ABSTRACT

The development of science has produced a gap between the knowledge accepted by scientific communities and popular beliefs. This subject has worried scientists, considering that many of these beliefs turn out to be untenable. In addition to the problems related to education and scientific dissemination, the study of folk beliefs raises intriguing questions for epistemology and cognitive sciences about the processes of formation and justification of knowledge. This theme also has important repercussions in terms of actions, based on the fact that folk beliefs can motivate wrong decisions. The objective of this article is to analyze the folk beliefs related to the economic field, showing some of its possible causes and some consequences regarding decision making.

Keywords: epistemology; knowledge; belief; folk belief; folk science; economics; epistemic comparative advantage; cognitive bias; morals; politics.

RESUMEN

El desarrollo de la ciencia ha producido una brecha entre el conocimiento aceptado por las comunidades científicas y las creencias populares. Esto ha preocupado a los científicos al considerar que muchas de esas creencias resultan ser insostenibles. Además de los problemas relativos a la educación y la divulgación científica, el estudio de las creencias folk plantea interesantes interrogantes para la epistemología y las ciencias cognitivas acerca de los procesos de formación y justificación del conocimiento. Este tema tiene también importantes repercusiones en cuanto a las acciones, partiendo de que las creencias folk pueden motivar decisiones erróneas. El objetivo del presente artículo es analizar las creencias folk relativas al ámbito económico, mostrando algunas de sus posibles causas y algunas consecuencias en lo tocante a la toma de decisiones.

Palabras clave: epistemología; conocimiento; creencia; creencia folk; ciencia folk; economía; ventaja comparativa epistémica; sesgos cognitivos; moral; política.

“The feeling of believing is a more or less sure indication of there being established in our nature some habit which will determine our actions. Doubt never has such an effect”


1. THE GAP BETWEEN SCIENTIFIC KNOWLEDGE AND “FOLK SCIENCE”

One of the theoretical problems that has occupied specialists from various disciplines is the gap between popular beliefs and scientific knowledge. On one hand, there are various beliefs, adopted by different sectors of the population, about the nature of the universe, living beings, society, language, the mind, etc., that are transmitted through generations. On the other hand, scientists have formulated various theories, subjected to different experimental tests or deductive reasoning, to try to explain
these objects or phenomena, which has led the sciences to progressively distance themselves from these beliefs (Wolpert 1992). In this sense, the gap has grown as the results of scientific research contradict or question these beliefs.

We can mention some examples: people without medical training have multiple beliefs about diseases that do not align with what doctors propose. For instance, based on certain symptoms a person exhibits, people intuitively associate them with a specific illness, such as the common cold, even though these same symptoms can manifest in various conditions, ranging from the common flu to different types of influenza. Thus, laypeople in medicine assume that certain remedies that "cure" the common cold will be effective in all these cases—for example, chicken soup—when in reality, viral respiratory infections do not have a "cure." Instead, doctors prescribe patients analgesics, antihistamines, and antipyretics to manage the symptoms.

Another example is represented by lay linguistic conceptions. Linguist Ray Jackendoff (2003, 3–4) lists a series of beliefs about language: 1) "There is a correct way to speak a language" (in contrast, linguists reject the notion of a "correct" use of language and point out that the multiple uses of language are due to dialectal, sociolectal, diachronic, etc., variations); 2) "Language is deteriorating due to improper usage" (this belief ignores linguistic change in both lexicon and grammar, which is inevitable); 3) "Dictionaries tell us the correct way to speak" (but dictionaries are merely incomplete and partial inventories of certain lexical samples, many of which belong to dialectal variants); 4) "Written language is the language" (however, historically, the appearance of writing is late, and many present languages do not have their own writing system). Generally speaking, these beliefs of speakers assume that there is a rigid normative model of language, and any use that does not correspond to this model will be considered "incorrect."

In this way, there is a wide variety of beliefs about nature, health, language, life, society, etc. that contrast with the principles accepted by scientists. Of course, the existence of such beliefs does not represent a problem. As the American philosopher Charles S. Peirce (1991, 144-ss) pointed out, beliefs represent an intermediate point between doubt and scientific knowledge. However, beliefs are not merely
provisional knowledge with which individuals form a worldview that provides them with a certain degree of certainty; they also produce motivations for action. Remaining in a state of doubt keeps the individual inactive, and therefore, a certain degree of certainty provided by belief is required to act in the world.

In any case, the gap between popular beliefs and scientific statements has increased significantly. It is possible that this gap is due to certain divergences in the processes of knowledge formation: while scientific theories depend on complex processes of cognitive elaboration, popular belief systems seem to be produced by individuals' intuitions and cultural traditions, among other possible factors. This means that understanding scientific theories requires theoretical training and increasing specialization, which could explain why the gap continues to widen.

For some years now, this topic has been developed in various studies within certain scientific disciplines. In cognitive psychology, for example, Steven Pinker (2002, 195–196) presents a list of certain "cognitive faculties" that allow humans to form intuitive knowledge with which they attempt to understand and, consequently, act in the surrounding world. This list, which the author acknowledges as provisional, includes intuitive physics, intuitive biology, intuitive linguistics, intuitive engineering, intuitive psychology, intuitive economics, etc.

Other research has delved deeper into the phenomenon. Under the adjective 'folk,' popular beliefs regarding certain objects of study within specific disciplines have been grouped: thus, we speak of "folk physics" (Hayes 1979, 1983; Smith 1994), "folk biology" (Brown 1977, 1979), "folk psychology" (Pinker 2002), "folk linguistics" (Preston 2006), etc. The aim of these studies is to identify folk beliefs and contrast them with scientific statements to highlight their differences. Some of the purposes include attempting to develop strategies for science dissemination, the teaching of scientific knowledge, and advising on science and technology legislation, among others.

