized and planned than economy B*", i.e. private property and market mechanisms carry a lower weight in economy A than in economy B. However,³³ economy A's performance in terms of achieving socialist goals – such as fair income and wealth distribution, poverty reduction, environment protection, and the like – lags that of economy B.

Taking into account that social production and exchange relations are extremely complex, and that history itself is dialectic and to some

extent contradictory in nature, there is not necessarily a bi-univocal correspondence between the positive and normative spheres. Yet, the positive and normative dimensions are significantly related to each other. The relationship between systemic structure and economic and social outcomes can be seen as a specific manifestation of the more general relationship between means and ends in the historical-social domain.

BOX 1.2 Socialist-oriented economies and socialist-oriented socioeconomic formations

Contemporary and formerly-existing socialist-oriented economies are those that are (or were) run by political forces claiming officially and credibly to be engaged in a process aimed at establishing, strengthening, or improving and further developing a socialist socioeconomic system. If they are (were) endowed with a sufficient degree of stability and resilience, they can be regarded as *socialist-oriented SEFs*.

Along with the People's Republic of China (PRC) and Vietnam, Cuba is one of the three main³⁴ presently existing socialist-oriented SEFs. As it is based on easily verifiable official declarations and programs, on one hand, and on the objective analysis of its ownership structure and economic governance system, on the other hand, we regard the expression “socialist-oriented socioeconomic formation” as essentially neutral one. On the contrary, any attempt to gauge whether a real-world socioeconomic system is truly socialist or not is a very tricky exercise that – no matter the observer's intellectual honesty – inevitably requires a combination of (tentatively) objective scientific analysis and of value-judgments, and thus carries with it a significant degree of subjectivity. For this reason, in the remainder of this book, we will preferably use the expression “socialist-oriented socioeconomic formation,” rather than “socialist socioeconomic formation.”³⁵

Contemporary and formerly-existing socialist-oriented economies can be further distinguished into two classes. One is constituted by traditional, Soviet-style, centrally planned socialist³⁶ economies. Nowadays, most of them are no longer in existence. Yet, a notable exception is constituted by Cuba, a country that – notwithstanding some partial reforms that have led to a major liberalization in many commercial services sectors, a part of the economy that (along with the exportation of health services) is the most important foreign-exchange earner, and the only one that is presently growing – can still in its essence be regarded as traditionally centrally planned.³⁷

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The other category is that of *socialist-oriented market economies*. It is presently constituted by China, Vietnam, and (possibly) Laos,³⁸ three developing countries that we characterize as socialist-oriented planned market economies,³⁹ because. We prefer this definition because:

- i it is not directly and exclusively related to any of the various theories of market socialism;
- ii it does not imply extending a patent of “true” (or untrue) socialist nature;
- iii it aims rather to be factual and neutral.

A socialist-oriented market economy is a mixed national socioeconomic system where:

- a price-based market mechanisms and the law of value constitute the prevalent form of systemic regulation in the short- and medium-term;
- b the relative role of planning and of the State’s direct (via SOEs) and indirect (via publicly-owned finance and other instruments) control on the economy are qualitatively and quantitatively superior with respect to those of capitalist countries;
- c the government officially identifies full-fledged socialism as its paramount long-term goal, to be achieved progressively in a context of rapid socioeconomic development, technical progress, and a continuous evolution of economic governance tools.

Taking into account their distinctive objective and subjective characteristics, planners in socialist-oriented planned market economies are endowed with a wider and more powerful range of tools than their counterparts in capitalist countries. In particular, they can set the share of the surplus at the macroeconomic level, and capture an important part of the latter not only by means of ordinary fiscal policies but also in virtue of the State’s ownership rights on industrial and financial capital. As a result, they can in principle⁴⁰ determine in the short-to-medium run the share, the rate of investment, its broad sectoral composition, the level and composition of social expenditure, and the level of effective demand. In the long run, planners in socialist-oriented planned market economies can set the speed and (to some extent) the direction of capital accumulation, innovation, and technical progress, and significantly affect the structure of relative prices by means of market compatible industrial and other policy interventions. Therefore, they are in a position to consciously and cautiously steer the unfolding of the law of value in order to achieve ex-post socioeconomic⁴¹ and ecological outcomes superior to those that would have been produced automatically by simply following market price signals.

