

Is Heraclitean spirit present in contemporary evolutionary socioeconomic theory?

Charis Vlados^{a,b,c}

^a Department of Economics, Democritus University of Thrace, Komotini, Greece; ^b School of Business, University of Nicosia, Nicosia, Cyprus; ^c School of Social Sciences, Business & Organisation Administration (BOA), Hellenic Open University, Patras, Greece

This paper posits that Heraclitus' work constitutes a somewhat underappreciated foundation in the study of socioeconomic thought. It then differentiates his perspective from earlier economic thought in ancient societies and critically examines the surviving fragments of his work. The dialectical approach to phenomena, established by the Heraclitean spirit, has inspired contributions to socioeconomic thought that increasingly shape contemporary economic thinking. This historical trajectory is examined elliptically, emphasising its importance in understanding today's complex realities.

Keywords: Heraclitus; economic thought; dialectics; Heraclitean spirit

1. Introduction

The god: day and night, winter and summer, war and peace, satiety and hunger. It alters, as when mingled with perfumes it gets named according to the pleasure (hedone) of each one. (Ο Θεός ήμέρη εύφρόνη, χειμών θέρος, πόλεμος ειρήνη, κόρος λιμός. Άλλοιοῦται δέ ὄκωσπερ [πῦρ], ὁπόταν συμμιγῆ θυώμασιν, ὀνομάζεται καθ' ήδονήν ἐκάστου.)¹

Where did it all begin in the world of economic thought? Where and when did what could be described as the 'big bang' in social-economic thought and intellect occur? Which thinker and writer could we place as the first in a long line of scholars who fertilised with

¹ Kahn (1979: 84), Fragment CXXIII (D. 67). See also Yeroulanos (2016).

their intellect man's attempt to understand the world, society, and, by extension, its economy? Who is worthy of being called the most valuable pioneer in this long and incessantly expanding genealogy?

This study aims to establish the point at which the first most critical ideas, concepts, and statements for a broader theoretical understanding of our world emerged through the Heraclitean spirit (Eburne, 2016; Goetzmann, 2017; Kurz, 2016). It attempts to show where the first formulations in socioeconomic thought began, without which the rivers of philosophical, social, political, and economic reflection could not have gushed forth dazzlingly for the first time. It also examines what Heraclitus' basic cosmological and political views were and how his thought influences and fertilises the analysis of socioeconomic sciences to this day.

We follow an approach of synthesis and historical investigation of essential milestones in economic thought, taking a critical stance toward the phenomena under consideration (Katselidis, 2019). The remainder is structured as follows. Section 2 compares early forms of civilisations to conclude that economic recording and thinking remained rudimentary in ancient Mesopotamia, Egypt, China, and India. Section 3 argues that the intellectual revolution in pre-classical Greek antiquity triggered the first profound and holistic radical conceptual horizon of socioeconomic reflection through the Heraclitean perspective. Thus, it presents the elements that conceal the seeds of economic and political thought in his surviving work. Section 4 highlights the constant clash of opposites in the Heraclitean approach as a critical contribution to all socioeconomic sciences throughout the centuries. Section 5 is concerned with examining relevant socioeconomic concepts within Heraclitus' fragments. Finally, Section 6 situates the Heraclitean dialectics in economic thought up to the present day.

2. The First Forms of Civilisations, Economic Structures, and Early Economic Thought and Intellect

It is generally accepted that the early Mesopotamian communities were the initial cradles of the social and economic civilisation (Postgate, 2017). The Mesopotamian civilisation between the Tigris and Euphrates was the first to develop many aspects of our daily life as we know them today. There we saw —seemingly for the first time— outstanding human achievements such as writing, the wheel’s invention, the codification of laws, the establishment of a conventional calendar, the irrigation of crops, the recording of wealth—production, and the fermentation of beer (Speiser, 1942).

In these early forms of societies, the phenomenon of wealth emerged for the first time and distinctly. The Assyrian and Babylonian theocracy constituted, to a considerable extent, the first political and social basis for economic symbiosis (Grayson, 2000). Here we observe large armies and clear administrative hierarchies, an elaborate legal system —the code of Hammurabi, written around 2,000 BC, is an important milestone (Barmash, 2020)— and early institutions of money, credit, and banking. From that point onward, we observe the building of cities and the gradual stabilisation and repetitiveness of production, which led to the systematic creation of economic surplus, established the mechanism of taxation, and, by extension, provided the necessary material basis for the existence of political and religious power (Hunt and Lautzenheiser, 2011).

However, can we say with certainty that this is where (in Ancient Mesopotamia) social and political intellect emerged, especially the scholar intellectual as an agent of independent thought? No, apparently.

Did the next great civilisation of ancient Egypt (maybe) give birth for the first time to free socioeconomic reflection by leaving written monuments? Apart from the colossal and stunning pyramids, which required economic calculation, measurement, and

efficient management of the needed resources—a fact that is not in doubt—we cannot find any written monuments of broader socioeconomic reflection (Brewer, 2014; Dykstra, 1994). Nevertheless, certain scholars cultivated writing even more intensively in ancient Egypt. These intellectuals, called the ‘scribes,’ possessed the most advanced technology back then. The kings and other rulers held them in high esteem as they were considered the chosen of God Thoth, who inspired, guided, and protected their high and irreplaceable art. Wilkinson (2013), an Egyptologist, notes that the power of written words to make permanent a desired state of affairs was at the heart of Egyptian belief and practice, which was, of course, a primary concern of the kings to maintain and reproduce their power. Therefore, the daily responsibility of these scholars was to record the essential facts—of all kinds—of society so that they would become clear, official, and ‘indelible’ in time as instruments of political and economic power, primarily in the service of Egyptian kings.

The entire intellectual elite in ancient Egypt, including the priests, were scribes; however, the opposite was not always the case. Healers were also—in principle—writers (scribes) because they had to be literate and write their medical texts—so they always began their training by learning to write. Also, as there was no clear separation between the religious and lay life of the elite in ancient Egypt, these doctors were usually priests—a fact that seems to have been preserved over time in the history of Egypt, even as the profession gradually became secularised. In addition, the senior administration officials were also trained scribes, as they had to accurately record and guarantee the efficient use of the always-limited financial resources in their administration (White, 2013).

