

## **A RAISON D'ÊTRE FOR THE JUDICIAL PROCESS. AN ANALYSIS FROM THE SPANISH PROCEDURAL SYSTEM**

Miquel Julià-Pijoan

PhD in Law

Universidad Nacional de Educación a Distancia

*mjuliapijoan@gmail.com*

Orcid: 0000-0001-6032-3694

**ABSTRACT:** Several Spanish authors have conceptualised the judicial process as a forced and inevitable temporal evolution that must precede the resolution of the controversy and that depends on slowness—as the antithesis of immediacy—. According to this doctrine, this process aims to avoid an immediate judicial response. In this paper, I will examine why the judicial process has been defined in this way; the reasons why speed is not desirable in the judicial function. To this end, I draw on the findings of cognitive psychology and, more specifically, on a set of theories that support the existence of two ways of processing information—two ways of knowing, believing, thinking, reasoning, and acting—: one fast and one slow; these are the dual processing theories. As a result of this confrontation, I propose a rationale, a purpose, and a definition for the judicial process, which are based on the idea that the presence of a time interval is necessary for the right to judicial impartiality and the right of defence to—materially—exist.

**KEYWORDS:** judicial process, right of defence, procedural guarantees, judicial impartiality, jurisdictional function.

**SUMMARY:** 1. INTRODUCTION. ENHANCING THE JUDICIAL PROCESS: IS SPEED A VIABLE SOLUTION?— 2. APPROACH TO THE DOGMATIC DEFINITION OF THE JUDICIAL PROCESS.— 3. PSYCHOLOGICAL PERSPECTIVES: UNVEILING THE DUALITY OF INFORMATION PROCESSING—FAST AND SLOW SYSTEMS: 3.1. Presenting the Two Systems. 3.2. Fast Processing Operates by Default: 3.2.1. *Fast Processing Jumps Straight to Conclusions: 3.2.1.1. Impact on Evidentiary Activity. 3.2.1.2. Impact on the Right of Defence. 3.2.2.*

*Contextualisation. 3.2.3. The Absence of Doubt. 3.3. How to Trigger Deliberation.— 4. A TELOS AND A DEFINITION FOR THE JUDICIAL PROCESS.— 5. CONCLUSIONS.— BIBLIOGRAPHY.*

## 1. INTRODUCTION. ENHANCING THE JUDICIAL PROCESS: IS SPEED A VIABLE SOLUTION?

Acceleration is one of the defining characteristics of our time: instantaneity is one of the values on the rise, and as such it is socially desired and pursued. Slowness, on the other hand, is shunned; it is an enemy to be fought. One of the consequences of this is that processes that require it are marginalised because they are an obstacle to acceleration; they slow down the flow of information and communication (Duch, 2018, p. 35; Torralba, 2018, pp. 25-29; Han, 2013, p. 60). This general trend has also permeated the judicial function (Mora-Sanguinetti, 2022, pp. 47 ff.). In this context, aggravated by the emergence of artificial intelligence, new debates have emerged on the automation of justice (Nieva Fenoll, 2022a, pp. 1551 ff.; Guzmán Fluja, 2021) and the search for procedural efficiency<sup>1</sup>. Both dimensions aim at speeding up the judicial process. Moreover, the semantics of the judicial process have already been transfigured in this new perspective. An example of this is the statement made by the Spanish legislator in 2020: «Criminal proceedings are in themselves a punishment that causes hardship and costs for the accused»<sup>2</sup>. All the above has led to the fact that one of the procedural discussions taking place today is that of the dilemma of *guarantees versus effectiveness* (Martín Diz, 2020, p. 817).

In the context we find ourselves in, I would like to emphasise that the current dynamic contrasts with how Spanish—and also Italian—procedural doctrine has conceptualised the judicial process. This judicial process is thus defined as a forced and inevitable temporal becoming (Montero Aroca, 2008, pp. 302 ff.; Satta and Punzi, 2000, p. 196; Serra Domínguez, 1950, p. 862; Fenech, 1960, p. 24) that must precede the resolution of the controversy and that depends on slowness (as the opposite of instantaneous) (Ramos Méndez, 1978, p. 44; Calamandrei, 1986, pp. 317-318; Prieto Castro, 1952, p. 10; Fenech, 1960, p.30; Montero Aroca, 2008, pp. 302 ff.; Satta, 1968, pp. 10-11). According to this doctrine, the judicial process aims to avoid an immediate judicial response. The warning of this thunderous discrepancy invites me to reflect on the reasons why the judicial process has been defined in this way: why speed is not desirable in the judicial function; a question that,

<sup>1</sup> Explanatory preamble of the Spanish preliminary draft bill on procedural efficiency measures for the public justice service (Exposición de Motivos del Anteproyecto de ley de medidas de eficiencia procesal del servicio público de justicia). Available at: <https://www.mjusticia.gob.es/es/AreaTematica/ActividadLegislativa/Documents/APL%20Eficiencia%20Procesal.pdf>

<sup>2</sup> Explanatory preamble to Spanish Law 2/2020, of July 27, amending Article 324 of the Criminal Procedure Act (Exposición de Motivos de la Ley 2/2020, de 27 de julio, por la que se modifica el artículo 324 de la Ley de Enjuiciamiento Criminal).

on the other hand, has not been given much attention. In other words, in this paper I will meditate based on this important procedural institution, taking the Spanish procedural system as a frame of reference.

To this end, I will draw on the findings of cognitive psychology, which in recent years has deepened its understanding of how we know the reality that surrounds us, and how we evaluate that information and decide how to interact with that reality. More specifically, I will focus on a set of theories that argue that there are two ways of processing information—two ways of knowing, believing, thinking, reasoning, and acting (Evans, 2010, p. 2, 2020, p. 2; Kahneman, 2013, p. 35; Stanovich, 2011, p. 16)—one fast and one slow; these are the Dual-process theories (Evans, 2017, pp. 99-115). The similarity of this classification to the one used by Spanish procedural doctrine leads me to analyse whether an approach to the former can be useful in answering the question that is the subject of this paper. For this reason, I will examine whether these psychological theories can help to understand the basis of the judicial process.

Based on these conclusions, this paper aims to fill a gap in the foundations of the judicial process. It will also help us to gain clearer insights into how the judicial function should function. In particular, it aims to clarify whether the ideas that the law assumes about how the human mind works are empirically supported. Questions arise: Do we start with doubt or intuition? Is standard deliberation our starting point? If not, is deliberation possible, and by what mechanisms? Furthermore, this paper will contribute to enriching the debate mentioned at the beginning of this introduction about the dichotomy between guarantees and procedural efficiency. It will help us to understand the potential consequences of streamlining the core of the process and to guide discussions on how to resolve the existing judicial congestion in Spain.

To this end, I will first explain how the judicial process has been defined by doctrine (section 2). Secondly, I will analyse, in the light of the psychological theories mentioned above, the consequences that quick decision-making can have for the judicial function and how these can be avoided (section 3). Finally, I propose a *telos* and a definition of the judicial process as a result of this analysis (section 4).

## 2. APPROACH TO THE DOGMATIC DEFINITION OF THE JUDICIAL PROCESS

The judicial process is one of the core elements of procedural law. Hence, the adjectivisation of this branch of law and the fact that its subject is the legal organisation of the process (Guasp, 1968, p. 31; Ramos Méndez, 1978, p. 46).

The analysis of the doctrine of this concept reveals one of its outstanding characteristics, namely its instrumental vocation: it is the process which makes the irrevocable determination of the right to the concrete case feasible (Serra Domínguez, 1969,

p. 50), it makes it possible (Nieva Fenoll, 2022b, p. 76). For this reason, it is conceptualised as a method (Carnelutti, 1997, pp. 21-22), a means (Serra Domínguez, 1950, p. 862; Prieto Castro, 1952, p. 10) or an instrument (Ramos Méndez, 1978, pp. 37 ff.; Montero Aroca *et al.*, 2014, pp. 222 ff.; Prieto Castro, 1980, p. 23; Fenech, 1960, pp. 20-21; Nieva Fenoll, 2022b, p. 76) that allows the materialisation of jurisdiction (Satta and Punzi, 2000, pp. 196 ff.; Wach, 1977, pp. 22 and 24). Thus, the concept of the judicial procedure imparts to the judicial decision a forced and inevitable temporal development that must precede it; a succession of acts that must necessarily develop from the request for protection to the judicial decision (Montero Aroca, 2008, pp. 302 ff.; Satta and Punzi, 2000, p. 196; Serra Domínguez, 1950, p. 862; Fenech, 1960, p. 24; Ramos Méndez, 1978, pp. 46-47). Moreover, the slowness and length of the process—as a positive and necessary characteristic (Ramos Méndez, 1978, p. 44; Calamandrei, 1986, pp. 317-318; Prieto Castro, 1952, p. 10; Fenech, 1960, p.30; Montero Aroca, 2008, pp. 302 ff.; Satta, 1968, pp. 10-11)—is even questioned. In the light of the above, the extension of time acts as the backbone of the procedure. The aim is to postpone the judicial decision to a point in time later than when it was initiated. Consequently, the procedure is constituted as the antonym of speed, of brevity.

Although this characterisation of the judicial process I have just mentioned has been dealt with in doctrine, the reason why it is necessary to follow a necessarily long path that ends with the pronouncement of a judgement has not been very much addressed. One of the few scholars who has reflected on this point is Fenech (1960, p. 37). He argues that the reason for the existence of the judicial process lies in human fallibility; only God can judge instantly. Thus, the human judge, ontologically limited, needs to judge a series of acts that unfold in time (Carnelutti, 1994, pp. 17 and 28). This argument is also taken up by Serra Domínguez (1950, p. 873), Satta (1968, pp. 3-18), and Carnelutti (1994, p. 34). The latter author warns that the speed of the process leads to uncertain justice (p. 14). Similarly, Calamandrei notes that the birth of the jurisdictional order is neither spontaneous nor instantaneous but requires the deployment of numerous procedural acts that constitute the judicial process (Calamandrei, 1997, pp. 317-318).

Hence, the link between the notion of judicial process and its underlying rationale is thus delineated: the former arises from the inherent human limitation to make instantaneous and flawless decisions—an attribute reserved for the divine. Human beings require a methodology to deliberate and execute any judgement. This strategy, consisting of a chronologically extended sequence of various actions, enables us to process and reflect on precise information (Nieva Fenoll, 2022b, p. 76). This circumstance imposes the appearance of a temporal becoming—the supreme characteristic of the process (Fenech, 1960, p. 24)—which helps the human being in this decision-making task (the core of judgement) and compensates for this deficit.

Given this approach, I wonder whether it is plausible that human beings are incapable of making instant judgments and decisions. But the answer is no. Without prejudice to what I will say below, a few examples from everyday life will illustrate

this: when the reader returns home at the end of the working day—an activity in which many decisions are made—he does not need much time to decide which route to take. Think of tennis players or footballers, for example, who are constantly making judgements during a match, especially to choose the best reaction to the opponent's move, which they implement quickly.