Notes

- 1 The term socialistic has never been widely used. Yet, its origin dates back to the mid-XIXth century (Dictionary com 2019).
- 2 Conversely, you can say that country A is (or is not) socialist.
- 3 The fall of the USSR was a complex phenomenon caused by a multiplicity of factors (the analysis of which goes beyond the scope of this book), but surely was not due to a lack of brilliant economic analysis and of ingenious attempts to improve the functioning of the planning mechanism. See, among others, Khachaturov 1976; Abalkin 1978, 1989; Aganbegyan 1989.
- 4 Abalkin used the term *socialisticnost* (socialisticity) in an influential 1988 paper to indicate the degree of approximation to what should be socialism. However, Abalkin used the term socialisticity only with reference to property rights systems, while in this work we employ it in more holistic sense. Moreover, in our view, his two socialisticity criteria (first, the system must be very productive and innovative; second, it must produce an overall societal outcome that is consistent with socialist goals and broadly superior with respect to capitalism) unduly mix up positive and normative elements, thereby falling into a sort of idealistic trap. So, for instance, Abalkin criticized late Brezhnevian USSR for being very far from what could be considered as properly socialist. Of course, he was right in the substance. However, on the contrary – according to our interpretation – the USSR was quite socialist indeed (even too much, in a way). Yet, it was a type of socialism that (apart from having always been fraught with major shortcomings) no longer worked (see Abalkin 1988a,b,c, 1989; Tedstrom 1990).
- 5 This suggestion does not imply that the original and more general meaning of these terms is incorrect and should be abandoned. The term *degree of effective socialistic orientation* refers to the attempt to measure (and, possibly, quantify) to which extent a socioeconomic system is in fact socialistic, in positive and/or normative terms (see Box 1. 1).
- 6 The concept of socioeconomic formation is a time-honored one, yet is not commonly found in contemporary social science debates. Its historical origin, its meaning, and the specific denotation in which it is employed in the remainder of this book are discussed more thoroughly below in Ch. 4.
- 7 The opposite case could be made for feudalism, a system that arose slowly over time as a product of the leaderless interaction of historical forces.
- 8 Past attempts to set up a fully socialist socioeconomic setting, and to rapidly supersede it in the direction of communism, had to be eventually discarded as they proved non-sustainable (see below, Sections 8.2, 8.3). By the same token, even the most conservative and libertarian governments in capitalist countries cannot fully dismantle the state apparatus, abolish all public services and withdraw completely from intervening in the economy.
- 9 Income and wealth distribution in some countries (such as China and Cuba) was more socialistic a few decades ago than it is now, but it was never fully socialist (see above, note 8).
- 10 The DDR and Czechoslovakia could be seen as partial, circumscribed and ultimately ephemeral exceptions.
- 11 For instance, the US has never had universal mandatory health coverage.
- 12 The diffusion of the welfare state in the advanced West was pioneered by the Roosevelt administration in the US, with its New Deal reforms, and by Social Democrat-led governments in Scandinavia since the 1930s.
- 13 Race discrimination was formally overcome in the US in the 1960s. Homosexuality was de-penalized in West Germany in 1969. Women gained the right to vote in Switzerland in 1971.

