

Denialism and Cognitive Errors? The Social Origin of Preferences

¿Negacionismo y errores cognitivos? El origen social de las preferencias

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Key words

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- Social Interaction
- Denialism
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Palabras clave

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- Interacción social
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Abstract

The rejection of evidence is often interpreted as a cognitive error and is frequently associated with irrational traits of the actors. This paper reveals the inconsistencies of this explanatory model, which is based on contradictions of human behavior. Instead, it suggests the interpretation of preference formation according to the social interaction perspective. What is an error in the first model (motivated reasoning) is in fact a bias in human rationality that is best explained by the social interaction model. Rather than a cognitive error, actors justify their preferences by their membership in a specific social network. Through this network, they seek conformity and consistency in social interactions. By considering it a cognitive error, the problem of preference formation is depoliticized, and the agency of individuals is eradicated.

Resumen

El rechazo a las evidencias suele interpretarse como un error cognitivo, lo que se asocia a rasgos irracionales de los actores. Este trabajo muestra las incongruencias de este modelo explicativo, siguiendo las contradicciones del comportamiento humano. En su lugar se propone interpretar la formación de preferencias desde la interacción social. Lo que es un error en el primer modelo (el razonamiento motivado) es un sesgo muy presente en la racionalidad humana que se explica mejor desde la interacción social. Antes que un error cognitivo, los actores justifican sus preferencias de acuerdo con su pertenencia a una específica red social. Mediante esta, hay historias que buscan conformidad y consistencia en las interacciones sociales. Como error cognitivo, despolitizamos la formación de preferencias y erradicamos con ello la agencia de los individuos.

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INTRODUCTION¹

Denialism tends to be interpreted as an individual's rejection of an empirically verifiable truth (Ceballos, 2021; Specter, 2009). It has usually been treated as a psychological defense mechanism, by which an individual ignores the reality of a given situation. Therefore, it tends to be associated with irrational behavior, the result of "cognitive inconsistency". According to the literature, social crisis periods are especially ideal for the expansion of denialism (Moreno-Muñoz, 2021).

This association of denialism with the rejection of evidence favors its interpretation as a "cognitive error", as if it were a correctable fact (preference) that can be righted and that depends on the individual. Thus, denialism is a mental phenomenon that occurs internally within the individual. It is produced by the way in which he or she processes information. Given that it is an attribute of individuals, the literature suggests that it may be identified with specific profiles, often conservative (Díaz-Catalán and Cabrera-Álvarez, 2023; Fridman, Gershon and Gneezy, 2021) and having a lower scientific literacy level (Moreno-Muñoz, 2021).

This work questions the idea that denialism is a "cognitive error". Many of the reflections supporting the existence of denialism tend to oversimplify the mean-

ing of rejecting evidence. This rejection is a reflection of a widespread bias amongst humans with respect to information processing: motivated reasoning, described as "the processing of evidence toward the desired interpretation" (Lewandowsky and Oberauer, 2016: 217). Numerous studies have shown that this bias can be displayed by anyone, regardless of their ideological orientation and literacy level (Dixon *et al.*, 2017; Ditto *et al.*, 2018; Oreskes and Conway, 2022). Based on this widespread presence of motivated reasoning, we argue that the rejection of evidence is closely related to how the actors interpret the facts. This interpretation may be better understood from an interactional perspective of behavior, as opposed to a cognitive one.

This work reveals that, like any other preference, denialism is generated in social interaction, in which multiple people participate, influencing the discourse generated. The rejection of evidence speaks more to the search for conformity, the approval of others or the avoidance of social sanctions, etc., than to the internal cognitive processes of the actor in question. From this more sociological perspective, denialism is not a state of mind, or a cognitive inconsistency. Instead, it is a political phenomenon and not a mechanical one (error correction), since it involves considering the practices, beliefs and values of one group of people versus another.

We begin by presenting the cognitivist interpretation of the rejection of evidence, analyzing the reference works in this field of behavioral sciences, such as that of Kahneman (2011). Here we consider specific studies and experiments, to facilitate the understanding of the mechanisms identified by the cognitivist perspective of this phenomenon. The examples used refer to climate change denialism, in order to provide a narrative coherence to

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the presentation. Then, we consider this view with a perspective based on social interaction, as found in a specific sociological tradition (Goffman, 1975; Collins, 2004). Here we will rely on literature from the areas of social psychology and neuroscience, in order to explore the mechanisms by which the preferences identified by this sociological current arise. This allows us to contrast the mechanisms behind the rejection of evidence from both perspectives (cognitive versus interactional). Third, we show the results of two sociological studies on denialism from this interactional perspective, in which a group of people assumes denialist arguments. To conclude, we make a reflection on some of the practical implications of this sociological perspective for work and interpret denialism or the rejection of evidence. Here, we consider empirical works that have been conducted on risk perception, providing empirical support for the interactional argument in its attempt to address the rejection of climate evidence on a practical level.

MOTIVATED REASONING: THE COGNITIVE INTERPRETATION OF PREFERENCE FORMATION

Over the past fifty years, the cognitivist interpretation of behavior has developed within the framework of the behavioral sciences. An image of human beings has been modelled which is less sophisticated and rational than the one emerging from the classic models of rational agents (Kahneman, 2011). Supported by a highly developed experimental methodology in psychology and economics, a perspective of reasoning is assumed, whereby all that we say is derived from an internal rational process. Like the mainstream social sciences, the behavioral sciences assume that in order to explain people's

actions we must refer to their beliefs or attitudes, which, in turn, are the result of cultural socialization (Martín-Criado, 2014). In sociology, this scheme emphasizes the idea that the main determinant of actions is consequently this structure of ideas -culture, ideology, social representations- which was previously internalized in the socialization process. This theoretical model makes people's actions dependent on the internalized contents of consciousness and the mental operations through which these contents are processed (Martín-Criado, 2014). According to this perspective, discourse and preferences are reflections of this internalized structure. Individual behavior is "an underlying sign of the internal process of information processing" (Billig, 2009: 4). Thus, the cognitivist method allows us to separate behavior from the social context in which it takes place.

