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THE UNSEEN ARCHITECTURES OF ECONOMIC DISCOURSE: A STUDY OF METAPHORICAL STRUCTURES AND THEIR INFLUENCE ON THOUGHT AND POLICY

Youness Faiz

*Sultan Moulay Slimane University, Morocco
(profyounessfaiz@gmail.com)*

Youssef Charbati

*Sultan Moulay Slimane University, Morocco
(Dr.charbati@yahoo.com)*

Abstract :

This paper explores the unseen cognitive and rhetorical architectures underlying economic discourse through the lens of Conceptual Metaphor Theory (CMT). Drawing on the seminal works of Lakoff and Johnson (1980) and the rhetorical insights of Deirdre McCloskey, it argues that metaphors are not merely decorative linguistic devices but fundamental cognitive frameworks that shape how individuals and policymakers conceptualize, evaluate, and act upon economic phenomena. By identifying and analyzing dominant metaphorical systems—such as THE ECONOMY IS A MACHINE, THE ECONOMY IS A LIVING ORGANISM, MONEY IS LIQUID, and ECONOMIC CRISIS IS A DISEASE—the study demonstrates how these metaphors structure thought and discourse, influencing both academic theory and public policy. The paper further examines the historical transformation of Adam Smith’s “invisible hand” as a case study of how metaphors evolve into ideological instruments. Through a synthesis of theoretical and rhetorical analysis, this work reveals that metaphors in economics do not merely describe reality but actively construct it, shaping collective understanding and guiding policy orientations. The conclusion calls for greater critical awareness of metaphor’s dual power—to clarify and to mislead—and urges economists, policymakers, and the public to recognize the cognitive and ideological implications of the language through which economic thought is articulated.

Keywords: Conceptual Metaphor Theory, Economic Discourse, Cognitive Linguistics, Policy Framing, Rhetoric of Economics, Ideology

I. Introduction: The unseen architectures of economic discourse

For centuries, metaphor was considered a decorative, peripheral element of language, relegated to the realm of poetic and literary expression. The classic theory of linguistics, with roots stretching back to Aristotle, held that metaphor was a linguistic "deviation" from the "literal" and "conventional" use of words. From this perspective, it was assumed that the language of science, including economics, was mutually exclusive with the realm of metaphorical expression. Objective, quantitative disciplines were believed to operate on pure logic, mathematical models, and factual data, with no room for the subjective or persuasive power of analogy. This traditional view, which held sway for centuries, provided the foundational premise for a discipline of economics that prided itself on its resemblance to the hard sciences, such as physics.

A fundamental intellectual shift, however, began to unfold in the late 20th century. In 1980, George Lakoff and Mark Johnson's seminal work, *Metaphors We Live By*, presented a radical new theory that shattered the classical orthodoxy. They argued that metaphor is not merely a matter of language but a fundamental cognitive mechanism—a way of thinking and acting in the world. In their view, "our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature". This "cognitive view of metaphor" redefined the subject, establishing it as a central focus of cognitive science and linguistics.

This intellectual revolution in linguistics set the stage for a critical re-evaluation of economic discourse. The traditional, modernist approach in economics, which had been dominant since the 1940s, was increasingly critiqued for its over-reliance on formal mathematical models and statistical significance as the sole arbiters of truth. In 1983, Deirdre McCloskey invited literary criticism to the table of economics, arguing that the discipline is inherently rhetorical and relies on analogy and metaphor to advance its arguments and persuade its practitioners. Her work demonstrated that economic theories and arguments are not simply matters of empirical evidence but also contain elements of persuasion, introspection, and aesthetics.

The present report positions itself at the convergence of these two intellectual movements. By applying the principles of Conceptual Metaphor Theory (CMT) to the language of economics, this study moves beyond a simple catalog of figurative expressions. It seeks

to uncover the "unseen architectures" of economic thought—the underlying cognitive structures that shape how we conceptualize abstract economic phenomena, from recessions and financial markets to policy interventions and growth. The analysis herein will reveal that the metaphors used are not only descriptive but are constitutive of economic reality itself, profoundly influencing everything from expert modeling to public understanding and policy decisions.

II. The theoretical framework: Metaphors we live and act by:

At the core of this analysis is the Conceptual Metaphor Theory (CMT), a framework that defines metaphor as a "cross-domain mapping from one conceptual domain to another". This mental process involves understanding and experiencing a complex or abstract concept (the target domain) in terms of a more concrete or physical concept (the source domain). The essence of this theory lies in the idea that metaphors are not merely linguistic devices but are fundamental to human thought.