However, we do not find any scribe, physician, official, or priest in ancient Egypt who remained truly immortal through his eponymous intellectual work. Historically, we mention the Pharaohs exclusively and usually only when referring to the magnificent pyramids. Hence, even in ancient Egypt, we cannot distinguish the individual and named

intellectual who, through their eloquent written or spoken word, begins to activate the cradle of global socioeconomic thought, which has been constantly active ever since.

Similarly, no other evidence is found in any other part of the world in those early ages of human civilisation —e.g., China and India. As is well known, the first Chinese cities were established by different settlers along the Yellow River and Yangtze valleys —the former is considered the cradle of further developments. A significant intellectual, religious leader, and philosopher —in a way— in this region was Confucius, who was born in 551 BC. Confucius' teachings and philosophy undoubtedly profoundly influenced everyday life and thought in East Asia. His teachings, as preserved in the Analects, laid the foundation for many later Chinese views on the education and conduct of the right person and how individuals should live their lives and interact with others in society (Ames and Rosemont Jr, 2010) —in this sense, his social focus is clear. However, the sources for Confucius' life are all later and, in many cases, do not distinguish creative imagination from reality. Consequently, most of what we know about his life is considered shrouded in myth and is —to a considerable extent— of diminished credibility. Thus, finding a clear thread of abstract socioeconomic reflection in his work is impossible.

Similarly, we do not find an answer to our question in India's ancient civilisation either, which emerged in the Indus valley in 2600–1500 BC and developed in the Indian subcontinent along this river. The Indus Valley culture still hides many secrets and mysteries even today. For example, scholars of this culture have not yet been able to decipher its writing because of insufficient evidence (Fairservis, 1983). Most known inscriptions have been found on seals or ceramic vessels and contain less than 4 or 5 characters —the longest being 26. Also, to date, there is no further evidence of any complete written text. Because the inscriptions are so short, some researchers wonder

whether these symbols fall short of an actual writing system—it has been suggested that this culture used written impressions only to facilitate economic transactions (Possehl, 2002; Robinson, 2015; Wright, 2010)..

Concerning the written records that we find in this period, we see that, from the 3rd century BC onward, Prakrit and Pali literature in the north and Tamil Sangam in southern India began to flourish (Chattopadhyaya, 2009; Singh, 2008). The first Upanishads were also composed between 800 and 400 BC, forming the theoretical basis of classical Hinduism—they are also known as Vedanta (the extension of Vedas; Flood, 1996; Mascaró, 1965). During this period, the Sanskrit epics Ramayana and Mahabharata were written—the latter remains the world’s longest single poem (Goldman *et al.*, 1984). Many historians have previously assumed that there was an ‘epic era’ that contributed to the writing of these poems—yet we nowadays recognise that the texts went through multiple stages of development over centuries (Thapar, 1990) For example, the Mahabharata is speculated to have been based on a small-scale conflict (probably around 1000 BC), which was eventually transformed into a big epic war by bards and poets. Thus, there is no convincing archaeological evidence as to whether the events described in the Mahabharata have an actual historical basis. Also, the existing forms of the texts belong to the post-Vedic period, between 400 BC and 400 AD (Brockington, 1998).

Therefore, as in the others, we do not detect any clear start of abstract socioeconomic reflection and understanding of our world in this space-time context. The main feature in the thought of this early Indus Valley culture is an inextricable synthesis—no doubt fascinating, too— between poetry, mythology, and religious insight but without a clear basis for socioeconomic and political critical thinking and theorising.

3. The Intellectual Cradle of Free Thought in Ancient Greece

Into the same rivers we step and do not step, we are and we are not. (ποταμοῖσι τοῖσιν αὐτοῖσιν ἐμβαίνουσιν ἕτερα καὶ ἕτερα ὕδατα ἐπιρρεῖ.)²

These acknowledgements lead us to the intersection we are looking for, which seems rooted in the first era of Greek antiquity, starting near the 6th century BC (Ober, 2015). Then, for the first time, people begin to think as discrete units, relatively independent of any explicit religious ritual—as citizens, producers, and users of their democracy, for the world and their surrounding society. In that context, the type of intelligent man as an autonomous being gradually crystallises. Here we see a man free to contemplate—but also to write—about the historical origins and future of the world and society in a relatively coherent and superstition-free way, beyond some oppressive religious rule, ritual, or some absolutely-controlled administrative routine. In this context, we believe that a ‘new man’ has emerged, who begins to question, debate, disagree, agree, interpret, and philosophise as an independent-thinking being—a self-reliant, self-empowered citizen and self-legislator of the state (Castoriadis, 1975; Ober, 1999).

At that moment in space and time, we see people exploring, for the first time, as autonomous thinkers (Blackson, 2011)—not as docile priests and representatives of divine entities—the distinction between good and evil (by contemplating morality), beauty and ugliness (by studying aesthetics), or right and wrong (by examining the law). Here we see, for the first time, a systematic observation of the real by speaking of physics and the divine will by contemplating metaphysics, always based on distinct human individuality and personal intelligence (Hankinson, 1998). In this context, we see people functioning as autonomous members of society, becoming for the first time named poets,

² (Kahn, 1979, p. 52), Fragment L (D. 49, M40a).

playwrights, artists, actors, artisans, free private traders, and political visionaries (Green, 1996; Hobden, 2013).

We believe that it was in the context of ancient Greek civilisation that the first breakthrough in the historical development of human intellect occurred, which, to a large extent, laid the groundwork for all the scientific fields we know today. As Crombie (Crombie, 1995) aptly puts it, the abstract thinking of the Greeks achieved a triumph of order over the chaos of immediate experience, as it gave primary importance to knowledge and understanding, usually leaving practical utility in a secondary role.

Which early thinker started this intellectual revolution that gave birth to economic science centuries later? Who seems to have formulated the ideas that spawned later socioeconomic thought and science? Heraclitus is at the root of these reflections in our personal and subjective approach.

