



Suggestions from French Constitutional Justice: A Comparative Conceptual Framework for Decentralized Justice Improvements

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Kleros Fellowship of Justice, 8th Batch

About the Author

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His interest in issues related to the governance of digital networks, their determinants, and legal implications arose during a three-year entrepreneurial experience in which he co-led the creation of a metaverse prototype.

The aim of this report for the eighth edition of the Kleros Fellowship is to leverage a comparative analysis of decentralized justice and French constitutional justice in order to help ensure the legitimacy of decentralized justice and more specifically decentralized formations of judgment.

To do so, he focuses on establishing the ontological proximity of decentralized justice and constitutional justice. He then discusses the specific interest of a study of French constitutional justice in considering the evolution of decentralized justice, before assessing comparatively the supposed and widely recognized shortcomings of decentralized justice (taking Kleros in particular as a model) and French constitutional justice. Finally, suggests developments for decentralized justice and Kleros in particular, derived from the incrementalism of French constitutional justice.

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Introduction

Decentralization has been defined as describing “the conditions under which the actions of many agents are coherent and effective despite the fact that they do not rely on reducing the number of people whose will counts for effective action” (Benkler, 2006, p. 26). This logic appears to be largely underpinned by the use of the term to describe, in an often minimalist way, one of the primary characteristics of blockchain systems, notably permissionless. Thus, the highly debatable idea that the “decentralization” of the network's technical architecture is equivalent to the existence of a decentralized institution prevails (Nabben, 2023).

Following this logic, online dispute resolution systems, which delegate some of their functionality to computation engines integrated into the blockchain network protocol, are themselves described as “decentralized”. As a general concept, “decentralized justice” refers to systems that meet three conditions: being built as a decentralized autonomous organization (DAO) on blockchain technology, being based on the design of mechanisms using cryptoeconomic incentives, and generating a perception of fairness (Ast and Deffains, 2021).

More precisely and technically, and as illustrated by Kleros, which is the most advanced, active and sophisticated of them, these systems combine blockchain, crowdsourcing and game theory to enable dispute resolution and can be called Decentralized Dispute Resolution Services (Sims, 2021,172-192). Their characteristics are as follows: these services use the blockchain to facilitate dispute resolution; they are not limited to resolving DAO disputes alone, thus offering Justice-as-a-Service (JaaS); they do not currently use algorithms to adjudicate disputes but rather encourage individuals to become “adjudicators” ; they will not apply the law of the jurisdiction in which they are based or the laws of the jurisdictions in which one or both parties are located; they will not refer, among other features, to existing rules of evidence, and they generally impose strict time limits.

Constitutional justice is the term used to designate the bodies and procedures, essentially jurisdictional in nature, by which the Constitution is guaranteed. Control of the constitutionality of laws is the essential component. However, other norms may also be subject to constitutionality review (treaties, administrative acts, court decisions, etc.), just as other types of competence aimed at ensuring compliance with constitutional rules may be entrusted to jurisdictional bodies (electoral disputes, disputes concerning interpretation of the constitution, judgment of rulers, etc.).

At first glance, a comparison between decentralized justice and constitutional justice may be justified by the convergence between their respective and common objects: from different angles, blockchain and constitutions have indeed been substantially compared by the existing literature, and “blockchain

constitutionalism” as well as the vision of “blockchain-based systems in constitutional terms” have aroused significant interest (De Filippi et al., 2023). In line with cypherpunk ideology and crypto-communities using cryptography as structure, ideology and norm (Goanta and Hopman, 2020, 3), blockchain presents itself as a new semiotic resource associated with technical resources, at the origin of its own - digital - normativity (Wright and De Filippi, 2015; De Filippi and Hassan, 2016), based on faith in protocol, computation and programming (Becker, 2022, 116-117). In this, it shares with cyberspace the supposedly deterritorialized and despatialized utopia of developing its own social order.

We may well disagree with the protagonists' reference to a network “state of nature” corresponding to free automated decentralization, the tangibility of which is, moreover, entirely questionable (Manski and Manski, 2018). But it must be recognized that blockchain networks, particularly permissionless ones, are in reality “vast and complex organizations” (Alston et al., 2022, p. 708) whose stakeholders distribute, share and compete for various forms of power (Shapiro, 2020).

At a minimum, these various considerations attest to the fact that blockchain systems and constitutions can share the common pretension of establishing autonomous normative orders. The expressions *lex cryptographia* and *lex cryptopeculii* (Maurel and Petit-Prevost-Weygand, 2024), derived from the *lex mercatoria* - a coherent body of law adapted to the operations of international trade - invite us to consider blockchain systems according to the criteria of legal pluralism (Santi, 1918), enabling us to attest, if not the autonomous existence, at least the autonomization of the alleged legal order, which presupposes the identification of its own organs, normative production and anthropological reality. Among the criteria leading to this identification, and directly inspired by *lex mercatoria*, are the emergence of relations within a homogeneous society (“web3”), the reference to commonly accepted standards and principles (at least, the underlying code) and, finally, the fact of conferring jurisdiction on arbitrators who are not part of a state judiciary, remove disputes from the narrowly formalist approach to sources of law that a national judge may have and at the same time act as the regulators of this new legal order.