The framework operates on a few key principles. Firstly, it relies on the concept of mappings, which describe the mental correspondences between elements of the source and target domains. These mappings are systematic, meaning that a set of related metaphorical expressions often stems from a single, underlying conceptual metaphor. For instance, the conceptual metaphor

argument is war allows for a system of expressions where the components of an argument are mapped onto the components of a battle. A person's position becomes a claim to be defended, a point of weakness becomes a weak point to be attacked, and the goal of the argument is to win or lose.

Secondly, CMT posits a principle of unidirectionality, which explains why metaphors are so pervasive and indispensable in a field like economics. This principle states that the metaphorical process typically goes from a more concrete, physical, or sensorimotor concept to a more abstract or intangible one, and not the other way around. The human mind's understanding of the world is rooted in embodied, physical experiences. Concepts such as : Time, love, and argument are abstract and intangible, while concepts like money, a journey, and war are grounded in physical experience and perception. Metaphors act as a bridge, allowing us to project the tangible structures of our physical world onto the complex, invisible world of abstract ideas.

Economic concepts—such as production, distribution, consumption, and exchange—are inherently abstract and often far removed from the direct, lived experience of most people. Without a metaphorical crutch, these ideas would be largely ineffable and difficult to communicate or comprehend for a non-expert. Metaphors are used to project a "strange cognitive domain to a familiar cognitive domain" , allowing for an understanding of complex ideas in simple terms and facilitating abstract thinking itself. The three main categories of conceptual metaphors—structural, orientational, and ontological—further refine this analytical framework by categorizing the nature of the mapping.

Table 1: The building blocks of conceptual metaphor theory

Conceptual Metaphor	Source Domain	Target Domain	Associated Concepts & Linguistic Examples
Argument Is War	War	Argument	Attacking Points, Defending Positions, Winning/Losing Arguments, Strategic Claims.
Love Is A Journey	Journey	Love	A Dead-End Relationship, A Bumpy Road, Going Separate Ways, A Partner Along The Way.
Time Is Money	Money	Time	Wasting Time, Saving Time, Spending Time, Investing Time.
Theories Are Buildings	Buildings	Theories	Laying The Foundations Of A Theory, Constructing An Argument, A Well-Built Theory, A Flimsy Structure.

The unidirectionality principle is particularly salient in economics, where tangible source domains like machines, plants, liquids, and bodies are used to structure and explain the abstract target domain of the economy and its processes. The following sections will apply this framework to analyze some of the most prominent metaphorical systems in economic discourse.

III. The rhetorical turn: economics as persuasion:

The scholarly work of Deirdre McCloskey marked a pivotal moment in the study of economic discourse, providing the intellectual justification for treating the language of economics with the same analytical rigor previously reserved for literary texts. McCloskey's core critique was directed at what she termed "economic modernism," a methodological approach that gained prominence after the 1940s. This approach, inherited from logical positivism, advocated for a strict, quantitative methodology, viewing mathematical and statistical proofs as the only valid forms of economic reasoning. It sought to elevate economics to the status of a "hard science" by purging it of any elements that could be seen as "literary," "rhetorical," or "persuasive".

However, McCloskey argued that this "official image" of economics was a profound misrepresentation of how the discipline actually operates. She contended that economists do not persuade each other on the basis of mathematical models and econometric results alone, which she claimed could be used to both prove and disprove the same conclusion. Instead, a significant portion of the persuasion comes from "appeals to authority and aesthetics". In her view, economists are not merely objective scientists but are "story-tellers, historians with bad data," whose workaday methods are fundamentally rhetorical.

This perspective reframes economics as a humanistic and persuasive discipline, where arguments are a complex interplay of formal models, historical narratives, and implicit rhetorical devices like metaphor. McCloskey's analysis reveals a deep contradiction between the public claim of economics as a value-neutral, purely objective science and its internal, workaday reliance on humanistic and rhetorical tools. Her work makes it clear that the seemingly objective language of economic discourse is, in fact, filled with persuasive elements that shape the conversation and predetermine the conclusions. By revealing the hidden influence of rhetorical devices, McCloskey's work provides the intellectual grounding for a serious and necessary examination of the metaphorical structures that underpin economic thought. It validates the study of the discipline's linguistic and narrative elements as a critical component of understanding its intellectual and social impact.