3.1. Heraclitus, the Weeping Philosopher

We contend that the first explosion of socioeconomic thought occurred on the coast of Asia Minor some 2,500 years ago through the Heraclitean spirit. Heraclitus was one of the most prominent pre-Socratic philosophers for whom we have clear information and written evidence of his thought —some describe him as an obscure and mysterious philosopher (Barnes, 2002; Chitwood, 2004). The texts that have survived are entirely fragmentary and in the form of a few scattered fragments. However, we believe that without these fundamental insights, our world would have been long overdue in sufficiently understanding every social and, by extension, political and economic phenomenon —in their dialectic depths (Graham, 2009). Without the Heraclitean spirit in this first moment of intellectual cosmogony in human civilisation, socioeconomic contemplation would probably remain on the surface of phenomena, exhausted at

descriptive, simplistically static, and repetitive levels. Certain Heraclitean concepts such as continuous conflict, dialectical synthesis of opposites with their resulting dynamic harmony, and constant evolution of things seem to have contributed significantly to modern social and economic sciences (Eburne, 2016).

3.2. The Political Environment and the Heraclitean Attitude Toward Politics and Power

Heraclitus was born near 500 BC in Ephesus of Ionia, was of noble birth, and was a descendant of Androclus, the city's founder. Biographers (notably Diogenes Laërtius and Strabo) refer to him as always aloof, skeptical, and mysterious (Kofman, 1987). Heraclitus declared himself self-taught and lived an enclosed and rather solitary life. Some biographers judge him even more harshly, as arrogant, incredibly proud, and even contemptuous of others. Even Socrates later, speaking of Heraclitus' thought, observed with some subtle irony (Barnes, 2002): 'The part I understand is excellent, and so too is, I dare say, the part I do not understand, but it needs a Delian diver to get to the bottom of it.' Theophrastus, for his part, claimed that this obscurity probably came simply from his melancholy (Barnes, 2002).

Heraclitus' personality was complex, panoptic, and quite unusual. The fact that he lived in a turbulent and uncertain time, during which radical social and political changes took place, seemingly contributed to this peculiarity. In particular, he lived during the Ionian revolution, when tyrants in the surrounding cities were often forced to resign or forcibly removed (Sandywell, 2002). It was also common for bloody upheavals to take place under the pressure of massive revolutionary popular mobilisations. Heraclitus, for his part, did not support the harshness of this political conflict and its imposed methods. As a result, as Diogenes Laërtius notes (Miller, 2018) —and the historian Strabo confirms— he abdicated the reign so that his brother could succeed to

the throne. Thus, even when his fellow citizens asked him to legislate for the city, he refused as ‘vice had prevailed’ (κεκρατήσθαι τή πονηρά πολιτεία τήν πόλιν), and he did not want to get involved in the violence and corruption that was spreading in his view (Miller, 2018).

3.3. War and Violence in the Heraclitean Thought

Despite his apparent aversion to them, Heraclitus did not regard violence and the conditions of conflict as non-natural and exceptional circumstances in the cosmos and human life. For Heraclitus, war was and will be the primary principle that drives the universe:³ ‘War is the father of all and king of all; some he has shown as gods, others as men; some he has made slaves, others free.’ He understood that everything is born out of conflict and that nothing can remain peaceful and stable forever. However, Heraclitus was, apparently, not a man who was impressed by power, nor did he pursue it along with the overt violence that always accompanies it. He fully understood —indeed, he was the first to teach— that conflict is the primary source of all evolutionary change. However, he probably viewed power with intense scepticism —possibly disgust— and with a critical distance that many other intellectuals in the history of our world have since maintained (Rudolfovna, 2018).

Heraclitus was not in favour of bloody revolutions nor of the violent imposition of the mob —he often seemed to express himself negatively against the revolutionary base in his society. For Heraclitus, it made sense for positions of power to be occupied only by sober, worthy, and capable people —a condition largely unattainable in the disruptive environment in which he lived. In Heraclitus’ thinking, any unrestrained mass

³ (Kahn, 1979, p. 66), Fragment LXXXIII (D. 53, M. 29): Πόλεμος πάντων μὲν πατήρ ἐστι, πάντων δὲ βασιλεύς, καὶ τοὺς μὲν θεοὺς ἔδειξε τοὺς δὲ ἀνθρώπους, τοὺς μὲν δούλους ἐποίησε τοὺς δὲ ἐλευθέρους.

imposition of violence to seize and maintain power was to be avoided:⁴ ‘The people (demos) must fight for the law as for their city wall.’ Therefore, we could say that he was an early exponent of a meritocratic democracy, although he subsequently earned from some of his biographers the title of ‘anti-democrat’ or even extreme elitist. Timon described him in one of his speeches with the following, not very flattering, words (Miller, 2018, p. 438): ‘Among them arose a crower, a riddler, mob-reviling Heraclitus.’

From this perspective, Heraclitus’ conception of the socioeconomic ‘game’ does not resort to a static and ‘pacifying’ understanding. He does not invoke any ‘divine law’ as a mechanism for balancing socioeconomic reality, as he conceives and articulates the perpetual law of continuous socioeconomic conflict as the primary mechanism of the evolution of the state (politeia).

3.4. The Heraclitean Panoptic Melancholy

According to Diogenes Laërtius, what Heraclitus seems to have liked most, in the very fluid, uncertain, and particularly violent political conditions that he lived in, was to contemplate and play with ‘knucklebones’ (astragaloi) and moving pieces in the company of noble young men of Ephesus in the temple of Artemis. He never considered this a subordinate or unworthy occupation as, in his eyes, time itself ‘is a child at play, moving pieces in a game. Kingship belongs to the child.’ (Αἰὼν παῖς ἐστὶ παίζων, πεσσεύων παιδὸς ἢ βασιληΐη.)⁵ Therefore, Heraclitus was not a popular demagogue nor a pleasant and sweet-talking orator. Nor was he an intellectual of political action and power. However, Heraclitus was a man of thought and penetrating philosophical contemplation and thus remained quite introverted until his tragic death (Miller, 2018, pp. 436–437).