In this theoretical context, the behavioral sciences attempt to provide evidence to explain the inner workings of cognitive operations. According to the most widely held interpretation, individuals face a problem whenever they reason, since this internal processing is blurred or threatened by cognitive biases that operate automatically. According to the behavioral sciences, this leads to poor reasoning. In experimental psychology, motivated reasoning is one of the biases explaining the rejection of evidence that is displayed by many. Due to this cognitive error, actors confronted with new information are unable to update their preferences or beliefs. Instead, they gather arguments to support their previous preferences and behaviors, regardless of the new facts or information available. In other words, individual reasoning is guided by an objective, prior to the observed events (Druckman and McGrath, 2019). The resulting preferences would be cognitively inconsistent.

The mechanisms behind cognitive errors are part of an ongoing debate. The behavioral sciences often dissect these mechanisms into a simple dichotomy, according to which accurate reasoning is (or is not) favored. In their article, Epley and Gilovich, economist and psychologist, respectively, explained the mechanism as follows:

[...] the critical point is that the process by which we gather, and process information can systematically deviate from accepted rational standards, since any objective (the desire to persuade, agreement with a peer group, self-image, self-preservation) can capture attention and guide reasoning at the expense of accuracy (2016: 1).

In other words, the actors collect information in a dynamic that extends beyond observation or interpretation of the facts, since it includes motivations (mostly social) which extend beyond or have little to do with the observed phenomenon. For Epley and Gilovich, these (social) motivations are responsible for distorting the objectives pursued when obtaining information. For both of these researchers, the result is that the actor does not accurately weigh the information obtained from his environment, and consequently, does not update his preferences based on the new information received. This leads to opinions or attitudes that are inconsistent with the observed facts.

The mechanism of motivated reasoning proposed by the behavioral sciences assumes that actors can discern what is important from what is not when processing information. The accepted rational standards mentioned by Epley and Gilovich follow from deductive logic. They are inferences that are valid if their conclusion follows logically from their premises. The fact that the actor may take into account social motivations once information processing has begun, such as

“persuading, not contradicting one’s peer group, or pleasing”, separates them from this standard rational processing, known as “Bayesian reasoning” (Coppock, 2022: 121). This supposed cognitive deviation has been widely analyzed by behavioral psychology. According to Kahneman (2011: 535 *et seq.*) these “cognitive shortcuts” (the so-called *heuristics*) facilitate the task of reasoning, but they often lead to “erroneous decisions” from a Bayesian reasoning point of view. In this sense, denialism is a mental phenomenon that is a symptom of how the actor processes information. While there is no fully accepted scientific remedy to this cognitive error, it is generally agreed to be correctable through will and personal effort (Kahneman, 2011; Matute, 2019).

To justify the cognitive mechanism underlying these shortcuts, such as motivated reasoning, and to discuss biases as individually correctable cognitive errors, Kahneman (2011: 35 *et seq.*) and the behavioral sciences defend the existence of two separate cognitive circuits in the human neural network. One of these guarantees the proper use of information processing and, therefore, ensures good reasoning. It is usually referred to as “system 2”. It is characterized by a more reflective, critical, scientific processing of information, although it is “terribly slow and costly” (Matute, 2019: 69). “System 1” would be dominated by automatisms which produce the biases that systematically lead to error. However, it is a rapid system that facilitates adaptation to the environment. For the behavioral sciences, avoiding these shortcuts is a critical issue of individual will: “we can achieve little without considerable effort” (Kahneman, 2011: 542). This effort would give reliability to preferences. It reveals an actress’s ability to reflect on the medium and long-term consequences of an action or her ability to attend to

more contextual information than is usually available at first hand to make a decision or directly apply the laws of probability to everyday events. In short, it is an effort aimed at separating what is dispensable (social motivations) from what is supposedly essential, according to Epley and Gilovich (2016). Kahneman (2011: 55) described this task of the will as “tiring”.

The association of reasoning with the internal processing of information favors the treatment of denialism as a trait linked to an individual's cognitive characteristics. This makes the fundamental error of causal attribution plausible (Ross and Nisbett, 2011). In line with this view, observed actions and their outcomes are seen as a product of an actor's personal dispositions, rather than derived from situational factors and the individual's interpretation of those factors. Thus, we can expect some individuals to be better prepared than others: more intelligent or more hardworking, with more self-control or less lazy, capable of avoiding rejecting evidence and, therefore, more capable of addressing facts from theoretically more precise positions. By means of causal attribution, we believe that those who reject evidence “reveal some sort of unbalanced or malevolent personal disposition” (Ross and Nisbett, 2011: 52). According to this epistemic scheme, the behavioral sciences suggest that actors having certain psychological characteristics (reflective, analytical, calm, etc.) may avoid the worst cognitive biases, obtain reliable preferences and steer clear of cognitive inconsistencies.

Research in the behavioral sciences, however, has led us to doubt this possibility. Studies on the use of heuristics as mental shortcuts has revealed the high sensitivity with which individuals are influenced when forming their preferences by minute details existing in the context. Empirical research has suggested that indi-

viduals (regardless of their qualifications) may change their preferences depending not only on the specific situation, but also due to numerous other (non-rational) motives that influence reasoning (Kunda, 1990).