It could be argued, however, that what has been proclaimed by one part of the doctrine applies specifically to judicial decisions and not to general decisions. In this sense, it is worth mentioning *prima facie* judgments. According to Nieva Fenoll (2007), this term refers to judicial decisions that are taken quickly (pp. 39-53)—this is their main characteristic—and even with urgency. They are hasty judgments (p. 38) based on first impressions (pp. 19 and 54). The importance of pointing this out lies in the fact that this type of procedure is a subtype of judicial decision (p. 57)<sup>3</sup>: the situation is resolved by the decision of a third party who hastily applies the law to the specific case. As a result, there are now fast-track judgments which avoid the slowness and protracted nature of the judicial process (they are based on first impressions and the pressure of speed prevents the development of the concatenation of acts which make up the process). For this reason, these acts are close to instantaneity, if not identified with it. The prototypical example of these pursuits is the adoption of precautionary measures, although this pursuit is not limited to them<sup>4</sup>. In short, what I am interested in highlighting is the existence of instantaneous human judgements; a particularity that contrasts and demonstrates a rupture with the teleology of the process outlined above.

Moreover, this way of working is instinctively and historically<sup>5</sup> the original approach: in Roman law, the Caesar or the judges could immediately resolve cases of minimal importance or even minor offences (Nieva Fenoll, 2007, pp. 20 ff.). In addition, as recent research has shown, there have been instant judicial decisions in the last centuries (Capdeferro and Serra, 2015, pp. 520-532). For this reason, safeguards such as the «*usatge*» of the county of Barcelona, known as *Alium namque*, required that judgements be made *per directum*, *i. e.*, in the form of a trial and not *ex abrupto* (Ferro, 1987, pp. 335-336). The explicit emphasis of the doctrine of the time, which expressly prohibited immediate judgements (*ex abrupto*), underlines its existence in these temporal and geographical coordinates. Furthermore, within the framework of Castilian law, in practical cases, there were *trials* that were carried out summarily and simply, directly, *without fanfare or the appearance of a trial* (Nieva Fenoll, 2006, pp. 159-160).

In the light of the above, it is not entirely tenable to base the need for a judicial process on the human inability to decide without a process; there are and have been

<sup>3</sup> This is not an accelerated procedure such as summary proceedings. See Nieva Fenoll (2007, pp. 34-35).

<sup>4</sup> For a more extensive analysis: Nieva Fenoll (2007, pp. 109 ff.).

<sup>5</sup> This is the most elementary and basic way of judging. See Nieva Fenoll (2007, p. 19).

instant judicial decisions. Consequently, it is necessary to outline other reasons to articulate the existence of this institution, which is the task I will try to develop below.

### 3. PSYCHOLOGICAL PERSPECTIVES: UNVEILING THE DUALITY OF INFORMATION PROCESSING —FAST AND SLOW SYSTEMS

In this section, I will draw on psychology to shed light on the judicial process. Mainly because it is a discipline that is concerned, among other things, with how decisions are made—one of the core elements of the judicial function—and thus with how we think and know the world around us. More specifically, I will focus on a set of theories that argue for the existence of two ways of processing information, two ways of knowing, believing, thinking, reasoning, and acting (Evans, 2010, p. 2, 2020, p. 2; Kahneman, 2013, p. 35; Stanovich, 2011, p. 16): *type 1* and *type 2*<sup>6</sup>. It should be noted, however, that this terminology varies from author to author<sup>7</sup>. Despite this diversity of terminology, the characterisation of these two systems is more similar between authors (Evans, 2017, p. 109; Stanovich, 2011, pp. 19 ff.). In short, they refer to the existence of two cognitive processing systems that influence human reasoning and judgement (Evans, 2020, p. 14).

The reason I mention this set of theories is that one of the distinguishing elements of these two systems is precisely time: in type 1, information processing is fast (requires little time), whereas in type 2 it is slow (requires more time) (Evans and Frankish, 2009; Evans, 2017, p.100, 2020, pp. 14-15; Stanovich, 2011, pp. 19 ff.)<sup>8</sup>. Therefore, if you use the first typology, you will be able to make a decision faster than if you use the second typology. In other words, the time available for the decision depends on the role played by each of the systems mentioned. In other words, the time available for the decision depends on the role played by each of the systems mentioned (Kahneman and Frederick, 2002, pp. 49-81). The alignment between the characterization of thinking and decision-making (whether fast or slow) and the foundation on which the process is conceptualised (slow versus instantaneous) prompts me to explore the implications of these thinking approaches on the judicial function. This will be the aim of this section, since it can shed light on the darkness that shrouds the foundations of the judicial process.

In what follows I will use the term *fast processing* to refer to what psychological theory categorises as type 1 processing systems, and *slow processing* to refer to type 2 processing systems. Admittedly, and as will be seen below, this use of adjectives (fast

<sup>6</sup> This is the denomination used by Stanovich (2011, p. 19).

<sup>7</sup> A compilation can be found in Stanovich (2011, pp. 18 ff.)

<sup>8</sup> In the legal literature, references can be found in Rumiati and Bona (2019) and Forza *et al.* (2017, pp. 26 ff).

or slow) to describe these systems does not encompass the full description; it is only one of several characteristics. However, for the purposes of this paper, I find it more appropriate to use the above terminology for the sake of clarity and comprehension.

### 3.1. Presenting the Two Systems

As mentioned above, it is common in cognitive psychology to speak of two systems of thought that are the prelude to decision-making. It is worth pointing out that the allusion to the existence of these two systems is merely a metaphor used to better illustrate the operation of the cognitive system (Kahneman, 2013, p. 46; Forza *et al.*, 2017, pp. 126-127).

In this sense, characterising such systems does not end with alluding to time. Fast processing is also automatic, without a sense of voluntary control, effortless and highly contextualised. It is sometimes referred to as intuitive thinking because rapid processing assigns intuitive responses to the situations and problems that the person faces (Evans and Frankish, 2009, p. 1; Kahneman, 2013, p. 35; Evans, 2020, pp. 14-15, 2017, pp. 100 ff., 2010; Stanovich, 2011, pp. 19 ff.). Some situations in which we use this type of processing will help me to illustrate how it works: when we recognise someone, when we understand the phrase «it's raining today», or when we make the journey from home to work. We do not plan how to get to work, nor do we think about how to understand the sentence or how to recognise the person. These actions just happen; they are automatic.

It is also this fast processing that underlies instantaneous decisions. Some sporting examples illustrate this very well: tennis, basketball or chess players have to make instant decisions based on what they perceive in their environment (*i. e.* the movements of their opponents). The success of their decision depends on the speed with which it is implemented. A slow (reflexive) processing of the reaction would hinder the development of the sport; it would be an obstacle. Similarly, this type of processing extends beyond sport; it also underpins the judgements of art experts. They can quickly tell whether a statue is authentic or fake<sup>9</sup>. It is also evident in the actions of fire chiefs, who make split-second decisions such as evacuating a burning building just before it collapses. In this case, such a decision was of immense importance; without it, all the firefighters involved in extinguishing the fire would have perished (Evans, 2017, pp. 17 ff.)<sup>10</sup>.

In all these scenarios, the individual using this information processing is honing skills through repetitive practice (as seen in athletes) or performing routine tasks (as

<sup>9</sup> An example of this is given by Gladwell (2018, pp. 11 ff.): the J. Paul Getty Museum in California was about to acquire a marble statue from the 6th century BC. However, based on a hunch of an art expert (he felt that something did not fit), it was eventually concluded that it was a forgery.

<sup>10</sup> Other examples can be found in Hogarth (2002, pp. 15 ff.).



seen in art experts or firefighters). In essence, they are engaging in activities in which they have considerable experience. It is in these situations that the automaticity of rapid processing emerges and we operate on autopilot because we know how to achieve what we want to achieve (Evans, 2017, pp. 17 and 99 ff.).

This approach is also applied in the field of justice. Obviously, judges are experts in this subject, in the sense that they are people who have acquired specialised knowledge (Evans, 2017, pp. 17 ff.). This expertise enables the judge to sometimes solve complicated problems without long deliberation (Rumiati and Bona, 2019, p. 21). They can determine, by the conclusion of testimony, whether the subject has been truthful or deceptive. It also enables them to discern whether a person has been truthful or deceptive at the end of their testimony, leaving aside for the moment the epistemological aspect of the evidence<sup>11</sup>. These are judgments that are made without knowing exactly where they come from. Hence, the reference to intuition<sup>12</sup>.

On the other hand, if we do not have this background, we cannot use this processing. For example, when we walk through an unfamiliar city, we use a map to orient ourselves; we plan the route we want to take and look for landmarks to guide us. We use slow processing, which is under the person's (conscious) control, decontextualized and requires effort from the person; it gives us a more reflective, thoughtful response (Evans and Frankish, 2009, p. 1; Kahneman, 2013, p. 35; Stanovich, 2011, pp. 19 ff.; Evans, 2020, pp. 2 and 14-15, 2017, pp. 100 ff., 2010). This mode of processing is triggered in situations involving novel or complicated circumstances, where experience is of minimal help. Examples include: comparing two washing machines to determine which is the better choice; filling out an income tax form (especially if not in a professional capacity); assessing the validity of a complex logical argument; considering strategies to combat global warming; or assessing the economic consequences for a particular country of entering into an international agreement. All these tasks require attention, concentration, and effort, without which they are difficult to accomplish. More time is needed to complete such tasks successfully (Kahneman, 2013, p. 35-39; Evans, 2017, p. 104-105).

In addition to using slow processing for the activities I have just described, one of its most important functions is to (self-)control the intuitions and impulses that result from the activation of fast processing. In this way, slow processing has the capacity to dominate it (Kahneman, 2013, p. 48), since it can interrupt and override it (Stanovich, 2011, pp. 20 and 32). Through this channel, the response proposed by the fast processing can be modified based on the activation of the slow processing (Evans, 2017, p. 107). Again, an example will help to understand this point. Let's start with the following problem, which is well known in technical literature: a racket and a ball cost €1.10. If the racket costs €1 more than the ball, you ask yourself how much the ball costs. You will probably have an immediate answer: 10 cents. This is

---

<sup>11</sup> Example given on police officers in Evans (2017, p. 103).

<sup>12</sup> For a more detailed analysis of intuition, see Hogarth (2002).



the answer given by fast processing. However, this answer is wrong, as you will have noticed—precisely because of the approach of this example<sup>13</sup>. Now, to find the correct answer, we need to get rid of the intuitive answer and, to achieve this, we need to activate the slow processing, which will bring us closer to the correct solution: 5 cents (Kahneman, 2013, pp. 64 ff.). However, to activate this slow processing—which can reconsider the intuitive judgement—requires a commitment for the person, it requires an effort, a disagreement with the first result that appears. If this is not done, the first result will prevail.

With this brief presentation of the dual-processing model of decision-making, the dogmatic explanation that claims to uphold the existence of the judicial process as an unavoidable tool for decision-making (see section 2) is strained: human beings have the capacity to decide immediately, an assertion that has empirical support.

However, from what has been said so far, it cannot be concluded that there is one typology of processing that is better than the other. Such an interpretation would be highly epidermal and, moreover, erroneous. As the examples show, the appropriate type of processing depends on the person's situation or the task to be performed (Stanovich, 2011, pp. 29 ff.; Evans, 2020). In what follows, I will therefore examine in more detail the consequences for the judicial function of the implementation of one or other of the prosecution systems. This analysis allows me to know which system is more suitable for the development of the judicial function.