⁴ (Kahn, 1979, p. 276), Fragment LXV (D. 44): μάχεσθαι χρή τὸν δῆμον ὑπὲρ τοῦ νόμου [ὑπὲρ τοῦ γινομένου] ὄκωσπερ τείχεος.

⁵ (Kahn, 1979, p. 70), Fragment XCIV (D. 52, M. 93).

Although some scholars describe him as a twisted and obscure thinker, we often recall him —as economists— because he drastically enhances our thinking, clarifying to a large extent the reality that economics tries to interpret. Conflict, change, evolution: concepts full of light for any scientist, in all fields, including economics (e.g., Long, 2009; Mies, 2006; Müller-Merbach, 2006; Shaw, 2019, 2022a, 2022b). Concepts that we appreciate as being fundamental, uniquely valuable, and irreplaceable.

3.5. Pre-Socratics and Dialectics

Heraclitus belongs to the pre-Socratic philosophers who lived from the 7th century BC until the time of Socrates. Their reflection is largely precursory to Socratic thought and the central core of classical Greek philosophy. The pre-Socratics seem to have been the first to formulate concrete and complete philosophical theories, abandoning the strict adherence to their time's dominant polytheistic religious interpretations and superstitions. The issues they studied (Sassi, 2018) covered a vast range of interests, mainly concerning the genesis and functioning of the Cosmos (cosmogony and cosmology) while exploring the possibilities of human perception (gnoseology).

Parmenides is also a pre-Socratic philosopher, teaching that the sensed world is an illusion because it consists of movement (or change) and diversity. According to Parmenides, the 'On' (Nature) is still and finished (all reality is one), and there is no diversity and differentiation within this Whole. Heraclitus, for his part, stood strictly against this perfectly static conception of the Cosmos. Heraclitus is the philosopher of 'gignesthai' (to come into being), the struggle between opposites. He is the philosopher who conceives of the Cosmos as a synthesis of processes rather than objects. All the pre-Socratics, especially Heraclitus and Zeno of Elea, gave the roots of dialectical thinking. Specifically, Heraclitus' thought supported and highlighted the importance of continuous

motion, in direct contrast to the views of Pythagoras, Xenophanes, and the Eleatics. Heraclitus emphasised the core of dialectical thinking, that is, the art of arriving at the truth by revealing the contradictions in opposing judgments, leading to their overcoming (Barnes, 2002).

Subsequently, the dialectical method was perhaps the most valuable fruit of philosophical production in ancient classical antiquity. It was a fundamental conceptual weapon in the thought of Plato and Aristotle, which was also exploited by later writers. It was a conception of reality that was judged, tested, often neglected, and rejected by later scholars until it became the basis for Hegel's philosophy (Eburne, 2016)—usually captured in the conceptual scheme of 'Thesis–Antithesis–Synthesis.' Subsequently, Hegel's approach became the foundation of dialectical materialism in Marx and Engels' interpretation of history (Jordan, 1967). As Descombes (1979, p. 16) eloquently observes, studying dialectics as a concept within the history of ideas:

Nothing is more characteristic than the change of meaning of the word dialectic. Before 1930, it was understood pejoratively: for a neo-Kantian, dialectics was the 'Logic of appearance'; for a Bergsonian, it could only generate a purely verbal philosophy. After 1930, on the other hand, the word is almost always used in an eulogical sense. It is now fashionable to go beyond the 'analytical reason' (the Kantian *Verstand*), or even the 'mechanism,' thanks to the dialectic. Dialectics even becomes such an elevated concept that it would be unfair to ask for its definition. For thirty years, it will be like the God of negative theology: it was necessary to give up determining it, one could only approach it by explaining what it is not.

4. Continuous Conflict, Change, and Evolution

They do not comprehend how a thing agrees at variance with itself; it is an attunement turning back on itself, like that of the bow and the lyre. (οὐ ζυγιᾶσιν

ὅκως διαφερόμενον ἐαυτῷ ὁμολογέει· παλίντονος ἀρμονίη ὅκωσπερ τόξου καὶ λύρης.)⁶

In this emerging context of dialectical thought, Heraclitus' contribution was decisive. The pattern of constant conflict, change, and evolution that motivated his thinking is, we believe, one of the most pivotal contributions to human intellect, which centuries later still applies to all socioeconomic sciences (Figure 1).