Experiments conducted on the influence of different motivations on beliefs and preferences regarding climate change, a classic denial phenomenon, have shown the significant impact of different frameworks on the acceptance or rejection of facts about the phenomenon. Thus, in contrast to the suggestion that denialism is a more conservative phenomenon, Gillis *et al.* (2021) stated that discussing the measures implemented by companies to mitigate climate change increased support amongst conservatives for the government to act to mitigate the climate emergency. Talking about climate change as a national security threat increased conservatives' recognition of scientific evidence and support for government intervention (Cole *et al.*, 2023). On the contrary, Kahan (2013) found that liberals in the US increased their denial of evidence when said evidence was presented within a plan of nuclear energy expansion. Ditto *et al.* (2018) showed that motivated reasoning was a universal phenomenon, affecting both conservative and progressive profiles. Some researchers go further and suggest that the fact that the literature shows that denialism is a more characteristic trait of conservatives may be a reflection of the larger liberal population in academia, since they also have a tendency to fall into this bias and to “attribute” such characteristics to conservatives (Cole *et al.*, 2023).

It is evident that the behavioral science experiments suggest a more complex reality than the image of the voluntary transition from “system 1” to “system 2” that is derived from our neural network. The supposed cognitive effort associated with

this second system does not appear to prevent the worst of motivated reasoning. Experiments have also revealed that this bias affects experts and laypeople alike (Guay and Johnston, 2022). Some studies have shown that more educated individuals, those earning higher scores on cognitive reflection tests, those who are theoretically more cognitively prepared and more likely to use “system 2”, are the most likely to engage in motivated reasoning (Kahan, 2013). Other studies (Taber and Lodge, 2016) have revealed that actors who are motivated to be precise (Bayesian reasoning) were more biased by their prior attitudes than those who relied more on their first impressions. Given that they do not have a clear opinion, these individuals were more open to updating their preferences in the direction suggested by new information. This is also the case with political representatives. The influence of prior attitudes increased among them when more evidence was added, the opposite of what would be expected with the two-system framework (Baekgaard *et al.*, 2019).

The difficulty in empirically demonstrating the mechanism by which an actor or actress uses system 1 or 2 is not only caused by experiments on information processing. For years now, neuroscience has been referring to a multiplicity of parallel circuits in the neural network, calling into question the two-system schema. All of these would also operate simultaneously and “incognito” or outside of the actor’s consciousness (Gazzaniga, 2012; Eagleman, 2013). According to Mercier and Sperber (2017) or Keren and Schul (2009), there is no evident to show the empirical existence of the two neural circuits. This makes both systems more of a metaphor for human behavior than an empirical reality. But as a metaphor, the behavioral sciences pose an epistemic dilemma that is both difficult to resolve and

difficult to accept. The cognitivist perspective leads to viewing the mind as if it had been designed “inconsistently”. This led Kahneman (2011: 500), for example, to express the little confidence that actors may have that their preferences reflect their interests. This disconnection, which in theory is caused by cognitive biases with good reasoning, generates an uncertainty that tends to naturalize a segregation between individuals, between those who can control biases and those who cannot, who can, ultimately, aspire to have reliable preferences. However, if a subject’s preferences are unreliable, the agency of a good group of humans in its sociological dimension ceases to be considered, since it is believed that many people are driven by automatic and poorly reflective cognitive circuits (“system 1”). This is seen in the collective work of Sustain and Thaler, who proposed the development of devices (called nudges) intended to modify the framework by which actors make decisions in order to “help them” make correct decisions or those benefitting their interests given that often times, “the choices that they make cannot reasonably be considered the best means to promote their wellbeing” (Sustain and Thaler, 2003: 1168). Sustain and Thaler’s “nudges” not only question the sense of the agency of many individuals, but they also create an image of the actors that is very similar to one of irrationalism in the face of subjects capable of having reliable preferences. In this way, preferences cease to show their political side, based on their interactional origin, revealing themselves as logical artifacts dissociated from their social contexts.

Within the behavioral sciences, this framework has sparked reactions against the inevitable assumption of irrationalism that follows from the logic presented. Through his new experiments, Alexander Coppock (2022) defends the impossibility

of asserting the perpetual cognitive error in information processing. Given the difficulties in interpreting what happens internally in this cognitive process, the results lead him to suggest that when exposed to information, an individual is affected by it, in one direction or another. That is, in both Bayesian and motivated reasoning, the actors appear to modify their attitude in the direction indicated by the new information received (*ibid.*: 138). Other researchers within the framework of behavioral sciences have moved away from irrationalism by highlighting the adaptive functions that biases have had in human evolution, distinct from calculation and precision (Haselton *et al.*, 2009; Todd and Gigerenzer, 2012).

However, these interpretations do not take into account the contributions that an interactional perspective of behavior has made from sociology (Martín-Criado, 2014; Russel Hochschild, 2016; Cramer, 2016), social psychology (Ross and Nisbett, 2011) and even neuroscience (Gazzaniga, 2011; Mercier and Sperberg 2017). These studies offer an alternative to the theory of causal attribution and the cognitivist perspective to explain the formation of preferences, beginning from an interpretation of social action that is focused on people's agency and their interactional contexts. Nickerson (1998: 209), for example, suggested that regardless of the response to the prevalence of such biases that tend to privilege the actor's perspective (such as motivated reasoning), this should be recognized as a force majeure "working against easy and frequent change of opinion". Ultimately, consistency is a key feature of psychological well-being, since people appear to be happier, less depressed, more confident, and even more successful if they think they are right and can gather outside evidence to support their beliefs (Dunning *et al.*, 1989: 1082). The impor-

tance of this actor's perspective transfers the explanation of biases to a different field, where, as we will see below, social interaction is crucial. As emphasized by social psychologists Dardenne and Leyens, behind cognitive biases there is a social world in which individuals interact:

Sometimes, cognitive laziness can lead to errors and biases. However, these may also result from the attempt to achieve interpersonal goals. By focusing almost exclusively on a purely cognitive analysis, one may overlook the fact that people interact with other people. What appear to be errors and biases from a strictly rationalist perspective are, in fact, very pragmatic and therefore, far from being errors (1995: 1237).

PREFERENCE FORMATION FROM SOCIAL INTERACTION

The behavioral science research that we have seen may be analyzed as attempts to display the "internal" mechanisms by which people act based on already internalized preferences. As we have pointed out, the problem is the difficulty that this version of behavior has in reasonably explaining the ambivalence and inconsistencies into which the actor often constantly falls, without belittling, segregating, or degrading a large group of people (Martín-Criado, 2014).

