

# Philosophy of Ideology

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**Abstract** The concept of ideology is central to the understanding of the many political, economic, social, and cultural processes that have occurred in the last two centuries. And yet, what is the nature of the different ideologies remains a vague, open, and much disputed question. Many political, sociological, and ideological studies have been devoted to ideology. Very little, on the other hand, has been done from the philosophical field. And this despite the fact that there are undoubtedly many philosophical questions related to ideology and its role in modern industrialized societies. Just a few examples of ideology-related philosophical questions suffice to prove the point: What objects do ideologies deal with? Are the ideologies testable? Are there true ideologies? Do they evolve? How are ideologies related to societies? Is the existence of ideologies inevitable in modern societies? What is the relation of ideology to science? Is science just another kind of ideology? Are we, as human beings, innately predisposed to believe in ideologies? Or, instead, ideologies proliferate through indoctrination and propaganda? Are ideologies necessarily harmful?... and much more. In this article I try to answer some of these questions from a philosophical point of view, taking a materialist approach. I begin by characterizing ideology as a complex, multi-layered concept. Then, I briefly discuss the material systems on which ideological movements operate, that is, societies and concrete human groups. I identify at least 11 different elements that seem to be present in most ideologies, and I compare these characteristics with those of contemporary science and technology. Although some superficial similarities can be identified, there are deep differences that make ideology completely different from science. The similarities, however, are stronger with technology. Ideologies continually evolve with technological advances, social changes, and even with mere fashion. The current

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fragmentation of ideologies caused by the widespread use of new technologies and social networks has given rise to new phenomena of ideological propagation which, in my opinion, are very dangerous, particularly for open societies. I discuss these processes, within the context of the nature vs nurture debate, along with the question of whether we can get rid of ideologies.

## 1 Introduction

Ideology has been ubiquitous throughout the 20th century and it still is today. Millions of people have been killed in the name of ideologies. Millions have been imprisoned, persecuted, displaced, or tortured for ideological conflicts. The lifestyle of most people on this planet is determined, or at least influenced, by ideologies. Within the same society, families and friends are often separated by ideological differences. It seems almost impossible to understand today's world without some understanding of the many conflicting ideologies. And yet the very concept of ideology remains distressingly vague.

Entire libraries have been written on ideology and related topics. Most of these books explore particular ideologies, their history, characteristics, and their impact on specific societies. Others compare different ideologies, conflicts between ideologies (or, rather, conflicts between people and governments inspired by competing ideologies). Other books deal with the political, economic, and social aspects of ideologies. Some works chart the world of contemporary ideologies and others rank them by appealing to different criteria. Some of these books are written from a political perspective and others from an ideological point of view. Almost none discuss ideology from a philosophical outlook.

And yet ideology is full of aspects that call for philosophical inspection. A philosophical analysis of ideology is particularly pertinent because many ideologies are inspired by philosophical ideas. Others, in scientific theories, and still others, in pseudo-scientific concepts.

The philosophy of ideology is more than just a branch of political philosophy, because ideologies are not only political. They can also be biological, economic, or cultural. Among the many philosophical questions that we can ask ourselves about ideologies, I mention the following:

- What is an ideology?
- What objects do ideologies deal with?
- How many kinds of ideology are there?
- Are ideologies testable?
- Do they evolve?
- What is the relationship between ideologies and society?
- Are there true ideologies?
- Is science some kind of ideology?
- Are we conditioned from our social environment to believe in some ideologies?  
Or are we, on the contrary, innately willing to accept some ideological attitudes?

- Do we need ideologies?

The variety of seemingly contradictory opinions that exist in the field of ideology studies makes a philosophical assessment desirable, one that can shed some new light on controversial issues and helps to dispel some of the vagueness that plagues the subject.

Let us consider, just as an example, the first question of our preliminary list above, the very basic issue of “what is an ideology?” Terry Eagleton (2007), for instance, offers a list of 16 competing meanings of the term ‘ideology’, collected from a wide variety of authors. Such a list, ranging from “a process of production of meanings, signs and values in social life” to “a socially necessary illusion” and “an action-oriented sets of beliefs”, is far from exhaustive.

Certainly, not all definitions found in the literature are mutually compatible. Some point out just a specific aspect of ideologies. Others have a definitively negative character. And yet others are compatible with things that are certainly not ideologies (for instance, we can imagine many sets of beliefs that are action-oriented but not ideological, as those that guide a cook in the preparation of a given menu).

Perhaps a better clue to the correct meaning of “ideology” can be obtained from the historical use of the word. The term seems to have been introduced by Antoine Destutt de Tracy (1754–1836). Following the spirit of the Enlightenment, soon after the French Revolution, he sought to found a general science of ideas. He tried to determine the process of forming ideas from observation and experience. But soon Napoleon and others began to use the word in a pejorative sense to describe a simplistic and idealized analysis of reality, totally divorced from facts, which tries to regulate people’s lives with the excuse of improving them.

Marx introduced the word in social and political contexts with a different meaning in his classic work, written with Engels, *The German Ideology* (1976, originally written in 1846). Marx and Engels considered as ideological any set of political illusions produced by the social experiences of a class (briefly, according to him, a class in this context is a social group defined by its economic role, such as proprietors or workers). These illusions are used by the rulers, through the state, as an instrument of control and domination of the working class. Ideology, for Marx, was made up by the legal, political, religious, and philosophical principles proposed by the ruling classes with the aim of reinforcing the capitalist society. In other contexts, however, Marx also seems to conceive of ideology as a set of mental attitudes determined by the social environment. Thus, members of different classes are both directly and indirectly taught to think and behave in ways appropriate to their own class. With revolution and the suppression of classes, the ideology should disappear.

Lenin (1973, first published 1902), on the contrary, thought that a socialist ideology proper to the working classes was not only possible, but desirable. Such an ideology would help develop a working class consciousness and prevent this class from falling into trade unions. On the contrary, religion is an intensional creation of the ruling class for Lenin, a kind social tool whose purpose is to ensure the domination of the workers.

The Italian communist Antonio Gramsci (1891-1937) thought that ideology is consciously produced by intellectuals. Different ideologies conflict within the same

society until one of them prevails. Engaging in the cultural war to achieve hegemony is the main task of the organic intellectual, that is, one closely connected with the class structure through some organization such as the communist party.

Karl Mannheim (1893-1947) realized that any social environment influences human thought, so a society with many different social groups and class environments will produce a multiplicity of ideologies. His "total" concept of ideology refers to the modes of thought and experience, the *Weltanschauung* or "worldview" of an age or group originating in a collective life situation.

Many social scientists and political analysts today use the term "ideology" in a purely descriptive way to refer to any discrete and relatively coherent system of beliefs that inform the social and political actions of a human group in a given society. Contrary to the Marxist conception, this view is essentially neutral with respect to the value of ideologies (see, for example, Seliger 1976). Others adopt a more normative sense of the word, referring to ideas or beliefs that are in some way misleading, illusory, or one-sided, and that serve the interests of specific groups. There is a negative connotation associated with saying that something is 'ideological' in this sense. The critical conception of ideology typically holds that ideology is a way of using meaning to establish and sustain relations of domination (Thompson 1990).

Before trying to refine these first approximations to the concept of ideology, it should be noted that ideologies, whether in their neutral or negative meaning, are always linked to groups and social classes. Perhaps, then, a good way to begin our inquiry into the nature of ideologies is to clarify the concepts of society, social group, class, social stability, and the like. That is what the next section is devoted to.

## 2 Some concepts of sociology

I maintain that social systems are material objects, composed of organisms and the artifacts they produce (Bunge 1979, Romero 2018). Being material, social systems can change. They can grow, evolve, collapse, disappear, etc. They also interact with other social systems and with other concrete objects. Let us be more specific about these terms.

A **general material system** is a composed entity, i.e. a thing that is formed by other things. It is characterized by its *composition*, *environment*, *structure*, and *mechanism* (Bunge 1979, 2003).