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- 14 A significant exception is constituted by the domain of sexual and reproductive freedom, the empowerment of women and the advancement of GBLT civil rights. In the neoliberal West, this positive development has been possible due to its class-neutral nature, and has been following a trend common also to socialist-oriented countries and to some capitalist developing countries. An opposite, regressive path has been followed by many other countries in Asia and Africa, that have been disrupted by the intercontinental spread of the jihadist movements born out of the mujahidin war in Afghanistan, and subsequently strengthened the US invasions of Afghanistan itself and Iraq and by the civil wars in Libya and Syria.
- 15 We use the term *neoliberal* in quotes because we consider it to be little more than a hypocritical fig leaf to mask a major step backward towards XIXth century-style, pre-keynesian liberalism.
- 16 The most well-known text on the structural, ontological nature of the long-term trend towards increasing income and wealth within-country inequality under capitalism in Europe and the US is Piketty 2014. In this respect, it might be worth observing that Piketty's research does not discuss another crucial dimension, that of between-country Inequality. Since its inception, capitalism has been generating, reproducing and magnifying worldwide between-country inequality through its manifestations as colonialism, imperialism, and hegemonism.
- 17 The term mode of production is well known. We propose our partly innovative interpretation of this category in Ch.3.
- 18 Radically egalitarian revolutionary political movements, such as the Jacobins and the Communards, had previously come to power precariously for brief periods of time, even before the Russian Revolution. Yet, they never controlled firmly the whole of France, and were never in a position to attempt any form of socialist economic construction.
- 19 After WWII, local revolutionary forces in most Eastern European countries were very weak, and could only seize power thanks to Soviet support. Such a lack of popular legitimacy played a role in hampering subsequent attempts to establish functioning centrally planned socialist economies. However, this matter-of-fact historical observation does not affect the substance of our argument.
- 20 On the concept of articulation see Gramsci 1971; Voloshinov 1973; Hall 1980; Ramos 1982; Clarke 2015.
- 21 See Fukuyama 1992. A corollary of Fukuyama's fallacy is the misleading nature of the term *transition economy*. This term often conveys the explicit or implicit assumption that all countries will eventually converge towards the Western capitalist standard, and has often been wrongly applied to countries that are far from going that way (such as China, Vietnam, and Belarus). Another popular myth about supposedly inescapable long term global trends to be falsified by real dynamic trends is related to a different (yet subtly interrelated) conception of the term *convergence* from the one mentioned above. It refers not to a convergence of economic models, but of *standards of living* between rich and poor countries. Any evidence of a generalized trend towards international GDP per capita convergence has waned in the XXIth century, apart from the cases of China and India (see Wheatley 2019).
- 22 These countries' super-structural articulations are also different from the standard Western model.
- 23 The term *classical economics* was coined by Marx to refer mainly to the theories of Smith, Ricardo, Stuart Mill, and Malthus (see FT 2018). For Marx, of course, the word *economics* was a synonymous of *political economy*, and did not carry the dogmatic and ideological connotations that it acquired in the XXth century. Subsequently, the expression *classical economics* has often been employed in contrast to

that of *neoclassical economics* to refer to the overall body of thought elaborated by all the XIXth century social scientists that shared what is modernly known as the *surplus approach* – including Marx himself.

- 24 By the same token, the study of body organs, their functions and interactions has always been at the core of medicine, and has not been made obsolete by the modern discoveries on the molecular, atomic and subatomic structures of matter. Yet, the latter provide useful insights on the former, and do by themselves constitute the basis for new scientific advances. However, a caveat is warranted with respect to this metaphor. It is meant to refer to the appropriate level of abstraction in applying the evolutionary principle to the study two very different objects, such as nature, on one hand, and human society, on the other. In no way it implies a mechanistic and narrowly organicist and functionalist conception positing that human societies are merely deterministic manifestations of the natural world, where no role is played by individuals and ideas. Such an absurd and dangerous metaphysics has long gone down the dustbin of history along with the Stalinian *Diamat*. We thank Ernesto Screpanti for warning us on this interpretative risk.
- 25 “*The meaning of economic thought cannot be understood without insight into its psychological background. With such insight, however, economic thought can serve as a barometer to gauge the atmosphere of the times*” (Weisskopf W. 1950).
- 26 Our attempt can be compared to Elliot’s “typology of alternative economic systems” (see Elliot 1978). However, Elliot’s goal was that of interpreting Marx’s own view in an epistemologically correct fashion. Conversely, our approach, while inspired by the Marxian theoretical tradition, is a diverse and independent one, stressing the elements of continuity rather than those of reciprocal negation between different socioeconomic formations.
- 27 According to such a mathematical metaphor, most of these vectors are to be imagined as continuous. Of course, the continuity of the vectors and the density of the multidimensional space containing all theoretically possible features of socioeconomic systems has nothing to do with the advisability or not of adopting specific forms of political action (revolutionary vs. reformist/gradualist) on the part of political organizations trying to modify the existing socioeconomic setting in a socialist direction, in the context of a concrete historical situation.
- 28 The distinction between positive and normative enquiry (i.e. between focusing on “what is” and on “what should be” respectively) is an ancient one, and has its roots in Aristotle. This useful methodological distinction, however, cannot be translated into practice in a fully dichotomic way in the realm of social sciences. We basically agree with Yuengert on the need to avoid “*any unwarranted imperialism of economics,*” and to accept with some humility – without prejudice for its relative methodological autonomy – that economic science cannot isolate itself from social ethics, and should rather ultimately be seen as hierarchically subordinated to the latter (see Yuengert 2000).
- 29 Still more debatable are those indicators that attempt to quantify corruption and so-called *economic freedom*.
- 30 This vector is positive by itself, as it describes objective features of the world as it is. However, the way different observers assess it is inevitably influenced by ex ante normative principles, as is always the case in the realm of social sciences. Actually, liberals (in the European sense of the word) and conservatives consider a very minor role of the State as an intrinsic virtue by itself. Socialists, on the contrary, tend to see public intervention in the economic sphere as a potential tool to achieve goals such as rational planning, social justice, and environmental sustainability.
- 31 See Gabriele and Schettino 2012.
- 32 The same token applies to the now well-known Human Development Index (HDI). Few other concepts could be more profound, holistic, and ultimately debatable than that of human development. Nevertheless, various meaningful (if