The problem arises when interpreting this human ambivalence according to a model that describes reasoning as a phenomenon that occurs in isolation within an internal mental process. This is something that has been refuted experimentally and has given rise to an entire alternative current of sociology that focuses on the social origin of preferences and attitudes. Goffman (1959) revealed that dishonesty is a structural feature of everyday interaction. Sincerity may be a stumbling block when attempting to maintain our "facade", since individuals

belong to several groups and it is impossible to be honest in all of them simultaneously. The sociology of Erwin Goffman (1975) allows us to understand discourse, not as an expression of the opinions that we have formed internally, but as strategic moves in an interaction in which we present ourselves to others. This sociological perspective invites us to consider behavior from the social situation in which individuals find themselves and not the other way around. As Randall Collins (2004: 5) affirmed, the logical sequence in social behavior is not “individuals and their interactions, but rather, interactions and their individuals”. According to sociologist Russel Hochschild (2016), people’s cognitive strategies always depend on their objectives, which are the result of the meaning given to the situations faced, as opposed to the internal processing of information, which requires considering the social situation in which an action takes place.

As seen earlier, much of the evidence presented by behavioral sciences relies on attribution theory to explain the behavior of actors based on attitudes, since these are considered to be an underlying sign of the internal mental process. It is assumed that an individual’s personality and attitudes, internalized in the primary process of socialization, guide their actions, to the point that they are justified by an actor’s personal characteristics. However, the actor’s social behavior may be interpreted very differently, since it is the actions taken by the actors that justify an attitude, and not the other way around. This was shown by Goffman and Collins’ situational sociology, although it also has a psychological basis that tends to be ignored by behavioral sciences.

Social psychologist Daryl Bem (1972) presented his theory of self-perception to demonstrate that “individuals are what they do” since they ignore the internal

processes that lead them to perform an action. Individuals know the results of their internal mental processes, but not how these results were attained. The individual’s access to their own information processing is similar to that to information processing in third parties—basically none (Nisbett and Wilson, 1977: 249). Based on the results, the individuals assess, judge and defend the stimuli that they believe to have had (how they interpret the stimuli that they believe third parties have had). This implies creating a subsequent narrative to make sense of what happened. For this, individuals typically use causal theories derived from cultural rules that explicitly link stimuli to responses, or from prior empirical observations between stimulus and response, or even from a newly created causal relationship (Nisbett and Wilson, 1977). In any case, this narrative by which the individuals justify their actions does not come from their knowledge of the internal reasoning processes, but rather, from the social network in which they are immersed. This network provides the individual with arguments and values to justify their actions. From this perspective, Ross and Nisbett (2011) defended that oftentimes, the causes and reasons given by the individual to explain what has taken place are more revealing with respect to the social situation in which the explanation occurred than a precise calculation of certain specific actions. Rather than making calculation errors due to laziness, the mind immerses us in justifications that connect us to a social network, because it is alongside this network that they arise. From this perspective and in line with Goffman (1959), motivated reasoning, rather than an error caused by an internal cognitive process, may reveal a process of social interaction, through which the actor or actress positions herself in a specific framework before some interlocutors.

This narrative is constantly used to make sense of what has taken place (Storr, 2020). However, it has its limits. From the social interaction perspective, not everything is acceptable, because what is said must respond to culturally accepted behavioral expectations. These expectations change from one situation to another, depending on the interlocutors. Therefore, no narrative will be accepted, which, as Goffman (1959) suggested, threatens the prestige of the actor himself. Based on these expectations, we resort to motives to explain our actions to ourselves and to others, and to negotiate their meaning. As Martín-Criado (2014: 122) suggests, “justifications will be valid if our interlocutors accept them”.

Historically, the interactional perspective of behavior has faced many difficulties in revealing the mechanisms that would justify the influence of interaction on preference creation. Here, we can refer to some neuroscientists (Mercier and Sperber, 2017) and discursive psychology (Billig 2009, Harré and Gillet 1994) to show how our mind is more strongly characterized by an argumentative function linked to social interaction. Contrary to the idea that rationality is only appropriately expressed in Bayesian terms (using deductive logic), neuroscience studies have suggested that the mind is a receptacle that receives information from the exterior and then processes it to generate a result. According to Mercier and Sperber (2017) or Sigman (2022), the mind behaves like an attorney. Psychologist Jonathan Haidt (2012: 281) stated that the brain is “a narrative processor and not a logical one”. The mind recruits the arguments and causal theories that suit it to render accounts to its specific audience. Therefore, the actor’s consistency over time and between different actions is not a logical-deductive requirement, but rather “an inter-

actional requirement, since we are consistent when we anticipate that we will have to account for our actions” (Martín-Criado, 2014: 122).

According to Mercier and Sperber (2011: 67), neurologist and anthropologist, respectively, when someone thinks about an object that she has had past positive or negative feelings about, she actually is thinking less about the object and more about defending her initial attitude regarding the same. From the cognitivist perspective of the mind, this would be an error, since the actress moves away from the precise consideration of the new evidence before her. According to both researchers, it displays the argumentative tendency of the mind, which attempts to respond to a social situation. Understanding the reasoning process in this way, biases would not generate this uncertainty and disconnection from good reasoning. To be able to argue adequately, Mercier and Sperber suggest that it is necessary to begin from a specific position that is sufficiently consistent to allow a judgment to be made. Thus, this first step of reasoning, which projects the actor’s motivated bias to reinforce his positions, would not be a mistake. It is erroneous for behavioral sciences because it considers the actors outside of their social interaction, disassociated from a context. Daniel Dennet (1995: 24) called this traditional model of the mind “Cartesian theater”. However, if we consider it from the social interaction perspective, reasoning takes a second step, which is the search for the validity of the arguments used. According to Habermas (1999), this process justified the importance of communicative action. Individuals negotiate and adjust their actions based on the reactions of others (Goffman, 1959). In other words, rather than understanding biases as shortcuts that systematically lead to errors, these biases allow us to

understand what happens according to our social network. This, in turn, facilitates the exchange of arguments. Interpreted in this way, motivated reasoning would be an aspect of social interaction. Therefore, when actors attempt to explain what happens following the facts, they are structured according to the interlocutors with whom the actor interacts, regardless of whether or not they are allies (Goffman, 1975).