The composition of the system is the set of its parts. The environment is the collection of things that interact with the system. The structure is the set of relationships (bonds or links) between the different components or parts, as well as with external objects. The first set of relations forms the *endostructure*, the second the *exostructure*. The total structure is the union of the two. Finally, the mechanism of the system is the collection of all its internal processes (a process is a series of lawful changes).

A **social system** is a concrete system composed of animals that 1) share an environment, 2) interact, 3) cooperate in some aspects and compete in others.

If the predominant animals in the group are humans, the social system is called the *human social system*. There are many types of human social systems, ranging from families to armies and societies. They can be natural and spontaneous, like a tribe or nation, or artificial, like a multinational company or a cooperative enterprise.

A **human society** (HS) is a human social system composed of four large subsystems: 1) biological, 2) economic, 3) political, and 4) cultural (Bunge 2003).

The biological subsystem of a human society is composed by human beings (the dominant group) and the animals that depend on them; the structure is given by the biological relationships among all these individuals. The environment is formed by the territory and the ecosystem these people inhabit. The mechanisms are the biological processes experienced by the population.

The economic subsystem is composed by the working individuals of the society and the different means at their disposal. The corresponding structure is given by the relations of production, exchange, and distribution of goods of all kinds among them. The environment comprises the available material conditions, both internal and external. The mechanisms that operate in the subsystem are the economic processes of all kinds that occur in the society.

The political subsystem is made up of those individuals who are devoted to the administration and control of the common goods and to activities related to the government and the legislation of social actions. The corresponding structure is made up of power, legal, and administrative relations. The environment consists of the forces and conditions of power, both internal and external to the society. The mechanisms are the actions of government and administration that take place, along with the reactions that these actions provoke from the rest of the society.

The cultural subsystem, finally, is composed of individuals who are devoted to inventing, researching, teaching, discovering, planning, creating, representing, etc. as well as by the different means at their disposal together with the results of their work. The structure consists of the relationships among the various cultural actors and between them with the rest of the members of the society. The environment is formed by the available material conditions and the operating mechanisms are cultural processes of all kinds.

We can make now some postulates about social systems that seem plausible. For instance,

- Changes in a social system originate from 1) changes in its components, 2) changes in the links of its components, 3) interactions with the environment.
- Members of a social system cooperate in some respects and compete in others.
- A social system emerges if and only if its existence contributes to satisfying some needs or desires of at least one of its members.
- A social system disappears when the links among its components are dissolved.
- Changes in one subsystem of a society have impact on the other subsystems.

Regarding the latter postulate, I notice that cultural changes, for instance those initiated by new ideas, can affect the political and economic subsystems. These changes can be moderate or radical. Ideologies seem to operate in this sense, starting with certain groups of intellectuals and then extending to other parts of the society.

A **social group** is a set of members of a society who have some common properties. For example, the group of the unemployed, or that of university students. We must bear in mind that groups are not social systems. A population is separated into groups to study it or implement action plans. For example, the group of all those over 65 years of age will be the first to be vaccinated in the event of a pandemic. Although the individuals that make up the groups are material, the groups themselves are not. You can vaccinate human beings, not groups. Groups are said to be vaccinated only when most or all members belonging to the group are vaccinated.

Human groups are concepts abstracted from real people and used to think about various types of social systems. This does not mean that the groups are not objective, because objectivity is granted by the specification of a clear and explicit criterion for the formation of groups. The group, being a concept, can be well constructed, if the criteria are justified in a given context, or poorly defined, if the formation rule is not clear (for example, the “group of young people”, or the “group of poor people”, if the terms ‘young’ and ‘poor’ are not carefully defined).

There can also be arbitrary and subjective groups. For instance, the group of my friends at any given moment depends on my subjective evaluation of friendship at that moment.

A **concrete social group** is not a set but a collection of interacting individuals. Contrary to the social group, it is not a theoretical construction, but a material system. Specific social groups can achieve goals that are beyond the reach of their individuals. Some examples are work crews, police squads, gangs, sports teams, research teams, armies, musical bands, and mobs.

A **social class** is a social group whose members are supposed to dominate or to be dominated in some way by members of another human group.

**Dominance relationship:** An individual  $x$  dominates an individual  $y$  in the aspect  $A$ , ( $x > Ay$ ), if and only if  $x$  determines the behavior of  $y$  in the aspect  $A$ .

Note that according to the nature of  $A$  we can differentiate political, economic, religious classes, etc. All these classes are conceptual constructs and not concrete social groups.

Some remarks:

- Classes, like groups, are not material.
- If the classes are not material, there can be no “class struggle”. The struggles are always between material systems.
- Classes can’t be self-aware because they don’t have brains, and hence they do not think.
- The concept of class is useful for analyzing the structures of a society, but classes cannot cause anything because they have no causal power. All real change in a society must occur because the behaviors of real individuals change.
- Although classes are not systems, some members of a class can group together and form a system, and their action can have an impact on society. For example,

unions or churches can bring together many members of a class and cause social events.

Some of the considerations on sociological concepts offered above give us clues about what ideology is. If social systems are real, concrete entities, then they are capable of change. They can be changed by external forces, such as conflicts with other social systems, or by changes in the environment, such as climate change or sudden catastrophes. Or they can change due to epidemics or other health problems that affect at least part of the biological subsystem. But social systems and, in particular, societies, can also be changed by the action of some of the intentional agents that belong to the population. These actions can take different forms: voting, labor, legislation, even violent revolution. And the actions of individuals originate from their mental configuration, their values and ideals, so any cultural framework capable of promoting some actions and inhibiting others can be used to induce changes in a society in a certain direction. Ideologies appear to do that: they seem to be instruments to generate or prevent social changes.

### 3 Some neutral concepts of ideology

Several authors have proposed definitions of ideology in line with what was outlined above. Let us review a few of them.

Hamilton (1987) made an extensive examination of the literature on the concept of ideology, which led him to identify at least 27 definitional attributes to the term. He pondered these alleged attributes to ascertain their utility and coherence as definitional criteria for ideology finally proposing the following tentative definition:

An ideology is a system of collectively held normative and reputedly factual ideas and beliefs and attitudes advocating a particular pattern of social relationships and arrangements, and/or aimed at justifying a particular pattern of conduct, which its proponents seek to promote, realize, pursue or maintain.

He notes that “This definition is coherent and sufficiently broad, yet sufficiently circumscribed, to meet the requirements of empirical application and research. It indicates the kind of ideas and beliefs that comprise ideologies rather than making claims about their causes, functions, or anything else that may or may not be empirically true about such ideas and beliefs.” (Hamilton 1987, p.38). We see that in a broad sense this definition is in the line we have suggested.

Another author that offers a very neat definition is Lyman Tower Sargent (2009) in his classic book *Contemporary Political Ideologies: A Comparative Analysis*.

An ideology is a system of values and beliefs regarding the various institutions and processes of society that is accepted as fact or truth by a group of people. An ideology provides the believer with a picture of the world both as it is and as it should be, and, in doing so, it organizes the tremendous complexity of the world into something fairly simple and understandable.

Here the values are explicitly mentioned, as well as the fact that the set of beliefs adopted is considered true. People who have an ideology are believers, according to Tower Sargent. And they have an image of what kind of society they want to implement. They also have, as a starting point, a picture of the world as it is now. This image, however, may be too simplistic, inaccurate, or just plain wrong. It is the difference between these two images, what is thought to be and what is thought should be, that pushes the believer into action, probably guided by the value system proposed by the ideology. Here we can glimpse a grave danger: if the images of the world, current and future, held by the believer are false, or the values adopted are misleading, the result of his or her actions can clash with the facts, with catastrophic consequences.

Roger Eatwell definition takes note that ideologies not only can be used to promote or enforce changes in a society, but also can serve to stabilize it (Eatwell 1993):

A political ideology is a relatively coherent set of empirical and normative beliefs and thoughts, focusing on the problems of human nature, the process of history, and socio-political arrangements. It is usually related to a program of more specific immediate and short-run concerns. Depending on its relationship to the dominant value structure, an ideology can act as either a stabilizing or a radical force.