IV. A Taxonomy of economic metaphors: Major systems and their implications

The study of economics is replete with conceptual metaphors that help to simplify and structure its complex, abstract concepts. These metaphors are not random; they form systematic patterns that reveal fundamental assumptions about the nature of the economy. A closer examination of these patterns uncovers a set of dominant metaphorical systems that implicitly guide economic reasoning and policy debates.

A. The mechanical vs. Organic metaphorical wars

Two of the most powerful and ideologically charged metaphorical systems for the economy are the mechanical and the organic. The **ECONOMY IS A MACHINE** metaphor frames the economy as a human-made, controllable, and predictable system. Its linguistic expressions draw from the domain of machinery and engineering, such as "jump-starting the economy," "oiling the wheels of economic reform," and

the engine of a business plan. This perspective suggests that the economy's "parts" can be fixed or repaired to ensure a "well functioning" system, aligning with a mindset where human intervention can perfect or tune the system for optimal performance.

In stark contrast, the **ECONOMY IS A LIVING ORGANISM** metaphor frames the economy as a natural system with cycles of "growth," "health," "illness," and "decay". This system draws heavily on the medical domain, as seen in expressions like "economic contagion," "the US economy would catch flu," or a "record budget to revitalise Japan's anaemic economy". This perspective acknowledges inherent complexity and the limits of human control. It suggests that the economy is an entity that requires diagnosis and cure, not just simple repair.

The choice between these two powerful metaphors embodies a deep ideological conflict about the economy's nature. A policymaker who uses a mechanical metaphor is more likely to propose precise, top-down interventions, believing that the system can be engineered for a desired outcome. Conversely, a policymaker who views the economy through an organic lens may favor more passive, adaptive, or hands-off approaches, viewing the system as too complex to fully manage. This intellectual tension is a major driver of policy debates and is implicitly embedded in the language used.

A particularly sophisticated use of the organic metaphor is found in a critique of the current economic system. While the traditional ECONOMY IS A LIVING ORGANISM metaphor is generally positive, portraying the economy as a highly evolved entity, one analysis subverts this by comparing the modern economy not to a "superorganism" but to a "mindless bacterium in a petri dish". This deliberate choice of a negative source domain highlights the economy's "lack of internal governor" and its inability to recognize when it is running out of resources. The critique then extends the metaphor to propose a new, more evolved state: a "superorganism" that is "governed by the capacity of what it thrives on," namely "natural capital". This is not merely a descriptive use of metaphor but a prescriptive and deeply creative one, demonstrating how these cognitive tools can be dynamically employed to shape intellectual and ideological change.

B. Other dominant metaphorical systems

Beyond the mechanical and organic frames, economic discourse is structured by several other pervasive systems. The MONEY IS A LIQUID metaphor is a powerful example. It highlights the similarity between cash and liquid, which both have no fixed shape and can flow, pool, or be drained. This system gives rise to expressions like "cash flow," "liquid assets," and "go into liquidation". The metaphorical connection also explains the concept of "liquidity" as the ease with which an asset can be converted to cash, much like a liquid can be moved or transformed.

Similarly, the ECONOMY IS A BATTLE metaphor frames economic competition as a form of war, with terms like "trade war," "financial battle," and competitive edge. The

ECONOMY IS A JOURNEY metaphor allows for the conceptualization of economic progress as movement along a path, with expressions such as "back on track," "stalled growth," or "crossing the finish line". These systems collectively form a powerful and often unexamined cognitive toolkit for understanding and discussing economic phenomena.

Table 2: Dominant Metaphorical Systems in Economic Discourse

Conceptual Metaphor	Source Domain	Target Domain	Associated Concepts & Linguistic Expressions
THE ECONOMY IS A MACHINE	MACHINE/MECHANISM	ECONOMY	Engine of growth, jump-start the economy, well-functioning, oil the wheels of reform, fixing a business.
THE ECONOMY IS A LIVING ORGANISM	LIVING ORGANISM	ECONOMY	Economic health, economic nerve centers, growth of the economy, economic contagion, sick economy.
MONEY IS LIQUID	LIQUID	MONEY	Cash flow, liquid assets, going into liquidation, inject money into, drain funds, affluent.
THE ECONOMY IS A JOURNEY	JOURNEY/MOVEMENT	ECONOMY	Get moving on a project, pick up speed, get off course, back on track, cross the finish line.
ECONOMIC CRISIS IS A DISEASE	DISEASE	ECONOMIC CRISIS	Financial contagion, infection spreading, toxic assets, diagnosis of the crisis.