Addressing denialism and the rejection of evidence as a problem of “cognitive inconsistency” of individuals prevents us from understanding the reasons why people reject scientific evidence in a specific situation or, better yet, prevents us from understanding the cultural limits or the processes of identity and commitment present in an individual’s preferences. From the social interaction perspective, all of these explanations lead us to consider motivated reasoning as an expression of the social environment with which a person is linked and the interactions in which the person is immersed, which is where meaning is acquired, and behavior is negotiated. As Ross and Nisbett suggested:

When people fail to change old patterns of behavior despite persuasive evidence, we are forced to resist the temptation to attribute their intransigence to stubbornness, stupidity, or other ulterior motives. Instead, we are compelled to think more deeply about the dynamics that sustain the status quo. We must consider the non-obvious functions that this pattern of behavior appears to serve and the forces we do not see which are conditioning that change (2011: 296).

The existing literature on risk perception, closely related to the denier phenomenon, highlights the importance of an individual’s social network with respect to how that person perceives risks (Gattinger, 2023). From this perspective, it is understood that what we say and what we justify are connected to the social network from which we obtain the

values and positions that we insert into our arguments. But this does not mean that no one can change how they interpret facts; rather, change is not necessarily induced by an impartial assessment of the facts. Goffman spoke of a “moral career” to illustrate this mechanism by which actors modulate and change their behaviors and beliefs based on the constraints of the social situation and their interaction with other actors. Through the moral career, we can analyze the dynamic relationship between the objective characteristics of positions and:

The regular sequence of changes that the career introduces into a person’s self and into the system of images with which they judge themselves and others (Goffman, 1970: 133).

THE SOCIAL COMPLEXITY BEHIND DENIALIST PREFERENCES

When considering preferences from this interactional perspective, we can refer to sociology, which analyses very specific situations in which a group of people apparently denies a fact that is clearly evident to the majority. These are facts that are also supported by objective data, which apparently leads them to vote against their own interests (Achen and Bartels, 2017). These situations appear to be implausible from a cognitive perspective, but when investigated, the denial attitude is actually a complex phenomenon, and not simply the reaction of someone who deliberately lies or fails to tell the truth to obtain a benefit.

Arlie Russel Hochschild (2016) examined this paradox in Louisiana, a southern US state. He wondered how it was possible that the inhabitants of this state, the second most polluted in the country according to official statistics, with widespread poverty amongst its inhabit-

ants and receiving the most federal subsidies for public aid program development, could support political representatives in the elections who defended policies contrary to the environment, rejected federal efforts to prevent corporate pollution practices and directly advocated for the elimination of federal subsidies which offered vital support to a large portion of its population. Faced with the idea of disqualifying Republican voters for their cognitive inconsistencies, the American sociologist performed an ethnography to value the actor's perspective on political attitudes. In this, she listened to how people articulate, structure and justify their preferences to others, just as Katherine Cramer (2016) did with respect to the Tea Party vote in rural Wisconsin. One of the keys of the paradox (the Republican vote, more contamination and poverty in Louisiana) was the repetition of a story that had been heard in many places and from different people, which she called the "deep story" (Russel Hochschild: 135). This story did not associate support for Republican candidates in Louisiana with their environmentalist measures or the threat of eliminating social services, or even with the fact that their voters despised the pollution resulting from the new fracking companies. But rather, it this support was associated with the dignity that many felt was being continually questioned and violated by the voters (and leaders) of the Democratic Party. According to Hochschild, these people felt that they were being treated as ignorant and reacted against this. The denialism of Republican voters, far from responding to an obtuse irrationalism, was linked to social recognition. Hochschild highlights, for example, the dignity with which many Republican voters demanded a culture of effort that they considered to have been trampled by liberal policies that prioritized identity.

For her, social recognition meant self-esteem, which implied attributing significant importance of social behavior to others' view of one's life. According to the US sociologist, denialism cannot be understood in Louisiana without considering the social relations and interactions taking place in the environment where Republican voters lived.

Throughout her work, Hochschild proposes an understanding of the environment in which we live, based on the stories and tales told to each other, resulting in an accumulation of facts within a system that is coherent for a social group, and which ultimately justifies a myriad of disparate behaviors that are quite distanced from the standards of others (in this case, the intellectuals, artists and politicians of the large Eastern US cities or California). This testimony presented by Hochschild (2016: 179) in her book reveals the tensions and complexity lying behind the denial of evidence. The *Tea Party* voters ultimately justified the resulting pollution in their environment as a political option: "pollution is the sacrifice we make for capitalism".

Hochschild's work reveals the importance of the meaning of events for individuals in explaining our behavior. Their positions are part of a social framework against which they take a stance. They are counterarguments to those who despise them. The mind is a narrative processor, "a lawyer" according to Mercier and Sperber (2017). It constantly looks for arguments to give consistency to the behaviors existing within a group. These arguments ultimately mold the positioning of the individuals. Cramer (2016) also demonstrated this in her ethnographic studies carried out in Wisconsin. In rural areas, many people expressed political preferences that fit in with the public opinion surveys such as support for a small government, lower taxes and

conservative representatives. However, Cramer (chap. 6) shows how these attitudes were not based on ideology, but were related to specific experiences, actors and objects. The problem of rural voters was that their experience led them to conclude that the government would not spend enough public money in rural areas, favoring cities and suburbs, and the public employees who live there. One of Cramer's interviewees (2016: 69) summarized the anti-urban and anti-government sentiment of rural communities: "I don't have facts, but this is how I see it". In both Louisiana and Wisconsin, Hochschild and Cramer believe that the population's attitudes toward voting Republican, even when it goes against their interests, has a rationality that extends beyond ideology. It considers identity to be a vehicle that helps generate counter-arguments and a sense of coherence beyond the evidence.