Finally, I mention the influential definition offered by Michael Freeden (2003), which is restricted to political ideologies:

A political ideology is a set of ideas, beliefs, opinions, and values that

1. exhibits a recurring pattern,
2. are held by significant groups,
3. compete over providing and controlling plans for public policy,
4. do so with the aim of justifying, contesting, or changing the social and political arrangements and processes of a political community.

Contrary to the classical Marxist vision, Freeden emphasizes that there can be several ideologies in the same society and that they compete to control public policies. It could be argued that total ideologies compete to impose the general worldview of the society that hosts them. Freeden also stresses the importance of language control in that fight:

Ideologies compete over the control of political language as well as competing over plans for public policy; indeed, their competition over plans for public policy is primarily conducted through their competition over the control of political language.

We can extend Freeden's definition beyond the realm of politics in line with our previous characterization of a society as follows:

**Definition.** An ideology is a body of ideas, beliefs, opinions, and values such that

1. exhibit a recurring pattern,
2. is held by one or more social groups,
3. individuals in each group collaborate with each other and compete with other groups in order to gain control of public policy plans,



4. they do so with the aim of justifying, contesting, or changing the state and direction of the biological, economic, socio-political, and cultural processes of a community.

In short, in a broad sense, an ideology is more or less a collection of beliefs and values, not necessarily true or coherent, held by a group of individuals in a human society, which is used as a tool to gain control over that society.

#### 4 Essential features of any specific ideology

Although the definitions given above offer a broad characterization of the concept of ideology, we can still ask ourselves ‘what characteristics are essential to call a certain body of beliefs ideology?’ In order to clarify this, I propose to consider any specific ideology, political or not, as a multidimensional field of beliefs. We can represent such a field as 11 tuples of the following elements (see Bunge 1985 for a similar approach):

$$I = \langle C, S, D, G, B, A, P, V, I, O, M \rangle \quad (1)$$

where,

*C* is the community of believers (a subset of which are militants) in *I*.

*S* is the society that hosts *C*, and on which the members of *C* act to modify it in some aspect.

*D* is the domain of objects, real or imagined, that are studied, revered, or manipulated by members of *C*.

*G* is the general worldview adopted by the members of *C*.

*B* is the background knowledge that members of *C* take for granted regarding the objects of their interest (for example, historical or economic facts).

*A* is the total set of statements about objects in *D* that members of *C* hold true. A subset  $A_{\text{core}}$  of this set *A* forms the central core of beliefs of the ideological field to which believers are unwilling to change without renouncing their ideology.

*P* is the problem or set of problems, conceptual or empirical, that the members of *C* face.

*V* is the value system shared by the members of *C*.

*I* is the set of ideals to which the members of *C* aspire.

*O* is the set of concrete objectives of the members of *C* with which they hope to realize the ideals *I*.

*M* are the methods that members of *C* adopt to achieve their objectives *O*.

I will now make a few remarks about this minimal characterization of ideology as a field of belief. First of all, I must say that it is a tentative scheme and certainly perfectible. There may be other essential features of ideology that escape our analysis. However, new elements can easily be incorporated into our definition as additional dimensions, once they have been identified through comparative research of actual ideologies. The different components of the expression (1) can be interpreted as

discrete sets, whose elements will depend on the specific ideology. The first set,  $C$ , has as elements the members of a community of believers in the ideology. I use the word ‘community’ and not just ‘group’, because some interaction between people who have the same ideology is expected, especially between those who are militants, that is, those who care about the spread of the ideology.

People who have an ideology will exist only in a society, upon which they try to act. Hence the dimension  $S$ . Different types of societies will have different ideologies. The action of the individuals of  $C$  on  $S$  is possible because, as we have seen, a society is a material entity existing in space and time and capable of evolving. It is that evolution that the members of  $C$  want to control or at least influence.

The scope of an ideology will be given by the domain  $D$  of objects that concern the believers. If these objects are social or political items, the ideology will be sociopolitical. But it could be the case, as we will discuss in the next section, of broader or narrower domains.

People who hold an ideology will share some worldview or at least elements that are common to several worldviews, no matter how simple. This will give their beliefs the minimum coherence necessary for argumentation or at least for propaganda. For example, followers of an ideology may view the world as a material system where human beings are free to act, or they may think that God created the world and we must act according to his designs, or that human beings are inherently evil and therefore they must be controlled and regulated down to the minutest detail if they are going to live in society without killing each other, etc. Of course, the worldview could also be much more elaborate, informed by science and technology.

If the proponents of an ideology want to change some aspect of a society then they must have some knowledge, or pretend to have some knowledge, of the relevant aspects in order to devise some course of action. For example, some economist, ideologically identified with some left-wing ideology, might think that he or she knows that inflation is always caused by speculative behavior on the part of manufacturers, merchants, and goods distributors. Then, he or she, given the right power, could try to implement and enforce price controls at supermarkets and other shops. Another liberal economist might think that his or her colleague’s actions are nonsense because the government’s practice of having the central bank printing money to finance public spending is the main driver of inflation. So, for the second economist, reducing the deficit and stop printing money are the first steps to suppress inflation. Without some knowledge or presumed knowledge of the causes of inflation there is nothing to do in either case. If the position of the economists is ideologically oriented and their decisions and choices are based on ideas belonging to the hard core  $A_{\text{core}}$  of beliefs of their respective ideologies, it will be very difficult, if not impossible, for them to change their minds in front of the evidence of a failure and take a different course of action. If there were not, in each case, a hard and irreducible core of ideas that are not negotiable, we would not be talking about ideology, but economic science. It is easy to find examples that extend the existence of a core of canonical truths to all kinds of ideologies.

Every ideology faces problems that it claims to solve. Problems of power, job opportunities, gender issues, freedom, etc. The extent of this set of problems will

depend on the type of ideology and the characteristics of the society. To solve them, the members of  $C$  rely on their background knowledge  $B$  and a set of methods  $M$  deemed as acceptable and effective. They are also guided by their values  $V$  and ideals  $I$ . Values can be part of an elaborate axiology or simply a set of morals, depending on the degree of sophistication of the ideological field. Ideals are conceptual models where different values are exemplified. The purpose of ideals is to facilitate the visualization of objectives and to motivate actions. The ideal in itself is not a goal we can hope to achieve, but it serves to thrust our struggle in a direction that can lead us to our goals. Therefore, all ideologies include problems, methods, values, and ideals. They are the driving forces and self-imposed constraints necessary to achieve goals. The latter are also essential: people guided by ideologies are goal-oriented. Everything else is a means to achieve the changes they want to implement. Perhaps the shortest way to characterize any specific ideology is to list its core beliefs and goals.

## 5 Types of ideologies

From the characterization of ideology offered in the previous section, we see that what makes an ideological field different from other fields of activity in human societies is that ideology is based on beliefs and adopts specific arrangements of values and methods with the ultimate goal of achieving some influence on the evolution of a society or a social group. Depending on the scope of the ideology, that is, according to its domain  $D$ , we can differentiate different types of ideologies (see also Bunge 1985 and Freedon 2003).

- **Macro-ideologies:** they are concerned with all or several of the subsystems of the society.
- **Micro-ideologies:** they refer only to a limited class of issues within the society.
- **Super-ideologies:** they refer to all areas of human existence, not only social ones.

If an ideology of any kind does not change in the face of evidence adverse to it, we say that this ideology is a *fundamentalism*. Many religious, political, and cultural ideologies fall into this class.

Let us see some examples of the different types of ideologies, to illustrate the classification.