V. Historical and foundational metaphors

While modern scholarship has brought the role of metaphor in economics to the forefront, the use of powerful, constitutive metaphors is a practice that extends back to the very origins of the discipline. No metaphor is more foundational or more subject to reinterpretation than Adam Smith's "invisible hand".

The "invisible hand" is a perfect case study in the power of a metaphor to be re-appropriated and to acquire an ideological weight far beyond its author's original intent. In his seminal work

The Wealth of Nations, Smith used the term only once, in a highly specific context. It was used to describe how a self-interested investor would have a "natural tendency" to invest capital as near to home as possible, thereby inadvertently promoting domestic industry and public welfare. In an earlier work, *The Theory of Moral Sentiments*, the metaphor was used to describe a selfish landlord's unintended distribution of wealth to the poor, and it was implicitly linked to "Providence". In both cases, the metaphor was a constrained, contextual reference, not a central, organizing principle for his entire economic philosophy.

However, in the 20th century, neoclassical economists like Paul Samuelson popularized the term, expanding its meaning to represent a much broader and more abstract conclusion: that "truly free markets are self-regulating systems that always tend to create economically optimal outcomes". This expansion of meaning divorced the metaphor from its original, nuanced context and transformed it into a powerful symbol for a laissez-faire ideology that champions minimal government intervention. The modern interpretation of the "invisible hand" is a testament to the power of a potent rhetorical device to be stripped of its original, constrained meaning and weaponized to legitimize a new, more simplified worldview. Similarly, historical studies of economic thought reveal a lineage of metaphors that have shaped entire schools of thought. Economists have historically used metaphors from mechanics to describe equilibrium, from medicine and meteorology to analyze crises, and from biology to understand business cycles. For instance, Alfred Marshall viewed the economy as an "organic whole," and other thinkers used

biological and medical metaphors to explain business cycles. These historical examples demonstrate that the search for a unifying, simplifying metaphor is a constant feature of economic theorizing, with the choice of metaphor often reflecting the dominant scientific and philosophical ideas of the time.

VI. Metaphor and policy: The cognitive consequences

The choice of metaphor is far from a trivial matter; it has profound real-world consequences, shaping how policymakers and the public understand and respond to

complex issues. Metaphors act as conceptual filters, streamlining information by highlighting certain aspects of a problem while inevitably obscuring others. This process can lead to systematic biases in reasoning and policy prescriptions.

A compelling illustration of this phenomenon is found in a critique by economist Paul Krugman regarding the U.S. economic stimulus bill. Krugman argued that the bill's authors were misled by bad metaphors that framed the economy as a "stalled car" needing a "jump-start" or as an "invalid who will soon return to health" with a bit of rest. These metaphors, by their very nature, implied that the economy's problems were temporary, superficial, and easily fixable with a quick, short-term measure. This framing, he contended, obscured the possibility that the problems were deeper and more structural, requiring "well-designed, sustained support". Krugman's critique underscores a critical point: bad metaphors can lead to bad policy.

Another powerful example comes from the language used during the 2008 financial crisis. Journalists and policymakers frequently employed the CRISIS IS A DISEASE metaphor, with expressions like "toxic assets," "contagion," and "infection" spreading from one part of the financial system to another. This metaphorical framing, while effectively describing the rapid, uncontrolled spread of the crisis, simultaneously directed attention toward the symptoms of the disease (the toxic nature of the assets) and away from the deeper, systemic failures of regulation and institutional behavior that had created the conditions for the crisis in the first place. The metaphor of

CRISIS IS A TOXIN provided a simple, emotionally charged explanation, but it may have implicitly constrained the policy discussion to finding a cure rather than addressing the structural flaws that caused the sickness. Even central bankers, who are tasked with maintaining a sense of stability and objectivity, rely heavily on metaphorical language to communicate their actions. The "punch bowl" metaphor, coined by Fed Chair William McChesney Martin, Jr. in 1955, frames the Federal Reserve as a "chaperone" whose job is to "order the punch bowl removed just when the party was really warming up". This metaphor effectively communicates the Fed's often unpopular role of taking precautionary action to prevent inflationary excesses. Other metaphors used by central bankers and economists, such as a "long rope," a "barge navigating a river," or "irrigating a farm," are also employed to simplify and communicate complex monetary policy concepts to a broader audience. These examples demonstrate that metaphors are not

merely used for clarity but are strategic tools for guiding public understanding and framing policy decisions in a particular light.