Before concluding this presentation, I need to address two points to clarify the aim of this section of the work: *i*) I won't delve into the explanation of how individuals, including judges, make decisions. Instead, my focus will be on highlighting issues arising from the use of the information processing systems previously outlined (fast and slow). This emphasis aligns with the semantics of the judicial process, which is the subject of this work; *ii*) I will exclusively concentrate on matters directly impacting the judicial function.

### 3.2. Fast Processing Operates by Default

The first feature I would like to highlight is the automatic nature of fast processing, which by its very nature must be considered from the outset. It means that such processing cannot be switched off at will (Kahneman, 2013, pp. 41 and 44). Its occurrence is unconscious—it happens without our control—and its activation occurs without the subject's commitment to it—*i. e.* without effort—(Evans and Frankish, 2009, p. 1; Kahneman, 2013, p. 35; Evans, 2017, pp. 100 ff., 2020, pp. 14-15; Stanovich, 2011, pp. 20 ff.). Therefore, if we read «today it is raining», we cannot refrain from understanding the content (provided we understand the language, ob-

<sup>13</sup> If the ball costs 10 cents and the bat costs 1 euro more than the ball, both would cost 1.20 and not 1.10 as stated.

viously), even if we persist in trying to do so; we cannot eliminate it (Kahneman, 2013, p. 36).

This—involuntary and unconscious—automaticity in activating fast processing occurs for two main reasons. The first is evolutionary: fast attention and reaction to what the senses have perceived increases the chances of survival; to think or reflect calmly on the *raison d'être* or actual identity of the sensory stimulus perceived puts it at serious risk. If a person in the mountains hears a noise in the bushes and promptly runs away, their likelihood of survival significantly increases. Conversely, if they opt to remain still and contemplate the source of the noise or assess whether it poses a genuine threat from an animal, their chances of survival decrease. In short, doubt was—and is—a threat to survival (Kahneman, 2013, p. 53-54); this idea is essential for the purposes of this paper, and I will return to it later.

The second reason relates to the energy efficiency with which our organism operates. It tries to use as little energy as possible—it optimises it—and, in this respect, fast processing systems—by their very nature—have a much greater advantage than slow processing systems. The latter require attention, strategy, planning, evaluation of alternatives, which results in a much higher energy cost. This greater waste of energy is avoided, except when complex and new scenarios arise for the individual<sup>14</sup>. Consequently, the effort is perceived as a cost (Kahneman, 2013, pp. 33 ff.; Evans, 2017, p. 104). Humans are cognitively stingy (Stanovich, 2011, p. 36) and lazy: we would rather not expend more energy and effort than is absolutely necessary (Kahneman, 2013, pp. 48, 53-54; Stanovich, 2011, p. 98). This tendency has cognitive limitations, one of which is that the less energy we expend, the less accurately we act (Stanovich, 2011, pp. 29 ff.). For this reason, it is argued that fast processing can only provide a first approximation—an optical illusion (Forza *et al.*, 2017, p. 129)—to an optimal response (Stanovich, 2011, pp. 29 ff.).

The purpose of this explanation is to show that this way of working—using the default system of fast processing—is genuinely human; it is predictable in all people, especially when they have specific knowledge of a particular subject or task (see above). Therefore, even if we are not accustomed to recognising it, this automatic activation of rapid processing also operates in judicial situations and decisions; there is no immunisation against this mode of operation. The instances mentioned above, such as judges' capability to detect falsehoods during depositions and their adeptness in performing intricate tasks swiftly, due to their accumulated expertise, serve as evidence for this claim (refer to section 3.1).

This is highly relevant to this paper as it not only confirms the presence of two systems of thought but also highlights that the one activated automatically is the fast system. This fast system is associated with involuntary and unconscious processes—

---

<sup>14</sup> This is so, because when skill is acquired to perform a task or activity, the demand for energy decreases: Kahneman (2013, p. 53).

essentially, intuition—. This challenges a singular explanation of the judicial function as a rational process guided by conscious, voluntary decision-making following deliberation. I will revisit this point later on.

Since the fast processing is the default procedure, I will now reflect on the compatibility of its other features with the architecture of the judicial function. In this regard, I must point out that while I will analyse the various characteristics of fast processing separately, they are closely interrelated and not easily separable. The division into different subsections is solely aimed at facilitating the presentation of the analysis I will undertake.

### 3.2.1. *Fast Processing Jumps Straight to Conclusions*

The first feature I would like to highlight is the immediate *jumping* to conclusions that defines this processing. While this mode of operation allows for immediate interaction with the environment, it also entails a series of consequences that need to be considered.

Firstly, the individual does not have access to the intellectual path that precedes the response proposed by fast processing. This is due to the characteristics of this type of processing already mentioned—unconsciousness and involuntariness—(Forza *et al.*, 2017, p. 134). Allow me to explain. In the earlier examples with the tennis player or the chess player, if you inquire about the rationale behind their decisions—specifically, why they chose to execute a particular move—they will struggle to provide a reasoned response beyond stating: «Because I intuited it or because I felt it»<sup>15</sup>. The same applies to the famous example of a firefighter ordering his colleagues to abandon their firefighting duties before the building collapsed—also described above—. In the latter case, the firefighter stated that it was his «sixth sense» that told him something was wrong, without being able to say much more (Evans, 2017, p. 103).

These examples illustrate one of the consequences of working with a processing that dispenses with conscious knowledge: the possibility of knowing the reasons why one has acted in a certain way, or why one believes or knows a certain aspect of reality, is stolen. In this way, it is possible to experience—consciously—that the individual is lying, but the set of data, the origin, on which this feeling is based is ignored. We are operating on another level: we are operating based on the certainty or confidence that underlies the decision taken, but we are not able to explain where this certainty or confidence that underlies the decision comes from (Evans, 2010, p. 54; Kahneman, 2013, p. 90; Kahneman and Frederick, 2002, pp. 49-81)<sup>16</sup>. This approach is referred to by the terms presentiments, hunches, inclinations, sixth sense

<sup>15</sup> An attitude that, moreover, puzzled artificial intelligence programmers seeking to identify the rules used by these players, in order to feed the algorithms, they were designing. Evans (2010, p. 54).

<sup>16</sup> In a similar sense, Hogarth (2002, pp. 21 ff.) when he alludes to operating with a covert perception.

or intuition (gut feelings) (Evans, 2017, pp. 102 ff.). It is therefore closely related to the rule of intuition—in the broad sense—, which determines decisions in the absence of conscious reflection (p. 102).

If we try to go deeper into the origin of this feeling—instead of resorting to magical explanations—we notice the predominant presence of a kind of knowledge, namely implicit—or tacit—knowledge. This is characterised by the fact that it is knowledge acquired through experience, without the need to be consciously aware of learning, hence its name, rather than explicit knowledge. In medical school, doctors learn how to treat and diagnose diseases by studying books and materials—explicit knowledge—to which they refer in their early years and in unusual cases. However, as they progress in their careers, doctors acquire knowledge because of their daily practice. This allows them to identify a particular disease from a common set of symptoms without having to refer to a medical manual or compendium—implicit knowledge—(Evans, 2017, pp. 103-104, 2010, pp. 53 ff.). The same is true of judges who, from the moment they take up their posts, gain experience day by day of how forensic practice is carried out; information that allows them to develop more quickly in the judicial field.

The aspect I want to highlight is how consistent practice within a specific domain, coupled with feedback from such experiences, forms a series of information patterns. These patterns, ingrained without conscious learning, implant a foundation in individuals that significantly influences instantaneous decisions. They construct a set of expectations, shaping our perception of the world, which subsequently impacts decision-making based on whether these expectations are met or not (Evans, 2017, pp. 103-104, 2010, pp. 53 ff.; Kahneman, 2013, pp. 33 ff.). It is this learning—implicit knowledge—that creates the basis of intuition: a *feeling* without conscious reasoning to support it (Evans, 2017, p. 104). Regarding this matter, certain scholars have pointed out the sensory aspect as the very factor that hinders interpersonal communication regarding how or why an intuition was arrived at. This is because intuitions are not formed by words or concepts, but by feelings evoked when a particular reality is perceived (Sadler-Smith, 2016, pp. 32 ff.). It is not surprising, therefore, that some sectors have baptised rapid processing as intuitive thinking, where impressions and feelings are generated (Evans, 2017, p. 100; Kahneman, 2013, p. 35).

On the other hand, it is important to remember that in situations where decisions must be made quickly, not all the available information is considered. Only the most significant data—the pattern-forming information—is considered<sup>17</sup>. Conclusions are drawn from a selection of a limited amount of relevant information (Gladwell, 2018, pp. 30 ff.); the whole scenario isn't thoroughly analysed. Conclusions are *jumped* to without considering the quantity and quality of information (Kahneman, 2013, pp. 41 and 117-118).

---

<sup>17</sup> It was noted in Nieva Fenoll (2007).

This is where heuristics come in: shortcuts in thinking to find appropriate and quick answers to complex problems (Kahneman, 2013, pp. 41, 117-118, 132 ff.; Guthrie *et al.*, 2007). The heuristics I am interested in highlighting here are those specific to fast processing. The main ones, without claiming to be exhaustive<sup>18</sup>, are: *i*) that of *representativeness*, in which the person decides based on what happened in a similar case and implements what worked at another time (Kahneman and Tversky, 1982, pp. 32 ff.); *ii*) that of *accessibility*, in which the probability of an event materialising is assessed because of the ease with which similar events can be recalled (pp. 163 ff.); and *iii*) that of *anchoring and adjustment*, which means that, on coming into contact with a reality, a position is adopted about what is happening, and the new information is subsequently adjusted to fit that idea (Fariña *et al.*, 2002, pp. 39-46). While it is true that these heuristics make it possible to arrive at quick answers, they can sometimes lead to false conclusions. Moreover, it should be noted that their use paves the way for operating using prejudices and stereotypes (Thornburg, 2019, p. 1624).

Certainly, the significance of this characteristic—the direct jump to conclusions—is relevant to the judicial function. First and foremost, it clarifies the role of intuition in this sphere. Despite the widespread belief in judicial exceptionalism (Edmond and Kristy, 2019, p. 644)<sup>19</sup>—an attitude that claims immunity from intuition, bias, and prejudice—empirical studies contradict this notion: judges do use intuition within their duties (Guthrie *et al.*, 2007). Given its automatic nature, we cannot prevent it from occurring. This underlines the importance of recognising the automaticity of this system, as mentioned in the previous subsection. Therefore, in an act of intellectual integrity, we should acknowledge rather than deny the presence and influence of intuition in judicial activity—although acknowledgement does not in itself justify its use, as I will explain shortly. Let's now consider the implications of this for the judicial function.