## 6 Some examples

Macro-ideologies focus on the political, economic, and cultural subsystems of society. Some well-known ideologies of this kind are (for a comprehensive examination see Freedon, Tower Sargent and Stears 2013, and Wetherly 2017):

- **Liberalism.** Liberalism has a core of central beliefs where we find the assumption that human beings are, at least partially, rational agents, whose freedom of thought and, within certain limits, of action, must be protected. Freedom is considered the supreme value. Liberalism views the individual as the primary social unit. Therefore, the main means of achieving well-being is individual initiative. The state must guarantee equality before the law, but its power must be controlled and restricted by other independent counterpowers. The plurality of ideas and opinions is highly valued in liberalism because it arises from the variety of human beings, from their different characters, dispositions, and choices. Merit and equal opportunities are values and must also be promoted. A self-made free human being is one of the ideals of liberalism.
- **Socialism.** Socialism has a hard core of beliefs that includes the idea that human beings are essentially defined by their relationships with other human beings, especially through work. Among its ideals we find equality, well-being, universal education, and social assistance. Among its goals we have the elimination of poverty and extreme economic differences. The main tool to achieve these objectives are economic regulations and state intervention in the different subsystems of society. Freedden (2003) points out that socialism is a future-oriented ideology, also very critical of the past and the present.
- **Conservatism.** The hard core of conservatism's beliefs include the idea that change in a society, whether political, economic, or cultural, should be gradual and never sudden or revolutionary. Change is the natural result of continuous human evolution and should not be abrupt. Conservatism seeks to strengthen existing institutions so that they are not susceptible to sudden collapse. Change, understood as growth and improvement of the existing bases of society, however, is valued and welcomed.  
Among the means used in conservatism is the observance of public order, understood as strict enforcement of the law, and the education of the population in the original values of society. The conservatives are not necessarily explicit in terms of economic and cultural issues, which is why they can appear in either liberal or socialist societies. That syncretic ability is perhaps the most powerful tool they have to achieve the goal of stability. Thus, throughout history, conservatism has fought both liberalism and socialism at different times and places, borrowing numerous elements from one and the other.
- **Progressivism .** Progressivism is a type of ideological movement that is essentially opposed to conservatism. It values and seeks change as a way to improve living conditions in a society. Even a radical change can be deemed valuable and desirable if conditions and circumstances are considered to demand it. The progressive values creativity, curiosity, science, tolerance, diversity, and open-mindedness. As with conservatism, this ideology is not necessarily tied to a particular form of political, economic, or cultural model. Both liberals and socialists can also be progressives. Even people who live in semi-totalitarian states can come to consider themselves progressives. Great revolutions, such as the French revolution or the Bolshevik revolution, had the banners of progressivism in their beginnings.

- **Totalitarianism.** Totalitarianism nullifies the separation between the public and private spheres of social life, insisting that the state has the right to regulate all areas of human existence. The main belief of the totalitarian creed is that human beings are not capable of handling the responsibility associated with individual freedom, so such a role must be assumed by the state. Freedom means only emancipation from the falsehoods of other ideologies.

The primary means to achieve a totalitarian state is the elimination of any counterpower. Justice and legislative activities must be controlled by the executive branch, which in practice is the only one that exists. Some totalitarian tools are propaganda, press control, the repression of any dissent, internal espionage, and sheer terror. Among other techniques adopted by totalitarian governments we can mention the creation of both internal and external enemies who are accused of being responsible for all problems, the cult of a leader's personality, the destruction of the free press and its substitution by an addict one, the restriction of people's movements, the use of fraud in mock elections, and the modification of language as a form of thought control.

Among the totalitarianisms we can mention most versions of absolutism, fascism, communism, Nazism, and various hybrid ideologies found in several developing countries. Totalitarian ideologies are rarely found in their pure form in the contemporary world.

- **Anarchism.** Anarchism is the generic name for a set of macro-ideologies that seek the reduction or even the abolition of the state, understood as a monopoly of force, and by extension also the rejection of political government or authority imposed by force on the individual, considering them unnecessary or harmful. It arose, in its modern form, in the 19th century, as a reaction to the authoritarian consequences derived from the French Revolution<sup>1</sup>.

There is a huge variety of versions of anarchism, both individualist and socialist. Some anarchist theorists: Pierre-Joseph Proudhon, Josiah Warren, Mikhail Bakunin, Max Stirner, Piotr Kropotkin, Robert Nozick, David Friedman, and Murray Rothbard, among many others. A partial list of movements self-defined as anarchism in some sense includes: individualist anarchism, mutualism, collectivist anarchism, anarch-communism, anarch-capitalism, anarch-syndicalism, anarch-feminism, etc.

The essential problem of almost all forms of anarchism has always been how to combine complete unrestricted individual freedom with some form of effective social cooperation.

Let us now move to micro-ideologies.

A micro-ideology is one that, like the dominant ideologies, has an identifiable structure but is restricted to a limited domain. It does not cover the full range of issues that pertain to macro-ideologies, and it is limited in its objectives and scope.

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<sup>1</sup> Of course, anarchist attitudes are ancient and can be found in the most varied historical periods. Most notably, perhaps, in the third and fourth centuries, when thousands of people fled the cities and moved to the desert where they lived as hermits and eventually formed primitive monastic societies (see Lacarrière 1961).

Let us take nationalism as an example, an ideology that assigns exceptional value to the concept of nation as a shaper of social and human identity. In general, nationalism is silent on freedom and individual rights and on the relations between the public and private spheres, among many other issues. It can occur within macro-ideologies of any kind. Some additional examples of micro-ideologies are neoliberalism, feminism, veganism, supremacism, ecologism, pacifism, and gender ideology.

Finally, we have the super-ideologies. Super-ideologies try to encompass all aspects of reality, and in the case of religious super-ideologies, of a supposed supra-reality. Super-ideologies offer a vision and interpretation of the world and all realms of experience, along with a system of valuation or axiology to inform human behavior. In general, super-ideologies incorporate the concept of ‘salvation’, be it individual or collective. By ‘salvation’ is understood some kind of overcoming of the natural limits of the human condition or, in the collective case, the achievement of a state where the social dynamic disappears because ideal equilibrium conditions have been reached.

Most super-ideologies are religious, but some are secular. Examples of super-ideologies are Catholicism, Islam, and some philosophical worldviews such as Marxism, which includes not only beliefs about nature, history, ethics, society, and metaphysics, but also about the future of humanity.

## **7 Are populism and terrorism ideologies?**

It may be striking that the brief list of macro-ideologies presented in the previous section does not include democracy or capitalism, something that many authors do. The reason they are not included is that I don’t think they are ideologies at all, because they do not meet the criteria given in Section 4. Democracy is not a set of beliefs, values, and objectives, but a system of government. It can be adopted by societies with very different dominant ideologies, from liberalism to socialism. Supporting a democratic system of government does not imply a commitment to any particular vision of economic or political affairs, the evolution of society, or human nature. Even totalitarian societies can adopt some style of democratic practice. For example, most of the communist systems of the period before 1989 called themselves “democratic republics”. Of course, many ideologies can adopt or even try usufruct the term because of the positive connotations it has today, but this does not mean that ‘democracy’ denotes by itself any kind of ideology. Ideologies are prone to appropriate any concept they deem useful or profitable.

Similarly, capitalism is not an ideology. It fails to fulfil many of the dimensions displayed by ideologies. Capitalism is an economic system that can be applied in a variety of ideological contexts. Many dictatorships have or had capitalist systems, as well as self-proclaimed communist states like China.

Something similar occurs with two other terms frequently associated with ideologies: populism and terrorism. Populism is a methodology for obtaining, keeping, and increasing power in a society; it is a form of political construction where rhetoric

prevails over any doctrine (Vallespín and Bascuñán 2017). Some of the basic characteristics of the populist methodology are: 1) the existence of a charismatic leader who claims to 'connect' directly with the people; 2) a permanent appeal to the 'people', which can only be interpreted in their desires and needs by the leader; 3) the construction of an enemy who is blamed for all problems; 4) a manifest hostility to any plurality with the consequent creation of a strong polarization; the populist discourse is essentially articulated as a fight of 'them' against 'us'; 5) permanent appeal to emotional language, extreme simplifications, and rejection of reason and hard data; 6) rejection of the free press and disqualification of those who think differently, rejection of dissent; 7) manipulation of history to create a mythical or idyllic past, revisionism to adapt the facts to the narrative adopted in the present; 8) contempt for minorities and victimhood; 9) permanent attempts to dismantle the counterpowers and control mechanisms of democracy; 10) adoption of a very vague vocabulary that facilitates all kinds of ideological hodgepodge.