The aim of this paper is to analyze folk beliefs in a very specific discipline: economics. In particular, it will focus on identifying some of the most common folk economic beliefs and presenting some hypotheses about their possible causes. Of course, such hypotheses will require extensive empirical corroboration, so this work
represents the outline of a research program that may have important implications for epistemology and the philosophy of science, not to mention the possible formulation of guidelines for the development of educational policies aimed at promoting and disseminating scientific knowledge.

Later, we will examine some implications that folk economics might have for politics. If beliefs, as Peirce asserts, establish motivations for action, then their study can be of paramount importance for describing and explaining individuals' behaviors. This becomes highly relevant for modern democracies, as public policies are decided based on voters' participation in electoral processes. But if voters make political decisions based on mistaken beliefs, what consequences could this have for democracy?

2. Definitions

In epistemology, philosophers have long debated the relationship between knowledge and beliefs. This has led to reflection on how to define these notions more clearly and precisely. Of course, as often happens in philosophy, all definitions are problematic without exception, and what will be presented below is no exception.

In the first instance, it is necessary to clarify that the distinction between belief and knowledge, or between expert and lay audiences, simply serves the purpose of distinguishing certain groups of individuals and specific types of knowledge. Referring to a lay audience does not, in any way, characterize certain people as 'ignorant' or 'people with low intellectual capacity,' because, in some way, we are all laypersons: it is impossible to have full knowledge of every theoretical discipline, and, in reality, people specialize in certain areas of knowledge, whether theoretical or practical, according to their individual capacities, preferences, or interests. Thus, a mathematician may be a recognized expert in their field but know nothing about basic biology, and a biologist may be an authority on population genetics but incompetent at changing a car tire. This clarification is important to prevent the use of these terms from causing confusion, misunderstandings, or misconceptions.
The definition of belief proposed by the philosopher H. H. Price (1935 232), which is a reformulation of the definition by the also-philosopher Cook Wilson, will be adopted for the purpose of this text. It states that a belief consists of the following:

- Given a subject S, it is said that S believes in the proposition p
- if S is aware of or considers p
- and S assents to or adopts p.

To illustrate this definition, let’s suppose that Betty does not know where her cat is. Betty considers or is aware of a series of propositions: “the cat is in the pantry” (A), “the cat is in the dining room” (C), and “the cat is in the garden” (J), as possible descriptions of her pet’s location. If Betty assents to or adopts C, thereby discarding A and J, then it can be said that “Betty believes that C” (“Betty believes that the cat is in the dining room”), that is, Betty assumes that C is true, thus excluding the alternative propositions A and J. In other words, a belief is a proposition that is considered and adopted as true by a subject.

The advantage of this definition by Price and Wilson lies precisely in its foundation on the opposition between belief and knowledge. In our example, Betty’s belief in C implies that she leans towards or assents to C, meaning she considers it true and therefore rejects the other propositions. However, C could be false. Thus, the condition of any belief is that there is always the possibility that the proposition is false, even though the subject adopts it as true. In contrast, talking about knowledge implies that the proposition is considered, first and foremost, true. This is where epistemological controversies arise, because the criteria of truth and justification that have been proposed are subject to debate among philosophers.

Therefore, the following criteria are proposed to provisionally characterize knowledge: a true belief will be considered knowledge if a community of experts has a set of reasons or certain evidence to validate this proposition, thereby discarding other alternative propositions. Evidently, this does not resolve the problem of epistemic justification, but it can serve as a starting point for further analysis.
Let us now define what a folk belief is. Our approach follows the proposal by Price and Wilson: we assert that $S$ holds a folk belief if $S$ adopts a proposition $p$, and $p$ is in opposition to a proposition $q$, which refers to the same fact about the world. However, unlike $p$, $q$ is supported by sufficient reasons to be considered knowledge by experts in the relevant field. This can be expressed as follows:

The belief in $p$ is a folk belief if:

- $S$ believes that $p$.
- A community of experts believes that $q$.
- $p$ is in opposition to $q$.

The following example will illustrate this concept. Pedro firmly believes that the Earth is flat (T), which is in opposition to the proposition that the Earth is an oblate spheroid (E) held by astronomy. Therefore, Pedro’s belief that the Earth is flat is a folk belief if:

- Pedro believes that $T$.
- The community of astronomers believes that $E$.
- $T$ is in opposition to $E$.

Both $T$ and $E$ describe the same fact about the world, in this case, the shape of our planet. However, $E$ is considered knowledge insofar as astronomers have provided certain scientific evidence to support it: Eratosthenes’ experiments comparing shadows at different latitudes, the apparent sinking of ships as they move away over the horizon, the Earth’s shadow cast on the Moon during a lunar eclipse, photographs taken by artificial satellites, etc. Thus, the opposition between $T$ and $E$ lies in the fact that $E$ is accepted by astronomers as knowledge, whereas $T$ is not.

However, the distinctions established so far are insufficient, as they do not provide a criterion to distinguish between possibly false beliefs held by an individual
and folk beliefs. If Pedro believes that his grandfather’s soul transmigrated to his
dog, it may be a false belief, but it would not necessarily be a folk belief. However,
if a community of individuals adopts the belief that people’s souls transmigrate to
pets, this would indeed constitute a folk belief. In this sense, folk beliefs have an
important distinguishing feature: their social character.

Folk beliefs are shared by a given community, which we can refer to as the "lay
public." The lay public is defined as those who lack training in a specific area or dis-

cipline of knowledge. In our example, T would be a folk belief insofar as T is agreed
to or adopted as true by a certain community that lacks training in astronomy.
The definition of a folk belief, then, would be as follows: *a proposition accepted
or adopted by the lay public that stands in opposition to other propositions recognized as
knowledge by experts in a specific field or discipline.*

Thus, the so-called “folk sciences” would be comprised of: 1) a set of beliefs that
describe certain facts that are alternatively explained by specific scientific theories; 2)
these beliefs contradict the explanations provided by those theories; and 3) there is a
community of laypeople who have adopted such sets of beliefs. Seen this way, calling
the flat earth view a 'theory' is an excessive concession, as it is not truly a scientific the-


ory but, at best, a belief typical of “folk physics.” The same could be said of creationism
and many other beliefs that are unjustifiably granted the status of 'theories.'