The importance of groups in the behavior of actors relates to their ability to define the meaning of objects in the world, conditioning others' perception of them (Cohen, 2003: 819). If the social situation is crucial in explaining individual behavior, it is because people often pressure the actors to adopt a shared point of view (Achen and Bartels, 2017: 219). As Martín-Criado (2014) suggests, consistency is not a logical attribute, but an interactional one.

AGENCY AND MOTIVATED REASONING

The normative model of behavioral science assumes that people collect and evaluate new evidence independently of their past behavior and the social network in which they are immersed. This allows them to update their initial preferences, aligning them with the new evidence.

Therefore, people with different views should converge on the same issue when exposed to the same information (Beck *et al.*, 2023: 33). However, this does not take place. It is not because people are inconsistent or irrational, but because they wield their preferences within a distinct social network and, in turn, have different "moral careers". It is this network and "moral" past that provides the actor with the meanings of the objects in the social world, and therefore, it is from them that their preferences are formed. Attributing a cognitive error to an individual because their preferences apparently reject scientific evidence implies reducing the social world to a cognitive determinism, which disregards human agency. First, this is the case since an actor's perspective, and the meaning of event to an individual are integral parts of the relationships established with the world. It is this actor's perspective that opens up the variety and conflict inherent to human societies. Second, by classifying preferences as cognitive errors, we are failing to consider the evolution, adaptation, and innovation that human beings are capable of with respect to the phenomena taking place. Taking for granted the material reality, which appears to be impartial with scientific data, implies neutralizing the varied and conflicting meaning that this reality has from a social perspective, since there are different "moral careers" having distinct objectives.

According to the literature on risk perception, the problem is not whether someone denies evidence, but whether or not they feel connected to the scientific narrative. Motivated reasoning is a crucial element of political dynamics since it aims to facilitate the actor's and actress's consistency. Without this consistency, it is difficult to modify the perceptions of risk. Thus, it is crucial to politically respect the reasons for reasoning

in order to reach agreements. This suggests the need to avoid labelling an actor's rejection of evidence as "irrational" and instead, accept their reasons for sustaining the situation in which they find themselves. Motivated reasoning is important because it allows the actor to achieve three goals (Beck *et al.*, 2023: 36): 1) to present oneself in a way that is consistent with one's beliefs; 2) to show consistency with one's relationships with previous identity groups; and 3) to show consistency with one's prior value commitments. Clinging to prior beliefs, values, or identity groups is not, in itself, a goal of motivated reasoning. When processing new evidence, the aim is to align the actor's position "with that of a relevant social group in order to maintain and express membership in the same" (*ibid.*: 36). Kahan's study (2013: 419) on the ideological influence on motivated reasoning suggests that, at an individual level, this influence is rational "since it conveys the belonging and loyalty of individuals to groups on which they depend for various forms of emotional, material and other types of support".

The social interaction perspective of human behavior does not imply that anything can happen simply because there is no accurate projection of future behavior. If motivated reasoning connects facts to a social network, influencing the narrative that we create for them, this must be validated by the interlocutors. This is a limit, since the reasons for conditioning the information received depend on the actor's ability to reasonably justify them. "People will believe what they want to believe as long as reasons permit this" (Kunda, 1990: 483). According to the work on risk perception (Gattinger, 2023), the existence of motivated reasoning does not prevent changes in appreciation. These changes may be achieved if the actors are included in a new narrative

of the facts, which includes the initial social situation of all interlocutors. This occurs because it is more difficult to accept a situation when the ties and links that supported your interpretation of the facts have disappeared.

Scientists often disqualify the ability of lay people to participate in public debates, because they believe that they are less capable of following Bayesian reasoning or that they will more easily fall into biases that may systematically lead to cognitive errors. However, the idea of dispensing with people because of their limited capacity to neutralize cognitive biases lacks foundation. As we have seen, it is precisely the most prepared people and those who are the most closely linked to a specific social network who display more sophisticated motivated reasoning (Kahan, 2013; Taber and Lodge, 2016; Erisen *et al.*, 2018). On the other hand, it is necessary to consider people's values, prior beliefs, and identities in public decision-making processes about risks such as climate change in order to develop effective solutions and increase the scope and legitimacy of policies (Beck *et al.*, 2023: 48). Therefore, a better understanding of the motivated reasoning of the agents involved in a political reform would permit a better identification of the values and identities that shape people's beliefs about risks. This would result in the establishment of more transversal frameworks for action. As we saw previously, motivated reasoning initiates an argumentative process that can involve changing and modulating the initial preferences of a group of actors. However, it cannot be done directly in contrast to an individual's preferences since precisely the opposite effect is achieved. Psychology experiments have shown that in these situations, the reasons for defending one's own position become more complex (Erisen *et al.*, 2018). Accepting

social interaction as a crucial element of actors' behavior implies considering human agency as a key element in politics. Therefore, it is important to consider the plurality of social situations in the definition of political problems. If someone denies evidence, we should consider their reasons for sustaining their rejection. If we do not consider these reasons to be legitimate, it will be difficult to generate a narrative to which the actor will feel connected.

CONCLUSIONS

The cognitivist perspective aims to decouple human behavior from the social contexts in which it arises, analyzing it in a kind of attribute-less vacuum. Here, preferences are manifestations of internal information processing. This allows us to believe that two individuals receiving the same information have a significant probability of achieving similar outcomes (preferences). This work suggests the relevance of an interactional perspective of human behavior. According to the latter, preferences should be understood as interactional manifestations or strategic moves in an interaction in which individuals present themselves to others. From this interactional perspective, the rejection of scientific arguments has nothing to do with science, but rather, is caused by a narrative to which the actors feel no connection. Attempting to belittle these actors as "inconsistent" prevents us from considering the reasons why they do not feel connected.