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inevitably subjective to some extent, and not universally accepted) quantitative estimates of the HDI have been produced for several years by United Nations Development Program (UNDP), and are now rightly regarded as a key synthetic development indicator. For instance, the inclusion of per capita gross domestic product (GDP) per se as one of the key variables used to build up the HDI constitutes a highly debatable methodological choice (see UNDP, Human Development Report, various years).

Applying a methodologically similar approach, it is in principle possible to construct up a synthetic *index of socialist orientation (ISO)*. The ISO would partly overlap conceptually and statistically with the HDI (as many normative goals of socialism essentially coincide with those of human development), yet – if properly conceived – it would maintain a sufficient degree of uniqueness and diversity to be regarded as a useful and meaningful indicator in its own right. Inevitably, however, its composition and weighting methodology would still be debatable, more so than in the case of the HDI.

- 33 This contradiction might be due to a host of factors, such as widespread inefficiencies, excessive centralism, or lack of substantial democracy, affecting disproportionately economy A.
- 34 Other, very heterogeneous countries could also be seen as socialist-oriented (i.e. Lao People's Democratic Republic (PDR), Cambodia, Democratic People's Republic of Korea (DPRK), Venezuela, Belarus) to different extents. Among them, however, only DPRK has been around in a form more or less similar to the present one for enough time to be regarded as a SEF – a very peculiar and not very inspiring one, for sure.
- 35 The governments of China, Vietnam, and Cuba have manifested over time (since the turn of century, or before) substantially consistent official definitional approaches to the characterization of their own societies.

In this respect, a significant difference holds between China and Vietnam, on one hand, and Cuba, on the other hand. China and Vietnam tend to prefer the term “*socialist-oriented*”, or equivalent ones, to define the nature of their own national socioeconomic systems. Cuba, conversely, considers itself a “*socialist*” country.

- 36 In our view, notwithstanding their serious defects, these societies (including Cuba) were indeed truly socialist – at the very least, from a positive viewpoint. Cuba's economy, in particular, is still substantially socialist, although it now includes a large and pivotal (for the sake of systemic survival) capitalist component.
- 37 The Democratic People's Republic of Korea is also non-capitalist, and its leaders maintain it is a socialist society. However, its extremely idiosyncratic nature, its unique historical predicament and the dearth of information surrounding its economic and social situation do not allow us to formulate any reasonable proposition or hypothesis about this country.
- 38 Lao PDR is still a very poor country, and the sustainability of its development model is more precarious than that of China and Vietnam. Cambodia might be presently transitioning towards this model as well.
- 39 Other possible matter-of-fact definitions could refer to a modern/Asian market socialism development model. This development model is intrinsically modern, as it emerged only in the last two decades of the XXth century. It can also be characterized as Asian, because so far it can be found only in Asia, but (apart from a some interesting cultural features, that should not nevertheless be overemphasized) there is nothing intrinsically Asian in it that would not allow in principle to replicate it in other regions of the world.
- 40 Of course, a potentiality is not tantamount to a certainty. Planners might fail to properly utilize their superior policy tools, or misuse them to the point of producing outcomes that are not only sub-optimal, but even inferior to those that would obtain under a *laissez faire* scenario.
- 41 Among these outcomes, income and wealth distribution also figures prominently.

2 The hard scientific underpinnings of XXIst century political economy

Summary

2.1. From God to homo economicus. – 2.2. Competition and cooperation. – 2.3. Early critiques of selfishness worshipping. – 2.4. Behavioral games: achievements and limitations. – 2.5. From behavioral economics to neuroeconomics. – 2.6. Neuroeconomics vs homo economicus. – 2.7. Neuroeconomics and cooperation. – 2.8. Neuroeconomics as an underpinning microfoundation of evolutionary economics. – 2.9. Concluding remarks.