Once the basic concepts of our analysis are clarified, we will now review the
most common folk economic beliefs.

### 3. **FOLK ECONOMICS VERSUS ECONOMIC SCIENCE**

Since the emergence of modern economics, there have been several attempts to dis-
seminate economic science to the lay public (Bastiat 2004; Newcomb 1893; Hazlitt
1946; Friedman & Friedman 1980; Sowell 2015; Schettino 2002, 2015). Despite
these various efforts, the dissemination of economics has met with very little success.
This is not surprising, as similar outcomes have occurred with popularization pro-
grams in physics, biology, linguistics, and other scientific disciplines.
This has led some theorists to investigate the reasons behind the failure of economic dissemination, encountering the gap between lay conceptions and scientific knowledge, in this case, economic theories. Bryan Caplan (2001, 2002a, 2002b, 2006, 2007), for example, has pointed out that people without economic training exhibit certain cognitive biases when attempting to explain the functioning of the economic system, although he does not use the term folk belief. However, more recent research (Rubin, Boyer, and Petersen) has proposed the term 'folk-economic beliefs' and shows results that align with Caplan’s earlier studies. Thus, there is already a body of research on folk-economic beliefs. The question now is to determine what these economic beliefs consist of, which form what we could designate as 'folk economics.'

Clearly, addressing this issue goes beyond merely listing the beliefs held by laypeople regarding economics. Therefore, it is essential to specify the defining characteristics of these beliefs by examining their opposition to the propositions accepted as knowledge in economic science.

First, it is necessary to acknowledge that in economic science, there are numerous debates regarding specific issues (for example, proposals to address externalities or specific aspects of monetary policies). However, there are also certain basic principles broadly accepted by the majority of researchers within the mainstream of economic science (Ayau 2003; Parkin 2015; Gwartney et al. 2016; Sowell 2015; Mankiw 2021). We can highlight the following:

- A1) A country’s wealth does not derive from the amount of money or precious metals it possesses but from the productivity of its inhabitants.
- B1) The pursuit of self-interest contributes to general welfare. The market represents a positive-sum game (in an economic exchange, both parties mutually benefit; it’s a win-win situation).
- C1) For both individuals and nations, it is optimal to specialize in producing goods for which they have the best capabilities or resources and to purchase other goods from individuals or countries, even if those goods could also be produced domestically (principle of comparative advantage).
• D1) The price system provides information about supply and demand relationships and allows for the coordination of economic activities in the market without the need for a central planning authority.

• E1) The value of goods and services is subjective. It is not an objective property of things but depends solely on the desires and preferences of individuals.

• F1) The value of goods and services is marginal and relative. It is not an absolute property but depends on previous possession, use, or consumption of those same goods.

These are some of the basic propositions accepted as knowledge by consensus among the majority of economists. Classical economics established principles A1 through D1, while neoclassical economics included E1 and F1. From these propositions, we can derive some theoretical implications. Firstly, economic science starts with the primacy of the individual, placing them at the center of economic processes. Individuals seek to satisfy their subjective desires and preferences, which creates incentives for consumers, intermediaries, and producers to interact with one another. Given the relative scarcity of resources that have alternative uses, it is essential that these resources be allocated in the most efficient way possible. For example, cotton can be used to produce clothing, ropes, medical supplies, biofuels, etc. How much cotton will be sent to each of the industries that produce these materials and how economic agents will coordinate to carry out these activities is the great challenge of any economic system, and it is also the central object of study in economic science.

The goal of economic exchanges, then, is to achieve the most efficient allocation of scarce resources to produce goods and services, which is accomplished through the price system in market economies. This system acts as a means of conveying information about consumer demand and the availability of scarce resources (supply) to meet that demand. In this sense, prices are determined by the number of additional ("marginal") units of goods that can be produced by suppliers and purchased by consumers. Similarly, prices create incentives that encourage suppliers to produce certain goods and compel consumers to adjust their spending. In very
general terms, this is how the problem of allocating scarce resources with alternative uses and coordinating economic activities is addressed.

In contrast to these principles, some of the most widespread folk economic beliefs are the following:

- A2) A country’s wealth is derived from the amount of money or precious metals it possesses.
- B2) The pursuit of self-interest only contributes to personal enrichment. The market represents a zero-sum game (in an economic exchange, one party benefits at the expense of the other; it is a win-lose situation).
- C2) The best thing for a country is to reduce its imports and increase its exports. The national economy should aim for self-sufficiency (the principle of autharky).
- D2) The price system reflects the greed of intermediaries, and government intervention through price controls is necessary.
- E2) The value of goods and services is an intrinsic objective property, produced by the amount of labor invested in them.
- F2) The value of goods and services is absolute; it does not depend on circumstances or the values of other goods.

As can be seen, these folk beliefs are in clear opposition to the aforementioned economic principles. Specifically, the oppositions are as follows:

- The opposition between A1 and A2 lies primarily in a semantic difference. The definition of the term "wealth" in economic science differs from its colloquial use, as can be seen in the online dictionary entry of the Real Academia de la Lengua Española:

  1. f. Abundance of valuable goods and precious things.
  2. f. Abundance of excellent qualities or attributes.