The 21st century has witnessed an unexpected resurgence of populisms around the world. These movements have proliferated in Europe, America, and Asia as a reaction to a series of rapid and complex changes associated with globalization and the universalization of the capitalist economic system. They take an astonishing variety of forms, borrowing concepts from multiple ideologies. All of them are nationalists, many are isolationists, some present themselves as left-wing and others are openly right-wing. They all fight the very foundations of the liberal society: the separation of powers, the independence of justice, the existence of plurality and tolerance towards those who think differently. Wherever these movements reach the power, the result is similar: populists appropriate the state and dispose of it at will, impose patronage policies, persecute the press, and harass the opposition. When possible, they modify the constitution to limit controls and extend their term in power. Occasionally such methods evolve into dictatorships, as in Venezuela, or autocratic rules, as in Russia.

Terrorism, like populism, is a method, not an ideology. It is the method that consists of killing innocent people for political purposes. Terrorism is often ideologically motivated: most terrorists believe in an ideology that they want to protect or impose. The practice of terror is not exclusive to a specific ideological group. It has been used by anarchists, radical religious groups, Nazis, communists, and dictators of all stripes. Terror can also be used by individuals, such as the so-called Unabomber, by insurgent, nationalist or fundamentalist groups, or by entire states. Although closely related to the ideologies, it should not be confused with one of them, although some ideologies are more prone to using terror than others, depending on their axiological systems.

## **8 Science vs ideology**

Is science just another ideology? Many people seem to think so. I strongly disagree. But before discussing the relationship between science and ideology, it is convenient

to characterize science. I will adopt an approach similar to the one I applied earlier to the concept of ideology. I will first offer a general outline and then a multidimensional analysis. Science is the result of highly complex human activity, and any simple attempt to define it through a single salient feature tends to degenerate into mere caricature.

Science is the result of a systematic human effort that aims to acquire true knowledge about the world. It is not the only way to obtain human knowledge; we can learn many things just observing, practicing, reading, etc. Science differs from these and other knowledge acquisition operations in that it is systematic and its results are subject to a variety of controls. Furthermore, it is a progressive activity in the sense that scientific knowledge increases with research. There are several indicators of scientific progress, including the improvement in the ability to predict events and the increase in human capacity to manipulate the environment (through science-based technology).

Unlike other forms of knowledge acquisition, *science produces conceptual representations of the world that are articulated in theories and models* (Romero 2018). A theory is a logically organized set of statements, endowed with a specific interpretation, that refer to objects of the same class. If we introduce a set of statements  $P$ , a set of semantic instructions to interpret them  $S$ , and a domain (reference class)  $R$ , then a theory is represented by the quadruple (Bunge 1967, Romero 2018):

$$T = \langle P, S, R, \vdash \rangle, \quad (2)$$

where  $\vdash$  is the logical entailment operation. So a theory is a context that is closed under deduction: every statement in a theory is either a premise or a deductive consequence of a set of premises. The premises are called axioms and the consequences are theorems.

Certainly, theories in the making are seldom presented in this way. It is the task of the philosophers of science to render them into such a format to investigate their structure, ontology, and deep meaning. The working scientists usually do not care about this.

Contrary to a popular belief, the theorems of a theory never can be directly tested (except for coherence). Any evaluation of a theory against empirical evidence must be implemented through individual statements produced through a *model*. Models are obtained from a number of theories ( $T_1, T_2, \dots, T_n$ ) and sets of specific assumptions ( $A_1, A_2, \dots, A_m$ ) that describe concrete situations. Symbolically,

$$(T_1 \wedge T_2 \wedge \dots \wedge T_n) \cup (A_1 \wedge A_2 \wedge \dots \wedge A_m) \vdash M. \quad (3)$$

The model represents a collection of processes occurring in a specific circumstance. When we go from general theories to models the reference class shrinks enormously.

General theories, unlike models, are not expected to make concrete predictions unless they are considerably enriched with special assumptions and data. We test the theories by *consistency analysis* (both internal and with the total network of theories) and by *empirical evaluation of models* obtained from the theories with specific assumptions and data on applications to individual cases. These evaluations



are made by comparing predictions (statements) of models with data. An empirical datum is not a fact, but a proposition that informs about a fact and that is acquired with the help of empirical operations (experiments or observations). We always compare propositions with propositions, never propositions with facts. Since propositions are conceptual objects, they are loaded with theory. The fact itself, on the other hand, is independent of theory (Bunge 1983, Romero 2018).

Ruling out a theory through the predictions of a model is very difficult, because many theories and assumptions about the specific situation to which the model is applied are involved in each observation or experiment. Any of the theories or any of the ancillary data could be the cause of the lack of confirmation. Similarly, positive claims about the corroboration of a theory should be treated with caution for the same reason: false positives can be triggered by a multitude of causes. Therefore, multiple independent tests are necessary. We need to ponder on the validity of a given theory in a specific area across many models in quite different situations and with different experimental setups before drawing conclusions about the validity of the theory in question.

We can apply a multidimensional approach to science, as we did with the concept of ideology. The result is always tentative and perfectible, but I think it takes into account most traits that are characteristic of scientific research. Science itself can be defined as a set of research fields where each research field  $R$  comprise the following items (Romero 2018):

- $C$ : A community of researchers.
- $S$ : A society that houses the activities of those individuals in  $C$ .
- $D$ : A domain of material or conceptual objects to investigate and study.
- $G$ : A general philosophy shared by the members of  $C$ .
- $F$ : Set of formal languages used by researchers.
- $B$ : A background of previous scientific knowledge.
- $Q$ : A collection of problems of questions about the domain  $D$ .
- $A$ : A collection of goals of the members of  $C$  with respect to  $D$ .
- $M$ : A specific set of scientific methodologies that are used to solve the problems in  $P$ .
- $E$ : An ethic common to the members of  $C$ .

Then, a research field  $R$  is formally represented by:

$$R = \langle C, S, D, G, F, B, P, A, M, E \rangle . \quad (4)$$

The elements of each component change over time, hence these components are sets only at a fixed moment, otherwise they are collections, not sets. The field of research evolves according to the evolution of its components. At a given instant, science can be defined as the set of all research fields at that instant:

$$\text{Sci} = \{R_1, R_2, \dots, R_n\}. \quad (5)$$

This type of characterization is similar to that proposed by Bunge (1983), but I have included an ethic component that in my opinion is essential for any research activity.

Now, a few remarks. Many of the components of (4) are similar to those of our characterization of ideology. There are, however, important differences. Scientific research, the activity of the members of *C*, consists of discovering, posing, examining, and if possible solving problems. Not every problem is a scientific problem: scientific problems, *Q* are those that are posed against a scientific background, *B*, and are studied with scientific means, *M*, and with the primary objective of increasing our knowledge about the world and the mechanisms that operate in it (*A*).

The result of research is articulated in theories and models that intend to represent as correctly as possible some aspect of the world. Theories of basic sciences (a) are made up of hypotheses, including regularities (trends or laws) about classes of entities that are assumed to exist, (b) are capable of producing more or less accurate predictions based on specific models, and (c) contain no value judgments about reality or action programs aimed at changing it.

On the other hand, an ideology usually does not result from research (although some may be inspired by it) nor does it change with its results: up to now, ideologies have been fairly dogmatic beliefs and resistant to scientific innovations. An ideology can change but only in details. If an ideological "ism" were to radically change, it would cease to be that "ism."