2.1 From God to homo economicus

This chapter reviews a set of crucial scientific discoveries that have emerged from several fields of research different from that of political economy. They are the product of a long tradition of investigation, but have jointly reached a critical mass and a decisive impact on our understanding of some crucial features of mental processes and human behavior mainly since the last decade of the XXth century. The major findings we summarily present and discuss here below hopelessly undermine the microfoundations of mainstream economic theory, both in its scientific and logical underpinnings and in its thinly disguised ideological implications. The paramount lesson that social scientists should learn from these major advances in the millennia-long strive to shed light on our inner nature is straightforward: human beings, unlike subatomic particles, are very complex sentient animals, and their behavior is shaped by the forces of evolution and culture in a myriad of ways that cannot be synthesized into a small set of equations in the framework of a reductionist approach. Therefore, there are ample degrees of freedom for judiciously devising different and potentially superior forms of societal organization.

The above considerations run counter the traditional stance of both religious and laicist intellectuals working at the service of the rich. Since the agricultural revolution and the establishment of the first class-based societies thousands of years ago, these social groups have strived to portray the unfair and exploitative social order of their time as eternal, as it was both God-mandated and natural. The two arguments were strictly interrelated and

mutually reinforcing, yet to some extent distinct from each other. The identification of kings and the aristocracy with the divinity was a common trait of all the ancient empires and has been upheld as the most powerful rationale for the maintenance of the status quo, even in the most advanced and industrialized countries in the West, for many centuries after the Enlightenment. In a parallel fashion, conservative intellectuals have strived since antiquity to portray class-based exploitation as natural and inevitable, even thousands of years before the emergence of capitalism. A good example in point is Aesop's fable *The Belly and the Members*, which – according to Livy and Plutarch – was utilized by Roman Senator Menenius Agrippa to demoralize and appease the Plebeians after a revolt in the VIth century BCE.¹

With the advent of capitalism, the surge of the socialist movement, the formal equalization of all citizens with respect to the law, and the slow decay of religious and magic thinking in the industrialized West,² the task of the intellectual defenders of class-based societies became progressively harder. Neoclassical economists largely replaced priests, and the universalistic and rational anthropology of *homo economicus* came to the fore, replacing the pre-1789 theology-rooted three-tiered division of humanity into clergymen, nobles, and commoners. Nowadays, the advocates of the preservation of capitalism are equipped with the most advanced statistical and mathematical tools and XXIst-century computing devices, and they look very modern. Yet, the philosophical and essentialist bottom line of present-day attempts to exorcize and dismiss the eventuality and desirability of socialism is still a traditional narrative portraying the latter as contrary to human nature, i.e. biologically and ontologically implausible, and even perverse.³

This chapter

- i briefly reviews some of the most relevant advances of the contemporary debate on human *nature* stemming from fields of knowledge distinct from social sciences proper (such as evolutionary biology, psychology, and neuroscience) and the emergence of the novel *hard-soft* discipline of neuroeconomics, and
- ii discusses their profound implications for the underlying micro- and macro-foundations of economic anthropology, especially with respect to the critique of the *homo economicus* paradigm and the competition-cooperation dialectics
- iii concludes arguing that these multiple interdisciplinary discoveries in many different yet converging fields indeed constitute a strong argument in favor of the biological and anthropological thinkability and plausibility of socialism.⁴

We are aware that, even if we were able to convincingly make the above-sketched argument, we would be only laying the first brick of a large building. The task of showing that socialism is also practically feasible, sustainable, and advisable is left to progressive social scientists, on one hand, and to the

lessons stemming from the concrete experiments and experiences in attempting to establish and develop socialist socioeconomic systems in the real world. Therefore, the remainder of the book is an exercise in political economy, devoted to a modest attempt to provide inputs aimed at the emergence of a partly novel viewpoint on the nature of socialism and its perspectives in the XXIth century.

We realize that we are swimming against the stream. Far from keeping center stage in present-day social sciences debates and among the public at large, our thematic is somewhat out of fashion. Yet, there are some promising signs, stemming for instance from the centrality that hysterical scare-mongering about *democratic socialism*⁵ (along with sheer racism) played in the campaign for Trump’s re-election in the US in 2020. Socialism in our apparently post-postmodern era is indeed a *vaste programme*,⁶ yet one that is worth and necessary to consider at the present crossroad of history.