Of the three definitions, only the first seems to relate to the economic conception. It defines ‘wealth’ as the possession of valuable goods and ‘precious things,’ clearly corresponding to belief A2. In economics, since Adam Smith (in his classic Wealth of Nations, 1976), wealth refers to the goods and services produced to satisfy individual desires. Although the amount of money an individual has allows them to obtain more goods to satisfy their desires, money itself does not constitute wealth; it is merely a medium of exchange to obtain these goods. In fact, if a country’s wealth were defined solely by the amount of money it possesses, simply printing more currency would make that country rich. However, as economists have repeatedly warned, printing large amounts of money only leads to inflationary pressures that negatively affect national economies.

Thus, it is not the amount of money or ‘precious things’ that characterizes wealth, but rather the production of goods and services. As Smith already emphasized, what determines the increase in wealth is productivity.

In contrast, belief A2 assumes that wealth is something pre-existing: it is conceived as a finite set of goods (precious metals, agricultural products, oil, etc.) that has existed since the beginning of time, with individuals or social groups fighting each other to obtain a portion of it (Pinker 2018, 80). As we will see, the following folk beliefs are closely related to this one, because just as principle A1 is the foundation of modern economic theory, principle A2 represents what we might call the "mother economic belief."

- The opposition between B1 and B2 is closely related to the aforementioned concepts. The idea that the market is a zero-sum game (Rubin 2003, 157ff; Sowell 2011, 3ff) can be illustrated with Milton Friedman’s metaphor of the pie. If wealth is imagined as a pie of fixed size—that is, wealth always represents a fixed amount (A2)—it is conceived that if an individual or group of individuals receives a larger slice of the
pie, the rest of the population will receive proportionally smaller slices. Hence, it is inferred that the main cause of social problems stems from an “unfair distribution” of the pie.

The reality is that the market is not fixed, nor is the economy a zero-sum game; it is not a pie, but a machine that massively produces pies. If economic exchanges were zero-sum games, the parties involved simply would not participate in the exchanges. Moreover, if in a market economy the increase in wealth came at the expense of large sectors of the population, this would be empirically shown by a correlation between economic growth and increased poverty. However, the spectacular economic growth and drastic reduction of poverty in China—since 1978—and in India—since 1991—show a correlation in the opposite direction (Bhagwati & Panagariya, 2013; Ang, 2016; Bhalla, 2018). These cases demonstrate that the improvement in living standards for large sectors of the population and economic liberalization go hand in hand (Deaton 2013; Lal 2013). Therefore, the belief that the market is a zero-sum game is simply false.

On the other hand, belief B2 stems from the presumption that only selfless acts, such as altruistic actions, can be socially beneficial. From this, it follows that actions aimed at satisfying personal interests can only benefit the individuals who perform them. What lies behind this belief is a certain moral valuation, as it implicitly condemns the pursuit of personal satisfaction: if a person becomes wealthy, they are seen as greedy and selfish. In a more sophisticated form, some theorists have accused economics of promoting selfishness (Heyne 2008, 1ff; Coleman 2002, 136ff). In summary, the problem with B2 is that it excludes the possibility that the pursuit of personal satisfaction—which, according to economists, is the primary motivation for economic exchange—can be socially beneficial (Ayau 2003, 2ff).

The opposition between C1 and C2 presents a peculiarity. Individuals often apply the principle of comparative advantage (Gwartney
et al. 2016, 36) to their personal activities (for example, although a person may be very skilled at cleaning their home, they might choose to hire someone else to do it, as this allows them to save time that can be dedicated to more important or productive activities) and may have no problem accepting this principle theoretically in personal matters but reject it when it pertains to public issues, such as the national economy. In other words, laypeople may accept C1 when it comes to their private interests but accept C2 in the public sphere. An example of this is the belief that imports harm the national economy or that national economies should strive for self-sufficiency. However, as economists point out (Mankiw 2021, 52), the costs of engaging in many varied economic activities exceed the potential benefits, as resources are being allocated to produce goods that are more costly to produce locally. Therefore, the most beneficial strategy for an economy would be to focus its resources on producing goods that involve lower costs or generate more profits, i.e., to take advantage of a country’s comparative advantages. Evidence that the lay public understands comparative advantage can be seen in the old adage "Jack of all trades, master of none"; the issue is that they seem not to apply it beyond their private sphere.

The opposition between D1 and D2 stems not only from a limited and partial perspective on how the price system works, as implied in D2, but also from another assumption: that government intervention is the best way to benefit society. From the layperson’s perspective, if economic exchanges are zero-sum games and the pursuit of self-interest involves selfish actions, it is assumed that the state is a third party that prevents abuse or exploitation by certain economic agents, such as intermediaries (Sowell 2011; Wheelan 2019). The problem is that the layperson assumes that this third party has all the necessary information to achieve the efficient allocation of goods and services and, at the same time, represents the moral authority to presumably achieve general welfare—in other words, it presupposes that the state is omnis-
cient and altruistic. However, according to economists, price controls and other interventionist measures distort the information generated in economic exchanges through the price system (Sowell 2015, 92; Gwartney et al. 2016, 186). Moreover, individuals working in government institutions also seek to satisfy their personal interests, just like any economic agent (Buchanan). Therefore, it is difficult to uphold the assumed altruism of the rulers.

Regarding the subjective conception of value (E1), it is clearly incompatible with the objective conception (E2). The latter is not only deeply rooted in the lay public but was also accepted by classical economists (Adam Smith, David Ricardo, François Quesnay, Thomas Malthus, John Stuart Mill, etc.) because they lacked an alternative theory at the time. This was largely because classical economists studied economic phenomena in terms of "classes" of goods and values, not individual preferences (Rothbard 1983, 20–27). It wasn’t until the marginalist revolution, initiated by William S. Jevons (1862) and Leon Walras (1874) and extensively developed by the Austrians Carl Menger (1871) and Eugen von Böhm-Bawerk (1884), that the subjective conception of value and marginal analysis were fully developed, later recognized as the theoretical pillars of neoclassical economics.