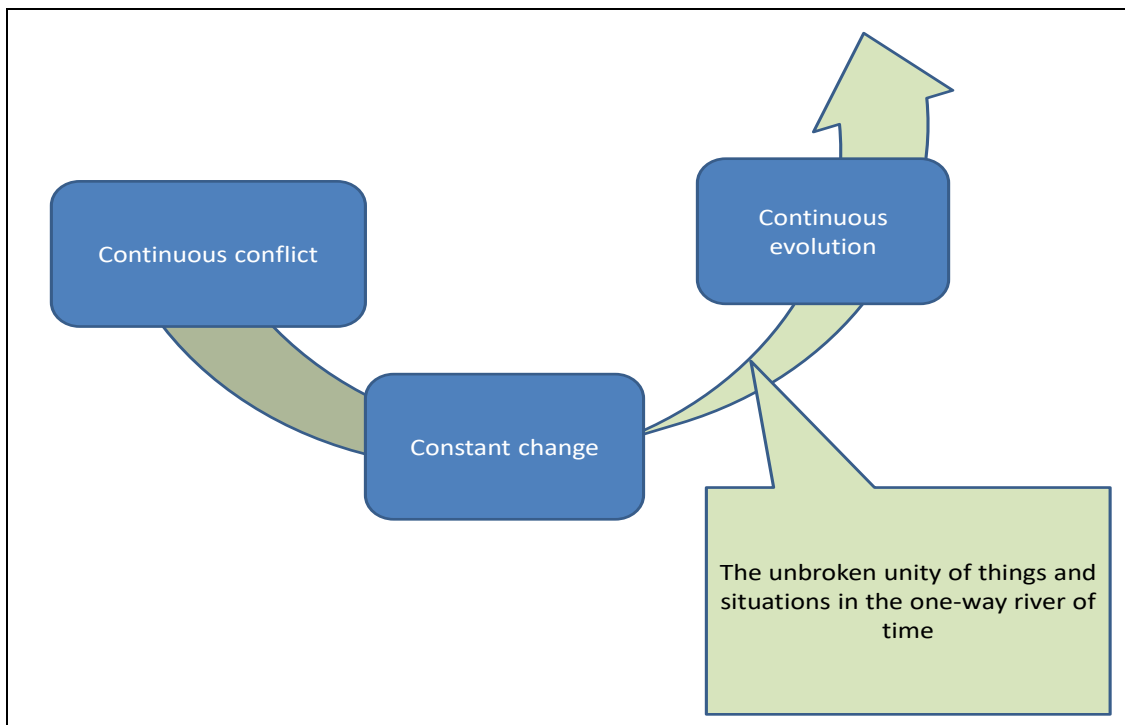


Fig 1: The dialectical thought of Heraclitus

Everything is war from the Heraclitean perspective. But it is this inherent conflict, in any situation, that gives rise to harmony:⁷ 'The counter-thrust brings together, and from tones at variance comes perfect attunement, and all things come to pass through conflict.' Thus, harmony is a temporary equilibrium when a thing opposes itself, with which it is co-identified as a unified whole. We contend that this conception seems necessary for every

⁶ (Kahn, 1979, p. 64), Fragment LXXVIII (D. 51, M. 27).

⁷ (Kahn, 1979, p. 62), Fragment LXXV (D. 8, M. 27): τὸ ἀντίξουν συμφέρον καὶ ἐκ τῶν διαφερόντων καλλίστην ἀρμονίαν (καὶ πάντα κατ' ἔριν γίνεσθαι).

social scientist and economist: in studying the constant conflict between supply and demand (market), the ongoing strife between different methods of production and consumption (competition), and the perpetual attempt of every new to overcome the old (innovation). Nothing always seems peaceful, created out of passive agreement and inaction. As Heraclitus puts it:⁸ ‘The hidden attunement is better than the obvious one.’

In the Heraclitean perspective, conflict generates continuous change⁹ as everything evolves and nothing remains unchanged:¹⁰ ‘It rests by changing.’ We believe that if Heraclitus were alive today, he would argue that this perspective applies to all spatiotemporal levels of the real (social, political, and economic) —and we think he would be right. This constant change is necessary as it maintains the dynamism and vitality of any system:¹¹ ‘Even the posset separates if it is not stirred.’ In Heraclitus’s perspective, this constant transformation is not timeless, iterative, and unhistorical. Instead, it unfolds on the irreversible historical evolution of things and the flow that allows no returns or repetitions of anything, as it is impossible to enter the same river twice (Vlastos, 1955).

5. Heraclitus’ ‘Advice’ to Today’s Social Scientists and Economists

One cannot step twice into the same river, nor can one grasp any mortal substance in a stable condition, but it scatters and again gathers; it forms and dissolves, and approaches and departs. (Ποταμῷ γὰρ οὐκ ἔστιν ἐμβῆναι δις τῷ αὐτῷ καθ’ Ἡράκλειτον οὐδὲ θνητῆς οὐσίας δις ἄψασθαι κατὰ ἕξιν (τῆς αὐτῆς)· ἀλλ’ ὀξύτητι

⁸ (Kahn, 1979, p. 64), Fragment LXXX (D. 54, M. 9): ἀρμονίη ἀφανῆς φανερῆς κρείττων.

⁹ According to Kahn (Kahn, 1979, p. 4): ‘For Plato Heraclitus is the theorist of universal flux (panta rhei [τὰ πάντα ῥεῖ καὶ οὐδὲν μένει] ‘all things flow’).’

¹⁰ (Kahn, 1979, p. 52), Fragment LII (D. 84a, M. 56A): μεταβάλλον ἀναπαύεται.

¹¹ (Kahn, 1979, p. 64), Fragment LXXVII (D. 125, M. 31): καθάπερ ὁ Ἡράκλειτός φησι, καὶ ὁ κυκεῶν δίσταται <μῆ> κινούμενος.

καὶ τάχει μεταβολῆς σκίδνησι καὶ πάλιν συνάγει (μᾶλλον δὲ οὐδὲ πάλιν οὐδ’
ὕστερον, ἀλλ’ ἅμα συνίσταται καὶ ἀπολείπει) καὶ πρόσεισι καὶ ἄπεισι.)¹²

We believe that Heraclitus’ philosophical approach is one of the most valuable ‘tools’ we have as economists and social scientists. It helps us escape the static, simplistic, and ‘convenient’ way of conceiving the economy and from all analytical ‘sterilisations’ sometimes subjected by the abusive use of *ceteris paribus*. It also helps us escape the superficiality of an ahistorical approach to economic phenomena. We believe the memorable fragments that survive improve us as modern citizens and scholars of socioeconomic sciences.

Heraclitus explicitly notes the importance of human character, our will and behaviour that shape society (not some faceless ‘mechanism’ or passive determinism):¹³ ‘Man’s character is his fate.’ (Literally, his daemon or divinity). Heraclitus also warns us that nature likes to hide and never leads to easy conclusions.¹⁴ Heraclitus still urges us not to make unsupported speculations on significant issues nor to allow logical leaps and escapes from realism.¹⁵ We also see the need for comprehensive theoretical training for any individual who aspires to accurately understand the surrounding reality:¹⁶ ‘Eyes and ears are poor witnesses for men if their souls do not understand the language.’ Finally, Heraclitus calls us to optimism, perseverance, and constant effort:¹⁷ ‘He who does not expect will not find out the unexpected, for it is trackless and unexplored.’ Therefore, we

¹² (Kahn, 1979, p. 52), LI (D. 91, M. 40c3), Plutarch.

¹³ (Kahn, 1979, p. 80), Fragment CXIV (D. 119, M. 94): ἦθος ἀνθρώπου δαίμων.