2.2 Competition and cooperation

As mentioned in the introduction, international trade and financial relations are predominantly market-based. Yet, far from working according to the textbook principles of perfect competition, these market relations create an uneven playing field populated by State- and non-State actors endowed with enormously unequal economic, political and military strength. This major caveat does not deny the existence of multiple nation-states and of various forms of inter-State cooperation and rivalry. The inescapable, yet evolving constraints imposed by the present global order severely hamper, yet do not rule out squarely the emergence of significantly different socioeconomic systems, that can develop in different points of space and time.

To begin with, the very role of competition and the forms it actually takes are far from unimodal and exclusive, even in capitalist societies. First, although competition within and between human societies is ultimately rooted in the biological foundations of life, it is also first and foremost (like markets) a cultural and historical construct: “*Competition is not Nature’s*” struggle for existence “*but is an artificial arrangement supported by the moral, economic, and physical sanctions of collective action.*” (Commons 1934, p. 713, quoted in Mac-Millan 2012, p. 6). Second, competition is not exclusive to the economic sphere:

As widely investigated in psychology, psychoanalysis and sociology, forms of rivalry and competition, often associated with emotional problems, are likely to play a pivotal role in childhood during family and school experiences.... social environment can also embody forms of competition among persons, groups, classes, institutions and nations based on values not directly economic-driven, such as influence, power and prestige. In this regard, also competition assumes a distinct “institutional” character.

(Hermann 2014, p. 6, Note 5)

In order to maintain a balanced analytical approach, therefore, it is important to avoid falling in the all too common pitfalls of traditional “*economism*”. The economic structure, albeit crucial, is but one of the dimensions shaping human life, and all-too-important and ever-evolving “*cultural factors*⁷ *interact in a complex way both with the economic mode of production (the so-called “material” basis of society) and with the psychological orientations and conflicts of the persons involved*” (Hermann 2014, p. 5, Note 2). Individual economically relevant decisions should not be restrained in the straightjacket of over-simplified (albeit sophisticated-looking) mathematical models either, as they are the product of a very intricate bounded rationality-based process involving both conscious and unconscious mental processes stemming from the interaction of several areas of the brain.⁸

More importantly, both in the realm of biology and in the history of humankind the principle of competition is not the only decisive one, as it coexists with that of cooperation. In the framework of the planet’s long-term climatic and environment trajectory, the interaction between competition and cooperation among living creatures generated complex and ever-changing local and global equilibria, driving the course of evolution and the surge and demise of plant and animal species.⁹

The *Anthropocene*,¹⁰ (i.e., the small subset of this long story constituted by humans’ presence) has been implying profound and ever-increasing changes in the overall pattern of evolution, but has not altered its most fundamental and universal principles: the interaction between the forces of competition and cooperation. The force of competition has been embodied in the mainstream of modern thought since the quasi¹¹-universal acceptance of the Darwinian revolution. Yet, the discovery of the crucial role of cooperation is a more recent scientific advance, still struggling to be incorporated in the contemporary intuitive and heuristic perception of the natural world on the part of the public at large.

In fact, phenomena such as highly sophisticated within-species cooperation among bees and ants,¹² or inter-species cooperation in the form of symbiosis, have long been acknowledged. However, like market failures in the domain of orthodox economics, they tended to be regarded as exceptions that did not question the rule of the absolute supremacy of competition. Only very recently scientific research has demonstrated that cooperation is not an exclusive prerogative of relatively advanced animals, as it predates them by billions of years. In fact, cooperation can act as powerful evolutionary-enhancing mechanisms even in the interaction of non-living agents and played a decisive role in several key passages in the history of life on Earth (such as the transition from unicellular to undifferentiated multicellular organisms).

Actually, the fact that natural selection favors genes that increase an organism’s ability to survive and reproduce can be wrongly understood to show that the world is exclusively dominated by selfish behavior. Yet, since the 1970s, biologists have shown empirically and elucidated that

cooperation can be found at all levels of biological organisation: genes cooperate in genomes, organelles cooperate to form eukaryotic cells, cells

cooperate to make multicellular organisms, bacterial parasites cooperate to overcome host defenses, animals breed cooperatively, and humans and insects cooperate to build societies.