The lay public, however, assumes that there are "objective valuations" of goods or services, meaning that objects possess inherent value independent of individual preferences and desires. But, as Menger pointed out, each individual has a "preference list" by which consumers subjectively rank goods according to the degree of satisfaction (utility) they derive from them. Comparing the "preference lists" of different individuals shows notable variations regarding which kinds of goods are included in each person’s list; even if some goods appear in the lists of two individuals, they may be ranked differently based on the expected utility.

However, valuations are not only subjective and differ from one individual to another (E1), but they can also change within the same indivi-
dual under various circumstances (F1): a consumer may value a lemon ice cream more in Cancun than in the frigid zones of Canada; they may value coffee more in the morning than at night; they may value savings more in adulthood than in youth, etc. Consequently, the value of a good or service will depend on how many marginal units are available and how many of these the consumer is willing to acquire, given certain circumstances. In contrast, the lay public believes that goods have an absolute value (F2): coffee or lemon ice cream is always valuable at all times and in all places.

The key point here is that marginal analysis allows for the explanation of multiple economic phenomena. For example, some external observers might think that a restaurant could significantly improve its service if the owner hired more staff. However, the owner must consider whether hiring more workers contributes to the productivity of the business. If the marginal utility of a new employee exceeds their marginal cost, then it will be worth paying an extra salary; if not, the most prudent decision for the business is not to increase the workforce. After all, the number of customers and the workload will vary at different times of the day and on different days of the week, factors that the employer takes into account before making such decisions. In short, understanding particular situations in marginal terms allows for a more precise explanation of phenomena rather than adopting an absolute and rigid approach, characteristic of lay conceptions of economics.

In this way, we present the set of oppositions between economic science and the beliefs that make up folk economics. It is worth noting that some of these beliefs historically preceded the emergence of economics as a scientific discipline, just as essentialist and vitalist beliefs preceded modern evolutionary biology or geocentric conceptions preceded modern astronomy. For example, beliefs A2 and B2 were held by mercantilists (16th to 18th centuries), whose ideas significantly influenced anti-free trade policies at that time. Mercantilists argued that a nation’s wealth consisted of its inventory of precious metals, so they recommended that a country reduce its imports and increase its exports, as buying more imported products would mean
a reduction of assets in the national treasury. Much of the theoretical effort of classical economists was aimed at combating this doctrine. Paradoxically, mercantilist prescriptions were resurrected by the Economic Commission for Latin America and the Caribbean (CEPAL) in the 1950s, evidencing the persistence of certain erroneous beliefs. This issue will be addressed later.

4. POSSIBLE EXPLANATIONS FOR FOLK ECONOMIC BELIEFS

Based on the previous discussion, the question now arises as to why laypeople adopt such beliefs. As possible answers to this question, I will present the following hypotheses along with the respective arguments that aim to show why I believe these hypotheses could explain this phenomenon:

H1) Folk economic beliefs are caused by the limited perceptions of phenomena by the lay public. People tend to perceive and interpret phenomena based on their own circumstances. As with other sciences, the phenomena described and attempted to be explained by economic science require a certain degree of abstraction, as they involve complex systemic processes that transcend the local sphere in which individuals operate and are difficult to understand without the theoretical tools of economic science. Goods that are so common and necessary for individuals, such as clothing, appliances, mobile phones, and food, are the result of the coordination of thousands or millions of economic agents who do not know each other and will probably never meet. Such coordination has not been planned or ordered by any feudal lord or central committee but rather emerges through a myriad of individual interactions. Therefore, many fundamental economic principles are counterintuitive to laypeople and challenge their conceptions of how society works.

Perhaps this helps explain the popularity of so-called “conspiracy theories”—another example of the misuse of the term "theory"—which claim that the world economy is controlled by ultra-secret cabals. From a lay perspective, it is inconceivable that economic events depend on systemic processes that emerge from countless individual exchanges, leading to the assumption that there must be some kind of
hidden control coordinating the vast economic activity for some nefarious purpose. Underlying this way of thinking is the idea that all events result from intentional acts, a common feature of many naive conceptions, not just those related to economics. In the past, it was commonly believed that natural phenomena like rain, earthquakes, and eclipses were deliberately caused by gods or other supernatural beings. The problem with “conspiracy theories” is that they are based on false assumptions: 1) that the secret conspirators possess all the knowledge circulating in the economy (which is impossible, given the numerous factors influencing economic events), and 2) that chance does not exist in the world. Interestingly, economic science, over its nearly two hundred years of existence, has been gradually developing certain theoretical models and methodological tools to attempt to explain the functioning of the economy as precisely as possible, while conspiracy “theorists” already have all the answers. In any case, these pseudotheories may have their origins in certain conceptions of folk economics.

The classical economist Frédéric Bastiat (2004) had already shown that many confusions in economic matters stem from individuals’ limited perspectives, as they tend to consider only the benefits of certain decisions—"what is seen"—while overlooking their costs or ignoring the unintended consequences of certain actions—"what is not seen." For example, Bastiat questions the belief that taxes are inherently beneficial to the economy, arguing that while certain sectors may benefit from government spending, the invisible costs imposed by taxation can exceed these benefits, potentially impacting the economy as a whole. Thus, folk beliefs may arise from a limited and partial understanding of how the economy functions.