The problem is not cognitive. As we have seen throughout this work, cognitive errors are almost universal phenomena affecting both lay and educated people alike. Therefore, it is not about accepting only the preferences of those whom we believe to be trustworthy. Everyone

has their own circle of trustworthiness, to whom we justify our actions. This hides an entire validation process that favors certain discourses over others. Dismissing this presentation as a mistake undermines the individual's agency, which often encourages attitudinal opposition. In a world filled with echo chambers (such as digital social media), this validation mechanism exacerbates discursive polarization. But this same mechanism also allows us to believe that interactions between diverse groups may lead to different arguments. The need to seek acceptability for arguments implies seeking narratives that allow different people to connect discursively. The biggest mistake is to label, even metaphorically, an individual as irrational merely because we do not share their discourse.

BIBLIOGRAPHY

- Achen, Christopher H. and Bartels, Larry M. (2017). *Democracy for Realists: Why Elections Do Not Produce Responsive Government*. Princeton: Princeton University Press.
- Baekgaard, Martin; Christensen, Julian; Dahlmann, Casper M.; Mathiasen, Absjorn and Petersen, Niels B. J. (2019). "The Role of Evidence in Politics: Motivated Reasoning and Persuasion among Politicians". *British Journal of Political Science*, 49(3): 1117-1140. doi:10.1017/S0007123417000084
- Beck, Marisa; Ahmed, Ruksana; Douglas, Heather; Driedger, S. Michelle; Gattinger, Monica; Kiss, Simon; Kuzma, Jennifer; Larkin, Patricia; O'Doherty, Kieran; Perrella, Andrea; Williams, Teshanee and Wolbring, Gregor (2023). Reasoning and Risk Governance: What Risk Scholars and Practitioners Need to Know. In: M. Gattinger (ed.). *Democratizing Risk Governance* (pp. 29-52). Ottawa: Palgrave McMillan.
- Bem, Daryl J. (1972). "Self-Perception Theory, Advances in Experimental Social". *Psychology*, 6: 1-62. doi: 10.1016/S0065-2601(08)60024-6
- Billig, Michael (2009). "Discursive Psychology, Rhetoric and the Issue of Agency". *Semem. Revue*

- de sémio-linguistique des textes et discours*, 27. doi: 10.4000/semen.8930
- Ceballos, Noel (2021). *El pensamiento conspiranoico*. Barcelona: Arpa.
- Cohen, Geoffrey L. (2003). "Party Over Policy: The Dominating Impact of Group Influence on Political Beliefs". *Journal of Personality and Social Psychology*, 85(5): 808-822. doi:10.1037/0022-3514.85.5.808
- Cole, Jeniffer C.; Gillis, Ash J.; Linden, Sander van der; Cohen, Mark A. and Vandenberg, Michael P. (2023). "Social Psychological Perspectives on Political Polarization: Insights and Implications for Climate Change". *Perspectives on Psychological Science*, 0(0). doi: 10.1177/17456916231186409
- Collins, Randall (2004). *Interaction ritual chains*. Princeton: PUP.
- Coppock, Alexander (2022). *Persuasion in parallel: how information changes minds about politics*. Chicago: Chicago University Press.
- Cramer, Katherine J. (2016). *The Politics of Resentment: Rural Consciousness in Wisconsin and the Rise of Scott Walker*. Chicago: Chicago University Press.
- Dardenne, Benoit and Leyens, Jacques-Philippe (1995). "Confirmation Bias as a Social Skill". *Personality and Social Psychology Bulletin*, 21(11): 1229-1239. doi: 10.1177/01461672952111011
- Dennet, Daniel (1995). *La conciencia explicada*. Barcelona: Paidós.
- Díaz Catalán, Celia and Cabrera-Álvarez, Pablo (2023). La percepción social de la ciencia mejora ante los desafíos globales. In: *The Conversation*. Available at: (<https://theconversation.com/la-percepcion-social-de-la-ciencia-mejora-en-espana-ante-los-desafios-globales-204395>, access February 10, 2024).
- Ditto, Peter H.; Liu, Brittany S.; Clark, Cory J.; Wojcik, Sean P.; Chen, E. Erick; Grady, Rebecca H.; Celniker, Jared B. and Zinger, Joanne F. (2019). "At Least Bias Is Bipartisan: A Meta-Analytic Comparison of Partisan Bias in Liberals and Conservatives". *Perspectives on Psychological Science*, 14(2): 273-291. doi: 10.1177/1745691617746796
- Dixon, Graham; Hmielowski, Jay and Ma, Yanni (2017). "Improving Climate Change Acceptance Among U.S. Conservatives Through Value-based Message Targeting". *Science Communication*, 39(4): 520-534. doi: 10.1177/1075547017715473
- Druckman, James N. and McGrath, Mary C. (2019). "The Evidence for Motivated Reasoning in Climate Change Preference Formation". *Nature Clim Change*, 9: 111-119. doi: 10.1038/s41558-018-0360-1
- Dunning, David; Meyerowitz, Judith A. and Holzberg, Amy D. (1989). "Ambiguity and Self-evaluation: The Role of Idiosyncratic Trait Definitions in Self-serving Assessments of Ability". *Journal of Personality and Social Psychology*, 57(6): 1082-1090. doi: 10.1037/0022-3514.57.6.1082
- Eagleman, David (2013). *Incógnito: las vidas secretas del cerebro*. Barcelona: Anagrama.
- Epley, Nicholas and Gilovich, Thomas (2016). "The Mechanics of Motivated Reasoning". *Journal of Economic Perspectives*, 30(3): 133-140. doi: 10.1257/jep.30.3.133
- Erisen, Cengiz; Redlawsk, David P. and Erisen, Elif (2018). "Complex Thinking as a Result of Incongruent Information Exposure". *American Politics Research*, 46(2): 217-245. doi: 10.1177/1532673X17725864
- Fridman, Ariel; Gershon, Rachel and Gneezy, Ayelet (2021). "COVID-19 and Vaccine Hesitancy: A Longitudinal Study". *PLoS ONE*, 16(4): e0250123. doi: 10.1371/journal.pone.0250123
- Gattinger, Monica (ed.) (2023). *Democratizing Risk Governance. Bridging Science, Expertise, Deliberation and Public Values*. Ottawa: Palgrave MacMillan.
- Gazzaniga, Michael (2012). *Who is in charge? Free will and the science of the brain*. Little Brown.
- Gillis, Ash; Vandenberg, Michael; Raimi, Kaitlin; Maki, Alex and Wallston, Ken (2021). "Convincing Conservatives: Private Sector Action Can Bolster Support for Climate Change Mitigation in the United States". *Energy Research & Social Science*, 73, Article 101947. doi: 10.1016/j.erss.2021.101947
- Goffman, Erving (1959). *The presentation of self in everyday life*. London: Penguin books.
- Goffman, Erving (1970). *Internados*. Buenos Aires: Amorrortu.
- Goffman, Erving (1975). *Frame analysis*. London: Penguin books.
- Guay, Brian and Johnston, Christopher D. (2022). "Ideological Asymmetries and the Determinants of Politically Motivated Reasoning". *American Journal of Political Science*, 66: 285-301. doi: 10.1111/ajps.12624
- Habermas, Jürgen (1999). *Teoría de la acción comunicativa* (Vol. 1). Madrid: Taurus.