(West, Griffin and Gardner 2007, Abstract)

Scientists have achieved important advances also in their understanding of the genetic and non-genetic (such as transgenerational epigenetic effects, parental effects, ecological and cultural inheritance) forces shaping the intergenerational transmission and diffusion of cooperative behavior, the neurobiological substrate of the cognitive skills necessary for the ability to cooperate,¹³ and the interaction of cooperation with within-group repression of competition – as shown by the example of fair meiosis among chromosomes (Frank 2003; Kasper et al. 2017).

These phenomena are increasingly regarded as providing a solid foundation both to understand the evolution of human sociality, trust, and cooperation, and to regard it as one more manifestation of a universal natural principle (see Maynard Smith 1958, 1982; Alexander and Borgia 1978; Alexander 1979, 1981, 1987; Leigh 1983, 2009, 2010; Jones and George 1988; Lovegrove 1991; Alexander, Noonan and Crespi 1991; Pfeiffer, Schuster and Bonhoeffer 2001; Nowak et al. 2010; Penny 2015; Estrela and Brown 2018).

Nowak (2011) provides a fundamental holistic contribution to the literature on the biological foundations of cooperation and their contemporary sociopolitical implications. Constructing his argument on the basis of a multidisciplinary methodological approach, encompassing biological research, experimental psychology, and game theory,¹⁴ Nowak argues that *indirect reciprocity* is the key mechanism driving human sociality. Indirect reciprocity is a state of affairs where A helps B without immediately expecting a directly reciprocal benefit, but acting according to a group-based collective behavioral pattern where A correctly predicts that one or more third parties will in turn help her too. It evolved through the force of reputation, stemming from bringing or refusing help, spreading over time across many areas of the biosphere, paving the way for the evolution of increasingly complex forms of interaction that eventually led to sophisticated expression and communication through language and institutions (see Milinski 2016). Genes, like human beings, are not fully and automatically selfish after all.¹⁵

According to Novak:

Creatures of every persuasion and level of complexity cooperate to survive...Human society fizzes with cooperation (p. xiii)...Today, the extent to which our brains collaborate matters as much as the size of our brains...The range and extent to which we work together make us supreme cooperators (p.xiv)...our ability to cooperate goes hand in hand with succeeding in the struggle to survive... cooperation is entirely compatible with the hard-boiled arithmetic of survival in an unremittingly cold-eyed and competitive environment. (p.xvi)

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The principle of competition coexists and mutually interacts with that of cooperation. The history of humanity is the history of the struggle between cooperation, aimed at achieving collective long-term goals, and the selfish – and ultimately self-defeating – pursuit of short-term interests.

Along with mutation and selection, cooperation is the third fundamental evolutionary force. It is also a more powerful force than competition in shaping and fostering innovation. With the advent of globalization, the never-ending rat race of competitive resource-exhausting growth is becoming more and more unsustainable:

...Today we face a stark choice: we can either move up to the next stage of evolutionary complexity, or we can go into decline, even become extinct¹⁶...we could be on the verge of the next transition in social organization, one of equal significance to the emergence of the first cell... (p.281)

The uniquely human potential ability to understand and steer its own evolution by means of scientific analysis and culture makes cooperation all the more necessary to deal with the intrinsically global nature of present-day development and environmental sustainability challenges.

2.3 Early critiques of selfishness worshipping

The lessons stemming from the findings on the complex evolutionary coexistence of selfish and cooperative behavior, both in nature and in the history of mankind, are to be interpreted along with those emanating from major advances in behavioral economics, experimental neuroscience, and neuroeconomics.

These disciplines have been greatly strengthened since the popularization of revolutionary brain-imaging technologies since the turn of the century, allowing researchers to achieve a once-unthinkable degree of scientific accuracy in domains that until recently were left exclusively to informed intuition and speculation. However, it is important to remind that the apologetic equation between the unbridled and perfectly rational egoism of homo economicus and the maximization of public welfare had been criticized since the very inception of the new science of political economy prompted by the industrial revolution, long time before these modern scientific discoveries.

Adam Smith, wrongly regarded as the founding father of egoism as the exclusive guiding principle of human action, according to which every individual automatically contributes to the society's affluence, was first and foremost a moral philosopher. He realized the severe limitations of *laissez faire*, strived to discover the ultimate causes governing people's motivations and behavior, and argued that they were related not only to monetary incentives but also to a much wider range of societal relations. In his most famous book, Smith also stated: "*No society can surely be flourishing and happy, of which the far greater part of*