¹⁴ (Kahn, 1979, p. 32), Fragment X (D. 123): Ἡ φύσις κρύπτεσθαι φιλεῖ. [Nature (physis) loves to hide.]

¹⁵ (Yeroulanos, 2016, p. 284), Fragment 27 (D-K): Μη εικὴ περὶ τῶν μεγάλων συμβαλλώμεθα. [Do not pass random judgment on serious matters.]

¹⁶ (Kahn, 1979, p. 34), Fragment XVI (D. 107, M. 13): κακοὶ μάρτυρες ἀνθρώποισιν ὀφθαλμοὶ καὶ ὄτα βαρβάρους ψυχᾶς ἐχόντων.

¹⁷ Kahn (1979: 30), Fragment VII (D. 18, M. 11): ἐὰν μὴ ἔλπηται, ἀνέλπιστον οὐκ ἐξευρήσει, ἀνεξερεύνητον ἐὼν καὶ ἄπορον.

understand that, in Heraclitean thought, everything is and remains dialectically interconnected within the ever-evolving mosaic of our Cosmos and History: society, politics, power, authority, force, and production, all one.¹⁸

6. Discussion and Conclusions: Heraclitean Perspective and Dialectics in Economic Thinking

Most men do not think things in the way they encounter them, nor do they recognise what they experience, but believe their own opinions. (οὐ γὰρ φρονέουσι τιαῦτα πολλοὶ ὁκοίοις ἐγκυρέουσιν, οὐδὲ μαθόντες γινώσκουσιν, ἐωυτοῖσι δὲ δοκέουσι.)¹⁹

We conclude that socioeconomic science must understand today's complex reality using a dialectical perspective rooted in Heraclitean thought. Figure 2 depicts some milestones in the emergence and use of dialectics up to the present day, thus highlighting Heraclitus' contribution.

¹⁸ (Kahn, 1979, p. 84), Fragment CXXIV (D. 10, M. 25): συλλάψεις· ὅλα καὶ οὐχ ὅλα, συμφερόμενον διαφερόμενον, συνᾶδον διαδον, ἐκ πάντων ἓν καὶ ἐξ ἑνὸς πάντα. [Graspings: wholes and not wholes, convergent divergent, consonant dissonant, from all things one and from one thing all.]; From this fragment concerning the unity of the whole with the unit, we believe today's economist can derive important insights into understanding phenomena as simultaneously macroeconomic, mesoeconomic, and microeconomic (Vlados, 2019; Vlados and Chatzinikolaou, 2020).

¹⁹ (Kahn, 1979, p. 28), Fragment IV (D. 17, M. 3).