H2) Folk economic beliefs are caused by moral valuations. It is common for people to make value judgments before understanding certain phenomena. This tendency to confuse explanations with valuations was already observed by the philosopher René Descartes (2011, Fourth Meditation), who argued that a frequent cause of error is that the will precedes the understanding: we accept something as true because it is pleasing (or morally desirable) and, conversely, reject something as false because it is displeasing (or morally undesirable). The issue is that the truth or fal-
sity of propositions is indifferent to moral valuations.\(^1\) For example, price increases often lead to complaints from consumers, who accuse intermediaries of being abusive and seeking to "profit" from people's needs. Suppose a person wants to rent an apartment in City X but finds that prices are very high in certain areas. They might accuse real estate companies of being "greedy" and charging "excessive" prices. But if prices are lower in some parts of the city, does that mean greed is "lesser" in those areas? The fact that property prices (for sale or rent) are higher in neighborhood 1 than in neighborhood 2 indicates that, on the one hand, such properties are relatively scarce, and on the other hand, there is a higher demand for houses and apartments in neighborhood 1 than in neighborhood 2. Thus, it is not difficult to understand that property prices are comparatively lower in dangerous neighborhoods (such as might be the case in neighborhood 2) than in other parts of the city. A lack of basic understanding of price dynamics—specifically, the factors affecting supply and demand—can lead to erroneous explanations loaded with hasty moral valuations.

Previously, it was noted that many beliefs give rise to certain moralistic judgments, although the causal relationship could be the reverse: lay beliefs may result from this confusion between explanation and moral valuation. If this is the case, it is possible that folk economic beliefs stem from certain value systems previously assumed by individuals, values that could, in turn, be inculcated by tradition or religious upbringing—for example, the famous biblical saying: "Truly, I tell you, it is hard for someone who is rich to enter the kingdom of heaven […] it is easier for a camel to go through the eye of a needle than for someone who is rich to enter the kingdom of heaven" (Matthew 19:23–30). Therefore, it is possible that certain moral valuations give rise to certain lay economic conceptions.

H3) Folk economic beliefs are caused by individuals' cognitive specialization in certain activities or areas of knowledge. This hypothesis is based on two fundamental

\(^1\) For more on the differences between morality and science, and more specifically, between morality and economics, see Coleman (2002, 119–131).
facts: 1) individuals possess different capacities and skills (whether innate or acquired), and 2) individuals have limited time and energy, so they decide to invest their time and energy only in developing those capacities and skills (Ayau 2003, 2ff). Consider the case of a surgeon who has become a prestigious physician in his specialty. He has dedicated much time and effort to acquiring knowledge in his discipline, practiced it for years, developed certain skills, and must continuously stay informed about the latest advances in his field; this represents an "epistemic comparative advantage." This leaves him little time to inform himself about other areas of knowledge or activities, such as political or economic theory. For the surgeon, it would be very costly to dedicate time to studying these or other areas unrelated (directly) to his activity, as it would involve an investment of time and effort that could be better spent on his own discipline. Therefore, the surgeon might adopt folk economic beliefs, such as believing that the best model for the country is one based on autarky. Similarly, an economist might form folk medical beliefs—for example, believing in dubious remedies such as chlorine dioxide "curing" COVID-19—for basically the same reason: cognitive specialization in his area of knowledge. In short, we cannot know everything given our human limitations, and consequently, we focus on learning the knowledge relevant to our activities (this is the "epistemic comparative advantage"). This may be a cause of the adoption of such folk economic beliefs.

H4) Folk economic beliefs are caused by cognitive biases. Recent studies in cognitive psychology (Kahneman et al. 1982; Kahneman et al. 2002; Baron 2007; Evans & Frankish 2012) have opened a vast field of research, extending to medicine, politics, and economics, regarding systematic errors individuals make in their reasoning processes that can be linked to decision-making. According to these investigations, humans proceed cognitively in two ways: 1) an intuitive process, consisting of immediate reactions that form judgments under certain circumstances, and 2) a rational, complex, and abstract process, requiring greater cognitive effort to reflect on more general concepts and situations. These "mental shortcuts," called cognitive biases, result from applying intuitions to certain abstract and complex objects. One case is the "availability heuristic" (Pinker 2018, 41-42), which involves making a judgment based on the first thing that comes to the subject’s mind. This can be seen
in people who consider traveling by road to be safer than flying simply because a recent news report covered an airplane crash. However, statistics indicate that road accidents are more frequent and that air travel is actually safer.

Caplan’s studies (2002b) suggest that lay conceptions in economics could be explained in terms of cognitive biases. An example could be the “pessimistic bias,” where individuals believe that the economy’s performance has worsened year after year. Laypeople might arrive at this conclusion because a major company went bankrupt, prices have increased, or close acquaintances have lost their jobs, even though statistics may indicate the opposite. Of course, these individuals may dismiss the statistics, likely because they trust their own intuitions more. Thus, cognitive biases could provide a causal model explaining the adoption of folk economic beliefs.

H5) Folk economic beliefs are caused by an asymmetry between private and public decisions. Norwegian sociologist Jon Elster (1991, 40) explores the Marxist idea that throughout history, there have been social contradictions, pointing out that individuals can hold contradictory beliefs and desires. For example, a capitalist might want their workers to have low wages because it benefits them personally, while simultaneously wanting other capitalists to pay high wages to their workers so that these workers can afford to buy their goods or services. Another example is that some businesspeople may advocate for free market rhetoric but contradict it in practice when they lobby in political circles to pass laws or policies that benefit their own interests, such as demanding tariffs to protect their businesses from foreign competition or requesting government subsidies (Hutt 1971; Buchanan 1999).

However, this asymmetry between private and public decisions is not exclusive to intellectual elites or powerful business circles, as all economic agents can experience a conflict between what they consider best for themselves and what they consider best for others. In the previous section, I mentioned that comparative advantage is often accepted by individuals when it comes to their personal activities but may be rejected when it pertains to the Res Publica. Another example of this asymmetry could be opinions regarding income taxes. Many people believe that progressive taxation should be implemented to "redistribute wealth," so that the wealthier pay a higher rate, but these same people often complain bitterly when their
own salaries are significantly reduced by income tax withholdings. These examples suggest that there might be a certain pattern that induces individuals to fall into certain contradictory behaviors, leading them to conceive economic phenomena one way in their private sphere and another way in the public sphere. Thus, the asymmetry between public and private decisions could be the cause of these beliefs.