- Haidt, Jonathan (2012). *The righteous mind*. Allen Lane.
- Harré, Rom and Gillet, Grant (1994). *The discursive mind*. USA: SAGE.
- Haselton, Martie G; Bryant, Gregory; Wilke, Andreas; Frederick, David; Galperin, Andrew; Frankenhuis, Willen and Moore, Tyler (2009). "Adaptive Rationality: An Evolutionary Perspective on Cognitive Bias". *Social Cognition*, 27(5): 733-763. doi: 10.1521/soco.2009.27.5.733
- Kahan, Dan M. (2013). "Ideology, Motivated Reasoning, and Cognitive Reflection". *Judgment and Decision Making*, 8(4): 407-424. doi: 10.1017/S1930297500005271
- Kahneman, Daniel (2011). *Pensar despacio, pensar rápido*. Madrid: Debate.
- Keren, Gideon and Schul, Yaacov (2009). "Two Is Not Always Better Than One: A Critical Evaluation of Two-System Theories". *Perspectives on Psychological Science*, 4(6): 533-550. doi: 10.1111/j.1745-6924.2009.01164.x
- Kunda, Ziva (1990). "The Case for Motivated Reasoning". *Psychological Bulletin*, 108(3): 480-498. doi: 10.1037/0033-2909.108.3.480
- Lewandowsky, Stephan and Oberauer, Klaus (2016). "Motivated Rejection of Science". *Current Directions in Psychological Science*, 25(4): 217-222. doi: 10.1177/0963721416654436
- Martín-Criado, Enrique (2014). "Mentiras, inconsistencias y ambivalencias. Teoría de la acción y análisis de discurso". *Revista Internacional de Sociología*, 72(1): 115-138. doi: 10.3989/ris.2012.07.24
- Matute, Helena (2019). *Nuestra mente nos engaña*. Barcelona: Shackleton Books.
- Mercier, Hugo and Sperber, Dan (2011). "Why Do Humans Reason? Arguments for an Argumentative Theory". *Behavioral and Brain Sciences*, 34(2): 57-74. doi: 10.1017/S0140525X10000968
- Mercier, Hugo and Sperber, Dan (2017). *The enigma of reason*. Penguin.
- Moreno Muñoz, Miguel (2021). "Negacionismo y conflicto social". *Gazeta de Antropología*, 37(3): 1-14. doi: 10.30827/Digibug.70333
- Nickerson, Raymond S. (1998). "Confirmation Bias: A Ubiquitous Phenomenon in Many Guises". *Review of General Psychology*, 2(2): 175-220. doi: 10.1037/1089-2680.2.2.175
- Nisbett, Richard E. and Wilson, Timothy D. (1977). "Telling More than We Can Know: Verbal Reports on Mental Processes". *Psychological Review*, 84(3): 231-259. doi: 10.1037/0033-295X.84.3.231
- Oreskes, Naomi and Conway, Erik (2022). "From Anti-Government to Anti-Science: Why Conservatives Have Turned Against Science". *Daedalus*, 151(4): 98-123. doi: 10.1162/daed_a_01946
- Ross, Lee and Nisbett, Richard E. (2011). *The person and the situation: perspectives of social psychology*. London: Pinter and Martin.
- Russel Hochschild, Arlie (2016). *Extraños en su propia tierra*. Madrid: Capitán Swing.
- Sigman, Mariano (2022). *El poder de las palabras*. Madrid: Debate.
- Specter, Michael (2009). *Denialism: How Irrational Thinking Harms the Planet and Threatens Our Lives*. New York: Penguin Press.
- Storr, Will (2022). *La ciencia de contar historias*. Madrid: Capitán Swing.
- Sunstein, Cass and Thaler, Richard (2003). "Libertarian Paternalism Is Not an Oxymoron". *The University of Chicago Law Review*, 70(4): 1159-1202. doi: 10.2307/1600573
- Taber, Charles S. and Lodge, Milton (2016). "The Illusion of Choice in Democratic Politics: The Unconscious Impact of Motivated Political Reasoning". *Political Psychology*, 37: 61-85. doi: 10.1111/pops.12321
- Todd, Peter M. and Gigerenzer, Gerd (eds.) (2012). *Ecological rationality: Intelligence in the world*. Oxford: Oxford University Press.

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