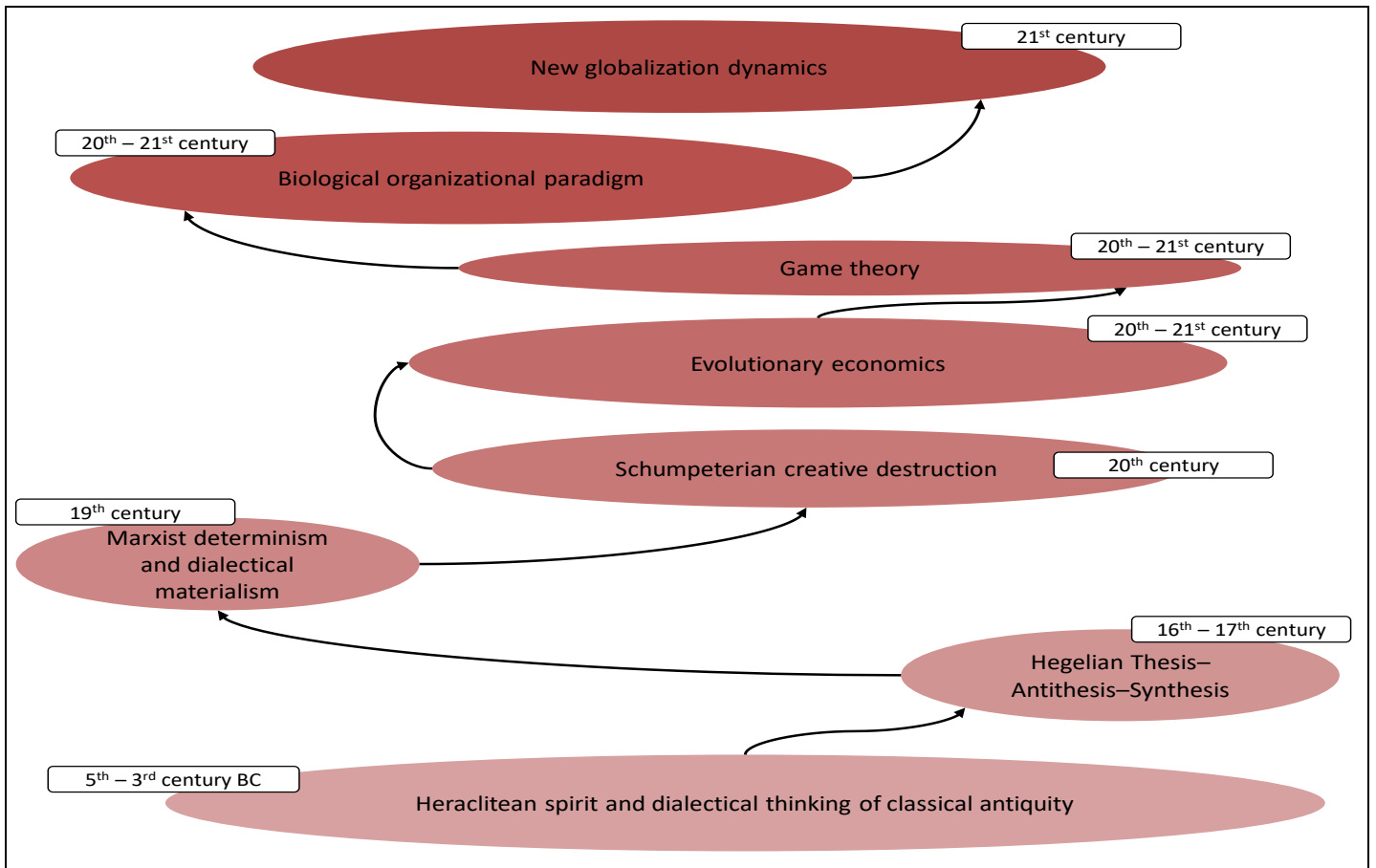


Fig 2: Critical milestones of the dialectical approach to economic thinking

In the dynamic and conflictual perspective of phenomena, no socioeconomic formation remains unchanged over time, as any equilibrium is always temporary (Vlados *et al.*, 2019). The rediscovery of dialectics and its placement in a central explanatory position in the post-Enlightenment era is mainly due to Hegel (1812), who introduced the dialectical model of Thesis–Antithesis–Synthesis. In this approach, everything starts from a temporary state of equilibrium (Thesis), within which its Antithesis gradually develops as disequilibrium. When the accumulation of quantities becomes so great that the previous system cannot contain it, the inevitable conflict may lead to Synthesis, which leads to an entirely new regime (Figure 3).

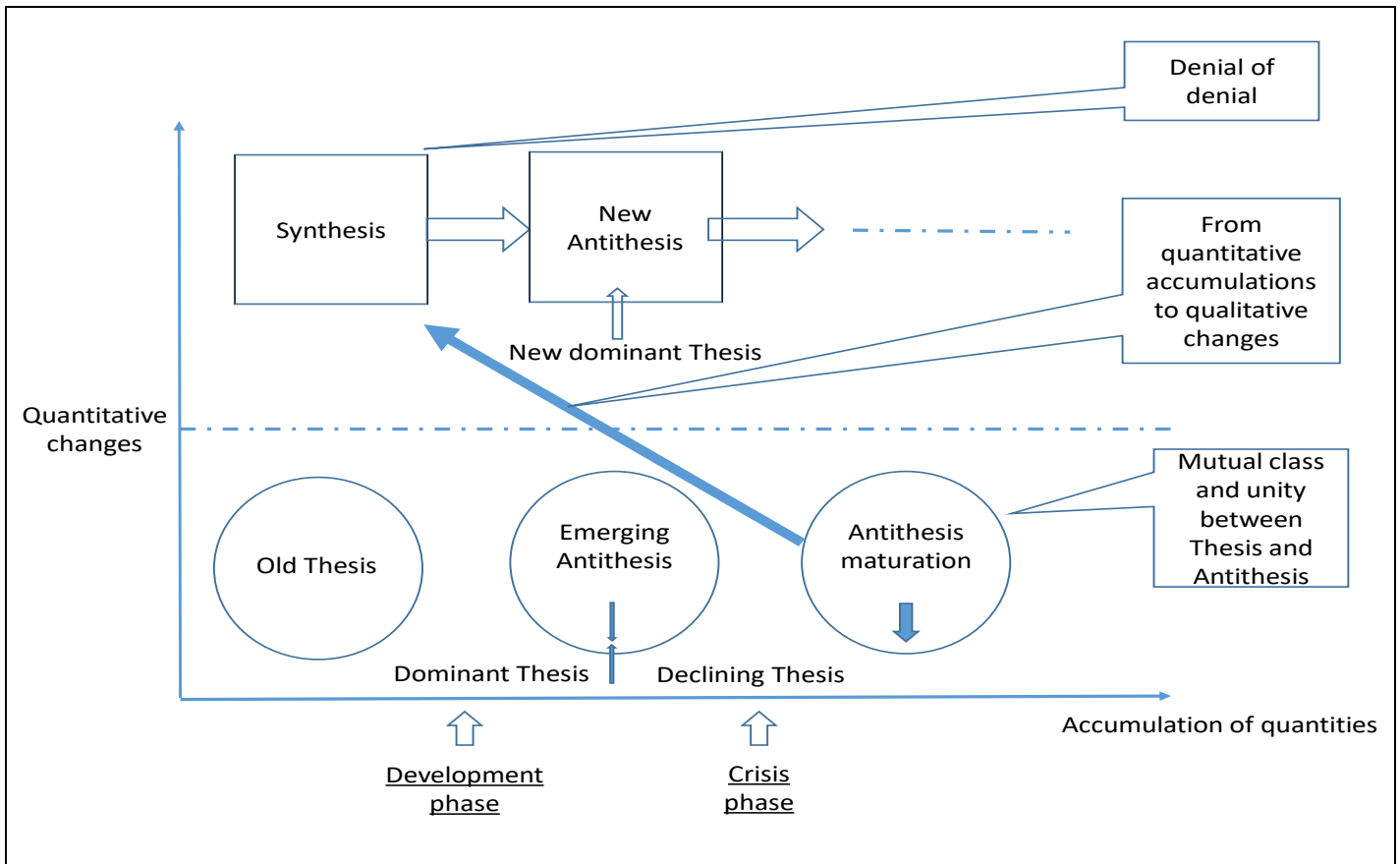


Fig 3: Thesis–Antithesis–Synthesis, according to the Hegelian philosophy (Vlados *et al.*, 2019)

In Hegel’s (1812) dialectics, the intrinsic contradiction of phenomena is the essence of all evolution, as the existing Thesis necessarily generates the internal Antithesis. According to the Hegelian view, this subversion upsets the balance and shatters the illusion of ‘eternal’ dominance in the previous regime. Through the accumulation of quantities and the increase in sizes, the Antithesis continues to mature. At first, it manifests as a simple difference and then gradually escalates, culminating in a direct conflict with the Thesis. Then, the crisis inevitably comes, driving the previous situation to a breaking point as the accumulated quantity implicitly leads to a revolution in quality. Every time the quantitative changes exceed certain limits, the inner structural equilibrium is shaken, and the qualitative dimensions are transformed —the Synthesis has emerged, overturned, and definitively destroyed the previous situation, constituting the new Thesis.

Therefore, in a ‘denial of denial’ logic, Hegelian philosophy proposes the world’s evolution as the result of a continuous ascent of dialectical spirals.