### 3.2.1.1. Impact on Evidentiary Activity

What I have just pointed out is critical and has a particular impact on evidentiary activity if one starts from a rational conceptualisation of evidence (Ferrer Beltrán, 2007). On the one hand, the pre-eminence of intuition is the gateway for extra-legal factors to influence judgement. By acting quickly and without voluntary or conscious control, implicit stereotypes, and biases—those acquired without being fully aware of them—exert their effects even on people who are highly aware of their presence (Sunstein and Jolls, 2006, pp. 975 ff.). Thus, it is argued that extremes such as gender, ethnicity or physical appearance of the parties come to play a relevant role in decision-making; a role that is much more prominent in fast than in slow processing

<sup>18</sup> They have been studied extensively in Kahneman *et al.* (1982).

<sup>19</sup> This aspect has also been underlined by Posner (2011, p. 87).

(Guthrie *et al.*, 2007, p. 130; Thornburg, 2019, pp. 1624 ff.). Discrimination is at play.

To this end, on the one hand, differences have been noted in the judicial treatment of the parties due to gender in the determination of labour compensation (higher for men than for women) and in the sentences imposed (shorter for women than for men with the same charge and criminal record). And, on the other hand, racially motivated, in the determination of bail and in the severity of sentences, where black individuals are treated pejoratively<sup>20</sup>.

Moreover, as these stereotypes and prejudices are based on an individual's background and experience, they vary from person to person. This leads to the possibility of similar situations being resolved in different ways (Thornburg, 2019, pp. 1608 ff.), which implies a breach of legal certainty. In this context, Thornburg reports on some studies which conclude that the fact that judges belong to traditionally disadvantaged groups has an impact on the decisions they take. For example, it was found that court outcomes were statistically different depending on the ethnicity or gender of the decision-maker: in employment and sex discrimination cases, there was a greater likelihood of a decision in favour of the claimant if the decision was made by a female judge than by a male judge. Similarly, in employment discrimination cases, black judges were more likely to uphold claims than white judges (Thornburg, 2019, pp. 1629-1630) In a similar vein: Posner (2011, pp. 90 ff.).

It is important to bear in mind that intuition carries considerable emotional weight, which may trigger emotionally charged memories in judges, thereby influencing their sentencing. These memories may be associated with individuals or groups who have particular, often derogatory, connotations, as well as being linked to particular events (Sadler-Smith, 2016, p. 152). In this regard, some judges have openly admitted to a particular pattern of behaviour: when presiding over cases that recalled crimes that they themselves had been victims of (such as an assault during their student years), the distressing memory of these incidents significantly influenced their judicial decisions. As a result, when convictions were issued, their verdicts tended to be notably harsher, occasionally bordering on excessiveness (Forza *et al.*, 2017, p. 73). This aspect is also dealt with by Posner (2011, pp. 90 ff.).

On the other hand, the prevalence of intuition deprives evidence of its epistemological function. It diminishes its role as a source of knowledge about the actual occurrence of events. The judge's feelings replace the information provided by the evidence. This is due to an inversion of the evidentiary process<sup>21</sup>: the decision, instead of being the consequence of the assessment of the evidence admitted and presented, becomes its precursor. As the judge engages with the case, he or she automatically

<sup>20</sup> These studies are reported in Lopes (2021).

<sup>21</sup> Ferrer Beltrán (2007, pp. 41 ff.) highlights three relevant moments in jurisdictional decision-making: the formation of the set of elements of judgement, the assessment, and the adoption of the decision.

forms an idea of how the events unfolded, which will be reflected in the judgement. Posner (2011, pp. 125-126) is therefore right when he says that the more experience a judge has, the more his decision will be based on this intuition rather than on the results of the evidence presented.

From this perspective, evidence serves primarily to provide *ex post* support for intuition. This is supported by research in cognitive psychology: when slow processing is not activated, people try to rationalise intuition (Kahneman, 2013, p. 66; Evans, 2017, pp. 101 and 107; Evans and Frankish, 2009, p. 7), *i. e.* they look for reasons to support the validity of intuition. This is linked to the implementation of one of the most common biases: the confirmation bias, which operates as part of the fast-processing system. It results in finding and interpreting information in a way that supports intuitive (pre-existing) hypotheses, and discarding information that supports alternative hypotheses (Nickerson, 1998, pp. 175-220).

This approach offers an explanation for the reprehensible forensic practice according to which the judicial decision is not the result of the evaluation of the evidence, but of its antecedent (Spanish Supreme Court decision 647/2014, 9 October)<sup>22</sup>; a practice also denounced by the doctrine (Calamandrei, 1953, p. 162)<sup>23</sup>.

### 3.2.1.2. Impact on the Right of Defence

This effectively undermines at least one fundamental aspect of the judicial function<sup>24</sup>: the right of defence. There is no point in having the right *i)* to make allegations, *ii)* to present evidence and *iii)* to refute allegations if these rights cannot be effectively exercised. In this *modus operandi*, the rights of defence and the evaluation of evidence, which involves a critical assessment of the evidence (Nieva Fenoll, 2010, p. 32), do not exist. As a result, it is impossible to prove what actually happened because the decision has no empirical basis. This renders the decision unjust and turns the trial into a mere pantomime<sup>25</sup>.

On the other hand, this practice also has an impact on the statement of reasons, which, as I said, is also an aspect of the right of defence. The judges need to understand the reasoning behind its beliefs. In other words, the judge's decision cannot be a product of emotion, but must be based on reason (Nieva Fenoll, 2010, p. 110, citing Jakob). This must be the case because it is this knowledge that allows him to explain the reason for the judgement. However, I have already pointed out that, because of the application of fast processing, the person is unaware of the rational

<sup>22</sup> Similarly: Spanish Supreme Court decision 687/2015, 4 November; 104/2010, 3 February and 2505/2001, 26 December.

<sup>23</sup> Other authors have expressed the same view, pointing out that the conclusions are first assumed and then the scaffolding is articulated to clothe them in rationality. See Posner (2011, p.129).

<sup>24</sup> Taking as a reference Nieva Fenoll (2022b, pp. 89 ff.).

<sup>25</sup> Nieva Fenoll (2010, pp. 149 and 207-208) stresses that resorting to intuition entails the injustice of the decision reached.



path they have undertaken to reach the conclusion. The direct *jump* to conclusions prevents him from doing so, which creates obvious problems for the motivation of judgements.

This could be one of the explanations—or at least it is compatible with it—for the fact that in certain criminal judgments there is no joint assessment of the evidence, which should precede the resolution of the controversy<sup>26</sup>; this is a violation of the right of defence (Ferrer Beltrán, 2007, p. 57). By using evidence as an adjunct to intuition, it is logical that the court, even unconsciously, considers only that which is useful to it and disregards that which differs from its sensations—confirmation bias—. In other words, when this happens, it is very likely that the prosecution is using the fast-track system; it may be a symptom of it.

In the same way, this characteristic of speedy prosecution can play a relevant role in those decisions where there is no externalisation of the evidential reasoning that supports the establishment of the facts in the judgement; a situation that can be observed in both civil<sup>27</sup> and criminal jurisdiction<sup>28</sup>. This motivational orphanage may be another manifestation of the implementation of an intuitive decision. This situation deserves special attention in the evaluation of witness testimony. According to the above, forensic practice—experience—can lead to the creation of implicit credibility or plausibility patterns. These patterns create an illusion, for instance, of being able to identify liars based on the sensations felt during testimony, rather than relying on empirical support of it.

This phenomenon affects the motivation behind assessing this type of evidence. The assessment either gets skipped or tries to be completed by relying on general or vague claims. These claims focus on factors including but not limited to the order, precision, coherence, and absence of ambiguity within the statement<sup>29</sup>. However, no reasons are given for such considerations, which, of course, do not satisfy the most essential requirements of a statement of reasons. Thus, for example, in judgement no. 237/2022 of 15 June of the Criminal Court no. 10 of Barcelona, the evaluation of the testimony is summarised as follows: «[El testigo] me ha parecido sincero, coherente, constante, sin que se aprecie ánimo espurio alguno ([the witness] seemed to me to be sincere, coherent, constant, without any apparent false intention)». This practice could therefore occur because these evaluations are based solely on intuitions—expressed explicitly by emphatic statements such as «it seemed to me»—. Such intuitions are difficult

<sup>26</sup> *Ad exemplum*: Spanish Supreme Court decision 123/2004, 6 February; 441/2008, 10 July; 665/2015, 29 October and 1036/2013, 26 December.

<sup>27</sup> *Ad exemplum*: A Coruña Provincial Court decision 516/2011, 5 December and Spanish Supreme Court decision 165/2005, 14 March.

<sup>28</sup> *Ad exemplum*: Spanish Supreme Court decision 93/2018, 23 February; 390/2013, 31 October and Madrid Provincial Court decision 334/2010, 25 October.

<sup>29</sup> *Ad exemplum*: Spanish Supreme Court decision 915/2016, 2 December; Zaragoza Provincial Court decision 310/2021, 26 July (criminal jurisdiction) and Valencia Provincial Court decision 246/2003, 22 April (civil jurisdiction).

to put into words, which creates a challenge—perhaps even unconsciously—to justify this delicate assessment. This dilemma is another sign of quick decision-making.

### 3.2.2. *Contextualisation*

The feature I am going to discuss in the following lines is closely related to what I have just explained. In fact, it could have been dealt with in the previous subsection, but I thought it is appropriate to put it in a subsection to emphasise its importance. This is the strong dependence of fast processing on context: the various elements that make up the environment in which information processing takes place have an—again, implicit—but very relevant influence on that processing and, therefore, on the thoughts and actions that are developed (Kahneman, 2013, p. 294; Hogarth, 2002, p. 60).

Kahneman (2013) provides a comprehensive range of examples highlighting situational factors impacting information processing and decision-making. These factors encompass various elements, including but not limited to: *i*) how information is presented—its readability, the medium used, the simplicity of language, and the use of memorable data (pp. 88 ff.); *ii*) the level of detail presented in a story (p. 212); *iii*) the appeal of a person's voice or appearance (known as the «halo effect») (pp. 112 ff. and 261-262); *iv*) the individual's mood or emotional state (p. 96). An instance illustrating the latter point is that courts in a particular area tend to make more severe decisions after an American football team loses a game compared to when they win (Eren and Mocan, 2018, pp. 171-205; Chen and Loecher, 2019).

Other studies have also pointed to the importance of factors such as how rested the decision maker was before making the decision, and whether the decision maker had eaten (Danziger *et al.*, 2011, pp. 6889-6892). The particular relevance for the purposes of this paper lies in the fact that these situational elements play a much more prominent role in fast processing than in slow processing. This means that decisions taken under fast processing are much more volatile: as the context changes, the likelihood that the meaning of the decision taken will change increases, posing a threat to legal certainty.

A clear example of the impact of these environmental factors on judicial decision-making is the well-known study that correlated the granting of parole to prisoners with the judges' meal breaks: the parole grant rate was higher after meals than before. The conclusions drawn from this study underscored the influence of extra-legal factors on judicial decisions, such as fatigue and hunger, leading to different outcomes in similar circumstances.

However, an area that has received less attention is that of the specific situation under investigation. Yet, it is important not to overlook the importance of taking this information into account to accurately interpret the findings presented in this research. The research's factual premise was that eight judges had to review, daily,

between fourteen and thirty five cases involving parole requests. These cases were reviewed successively, with an average *deliberation* time of six minutes per case (Danziger *et al.*, 2011, pp. 6889-6892).