The previous hypotheses could be complementary. H1 and H3 complement each other in that the partial observation of economic phenomena points to limited or nonexistent knowledge, which could result from the "epistemic comparative advantage." Both are also compatible with H2, as partial observation can be interwoven with moral valuations, as suggested by the example about the greed of intermediaries. Likewise, it is possible that a layperson in economics avoids mixing explanations with moral valuations in their field of expertise but does not avoid it in fields that are unfamiliar; for instance, our surgeon may evaluate a certain treatment based on its effectiveness rather than its potential moral value.

Regarding H5, it could also complement the previous hypotheses: moral valuations may be linked to how individuals perceive and evaluate the public sphere, but do not apply them to their own decisions, leading to performative contradictions (for example, a person may argue that it is best to buy from domestic producers to support them against foreign competition, but at the same time, this person may frequently buy imported products). In this way, partial perception, the confusion between moral valuations and explanations, specialization in certain areas of knowledge, and the asymmetry between the private and public spheres may be closely related.

The hypotheses mentioned above also complement H4 to the extent that cognitive biases may point to certain mechanisms in cognition that could be the ultimate cause of these types of beliefs and the resulting (sometimes inconsistent)

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As possible support for this hypothesis, Pinker (2002, 240) notes that individuals can "turn on and off" their moral feelings and thus judge certain acts either from the perspective of preference or from the perspective of value (that is, some acts are judged as "moral," while others are seen as a mere matter of taste). This can be relevant to the problem we are discussing here.
decisions. Evidently, whether the hypotheses truly complement or contradict each other will be determined through empirical investigation.

However, there is a theoretical framework developed by evolutionary psychology that might unify the previously discussed hypotheses (Pinker 2002; Rubin 2003; Boyer & Peterson 2018). This theory essentially holds that there is possibly a mismatch between the capabilities of the human brain and the specific conditions of contemporary societies. The theory posits that our brains evolved in an adaptive environment very different from the one we live in today.

The main argument of this theory hinges on the temporal dimension. Our species has been inhabiting this planet for approximately 350,000 to 300,000 years. The oldest known civilization dates back about 9,000 years, and the current industrialized commercial societies originated only about 200 years ago. The human brain could not have evolved to respond to these new conditions, as evolutionary changes require long periods of time. In other words, we still have hunter-gatherer brains, even though we live in more complex and advanced societies compared to those of our ancestors. But what characterized the conditions of early humans?

In those times, social interactions may have been founded on reciprocal altruism, encapsulated by the famous saying, "I'll scratch your back if you scratch mine." Given the extreme conditions faced by early Homo sapiens, where food sources were very scarce, economic interactions could have been guided by this kind of altruism, which compelled all community members to share what they hunted or gathered. If any member accumulated more than others, it would result in a gain at the expense of the rest of the group—in other words, it would be a zero-sum game. If this were the case, selfish behavior might have warranted social sanctions; for example, tribe members might refuse to cooperate in the future with those who behaved selfishly, thereby endangering their own survival. Morality based on reciprocal altruism is essentially intentional: it requires community members to know the intentions of their comrades to identify whether they are willing to cooperate. Consequently, reciprocal altruism can only function in small societies, and it is not surprising that it persists today in small social groups, such as families.
However, economic interactions in our contemporary society are very different because they are based on trade and industrial production, which create conditions conducive to positive-sum games. As we highlighted, the coordination of economic activities in large modern societies involves interactions among thousands or millions of individuals who do not know each other. Under these circumstances, formal legal systems and impersonal institutional frameworks have been developed to regulate the establishment of contracts and ensure the legal security of economic agents. This is why the reciprocal altruism of primitive tribes simply does not scale up—it is impossible to track the intentions of thousands or millions of individual agents participating in these vast systemic processes. Characterizing modern societies as "one big family" may be a rhetorically appealing metaphor, but it is entirely inapplicable in descriptive and explanatory terms.

Consequently, if this theoretical framework is correct, it is possible that the cause of folk economic beliefs derives from the mismatch between the interaction modes of our ancestors, which are encoded in the human brain, and the current socioeconomic reality. As evolutionary psychologists establish, there are two types of explanations in evolutionary terms: proximate (which answer the question "How does X work?") and ultimate (which answer the question "Why does X exist?"). Hypotheses H1, H2, and H3 could be understood as proximate explanations since they account for specific factors that cause the phenomenon, while H4 could be considered an ultimate explanation, as it might be based on a general evolutionary mechanism that predisposes the formation of folk economic beliefs.

Similarly, this theory may help to understand the formation of certain ethical doctrines associated with these kinds of beliefs. According to Heyne (2008), our moral intuitions are characterized by what he calls "face-to-face morals," which align with the reciprocal altruism described earlier. In this moral system, as indicated, the emphasis is on the intentions of moral agents, and selfish behaviors are condemned. In this sense, the ethical doctrines proposed by many religions and by ancient philosophers like Plato, Aristotle, or Seneca, which explicitly condemn "greed," "avarice," and other behaviors, may have an evolutionary origin. Perhaps the difference between these doctrines and folk beliefs lies in the former being formulated in a more systematic and
abstract manner. It follows that the mismatch between our hunter-gatherer brains and the conditions of modern market economies could explain the persistence of "face-to-face morals" and the philosophical doctrines inspired by them.

However, this theory is still very speculative (Niemietz 2019, 286). As is often the case with theoretical frameworks in evolutionary psychology, the problem lies in the difficulties of finding evidence about the phylogeny of cognitive processes and the living conditions of our primitive ancestors. Despite this, I believe this theory deserves consideration, as it is not ruled out that data supporting it may be found in the future.