Major changes in an ideology are usually introduced by some charismatic leader and resisted by other charismatic leaders, rather than being the consequence of rigorous investigation and admission of mistakes. The result is that ideologies, instead of progressing like the sciences, fragment. As an example, let us consider the many divisions of communism: Marxism, Marxism-Leninism, Stalinism, Maoism, Trotskyism, etc. The methodological component and the verifiable element are mostly absent from ideologies. The ideologues will apply, in many occasions, the ideological package prescribed for each case regardless of the situation, to later blame the failure on whatever is at hand at the time.

Several authors, in the last decades, have proposed that science is a form of ideology, since it would actually deal with power and domination. The attitude of considering science as ideology perhaps goes back to Heidegger's obscure analysis of technology (Heidegger 1954, English translation 1977). According to Heidegger (1) technology "is not an instrument", it is a way of understanding the world; (2) technology "is not a human activity" but develops beyond human control; and (3) technology is "the greatest danger", risking seeing the world only through technological thinking. There is a confusion here between science and technology on which I will talk about later.

The view of science as a form of power and an ideology is more clearly stated by Marcuse (1964). According to Marcuse, "domination perpetuates and extends itself not only through technology, but as technology, and the latter provides the great legitimation of the expanding political power which absorbs all spheres of culture." He adds, "science, by virtue of its own methods and concepts, has projected and promoted a universe in which the domination of nature has remained linked to the domination of man – a link which tends to be fatal to this universe as a whole. Nature, scientifically comprehended and mastered, reappears in the technical apparatus of production and destruction which sustains and improves the life of individuals while

subordinating them to the masters of the apparatus. Thus, the rational hierarchy merges with the social one.” The question for Marcuse is not whether technology has played any role in the promised emancipation of humanity. The question for him is simply whether technological advance leads to more repression and domination or not. He fears that “the very concept of technological reason is perhaps ideological”. Since industrial technology facilitates the exploitation of the working class by the bourgeoisie, the instrumental manipulation of nature in the natural sciences is bound to be guided by bourgeois ideology. Science has become ideology.

According to Habermas, the central error in Marcuse’s formulation of the problem is that he has retained a concept of ideology appropriate to an era long past (Habermas 1970, see also 1971). For Marx, ideology was tied to a defined social class. Such a view is now untenable. Habermas thinks that classes have not disappeared in contemporary society, but have been irreversibly integrated. When Habermas calls for the abandonment of the critique of technology and science as ideology, he is not trying to imply that they are neutral; he recognizes that they have become forms of domination as well as emancipation from deprivation and hard work, so he sees them in an ambivalent light.

Other authors who challenge the neutrality of science and defend a science loaded with ideology are Thomas Kuhn<sup>2</sup>, Paul Feyerabend, and Bruno Latour. These well-known and widely debated views have many similarities with Foucault’s thesis that the knowledge/power relationship becomes characteristic of modern society.

Proposals to identify science and ideology arise not only from the sociology of science, but also from the camp of ideology itself, especially from environmentalism and feminism.

Ecology’s critique of science and technology asserts that ethical neutrality with respect to the results of scientific research is not justified. Green ideologues challenge the idea that any form of knowledge can be separated from its consequences. If science has made an alliance with the prevailing forces that contribute to the destruction of the environment, then its neutral character is not such, and science must be combated. Science, we are told, has become an ideological tool of those who exploit the planet for their own short-term benefit.

Radical feminism sees science as way of knowing burdened with presuppositions permeated with the interest of male domination of women. Modern science would not be objective but a vehicle of Western men’s values (Mies and Shiva 1993). The privilege of determining what is considered scientific knowledge and its usage has been controlled by men, and for the most part of history restricted to men, being science a kind of male ideology.

Some of these observations miss the mark, confusing science with the ideology or with the attitude of individual scientists who have ideological stances, or confusing science and technology. If we compare our characterizations of science and ideology, we can appreciate, beyond the superficial similarities, deep differences. It is correct, however, to say that basic science includes values. As we have seen, each field of research is made up of individuals who share some ethic, and the ethic is

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<sup>2</sup> At least in his classic book *The Structure of Scientific Revolutions*, University of Chicago Press, 1962. In later works he moderated his original views.

based on a common axiology, a set of values that are accepted by researchers. These values, however, are not universal; refer to the research methods that are used to gain knowledge about the objects in the domain under investigation. They imply things like rejection and condemnation of plagiarism and fraud, working conditions in laboratories, proper citation behavior, among many other things. Of course, researchers themselves may hold ideological positions on many issues, but such ideology should not pervade their work. Ideological content, when it infiltrates scientific results, is often detected and purged through the multiple control mechanisms available to modern science.

The confusion of science and technology, so common in Heidegger, Marcuse, and many postmodern critics can be avoided through an adequate characterization both activities. Technology is related to our ability to manipulate our environment. Not all technology is necessarily based on science. Technology is older than science. Science-based technology can be characterized as a human activity that aims to design, develop, build, and control artifacts using knowledge obtained through science (Romero 2018). An artifact is something artificial that can be controlled and used for specific purposes. Artifacts are not just mechanical. They can be electronic, thermodynamic, biological or cultural depending on the proposed goals<sup>3</sup>. Science-based technology includes not only the many engineering fields, but also medicine, didactics, normative epidemiology, economics, law, and all disciplines of social planning.

As we did with ideology and science, we can distinguish several components in a technological field  $T_i$  (Romero 2018):

- $C_i$ : A community of technologists.
- $S$ : A society that welcomes those individuals in  $C_i$ .
- $D_i$ : A set of material or conceptual things that  $T_i$  deals with.
- $F_i$ : A set of formal theories used by the members of  $C_i$ .
- $E_i$ : Set of scientific theories and data used by the members of  $C_i$ .
- $P_i$ : A set of specific practical problems.
- $A$ : The total technological knowledge available to those in  $C_i$ .
- $O_i$ : A set of final technological goals.
- $M_i$ : A specific set of norms and methodological instructions.
- $V$ : A value system adopted by the members of  $C_i$ .

Each scientific technology is a science-informed activity aimed at solving practical problems. Although closely related to science through  $F_i$  and  $E_i$ , it differs radically from science in its methods and goals. There is, however, a strong virtuous link between basic science and scientific technology: scientific results motivate questions whose answers demand new technologies, and then the results and empirical explorations obtained with these new technologies make it possible to formulate new questions and problems. that cause a mutually reinforcing progress.

Technology is not free of values. The technologists in each field have values regarding their rules of action in certain activities, such as animal experimentation,

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<sup>3</sup> For 'conceptual artifacts' see Romero 2018, pp. 94–96, and Romero 2022b.

environmental contamination, or the production of weapons. Contrary to the case of basic science, where general ethical neutrality is clearer, in technology discussions of values and ethical implications are possible and desirable. Ideally, such a debate should be rational and informed by science, but it is often ideologically motivated.

The moral responsibility of technologists in their endeavor to produce technological artifacts and solutions to the problems entrusted to them should not obscure the more important responsibility of politicians, bureaucrats, or executives who demand, finance, and decide on the use of the products obtained, through scientific technology, from vaccines to weapons (see Doorn and van de Poel 2013 and references therein).

I conclude that, more than science being like a kind of ideology, ideology is a kind of social pseudo technology.

## 9 Ideological fashions and packages

Why do we believe in ideologies? Ideologies offer a kind of chart or map of our social and political environment (Freedon 2003). Ideologies give us mental representations that seem to guide us by means of identifiable patterns in the midst of what otherwise appears to be a mere chaos of events beyond our control. Ideologies offer us ways to make sense of what we experience in society. They promise security, a sense of belonging, a goal, and changes for the future. More importantly, they help us order our values and give us a motivation to act.

Ideologies, however, do not represent external reality in an objective way. Varied and sometimes conflicting ideologies compete for our attention, offering radically different versions of the social world. Many times they are not even internally coherent or consistent with the scientific worldview. It is not surprising, then, that many people end up adopting ideological positions in various combinations and with no other justification than that these positions are popular at a certain time and place. Or maybe they simply follow some charismatic person who holds those views and expresses them in a way that they can relate to. Or maybe it is simply because there is no other option at hand, and otherwise the world seems too strange, chaotic, threatening to them.