Given this context, several questions arise. Firstly, can the conclusions drawn from this study be applied to forensic practice, particularly in Spain? Secondly, is it feasible to conduct deliberations within a six-minute timeframe? The latter question will be addressed in the following subsection. However, the crucial point to underscore here is that these findings reveal that in swift decision-making scenarios, situational—unconscious—factors like fatigue or hunger amplify their influence on decisions. They assume a much more significant role compared to when decisions result from slower processing. Hence, this research doesn't primarily showcase the impact of extra-legal factors on judicial decision-making overall, but rather underscores their importance in fast decision-making. This pattern is observed in various fields, such as the assessments conducted by radiologists while interpreting X-rays. When faced with succinct, intricate, and expert judgments, variations arise when they're asked to perform the same analysis twice (Kahneman, 2013, pp. 294-295)<sup>30</sup>.

In sum, these conclusions are clearly relevant to the judicial function, since they show that the use of fast processing increases the dominance of contextual factors—necessarily extra-legal—in the adoption of decisions, in this case, judicial decisions.

### 3.2.3. *The Absence of Doubt*

In this concluding section, I aim to discuss another aspect stemming from the previously outlined features, its consequent counterpart: fast processing favours a unique choice. This statement implies that in this form of processing, there is no space for—conscious—doubt to emerge within the decision-making process. That is, during this information processing, no alternatives are generated concerning the interpretation of what is perceived (Rumiati and Bona, 2019, p. 21; Kahneman, 2013, p. 55), creating a situation where any uncertainty becomes implausible. In essence, options that have been excluded are not considered (Thornburg, 2019, p. 1610). Evolution has significantly shaped this mode of operation: permitting doubt has significantly reduced survival probabilities (refer to section 3.1.1). This is precisely why Kahneman (2013, pp. 110-112) asserts that uncertainty and doubt are the domain of System 2 (slow processing). Indeed, the absence of doubt stands as one of the reasons allowing us to swiftly draw conclusions.

The intensity of this characteristic has disastrous consequences for the architecture of the judicial function. Firstly, doubt—understood as the indecisiveness of judgment between two or more hypotheses (Nieva Fenoll, 2013, p. 19)—is an essential element for the latter: if the doubt disappears, the prosecution must be terminated

---

<sup>30</sup> On the variability of decisions, see Kahneman *et al.* (2021).

or not initiated. Nieva Fenoll (pp. 14-15) therefore suggests the possibility that this is the real object of the process, at least as far as criminal proceedings are concerned.

Indeed, when individuals with specialised knowledge swiftly draw conclusions upon encountering a situation, thus impeding the consideration of alternative hypotheses, it becomes apparent that such a system contradicts the practice of the judicial function. Sustaining doubt until the judgement is delivered becomes illusory.

While it is true that highlighting this aspect is sufficient to demonstrate the contrast between this information processing system and the judicial function, I will delve deeper into the judicial significance of doubt, extending beyond the scope of criminal law. It is important to note that the relevance of uncertainty also influences the process of arriving at a resolution, specifically how the adjudicating body must decide how the doubt should be resolved. Consequently, this uncertainty does not merely serve as a fundamental requirement for the judicial function; it assumes the role of an epistemic and legitimising assurance. It is notable that, despite treating these two assurances separately, they are intricately linked and not easily separable. However, for the sake of a more comprehensive analysis, I will examine them separately.

I will begin with an analysis of doubt as an epistemic guarantee. Its most notorious example is the presumption of innocence. This principle serves as a cognitive mechanism designed to counteract the societal inclination towards assuming guilt, particularly concerning a judge's perception when an individual becomes the target of an accusation. The apprehension triggered by the gravity of suspicion fosters a communal distrust towards the accused, serving as a survival mechanism for the community (Nieva Fenoll, 2013, pp. 89 ff., 2016). The presumption of innocence serves as a prime illustration of the concept elucidated thus far: the presumption of guilt results from swift processing, seeking to be counterbalanced by instigating doubt (a process inherent in the slow processing system) within the observer. A comparative analysis between how the presumption of innocence operates and the analogy of the price of the racket and ball (referenced in section 3.1) is highly instructive; I will revisit this comparison later. This presumption ensures the most impartial adjudication possible (Nieva Fenoll, 2013, p. 89), consequently enhancing the accuracy of the decision-making process. In essence, the decision, as an act of cognition (Taruffo, 2008, p. 20), aligns more closely with the actual occurrence of events.

However, doubt as an epistemic safeguard is not confined solely to the realm of the presumption of innocence; it extends across all realms of evidential proceedings, not limited to criminal contexts. Absent doubt, it becomes exceedingly challenging for evidence to serve its intended purpose, which fundamentally involves eliminating all aspects of intuition and personal knowledge possessed by the prosecuting authority regarding how events transpired (Nieva Fenoll, 2010, pp. 206-207). When doubt is absent, simply using evidence does not ensure that the interpretation derived from it truly originates from the evidentiary material. Merely employing these methods does not inherently eliminate the influence of intuition, as discussed earlier.

It also hinders the implementation of the right to contradict the evidence. In the absence of uncertainty, it becomes very difficult to ensure the conditions for a substantive confrontation of alternative hypotheses by the parties involved. This confrontation serves as an epistemic mechanism to validate or refute the hypotheses presented by the parties (Fernández López, 2022, p. 228). The process becomes a dialogue in which there is no listening, no attention, no interest, which is precisely what is to be avoided (Nieva Fenoll, 2022b, p. 137). Consequently, this right can only be substantial and effective if the prosecuting authority has not made an early decision in favour of one of the hypotheses put forward. Otherwise, the evidentiary activity becomes a mere staging, devoid of any cognitive function, which demonstrates the distortion of the right of defence to which I referred to above.

Finally, the lack of commitment to one of the hypotheses is a necessary condition for a rational assessment of the evidence, in its two main aspects. On the one hand, in the admission of evidence, as it reduces the likelihood of excluding relevant evidence: the prior assumption of a reconstruction of the facts can lead to certain means of evidence that are relevant not being admitted<sup>31</sup>. On the other hand, it is essential that the decision be the result of consideration of all the evidence admitted and received<sup>32</sup>, *i. e.* that there is deliberation. This is because, as Nieva Fenoll (2010) rightly points out, the evaluation of evidence is a perceptive activity, which means that it is interpreted (results are extracted) and evaluated in a single act. One interprets (gives meaning) and evaluates (makes a judgement) in an inseparable way, and this can lead to a preference—sometimes unconscious—for one account over the other, which makes a joint evaluation of the evidence difficult (p. 34) (see above). Therefore, *dubium* has a neutralising effect on these intuitive preferences that will automatically emerge. Otherwise, the task of assessing the evidence, which consists in the judge's having to consider as many alternatives as the evidential material allows, becomes illusory (p. 203).

In the end, regarding the guarantee of legitimacy, doubt plays a key role in ensuring judicial impartiality. The definition of impartiality does not present any difficulties in its common substrate. It means that judges should act as objectively as possible and they should be an outsider to neutralise their inclinations, which cannot form part of the body of evidence (Andrés Ibáñez, 2009, pp. 41 ff.)<sup>33</sup>. This creates public confidence in the system (legitimises it) (Jiménez Asensio, 2009, p. 27) and fulfils a cognitive function (Andrés Ibáñez, 2009, p. 50) to prevent extrajudicial aspects from penetrating the administration of justice. However, despite the clarity of the concept, its practical implementation is much more complex since it is difficult to eliminate

<sup>31</sup> As pointed out in Nieva Fenoll (2013, p. 30).

<sup>32</sup> Ferrer Beltrán (2007, p. 57) argues that if any evidence is omitted, the right to evidence is being violated. In a similar sense, Taruffo (2008, p. 29), stating that the facts up to the decision have an epistemic status typical of uncertainty.

<sup>33</sup> In a similar sense, *Thomann v. Switzerland* (ECtHR, 10 June 1996) and *Pescador Valero v. Spain* (ECtHR, 17 June 2003) and Spanish Constitutional Court decision 149/2013.

all subjectivity in the human being—it would even be counterproductive since the subject would lack the elements to judge—(Picó i Junoy, 1998, pp. 23 ff.). It is for this reason that doubt plays a significant role in the maintenance of impartiality, since it makes it possible (at least it is one of the ways) for the whole content of impartiality to be materialised: by welcoming and cultivating *dubium*, it becomes more plausible to act with indifference (Beccaria, 2015, p. 44) or to resist the seductions of a particular feeling (Calamandrei, 1966, p. 201). In any case, what is clear is that judicial impartiality becomes increasingly unattainable without the presence of doubt.

With this reflection, I wanted to highlight not just the significance of doubt in relation to the judicial process, but also the critical necessity of its continuation until the delivery of the judgment. Failing to maintain doubt carries the potential of causing disruptions in knowledge and, consequently, diminishing the legitimacy of the decision made. The swift trial system's incapacity to embrace doubt ultimately results in its incompatibility with the judicial process.

As a result of this analysis, there are several reasons why instantaneity should be avoided in the judicial function. These include: *i*) the direct drawing of conclusions by recourse to intuition, prejudice, and bias; *ii*) a greater role for contextual and unconscious, and therefore extra-legal, elements in decision-making; and *iii*) the impossibility of the emergence of doubt in all this processing. These reasons impede the existence of at least two of the three pillars on which this function rests<sup>34</sup>: the right to judicial independence—in its aspect of judicial impartiality—and the right to defence, which includes the right to evidence, contradiction, and motivation.

It is clear, then, that the necessity to avoid quick decisions is not solely a result of the belief that humans cannot reach such decisions, as asserted by certain doctrines. Instead, it arises from the significant implications this approach carries for maintaining the foundational principles and assurances that underpin the judicial function. The way a judicial decision is made is a pivotal concern: a decision reached by a biased judge, influenced by intuition, and lacking an effective right of defence, will not be acknowledged as socially legitimate. The evolution of the judicial process, coupled with expeditious prosecution, reduces the former to a mere theatrical display, a superficial act intended solely to project formal compliance with certain community-demanded requisites. Consequently, the avoidance of immediate judgment is a specific issue pertaining to the legitimacy of the decision, the societal acceptance of that decision as a dispute resolution within a community. In this context, it is crucial to acknowledge that the proper operation of the judicial function hinges on the trust and acknowledgment of the community.

<sup>34</sup> Taking as a reference Nieva Fenoll (2022b, pp. 89 ff.).

### 3.3. How to *Trigger* Deliberation

In this context, it is important to examine what actions judiciary members should take to counteract intuitive and unconscious thinking that emerges when encountering a familiar situation; to explore how to activate slow processing—considering the aforementioned points, it emerges as the most suitable system for enhancing the judicial function. The next subsection will focus on addressing this issue.

A first approach to these questions reveals a significant stumbling block: the possibility of teaching reflective thinking directly and generically is a controversial issue in psychology (Perkins and Ritchhart, 2010, p. 325). Dewey (1989, p. 21) noted that no one can tell another person how to think. While it is true that one can describe the different ways of articulating a thought and explain why some are better than others, it is very difficult to tell someone how to do it. For example, we can read and learn a lot about how to stop smoking or the importance of exercise in maintaining good health, but such readings do not guarantee that this knowledge will be put into practice. Putting one's knowledge into practice requires at least one critical ingredient, namely a personal willingness to use it; it is no use being a repository of knowledge if you are not *motivated* to use it (Kang *et al.*, 2011, pp. 1174 ff.; Evans, 2017, p. 107).