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5. Political implications

Regardless of whether folk beliefs and the moral intuitions of laypeople in economics have evolutionary roots, the issue now is to see what repercussions they may have in the political sphere. As I pointed out at the beginning of this text, beliefs not only provide subjects with descriptions of the world to help them cope with uncertainty, but they also establish a powerful motivation for action. Actions that affect politics and society as a whole are of greater relevance because they impact the lives of millions of people. The impact that beliefs and knowledge have on politics has become one of the most interesting topics for epistemology and cognitive sciences (Haidt 2012; Hannon & de Ridder 2021).

However, not all folk beliefs seem to have the same social impact. Folk linguistic beliefs, such as those described by Jackendoff, may lead speakers to form erroneous views about language, but they do not appear to have significant repercussions. In other cases, the negative effects of some beliefs are more evident: lay conceptions in medicine can lead certain individuals to take inappropriate treatments that may endanger their health or even their lives. Precisely, the emphasis of scientists on promoting scientific knowledge and publicly refuting erroneous beliefs is related to the goal of informing people to prevent them from falling victim to hoaxes or frauds that can affect their finances or even their health. Thus, the negative impact that folk beliefs can produce is variable, as it seems to depend on the specific issues at stake (such as people’s mental or physical health).

But the case of folk economic beliefs is different because they directly affect public policies. For example, the belief that the economy is a zero-sum game has produced certain xenophobic stances, such as the claim that foreign immigrants...
"steal" local jobs. This can lead to the establishment of discriminatory policies and draconian legislation that would harm not only immigrants but the economy as a whole. This and other examples are clear indicators that lay economic conceptions can impose terrible costs on society.

Economists have been aware of this problem, but they have somewhat dismissed it by appealing to what they call rational ignorance. Based on the "epistemic comparative advantage" described earlier, many economists argue that it is most rational to specialize in the theoretical or practical knowledge that is most relevant to an individual's profession. We exemplified this with the case of the surgeon, who would certainly benefit from dedicating his time and energy to deepening his knowledge and skills in his clinical specialty. As a result, the surgeon may lack other knowledge that has significant social relevance, such as politics or economics.

In this regard, Caplan (2007) points out that rational ignorance is not problematic in the private sphere, but it can be in the public sphere. Returning to our example, the surgeon might adopt an anti-immigration xenophobic stance and, if fully convinced of this belief, might vote for candidates who promote such discriminatory policies. As Caplan argues, rational ignorance entails certain dangers because voters may elect leaders whose platforms or political programs are highly detrimental.

The crucial point is to understand that the primary incentive for politicians in a democracy is to obtain the highest number of votes. Aristotle and the rhetoricians of antiquity already warned us that arguments based on pathos and ethos are the most persuasive in the public arena. To gain empathy with the electorate, the politician will not seek to change the audience's beliefs; instead, he will adapt his discourse according to the audience's demand, which involves incorporating the most widespread beliefs among voters (and if he adorns this discourse with tropes appealing to the public's ethos and pathos, persuasive success is likely guaranteed). Similarly, if certain folk economic beliefs are widespread among the electorate, it is unsurprising that politicians adopt them, motivating them to promise measures consistent with such beliefs. It matters little whether the politician truly believes in what he proposes; what matters is that folk beliefs create incentive structures that encourage politicians to pass certain laws or government programs, which may have
adverse economic consequences. This occurs because the politician bears no cost for being wrong, as the negative effects of the public policies he has promoted may appear in the medium or long term, and by then, the politician will have moved to another position in the government’s hierarchy.

This may be one of the factors explaining the recent surge of authoritarian populism in various regions of the world. This phenomenon has alarmed political science experts due to the demagogic discourse and the types of public policies defended by populist governments. However, what these experts often overlook is that the populist demagogue has merely adapted to the people’s beliefs, and if he enjoys broad popularity, it is precisely because he has managed to win their sympathy very effectively. If anything, this phenomenon of authoritarian populism shows that the voters themselves can undermine democracy.

After all, the lay public that adopts these folk economic beliefs is not merely a passive spectator of economic processes but an active economic agent. As such, they can suffer the consequences of economic recessions, such as losing their business or job. The problem arises when they attribute unemployment to foreign immigrants or adopt "conspiracy theories" about the origins of social ills, which can lead them to support certain leaders who implement harmful policies for the entire economy. For example, the populist attempt to revive CEPAL-style mercantilist policies represents a significant danger in our Latin American context. Therefore, the importance of folk economic beliefs is substantial, given their implications for democracy and public policies.

6. Conclusions

Ultimately, studying lay conceptions helps clarify how humans perceive the world and social reality. In particular, thoroughly investigating folk economic beliefs could shed light on how people without economic training perceive the dynamics of markets and productive activities. This could be revealing about how they react to certain circumstances generated by economic performance, such as economic cycles.
More generally, it can provide important insights for understanding processes of epistemic justification, which has been one of the central problems of contemporary analytic epistemology. These issues can also be of great importance to the cognitive sciences, especially regarding the relationship between cognitive biases and beliefs. In other words, research on folk beliefs could contribute to understanding certain cognitive processes that motivate thought and action.

Another relevant aspect of this research program is that it could explain certain aspects of decision-making processes and political preferences. If beliefs can motivate certain decisions, then studying folk economics would enable the explanation of many of the behaviors of individuals in society. This could be useful for research aiming to investigate the causes behind the political preferences of the electorate. As mentioned in the previous section, the troubling rise of authoritarian populism in Latin America and other regions of the world could be motivated by these kinds of beliefs, among other factors.

In sum, as there is increasing convergence between cognitive sciences, epistemology, and political studies, the topic of lay conceptions could represent a small piece that contributes to the construction of the larger puzzle.

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