The proliferation and diffusion of certain ideologies, as well as the setback of others, on the other hand, is a complex phenomenon that obeys a combination of causes and circumstances of economic, social, and historical nature. Think, for example, of the decline of liberalism and the concomitant expansion of totalitarianisms in Europe and Asia during the first half of the 20th century, and especially after the Great Depression. Or in the spread of leftist ideologies in South America at the beginning of this century, coinciding with the rise in the international price of commodities caused by the growth of China. The complex combination of external, internal, environmental, and psychological events necessary to bring about such sociopolitical changes has not yet been fully understood. Fashion may not even be oblivious to some of these processes.

The universalization of the use of social networks at the beginning of this century facilitated the dissemination of simple ideas and combinations of ideological positions, forming ideological kits ready to be adopted by social groups with similar backgrounds. As mentioned by Pérez-Jara and Camprubí (2022): “These *packs* structure collective identities by gathering themes and narratives which lack internal logical connections between them. Moreover, what comes in each pack varies with the cultural landscapes.” These ready-to-use ideological kits assembled for immediate gratification need not even be coherent. Pérez-Jara and Camprubí add:

The specific contents of ideological packs thus depend on the historical and cultural conditions behind their construction and maintenance. And yet, once they are functioning, these menus provide a significant degree of predictability of a person’s ideological nebula just by attending to one or a couple of isolated ideological items.

In Argentina, for example, most people who identify themselves nowadays as leftists and progressives will also be nationalists, something that was unimaginable before the advent of Peronism, when socialists were internationalists (Sebreli 2003). It is also very likely that the self-proclaimed progressive supports dictatorships such as those in Venezuela and Nicaragua, and sympathizes with the regimes in China and Iran, while strongly advocating the use of inclusive language and special legislation in favor of transgender people and other sexual minorities. Minorities that would be outlawed and persecuted in most of the countries with which these ‘progressives’ ideologically identify. The lack of logical connection between these and other positions seems to go unnoticed or unimportant to whoever adopts the corresponding ideological package. Surprisingly, many of these people will claim the importance of science in society. Similarly, many self-identified liberals may support anti-abortion laws, be nationalist, support the death penalty, or be against gun control or vaccination. Similar ideological kits are popular in Brazil and other countries of the region. It seems clear that reason plays little or no role in the adoption of these ideological packs. It is that same lack of rational support that probably makes it possible for the believer to undergo a sudden ‘conversion’ and change sides, something occasionally observed. Pérez-Jara and Camprubí (2022) remark:

At a cultural level, social groups usually change opinion not because they are really convinced by the logical force of the arguments of their opposite enemies. Rather, there are other cultural factors at work, such as the changes of position of the public charismatic figures that those social groups have already bestowed legitimacy. But sacred cows can also be sacrificed and canceled if they step too far into fields which their audiences are convinced to be inherently evil or polluted.

One of the results of these attitudes is a marked polarization where each side considers the other the source of all evil. Another result is to facilitate the sudden emergence of new charismatic leaders who can embody with effective dramaturgy the basic ideological kit of preference in a specific social group (Alexander and Pérez-Jara 2021).

## 10 Why people believe in ideology? Nature vs. nurture

In the previous section we have mentioned how the cultural environment influences people's ideological choices. This, however, seems to be only part of the story. The source of ideological differences can also be partly attributed to physiological, genetic, cognitive, and neural patterns.

Twin studies consistently find that political orientation has a heritable component (Martin et al. 1986, Alford et al. 2005). More recent genetic studies show a statistically significant association between self-reported political ideology and the 7R variant of the dopamine D4 receptor (DRD4) gene (see Settle et al. 2010). The gene creates a disposition, resulting in personality traits that lead an individual to seek cultural environments that, in turn, incline some people toward innovation and liberal ideologies and others toward conservatism.

Physiological responses also seem to trace the ideological dichotomy between liberals and conservatives (or left and right). When exposed to negative images, for example, people with a leftist ideological orientation report a smaller increase in sympathetic nervous system activation, indicated by changes in electrodermal activity (Oxley et al. 2008). A strong relationship has also been observed between physiological responses to unpleasant images and conservatism (Dodd et al. 2012), in the sense that people of this orientation are more sensitive to crude and repulsive visual stimuli.

Many of the correlations of physiological responses with ideological identifications have been corroborated at a deeper neurological level by functional analysis of brain activity using MRI (fMRI). Recently, Ahn et al. (2021) applied machine learning techniques to fMRI data to test the hypothesis that brain responses to emotionally evocative images predict broad ideological orientation. Disgusting images (for example, a mutilated body) generate neural responses that are highly predictive of the ideological group they belong to. Specifically, machine learning analysis enabled the identification of the subject's ideological orientation from whole-brain blood oxygen level distribution (BOLD) patterns during imaging exposure. The hemodynamic response of the conservative group had a steeper slope and a higher peak than that of the liberal group.

These results are independently supported by analysis of the correlations found in brain-injured patients (Nam et al. 2021). People with frontal lesions show a preponderance of more conservative (or less liberal) beliefs than those with or without anterior temporal lobe lesions. Additional studies predict ideology by extent of damage, yielding evidence that greater damage to the dorsolateral prefrontal cortex, but not to the amygdala, is associated with a higher incidence of conservatism. These last results suggest that emotional reactions are stronger in conservative people, reinforcing what was found by Ahn et al. (2021).

The general picture is also consistent with the neurophysiological studies carried out by Nam et al. (2018), who found that a larger bilateral amygdala volume is positively correlated with the tendency to believe that the existing social order is legitimate and desirable, that is, with a conservative position (see also Kanai et al. 2011, and Kim et al. 2020 for a functional connectivity analysis).

All these findings and others reported in the current literature (see Jost et al. 2014 and Krastev et al. 2016 for reviews) invite us to revise the traditional view that ideological positions are the product of rational, conscious, and socialized thought. The adoption of ideological stances seems to be, instead, more related to an emotional process intimately linked to complex neural dispositions. Neither a unique product of nature nor of nurture, ideology seems to emerge rather when our dispositions find the appropriate cultural and material conditions for their development.

## 11 Are ideologies necessary?

Our time, from the early 19th century onward, has been considered "an age of ideology" given the ubiquity, proliferation, and importance of these belief systems (Watkins 1964). The death or decline of ideologies, however, has been often claimed since the very concept of ideology appeared at the end of the 18th century. After World War II, Aron (1955), and later Bell (1960) and Lipset (1960) formulated the "end of ideology" thesis. According to it, as a consequence of the gigantic struggle of ideologies that occurred in the middle of the 20th century, a struggle that cost millions of lives and destroyed entire nations, causing indescribable suffering, both right and left ideologies would have been equally discredited. As a result, the power of ideologies to motivate and mobilize people would have been exhausted, at least in the West.

After the collapse of the Soviet Union, the thesis was further developed and modified by Fukuyama (1992), who stated that liberalism was the final winner of the ideological wars of the 20th century. Even in those countries where a liberal society would not yet have been fully realized, liberalism would be seen as the only acceptable ideological view.

Not surprisingly, the end of ideology thesis has been widely contested (see, for a review of the discussions in this controversy, Brick 2013). Articles titled 'the end of the end of ideology' soon began to proliferate. Hodges (1967) and later Jost (2006) examined the evidence against the claim that ideologies are waning and concluded that ideology is very much alive. Palmer (1994) suggests that ideologies are changing their tone and way of functioning rather than ending.

As we have seen in Section 9, current ideological opinion frequently emerges, at least among vast groups of people defined by common interests, similar cultural backgrounds, and connected by media and social networks, in the form of a variety of "ready-to-eat" menus or ideological packages. Since each package groups a series of positions that may not be logically related or can even be contradictory, their acceptance depends more on social interactions than on cognitive evaluation. The result is an atomization of the great conflicts of the past and an extension of the ideological battlefield to subjects hitherto unsuspected. The refusal to wear a mask for sanitary purposes, for example, becomes an ideological statement because that act is perceived as part of an ideological package that defines a certain group. These associations can lead many people to make completely unreasonable decisions,



decisions that will affect their lives and the society in which they live, sometimes with catastrophic effects.