So, it is no use being aware that one is operating under intuitions, prejudices, and stereotypes if there is no inner will to be as impartial as possible (Kang *et al.*, 2011, pp. 1174 ff.; Kang, 2021, p. 81). Without it, intuition-based thinking cannot be neutralised (Monteith *et al.*, 2009, pp. 211-226). To this end, it has been found that people who try not to engage in bias and stereotyping tend to behave less biased than those who do not (Dasgupta and Asgari, 2004, pp. 642-658). The above example of the price of a bat and ball (discussed in Section 3.1) illustrates the importance of this aspect: the intuitive response will only be critically analysed—it will be doubted—if the subject voluntarily and consciously engages in such operation, *i. e.* is motivated to do so.

Therefore, having outlined the drawbacks of using fast thinking in applying the law to a specific case in earlier sections, I will now explore methods aimed at achieving the same goal. While direct teaching of reflective thinking may not be feasible, it does not deny the potential to establish an environment conducive to its cultivation.

Firstly, it is important to note that motivation, the commitment to engage in an activity, is closely linked to the cognitive-cultural sphere: it is based on the promotion and social recognition of values and attitudes that encourage, in this case, reflective thinking. It is therefore proposed that schools (including legal schools) should promote attitudes such as *i) open-mindedness*, which means the absence of prejudice, openness to new ideas and overcoming mental laziness towards new approaches of problem-solving; *ii) enthusiasm*, which serves as an intellectual force that really attracts one to study and reflect on a particular subject; or *iii) intellectual*



*curiosity*, which involves nurturing questions about the environment and being open to understanding everything that surrounds us (Dewey, 1989, pp. 42 ff.)<sup>35</sup>. All these attitudes can be cultivated through specific thinking routines, such as consistently questioning the reasoning behind students' thoughts and asking them to articulate the underlying rationale behind their ideas (Perkins and Ritchhart, 2010, p. 320).

It is also important to create a social environment in which the importance of calm and considered thinking is recognised, for such motivation to be born. At present, however, this environment is illusory. Many of the existing social beliefs about thinking are in the opposite direction: *i*) changing one's mind is associated with weakness, *ii*) a *good thinker* is defined by qualities such as determination and decisiveness, or *iii*) making quick decisions is considered a sign of wisdom (Baron, 2008, p. 213; Garnham and Oakhill, 1996, p. 297). All these beliefs are deeply rooted in society. They significantly influence the judicial function, particularly in how members of the judiciary place considerable trust in their decisions (Guthrie *et al.*, 2000, pp. 777-830). Reconsideration then becomes exceedingly challenging. Additionally, this perspective is bolstered by the notion that humans are objective decision-makers, relying on logical and rational analysis. This belief leads judges to assume they don't inject biases or stereotypes into their jurisdictional tasks<sup>36</sup>, and they often hesitate to acknowledge the influence of emotions in their decisions (Wistrich and Rachlinski (2017, p. 96)<sup>37</sup>.

It is therefore necessary to change the way we think about people when they make decisions, to adopt a more flexible and open view of alternatives. In particular, it has been shown that people who *perceive themselves* as rational and objective agents are more likely to act in a biased way: by *perceiving themselves* as such, they assume that their beliefs and thoughts are also rational and objective, and are therefore less willing to consider alternative approaches (Uhlmann and Cohen, 2007, pp. 207-223; especially p. 219), *i. e.* to doubt. The presumed objectivity leads to less attention being paid to the decision-making process. Hence, the paradox highlighted by Kang (2021): the more we recognise that our decisions may be the result of biases, intuitions, and stereotypes, the further we are from reproducing them. In conclusion, it is crucial to paint an accurate picture of human decision-making that is consistent with current scientific understanding. This means recognising that intuitive, biased

<sup>35</sup> Others have referred to these particulars as *cognitive emotions* (Scheffler), alluding to surprise, curiosity and love of truth: see Perkins and Ritchhart (2010, p. 293), Kahneman *et al.* (2021, pp. 251 ff.).

<sup>36</sup> In the United States of America, empirical studies have been conducted in which the majority of judges interviewed considered themselves to be highly capable of rendering decisions without incurring racial bias. See Bennett (2016, p. 397); Guthrie *et al.* (2009, pp. 1477-1530); Rachlinski (2009, pp. 1195 ff.).

<sup>37</sup> However, such results cannot be interpreted as a sign of hubris but are precisely the product of the commitment they have to the jurisdictional function. Acknowledging otherwise would generate institutional distrust and a social crisis. Nevertheless, it is worth noting that pretending to hide the defects of how we all human beings function will not eliminate them. See Donald *et al.* (2020, p. 78, p. 4, citing Frank).

and unconscious responses, which arise from our fast-processing system, are inherent human traits that we cannot escape. Attempting to eliminate these responses would not only be impossible, but also counterproductive<sup>38</sup>, as explained in section 3.2 above. Moreover, on many occasions this will be the spontaneous response.

Thus, these cognitive changes would facilitate the arousal of the motivation necessary to implement slow processing. With this approach, in turn, I have sought to highlight the importance of a relevant factor for the use of slow processing, namely that its *activation* is indispensable. This is a paradigm shift for the mental framework of the judicial function: deliberation is not an intellectual activity that operates by default. The automaticity of fast processing forces the decision-maker to be proactive and to *generate* doubt about the first (intuitive) response of the organism. The organic-evolutionary mechanisms that guarantee survival must be neutralised. It is therefore necessary to be willing to engage in such behaviour, as it requires a greater cognitive effort and therefore a greater expenditure of energy. In any case, it should be noted that the use of slow information processing must be moderate since it leads to decision paralysis when pushed to the limit (Baron, 2008, p. 201).

To this end, some strategies have been proposed to *artificially* create a scenario of hesitation, which is eliminated by fast processing, but which is necessary for the judicial function. These strategies aim to create tension in the proposals put forward by the above-mentioned prosecution and, consequently, to *provoke* doubt (the prelude to deliberation). In the following, I will outline the strategies most frequently mentioned in the literature.

The first strategy is *consider-the-opposite*: it is about the individual *self-generated* alternative answers that strain the explanation that is considered most plausible. For example, suppose a judge believes that a robbery was committed by a foreigner. To use this strategy effectively, the judge would have to consider whether the same verdict would have been reached if the defendant had been a woman or a citizen of the country in question. The same procedure can be applied to the evaluation of testimony; judgments about authorship and the veracity of testimony are two of the phenomena in which the intuitive—often disguised—plays a pre-eminent role. Generating alternative scenarios not only prompts deeper deliberation by compelling us to explore explanations that might otherwise have been overlooked, but it also sheds light on the foundational information driving the judicial decision-making process (Wistrich and Rachlinski, 2017, pp. 112-113; Donald *et al.*, 2020, p. 80). A derivation of this technique is to (force us to) consider information that goes against our own pre-existing beliefs (Kahneman *et al.*, 2021).

Another strategy is *perspective taking*. In this case, it is suggested that judges adopt other points of view to reduce egocentric tendencies. Specifically, it is recommended

---

<sup>38</sup> I must insist that intuitive thinking is not negative *per se*; on the contrary, it is part of human functioning. The risks arise when it is used in situations for which it is inappropriate. See Guthrie *et al.* (2007, p. 105).

that they put themselves in the shoes of (all) the parties. The aim of this strategy is to facilitate the recognition of situations that are alien to the judging body and therefore difficult to imagine (Wistrich and Rachlinski, 2017, pp. 113-114). An illuminating study supporting this strategy is research which found that non-injured individuals showed increased sensitivity to the realities faced by wheelchair users after participating in wheelchair simulations. This study provides a compelling example of the effectiveness of this approach (Clare and Jeffery, 1972, pp. 105 ff.). However, there is an important risk with this strategy, which is that if the judge has to put themselves in the role of the parties, they will use stereotypes to carry out such a simulation. Therefore, this strategy would not really eliminate these elements of judicial activity (Wistrich and Rachlinski, 2017, pp. 113-114).

Thirdly, advocating for the writing of judgments is suggested as a method to encourage the deliberate processing of information. Some argue that crafting a judicial decision shouldn't be seen merely as a formality to validate an instinctive judgement. Instead, it should be viewed as a task that facilitates a critical analysis of the conclusions drawn. This process helps identify conclusions stemming from intuition, which cannot be adequately justified when writing the judicial decision (Donald *et. al.*, 2020, p. 79; Perkins and Ritchhart, 2010, p. 320)<sup>39</sup>. In such cases, the conclusion should be rejected, instead of abdicating its motivation.

Finally, there are broader strategies suggested as well. One such strategy involves developing tools designed to systematically analyse a judge's decisions. The goal is to detect any discernible patterns that might indicate the presence of biases and stereotypes—akin to conducting an audit. Artificial intelligence could play a significant role in this endeavour. This information serves several purposes: *i*) it enlightens judges about the extent and areas of their biases, *ii*) facilitates the formulation of appropriate measures to mitigate these biases and stereotypes, and *iii*) encourages decision-makers to exercise caution in their judgments<sup>40</sup>. It is important to clarify that these tools are not intended to penalise judges for their inherent stereotypes or prejudices, as we all possess them. Instead, the aim is for judges to personally confront and comprehend their biases and stereotypes (Wistrich and Rachlinski, 2017, pp. 106 ff.).

On the other hand, there are proposals of a structural nature, such as the need to avoid a high workload and stress for judges. In these cases, it is noted that this high workload creates time pressure, which gives judges an incentive to process information quickly. As a result, such decisions are based on stereotypes and intuition, and therefore have greater variability (Burns, 2016, pp. 10-11, with citation to a study by Agnew-Brune; Kahneman *et al.*, 2021, pp. 104-105). The demand for quality time is one of the most frequently requested factors to ensure a decision that is not based

<sup>39</sup> A more tempered view is found in Oldfather (2008, pp. 1284-1320).

<sup>40</sup> This paper also proposes different ways of implementing this tool. See Wistrich and Rachlinski (2017, pp. 108 ff); Donald *et al.* (2020, p. 80).

on the rapid processing of information (Donald *et al.*, 2020, p. 79; Kang, 2021, pp. 84 ff.).

All the strategies and cognitive processes mentioned above, along with the explanations provided in sections 3.1 and 3.2, ought to form an integral component of fundamental training programmes. Moreover, there should be a concerted effort to amplify and strengthen their teaching and application within judicial schools. This training would ensure that judges are not only experts in the law, but also experts in these matters, which are so important for the development of their constitutionally mandated function.