VII. The limits of the model: A critique of conceptual metaphor theory

To provide a comprehensive and nuanced analysis, it is essential to acknowledge the scholarly debates and critiques of Conceptual Metaphor Theory itself. While CMT has been foundational, it is not without its challenges. One of the most significant points of contention revolves around the issue of methodology and the **direction of analysis**.

Critics of the traditional CMT approach, often referred to as a "top-down" method, argue that it is based on "intuitive and unsystematically found" examples. This method typically assumes a conceptual metaphor exists and then searches for linguistic expressions that fit it. A primary objection is that this top-down approach disregards the rich context of real discourse and fails to account for what is called the "dominance of irregularity". The "bottom-up" approach, which often uses large linguistic corpora, argues that the semantic behavior of many metaphorical expressions is more irregular than regular, and that a top-down model cannot fully explain these nuances. For instance, two expressions stemming from the same global metaphor, such as *add fuel to the fire* and *flare up* from the ARGUMENT IS FIRE metaphor, can have distinct meanings that the conceptual metaphor alone does not explain. Zoltán Kövecses, a leading scholar in the field, has offered a powerful reconciliation of these views. He argues that the top-down approach is merely the "first step" in a comprehensive analysis. The second, more crucial step, is to examine the "fine-grained" structure and specific "mappings" between the source and target domains, which can account for the differences in meaning between linguistic expressions. This perspective suggests that the two approaches are not mutually exclusive but are complementary, with a truly comprehensive analysis requiring both a top-down identification of overarching conceptual systems and a bottom-up examination of linguistic and semantic irregularities.

This academic debate serves as a crucial reminder that while metaphors are a powerful cognitive tool, their use is not monolithic or perfectly regular. The theory of metaphor is a maturing field, and a rigorous application of its principles requires a critical awareness of its limitations and an understanding of how its models continue to evolve.

Table 3: Scholarly Critiques of Conceptual Metaphor Theory

Name of Critique	Brief Description	Core Argument
Methodology	Critics question the intuitive and unsystematic way in which metaphors are identified and studied.	The reliance on de-contextualized examples fails to capture how metaphors are used in real discourse and assumes what constitutes a metaphor in advance.
Direction of Analysis	The debate between "top-down" (concept-to-words) and "bottom-up" (words-to-concept) approaches.	The top-down approach overlooks the "dominance of irregularity" in linguistic expressions, missing the nuances of specific word meanings that a global conceptual metaphor cannot explain.
Relationship to Culture	The theory's emphasis on universal, embodied experience is seen as neglecting cultural specificity.	While universal bodily experiences may ground some metaphors, cultural factors can shape and influence the way emotions and concepts are structured and expressed metaphorically.

VIII. Conclusion: The power and peril of economic metaphor

This study has demonstrated that metaphor is an indispensable, yet often unseen, architect of economic discourse. By applying the principles of Conceptual Metaphor Theory, this analysis has moved beyond a simple acknowledgment of figurative language to a detailed examination of the cognitive systems that structure our understanding of economic concepts. It has shown that our minds are "fundamentally metaphorical in nature" and that this cognitive predisposition is the very mechanism that allows us to comprehend and manipulate abstract economic ideas.

The report's findings reveal that metaphors are not merely rhetorical flourishes; they are deeply embedded cognitive tools that shape how we perceive, reason about, and act within the economic world. The choice between a

mechanical and an organic metaphor for the economy, for example, implicitly guides a policy debate toward different sets of solutions, highlighting some interventions while obscuring others. Furthermore, the analysis of foundational metaphors like the "invisible hand" shows how a simple, powerful image can be re-appropriated over time to legitimize a new ideological worldview, divorced from its original, nuanced context.

The ultimate power of metaphor lies in this ability to simplify and frame. It allows us to process complex information, but this very simplification can create cognitive "blind spots" and lead to "bad policy decisions". The paradox is clear: we cannot escape metaphor, as our abstract thought is grounded in it. Therefore, the goal is not to eliminate it but to cultivate a critical awareness of its influence. Both economists and the public must learn to identify the underlying assumptions and ideological baggage carried by the metaphors they use and encounter. By asking what is being highlighted and what is being obscured by the chosen language, we can move from a passive acceptance of economic discourse to an active and critical engagement with the ideas it conveys.

The future of economic communication depends on this intellectual vigilance. Only by understanding the unseen metaphorical architectures of economic thought can we fully comprehend the discipline and its profound, often unexamined, influence on society. The work of scholars like Lakoff, Johnson, and McCloskey has provided the tools; it is now incumbent upon all of us to use them to ask the deeper questions that lie beneath the surface of economic language.

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