Hegel’s dialectic also played a central role in the thought of Marx (1859), for whom the conditions of production (the economic base) co-shape the surrounding social structure (the superstructure). For Marx, capitalism is destined to collapse (Dietsch, 2010). In Marx’s analysis, the organic composition of capital (surplus value) will continue to increase and cause the rate of profit to fall. Therefore, workers are doomed to gradual alienation and must violently overthrow capitalism—which is unsustainable by nature—and socialise the means of production (Marx and Engels, 1848). In Marx’s dialectical materialism, the evolution of human history results from class conflict (Engels, 1872). After overcoming capitalism, Marx argued that there would be a passage to socialism and, through it, to the final stage of communism.

The foremost economist of non-Marxist dialectics is undoubtedly Schumpeter—of course, in a particular liberal way. In the Schumpeterian perspective (Schumpeter, 1942), capitalism is destined to collapse by success rather than through violent socialisation of the production means. For Schumpeter (1934), the prime mover of capitalism is the innovative entrepreneur who aspires to build a ‘private kingdom’ through the constant denial and transgression of market certainties. The main dialectical contradiction Schumpeter identified in the discontinuous evolution of capitalism is the ‘gales’ of creative destruction, signalling the saturation of old industries and the emergence of new ones in their place (Schumpeter, 1942).

Moreover, game theory understands its reality through the oppositional choices made by the various agents. It analyses their behaviour in real situations through economic calculus based on the conflictual spirit of dialectics (Milgrom, 1998; Nash Jr, 1950; Roth and Wilson, 2019). Subsequently, evolutionary economics is a school of

thought that is an organic continuation of the original Schumpeterian contribution, proposing a dialectic view of reality. According to Nelson and Winter (1982, p. 9), the standard conventional model of profit maximisation as the primary behavioural tool of economic actors cannot explain reality as ‘routine’ does —and other analogies. Modern evolutionary economics is distinguished by three conditions that make it a distinct discipline (Chatzinikolaou and Vlados, 2019): it utilises biological metaphors to explain organisational phenomena, rejects the conventional neoclassical maximising calculus, and incorporates a historical and institutional perspective in studying socioeconomic relations. Evolutionary economics belongs to the heterodox approaches, making its findings dialectically opposite to the conventional economic modelling, mainly of neoclassical inspiration (Nelson, 1994).

Schumpeter (1954, p. 756) did not explicitly advocate the use of Darwinian analogies in economics. However, from about 1990 onward, we see a ‘Darwinian revolution’ in (evolutionary) economics, similar to what happened in biology (Foster, 1997; Hodgson, 1993; Witt, 1996). A pivotal moment in the evolution of evolutionary economics seems to have occurred with the introduction of modern behavioural approaches to the firm, in which all socioeconomic organisations are co-evolved with their multi-level dialectical internal–external environments. These biologically-inspired approaches to organisational development suggest that the firm is a ‘living organism’ rather than a machine (Kauffman, 1993) —socioeconomic organisations are more like ‘animals’ living in their co-evolving ‘forest.’

The most recent perspective that seemingly builds on Heraclitean dialectics is the approach of today’s emerging new globalisation. According to Perez’s (Perez, 2010) neo-Schumpeterian contribution, the long ‘Kondratieff waves’ (Kondratieff and Stolper, 1935) correspond to specific techno-economic periods in the evolution of capitalism,

which periodically occur through recessions and significant technological breakthroughs. On this evolutionary thread of thought and utilising a perspective outside the strict national contours of the French School of Regulation, Vladoš and Chatzinikolaou (2021) have proposed that the new globalisation is emerging in our times following the structural and physiological maturation of the previous evolutionary phase of the global economy. They argue that globalisation encompasses all socioeconomic systems and their different dialectical adjustment trajectories. As a result, globalisation is in a constant state of transformation and dialectical reproduction of theses, antitheses, and syntheses of participating actors. The structural maturation of the old globalisation (circa 1980–2008) is gradually giving way to the new one, as the global system is now evolving in terms of the international regime, the underlying crisis–development platform, and the dynamics arising from entrepreneurial innovation. Today, the international system is in a dialectical search for a new or restructured multipolarity, new forms of realistic hybrid meta–Fordisms, and organic–open innovations (see also Chatzinikolaou and Vladoš, 2022a, 2022b).

The central conclusion of this paper is that socioeconomic reflection, in various theoretical traditions since the Enlightenment, is based on the Heraclitean dialectics. As structured in pre-Socratic philosophy, dialectical conflict, change, and evolution seems to be a fruitful node to this day, illuminating the depth of broader and complex socioeconomic phenomena. These older and newer streams of thought that incorporate dialectics at their core seem to reaffirm that Heraclitus’ work is the conceptual cradle of scientific socioeconomic reflection.

In conclusion, we believe that further research into the history of philosophy, in its early phases of development in the pre-Socratic and classical periods in ancient Greece, can contribute to a better understanding of the theoretical origins of today’s social

sciences. In this direction, further investigating the dialectical spirit in the pre-Socratic and Socratic periods (Socrates, Plato, Aristotle) and their opposition to the school of Eleatic philosophers may be of interest. It seems that the dialectical philosophy under consideration is a point of disagreement that had a more profound influence on the development of socioeconomic thought after that, also having a significant impact on the structuring of static and dynamic socioeconomic analyses in our days.

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Short bio

Charis Vlado is an experienced academic with more than 30 years of teaching experience at various educational institutions. He is currently a tenured Assistant Professor in the Department of Economics at Democritus University of Thrace. He obtained a PhD with distinction from the University 'Paris-X, Nanterre,' where he developed the Stra.Tech.Man triangle to illustrate the interplay between strategy, technology, and management in the context of globalisation. Charis' teaching experience is diverse, encompassing topics such as Development Dynamics and Globalisation, Innovation Economics and Entrepreneurship, and Corporate Strategic Analysis and Business Planning. He has authored over 100 works, including books, monographs, and scientific articles in peer-reviewed journals.