In any case, beyond the specificities of each of the strategies mentioned and their imperfection in solving this question individually, what is relevant is their joint analysis. They are all based on the recognition that once a subject has arrived at an explanation of how certain events occurred, it is difficult to modify it (Baron, 2008, pp. 197 ff.). To prevent the harmful entrenchment of this process within the justice system, it is crucial to disrupt this inertia. This involves welcoming additional alternative explanations that contribute to the decision-making process. *Creating* doubt about established beliefs is essential. The strategies mentioned earlier aim to undertake this activity, each approaching it from its unique perspective. And this is where the temporal element—the backbone of this work—reappears: the interruption of intuitive thinking and its critical analysis require time, since it is necessary to adopt artificial, voluntary and conscious strategies, *i. e.* those that make it possible to satisfy the requirements imposed by the principles and procedural guarantees.

This not only shows how slow information processing can be activated, but also fulfils the basis of the judicial process: the time interval mentioned in the judicial process is also necessary to neutralise the intuitive thinking that results from fast processing.

#### 4. A TELOS AND A DEFINITION FOR THE JUDICIAL PROCESS

The contributions of psychology outlined in the previous section do not exclusively provide a rationale for the existence of the judicial process, but they do provide significant information for meditating on the purpose and conceptualisation of this institution.

Firstly, as far as the purpose of the trial is concerned, I believe that it must serve the above-mentioned cultural strategy of *activating* slow processing; it must have a cognitive-communicative component that urges judges to commit themselves to *creating* a scenario of uncertainty regarding those ideas, beliefs, convictions that surface when they relate to an alleged fact. It is the same personal disposition that demands the presumption of innocence. For this reason, I believe that the assimilation of the judicial process to the rite (Forza, 1997, p. 14) is not misguided in this sense. Rite—not theatricality—is a symbolic action that transmits and communicates; it is

narrative (Han, 2020). And consequently, from this perspective, the judicial process must be a reminder of how human beings operate, of our cognitive limitations, and of the personal involvement required for the successful performance of the judicial function (section 3).

Based on this approach, I conceptualise the judicial process as the *time span that constitutes the habitat of the judicial decision*. In this respect, it is in this interval that judges must engage in the confrontation of their intuitive ideas, stereotypes, and prejudices (fast processing) to create an alternative (slow processing) as an inescapable substrate for the delivery of the judgment. This singular approach is the key to ensuring that the fundamental tenets of the judicial function, especially the rights to judicial independence and defence, carry tangible weight rather than being limited to mere formalities.

This transfiguration of the judicial process in its essential elements (concept, basis, and purpose) has several practical implications, which I will now outline. The first of these has to do with the appropriateness of confirming judgments pronounced immediately at the end of the trial (*in voce*)<sup>41</sup>. This possibility—legally recognised—is similar (if not identical) to an immediate decision, and thus increases the likelihood that the prosecuting authority will use an expedited procedure to resolve the dispute. Consequently, it is very difficult for any doubt to *arise* while waiting for the trial to take place. In this way, the delivery of a judgment *in voce* makes it more subject to intuitive thinking. The same argument can be made in relation to criminal proceedings, regarding the resolution of preliminary questions (Article 786.2 of the Spanish Criminal Procedure Act) at the same time as they are presented. A hasty decision at the beginning of the oral hearing can make it hostage to the rapid processing of information.

On the other hand, this reconceptualisation of the judicial process should also favour a better understanding and practice of *ex officio* evidence, especially in criminal proceedings. If the judge is the one who must doubt his own intuitive thoughts, *ex officio* evidence is presented as an important tool to clarify the facts based on the formulation of different alternative hypotheses. The support of *ex officio* evidence would discourage recourse to intuition to resolve the incompleteness of the evidence<sup>42</sup>.

Alternatively, these considerations should lead to a broader acknowledgment of potential judicial errors. This recognition stems from the involvement of an information processing system, which, due to its immediate operation, inevitably involves the possibility of errors occurring. This recognition, in turn, should change the ju-

<sup>41</sup> Art. 245.2 Spanish Organic Law 6/1985 of 1 July, on the Judiciary (Ley Orgánica del Poder Judicial) in relation to arts. 794.2 Spanish Criminal Procedure Act (Ley de Enjuiciamiento Criminal) and 50 Spanish Law 36/2011, of 10 October, regulating social jurisdiction. (Ley 36/2011, de 10 de octubre, reguladora de la jurisdicción social).

<sup>42</sup> The use of intuition to resolve a deficient evidential activity is described in Nieva Fenoll (2010, p. 207).

dicial perception of the mechanisms for challenging judicial decisions, especially the non-devolutionary ones. The explanations given in this paper (essentially those relating to section 3.2) should make it possible—effectively—for judicial decisions to be modified by the decision-maker himself, without this being considered a result to be avoided, a sign of vulnerability. Insensitivity to new viewpoints or alternative narratives only reinforces intuitive thinking, as I suggested in section 3.3. The practice of strategies to activate deliberation should not be confined to the trial phase but should also extend to challenging judicial decisions.

These considerations also shed light on the debate about the possible automation of the judicial process. One of the most recurrent criticisms of the artificial intelligence tools developed so far has been to denounce the institutionalisation of stereotypes and prejudices that these tools imply (O’neil, 2018; Euback, 2019)<sup>43</sup>. Once we have clarified the basis and function of the process, we can see whether automation, the desire for speed, is—for the moment—an end that is compatible with the guarantees that the judicial process entails. Or if, on the contrary, this should be achieved by other means, such as increasing the material and human resources<sup>44</sup> of the judiciary to reduce the heavy workload of judges.

However, this conclusion does not exclude the use of specific automations in certain cases. For example, in proceedings where there is typically no opposition, such as mass claims against banks arising from floor clauses, eviction proceedings, or payment order proceedings, automation could be considered viable. These processes are practically identical, even if the parties or the amount of the claim change. Their automation would lead to a rapid response that would avoid spurious instrumentalisation of these types of proceedings (Nieva Fenoll, 2018, pp. 33 ff., 2022a).

## 5. CONCLUSIONS

In this paper, I have undertaken a critical analysis of fundamental aspects of the judicial process, integrating insights from psychology, in particular dual-process theories. During this research, I have highlighted that the introduction of a time delay for the sentencing phase—considered essential in some doctrinal perspectives—is imperative to counteract specific characteristics associated with rapid information processing. On the one hand, to avoid *i*) jumping to conclusions, resorting to intuition, prejudice, and bias, and *ii*) giving a greater role to contextual and unconscious, and therefore extra-legal, elements in decision-making. And, on the other hand, *iii*)

<sup>43</sup> In this regard, special attention has been given to the COMPAS programme that has been applied in judicial processes: see Larson *et al.* (2016); Dressel and Farid (2018).

<sup>44</sup> The Council of Europe Report on the evolution of judicial systems (European judicial systems—CEPEJ Evaluation report—2022 Evaluation cycle [2020 data]) states that Spain has a ratio of 11.24 judges per 100,000 inhabitants, which is much lower than the European average of 17.60 magistrates. Available at: <https://rm.coe.int/cepej-fiche-pays-2020-22-e-web/1680a86276> (Accessed 5 June 2023).



to ensure the emergence of doubt in all this processing. Failure to do so violates two of the three pillars on which the judicial function rests: the right to judicial independence—in its aspect of judicial impartiality—and the right to defence, which includes the right to evidence, contradiction, and motivation. In light of the above, the basis of the judicial process has been reached.

I have also pointed out that neutralising the operation of rapid information processing requires a personal commitment, an effort that depends solely on the individual. A commitment that represents a paradigm shift for the law. And it is precisely to the evocation of this commitment that I have entrusted the *telos* of the judicial process. Finally, I have put forward a new proposal for the definition of this institution, which underlines the importance of being aware of our cognitive limits. In sum, from this perspective, the judicial process is constituted as a *meta-guarantee* in the sense that it makes possible the existence of other procedural guarantees and principles. It is the presence of the latter that gives a patina of legitimacy to the decision reached (judicial judgement). All these questions are not only relevant to a more precise definition of the judicial process, but are also essential to the current debates, which revolve around the dilemma of *guarantees versus effectiveness*.

## BIBLIOGRAPHY

- Andrés Ibáñez, P. (2009). Imparcialidad judicial e independencia judicial. In VV.AA., *La imparcialidad judicial*. CGPJ.
- Baron, J. (2008). *Thinking and Deciding*. Cambridge University Press.
- Beccaria, C. (2015). *De los delitos y las penas*. Universidad Carlos III de Madrid.
- Bennett, M. (2016). The Implicit Racial Bias in Sentencing: The Next Frontier. *Yale Law Journal Forum*, 126.
- Calamandrei, P. (1953). La crisi della giustizia. In VV.AA., *La crisi del diritto*. CEDAM.
- Calamandrei, P. (1966). Governo e magistratura. In M. Cappelletti, *Opere giuridiche* (Vol. V). Morano.
- Calamandrei, P. (1986). *Instituciones de derecho procesal civil*. Europa-América.
- Capdeferro, J. and Serra, E. (2015). *Casos del Tribunal de Contrafaccions de Catalunya (1702-1713)*. Parlament de Catalunya.
- Carnelutti, F. (1994). *Cómo se hace un proceso*. Temis.
- Carnelutti, F. (1997) *Instituciones del proceso civil*. El-foro.
- Clore, G. and Jeffery, K. (1972). Emotional Role Playing, Attitude Change, and Attraction toward a Disabled Person. *Journal of personality and social psychology*, 23.
- Chen, D. and Loecher, M. (2019). Mood and the Malleability of Moral Reasoning. Available at SSRN 2740485.
- Dasgupta, N. and Asgari, S. (2004). Seeing is Believing: Exposure to Counterstereotypic Women Leaders and its Effect on the Malleability of Automatic Gender Stereotyping. *Journal of experimental social psychology*, 40(5), 642-658.
- Danziger, S., Levav, J. and Avnaim-Pesso, L. (2011). Extraneous Factors in Judicial Decisions. *Proceedings of the National Academy of Sciences*, 108, 6889-6892.
- Dewey, J. (1989). *Cómo pensamos*. Paidós.
- Donald, B., Rachlinski, J. and Wistrich, A. (2020). Getting Explicit About Implicit Bias. *Judicature*, 104.