Given that ideology can so easily evolve and change, driven by unprecedented technological change, fostered by our innate neural dispositions, can we hope to get rid of it in the future, at least its most damaging effects? Should ideology disappear, if possible, from our cultural landscape?

Ideologies undoubtedly are powerful forces that shape our societies. As Palmer (1994) says: "They are instrumental in recruiting the early enthusiasms of the more schooled and aware citizens, the intellectuals. They give rise to simplified slogans that encapsulate in a popularly attractive fashion the main concerns and thus recruit the greater numbers needed for effective political action. They catalyse the adoption of policies either to conserve or to change social, economic and political institutions." These are important social functions, instrumental in the mobilization of the different political, social, economic and cultural agents. Ideology has the power to motivate people to act, something that in the past could only be achieved through religion, force, or more rarely, reason. The problem is when the ideological body of beliefs is in disagreement with well-known facts, includes meaningless or incompatible propositions, or the value system is outdated or inconsistent with the proposed goals.

Ideological fanaticism can be mitigated through scientific and technical knowledge, which help us expose the inconsistencies of thought and the incompatibility of belief with evidence (Lane 1966). Education in the habits of critical thinking, on the other hand, makes it difficult to adopt ideological packages that are incoherent or lacking in clear meaning. Cognitive activity and learning can activate neural circuits that serve to inhibit dispositions that originate in less plastic subcortical architectures. I don't know of more powerful tools to destroy fanaticism and unreason than science and the cognitive habits it propagates.

Ideology is not inevitable, although it is highly functional in gaining and maintaining power in modern technical societies. When it becomes dysfunctional is precisely when we must combat it. The basis of our very existence could depend on it. In the past, and still many times in the present, this has often been done through violence. In open societies, at least, the fight should start much earlier, trying not to get to the point where violence seems inevitable.

Is a scientific ideology possible, that is, an ideology with a body of beliefs informed by science and free from inconsistencies? Bunge (1985) thinks so. I doubt it. True science is not related to beliefs. It is a matter of research, conjecture, evidence, and testing. Science lacks the degree of conviction necessary to move masses. And the values of science refer only to researchers, how they relate to their methods and protocols, as well as how they interact with the society that hosts them. It is in philosophy where I think we should look for help in this case. In a philosophy informed by the best science of the day. In political philosophy, in philosophy of sociology, in axiology, and in ethics.

Perhaps the best thing is to finally put ideologies aside, if we can educate ourselves enough and simply agree on our objectives as society and then look for the optimal means to achieve them within each subsystem of society: political, economic, biological, and cultural.

A scientific and philosophically informed politics will always be better than an ideologized politics.

## 12 Summary and conclusions

Ideology is an ill-defined concept that is sometimes used very loosely. In general, the term designates a set of beliefs, values, methods, and objectives that concrete human groups consider necessary or at least desirable to achieve lasting changes in different aspects of modern human societies. In this article I have identified at least 11 essential components or 'dimensions' present in any ideology, that is, elements that must be manifested if any body of ideas is to be called an ideology.

To claim that there is an ideology, there must be a community of people who have produced, believe, and are committed to the basic assumptions of the ideological corpus. These people should have contact with a certain society that they are trying to change in some aspects. Different ideologies deal with different objects or referents of their discourse in each society. Certain human groups, mobilized by ideals, aspire to change some aspect of a society. They can succeed because both the militants and society are material entities, and material things are capable of change. The tools they have at their disposal to achieve their goals and solve the problems that concern them are a variety of methods, some background knowledge, a set of values, some worldview, doesn't matter how sketchy, and a core of ideas which they consider to be inalienable. This core of ideas may or may not be informed by current science, and may or may not form a coherent body.

Ideology is created by human beings to act on other human beings in a society. Ideologies are not produced by social classes because social classes are not material entities, but conceptual ones. Only human beings, concrete human groups, and societies are material systems. And only material objects and systems can modify their states and interact (see Romero 2022a for an updated review of systemic materialism).

Ideologies can be divided according to the range of action they seek, into three large groups: 1) macro-ideologies, 2) micro-ideologies, and 3) super-ideologies. The first group includes sociopolitical ideologies that aspire to change or control societies through their main subsystems: political, economic, and cultural. If an ideology focuses only on a specific subsystem, it might be appropriate to label it a case of "intermediate ideology". The second group deals with a more limited range of topics, from nationalism to feminism. There are a large number of micro-ideologies in the world today. Finally, super-ideologies are concerned with every aspect of human life. They even offer an interpretation or intended insight into the entire universe. In this group we find religions that act on human affairs such as Catholicism or Islam, as well as philosophically motivated macro-ideologies that adopt a metaphysical worldview, something that is observed in certain totalitarianisms.

In addition to these three main types of ideologies, we also find some ideologies that appeal to syncretism. They adopt a groups of ideas from different ideologies

depending on the circumstances to defend their goals. These ideologies, like conservatism and progressivism, are also very flexible with their methods and programs.

I have not considered capitalism and democracy as ideologies because they are an economic system and a form of organizing governments. There are many ways to implement both, and none of such ways reunite the multiple dimensions that characterize ideologies. Similarly, populism and terrorism are neither ideologies. They are methodologies for accessing and keeping power.

Science is not another kind of ideology either. Despite some superficial similarities, there are profound differences. The goals of ideology are more similar to those of technology than to those of science. And every ideological movement has at its core of beliefs some affirmations and statements that are not negotiable. Science, by contrast, is always in flux. All scientific assumptions and presuppositions are always considered provisional and open to examination. Values in science, moreover, concern only issues related to scientific practices and do not extend to the entire scope of human activity. Ultimately, science seeks true representations of the world, while ideologies attempt to command, control, and direct certain kinds of human actions to achieve specific human goals.

Ideology is highly changeable with advances in technology. This is not surprising, since ideology seems to have appeared as a way of coping with the complications of modern industrialized societies, where technology plays a fundamental role in determining the social structure. With the advance of radio and television, there was a wide dissemination of the main ideologies in the 20th century, which resulted in great conflicts, because the main contenders defended substantially opposite worldviews. In the 21st century, social networks have played a determining role in the fragmentation and simplification of ideologies, forming ideological packages or kits. These packages are made up of combinations of slogans and simple maxims. Ideologies are developed by intellectuals, but ideological packages are produced by politicians and populists for quick use and consumption. The goal of these packs is to offer a ready-to-use guide that encourages behavior and justifies the opinions of followers. The inconsistencies that these ideological packages often contain are reflected in the irrational behavior of those who adhere to them. One of the most alarming results of the massive proliferation of these ideological menus is the extreme political polarization that is observed in many societies. Such polarization has become the most powerful force against rational discussion and perhaps the greatest internal threat to open societies in this century.

Ideology, since its irruption in the political, social, and cultural landscape of the 19th century, has been behind great confrontations and wars, social turmoil and riots, terror and totalitarian control, destruction of goods and freedoms, division of families and separation of friends. But it has also been a source of great progress by pushing for civil reforms, improving working conditions, resisting tyranny and oppression, vindicating the rights of minorities, promoting industrialization, and much more. His ever-changing legacy remains controversial. Can we do better without ideologies? Maybe. But in the meantime, we would do well to try to discourage the spread of incoherent and scientifically uninformed ideological packages by encouraging

people to think by themselves, guide themselves through science and reason, and leaving behind dogmas and prejudices.

Our brains are prone to believe. We have innate dispositions that favor attitudes that are at the very base of the main ideological camps. And yet such provisions only operate under certain conditions that can be controlled. And even under such conditions, our brains are plastic enough to inhibit a wide spectrum of primitive impulses. We must and we can do it, for the good of our civilization.

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