- Dressel, J. and Farid, H. (2018). The Accuracy, Fairness, and Limits of Predicting Recidivism. *Science advances*, 4(1).
- Duch, Ll. (2018). *Vida cotidiana y velocidad*. Herder.
- Edmond, G. and Kristy, M. (2019). Just Cognition: Scientific Research on Bias and Some Implications for Legal Procedure and Decision-making. *The modern law review*, 82.
- Eren, O. and Mocan, N. (2018). Emotional Judges and Unlucky Juveniles. *American Economic Journal: Applied Economics*, 10(3), 171-205
- Euback, V. (2019). *Automating Inequality: How High-tech Tools Profile, Police, and Punish the Poor*. Picador.
- Evans, J. (2010). *Thinking Twice. Two Minds in One Brain*. Oxford University Press.
- Evans, J. (2017). *Thinking and Reasoning*. Oxford University Press.
- Evans, J. (2020). *Hypothetical Thinking: Dual Processes in Reasoning and Judgement*. Routledge.
- Evans, J. and Frankish, K. (2009). The Duality of Mind: An Historical Perspective. In J. Evans y K. Frankish (Eds.), *In Two Minds: Dual Processes and Beyond*. Oxford University Press.
- Fariña, F., Arce, R. and Novo, M. (2002). Heurístico de anclaje en las decisiones judiciales. *Psicothema*, 14, pp. 39-46.
- Fenech, M. (1960). *Derecho procesal penal* (V. I). Labor.
- Fernández López, M. (2022). La conformación del conjunto de elementos de juicio III. Principios generales de la práctica de la prueba. In J. Ferrer Beltrán (Coord.), *Manual de Razonamiento Probatorio*. Suprema Corte de la Nación.
- Ferrer Beltrán, J. (2007). *La valoración racional de la prueba*. Marcial Pons.
- Ferro, V. (1987). *El Dret Públic Català. Les institucions a Catalunya fins al Decret de Nova Planta*. Eumo.
- Forza, A. (1997). *Il processo invisibile*. Marsilio.
- Forza, A., Menegon, G. and Rumiati, R. (2017). *Il giudice emotivo. La decisione tra ragione ed emozione*. Il Mulino.
- Garnham, A. and Oakhill, J. (1996). *Manual de psicología del pensamiento*. Paidós.
- Gladwell, M. (2018). *Inteligencia intuitiva*. Debolsillo.
- Guasp, J. (1968). *Derecho procesal civil*. Instituto de Estudios Políticos.
- Guthrie, C., Rachlinski, J. and Wistrich, A. (2000). Inside the Judicial Mind. *Cornell Law Review*, 86, 777-830.
- Guthrie, C., Rachlinski, J. and Wistrich, A. (2007). Blinking on the Bench: How Judges Decide Cases. *Cornell Law Review*, 93, 101-140.
- Guthrie, C., Rachlinski, J. and Wistrich, A. (2009). The «Hidden Judiciary»: An Empirical Examination of Executive Branch Justice. *Duke Law Journal*, 1477-1530.
- Guzmán Fluja, V. C. (2021). Proceso penal y justicia automatizada. *Revista General de Derecho Procesal*, 53, 1-40.
- Han, B. C. (2013). *La Sociedad de la transparencia*. Herder.
- Han, B. C. (2020). *La desaparición de los rituales*. Herder.
- Hogarth, R. (2002). *Educación la intuición*. Paidós.
- Kahneman, D. (2013). *Pensar rápido, pensar despacio*. Debolsillo.
- Kahneman, D. and Frederick, S. (2002). Representativeness Revisited: Attribute Substitution in Intuitive Judgment. In T. Gilovich, D. Griffin and D. Kahneman (Eds.), *Heuristics and Biases: The Psychology of Intuitive Judgment*. Cambridge University Press.
- Kahneman, D., Sibony, O. and Sustain, C. (2021). *Ruido. Un fallo en el juicio humano*. Debate.
- Kahneman, D., Slovic, P. and Tversky, A. (Eds.). (1982). *Judgment Under Uncertainty: Heuristics and Biases*. Cambridge University Press.
- Kahneman, D. and Tversky, A. (1982). Subjective probability: A Judgment of Representativeness. In D. Kahneman, P. Slovic and A. Tversky (Eds.), *Judgment under Uncertainty: Heuristics and Biases*. Cambridge University Press.
- Kang, J. (2021). What Judges Can Do about Implicit Bias. *Court Review*, 57.
- Kang, J. et al. (2011). Implicit Bias in the Courtroom. *UCLA Law Review*, 59.
- Larson, J. et al. (2016). How We Analyzed the COMPAS Recidivism Algorithm. *ProPublica*, 9(1).

- Lopes, G. (2021). Cognitive Bias in the Judiciary: The Role of Cognitive Enhancement. *34th International Conference on Legal Knowledge and Information Systems*. <https://lirias.kuleuven.be/retrieve/680782>
- Martín Diz, F. (2020). Inteligencia artificial y proceso: Garantías frente a eficiencia en el entorno de los derechos procesales fundamentales. In F. Jiménez Conde y R. Bellido Penades (Eds.), *Justicia: ¿Garantías Versus Eficiencia?* Tirant Lo Blanch.
- Monteith, M., Lybarger, J. and Woodcock, A. (2009). Schooling the Cognitive Monster: The Role of Motivation in the Regulation and Control of Prejudice. *Social and Personality Psychology Compass*, 3(3), 211-226.
- Montero Aroca, J. et al. (2008). *Derecho jurisdiccional* (I. Parte general). Tirant Lo Blanch.
- Montero Aroca, J. et al. (2014). *Derecho jurisdiccional* (I. Parte general). Tirant Lo Blanch.
- Mora-Sanguinetti, J. S. (2022). *La factura de la injusticia*. Tecnos.
- Nickerson, R. (1998). Confirmation Bias: A Ubiquitous Phenomenon in Many Guises. *Review of general psychology*, 175-220.
- Nieva Fenoll, J. (2006). *La cosa juzgada*. Barcelona. Atelier.
- Nieva Fenoll, J. (2007). *Enjuiciamiento prima facie*. Atelier.
- Nieva Fenoll, J. (2010). *La valoración de la prueba*. Marcial Pons.
- Nieva Fenoll, J. (2013). *La duda en el proceso penal*. Marcial Pons.
- Nieva Fenoll, J. (2016). La razón de ser de la presunción de inocencia. *InDret*, 1.
- Nieva Fenoll, J. (2018). *Inteligencia artificial y proceso judicial*. Marcial Pons.
- Nieva Fenoll, J. (2022a). El proceso penal actual: entre la fe y la tecnología. In V. Gómez Martín et al. (Dirts.), *Un modelo integral de Derecho penal. Libro homenaje a la profesora Mirentxu Corcoy Bidasolo*. Ediciones BOE.
- Nieva Fenoll, J. (2022b). *Derecho procesal I*. Tirant Lo Blanch.
- Oldfather, C. (2008). Writing, Cognition, and the Nature of the Judicial Function. *The Georgetown Law Journal*, 96, 1284-1320.
- O'neil, C. (2018). *Armas de destrucción matemática: cómo el big data aumenta la desigualdad y amenaza la democracia*. Capitán Swing.
- Perkins, D. and Ritchhart, R. (2010). ¿Cuándo se piensa bien? In M. Carretero y M. Asensio (Coords.), *Psicología del pensamiento*. Alianza.
- Picó i Junoy, J. (1998). *La imparcialidad judicial y sus garantías: la abstención y la recusación*. Bosch.
- Posner, R. (2011). *Cómo deciden los jueces*. Marcial Pons.
- Prieto Castro, L. (1952). *Tratado de derecho procesal civil*. Sáez.
- Prieto Castro, L. (1980). *Derecho procesal civil, Vol. I*. Tecnos.
- Rachlinski, J. et al. (2009). Does Unconscious Racial Bias Affect Trial Judges? *Notre Dame Law Review*, 84, 1195-1246.
- Ramos Méndez, F. (1978). *Derecho y proceso*. Bosch.
- Rumiati, R. and Bona, C. (2019). *Dalla testimonianza alla sentenza. Il giudizio tra mente e cervello*. Il Mulino.
- Sadler-Smith, E. (2016). *Mente intuitiva*. UOC.
- Satta, S. (1968). Il mistero del processo. In S. Satta, *Soliloqui e colloqui di un giurista*. CEDAM.
- Satta, S. and Punzi, C. (2000). *Diritto procesuale civile*. CEDAM.
- Serra Domínguez, M. (1950). *Nueva enciclopedia jurídica* (Tomo XX). Seix.
- Serra Domínguez, M. (1969). *Estudios de derecho procesal*. Ariel.
- Stanovich, K. (2011). *Rationality and the Reflective Mind*. Oxford University Press.
- Sunstein, C. and Jolls, C. (2006). The Law of Implicit Bias. *California Law Review*, 94.
- Taruffo, M. (2008). *La prueba*. Marcial Pons.
- Thornburg, E. (2019). (Un)Conscious Judging. *Washington & Lee Law Review*, 76.
- Torralba, F. (2018). *El món volàtil*. Columna.
- Uhlmann, E. and Cohen, G. (2007). «I think it, therefore it's true»: Effects of Self-perceived Objectivity on Hiring Discrimination. *Organizational Behavior and Human Decision Processes*, 104.

Wistrich, A. and Rachilinki, J. (2017). Implicit Bias in Judicial Decision Making. How It Affects Judgment and What judges Can Do about It. In S. Redfield (Ed.), *Enhancing Justice: Reducing Bias*. ABA Book Publishing.

## Jurisprudence and law

A Coruña Provincial Court Sentence (Spain) 516/2011 (Civil jurisdiction), December 5th of 2011

Constitutional Court Sentence (Spain) 149/2013 (Sala Primera), 9 October of 2013

España. Ley 2/2020, de 27 de julio, por la que se modifica el artículo 324 de la Ley de Enjuiciamiento Criminal. (BOE, núm. 204, 28/07/2020, pp. 58804-58805)

España. Ley 36/2011, de 10 de octubre, reguladora de la jurisdicción social. (BOE, núm. 245, 11/10/2011)

España. Ley de Enjuiciamiento Criminal. [https://www.boe.es/biblioteca\\_juridica/abrir\\_pdf.php?id=-PUB-DP-2023-145](https://www.boe.es/biblioteca_juridica/abrir_pdf.php?id=-PUB-DP-2023-145)

España. Ley Orgánica 6/1985, de 1 de julio, del Poder Judicial. (BOE, núm. 157, 02/07/1985)

Madrid Provincial Court Sentence (Spain) 334/2010, 25 October of 2010

Pescador Valero v. Spain, nº 62435/00, European Court of Human Rights, 17 June 2003

Supreme Court Sentence (Spain) 647/2014 (Criminal Chamber), 9 October of 2014 (appeal 446/2014)

Supreme Court Sentence (Spain) 687/2015 (Criminal Chamber), 4 November of 2015 (appeal 10438/2015)

Supreme Court Sentence (Spain) 104/2010 (Criminal Chamber), 3 February of 2010 (appeal 767/2009)

Supreme Court Sentence (Spain) 2505/2001 (Criminal Chamber), 26 December of 2001 (appeal 3026/1999)

Supreme Court Sentence (Spain) 123/2004 (Criminal Chamber), 6 February of 2004 (appeal 2775/2002)

Supreme Court Sentence (Spain) 441/2008 (Criminal Chamber), 10 July of 2008 (appeal 2509/2007)

Supreme Court Sentence (Spain) 665/2015 (Criminal Chamber), 29 October of 2015 (appeal 736/2015)

Supreme Court Sentence (Spain) 1036/2013 (Criminal Chamber), 26 December of 2013 (appeal 648/2013)

Supreme Court Sentence (Spain) 165/2005 (Civil Chamber), 14 March of 2005 (appeal 3938/1998)

Supreme Court Sentence (Spain) 93/2018 (Criminal Chamber), 23 February of 2018 (appeal 1304/2017)

Supreme Court Sentence (Spain) 915/2016 (Criminal Chamber), 2 December of 2016 (appeal 958/2016)

Thomann v. Switzerland, nº 17602/91, European Court of Human Rights, 10 June 1996

Valencia Provincial Court Sentence (Spain) 246/2003 (Civil Chamber), 22 April of 2003

Zaragoza Provincial Court Sentence (Spain) 310/2021 (Criminal Chamber), 26 July of 2021