Several (critical) assumptions have led us to this research. The first one was that the most recent developments of decentralized justice, illustrated by Kleros suggested and researched improvements, seem to want to aim, through several means (weighted fees and deposits, peer-predictions, a “Juror Misbehaviour Court”), to maintain the fiction of a decentralized web3 made self-sufficient by the existence of a decentralized justice system.

Our second assumption is that constitutional justice, throughout its modern institutionalisation, pursues a similar ambition. It has indeed chronically struggled with the establishment of a sufficient legitimacy, notably due to the fact that it

stands at the top of a political-normative system and is supposed to provide with interpretations of meta-principles, while being at the same time an embodiment and institutionalisation of these principles.

Our third hypothesis is that French constitutional justice provides a very good example that could serve as the basis for a detailed conceptual comparison. Conceived as a “crippled” body in 1958, it has subsequently been gradually and considerably transformed into an effective constitutional judge, often described as a guardian of rights and freedoms.

This situation, especially when combined with the singular absence of any significant change in the procedures for appointing Council members, has been the subject of much criticism, and periodically illustrates the aporia of a constitutional jurisdiction based almost solely on functional criteria. In particular, the fact that criticisms of the legitimacy of the French constitutional judge are voiced more specifically in relation to the exercise of certain of his functions might suggest that certain instances of the use of decentralized justice in particular could benefit from a reflection on the appointment and qualification of judges.

The aim of this article is therefore to justify and suggest preliminary developments likely to ensure the legitimacy of decentralized formations of judgment, while bearing in mind that they can also offer a high degree of modularity.

To this end, we first establish the ontological proximity of decentralized justice and constitutional justice (1.). We then show the specific interest of a study of French constitutional justice in considering the evolution of decentralized justice (2.), before assessing comparatively the supposed and widely recognized shortcomings of decentralized justice (taking Kleros in particular as a model) and French constitutional justice (3.). Finally, we suggest developments for decentralized justice and Kleros in particular, derived from the incrementalism of French constitutional justice (4.).

1. Ontological proximity of decentralized and constitutional justice

Constitutional justice and decentralized justice are ontologically close: both models are built in opposition to power (1.1), which is why they need to become an independent pole of legitimacy (1.2), in order to exercise the particular and ambiguous function of validator of a system (1.3) to which they belong, but from which they also overhang.

1.1 A shared origin: anthropological pessimism

Although classic liberal constitutionalism obviously differs from the cypherpunk libertarianism-cryptoeconomics merge, both also share comparable roots that lay in their anthropologically pessimistic assumption: Blockchain systems are originally driven by the idea of independence from abusive or incompetent power (no central authority of any kind is needed) and constitutional justice is a mean of avoiding any abuse of power on the part of one of the existing or instituted authorities.

The concept of “checks and balances”, which is absolutely central in liberal constitutionalism, has been used to describe “accountability protocols” in blockchain governance (Nabben and de Filippi, 2024). When we consider the function, nature and even the simple name of decentralized justice, we realize that the analogy is not merely didactic and comparative: checks and balances are not only translated into algorithmic mechanisms. In fact, they rely on such mechanisms, but operate on a somewhat separated level in a somewhat separated sphere.

A liberal constitutionalism specialist might then argue that this is a topical case of institutionalizing a balance of power. It has to be admitted, then, that blockchain networks are more than just automated, probabilistic systems, at least at the first - “crude” - level of operation. It is indeed in order for these systems to counter their own malfunctions and pursue their quest for perfection, that their actors will choose, at one stage or another, to institute and solicit an independent body, both part of and external to the system.

It is in this gap between the system and the independent body, and in the ways in which the architects of the system choose to institute it and ensure that it is used, that we believe the comparison with constitutional justice is most interesting. Like constitutional justice, decentralized justice is part of a dynamic of legal-political representation or, more precisely, a “representation of representatives” (Gauchet,

1995, 225): protocol and the market, to which decision-making has supposedly been delegated, are not enough to guarantee the system's homeostasis or, at the very least, must be replicated, in a specific way and for specific purposes, and have the system itself as its subject.

1.2 A shared nature: the need for an independent source of legitimacy

To be able to know the components of a system, even if it's for the purpose of performing a specialized function, one needs its own, distinct, source of legitimacy. In the case of decentralized justice, the need for this legitimacy stems not only from the replication of a manifestation of “justice” needs specific to blockchain ecosystems, materialized by the need for a specific procedure appropriate to the handling of specific cases, which “traditional” justice fails to apprehend (Ferreira, 2021, 24-30). Nor does it derive solely from an iteration of the assertion of blockchain's emancipatory capabilities, coupled with distrust of “traditional” systems, i.e. of order and “hierarchical normativities and normativities, and of public institutions and private corporations as regulatory intermediaries” (Kohl, 2021, 18), and thus of “centralized” regulatory authorities (Dylag and Smith, 2021).

These elements certainly illustrate the substitution potential of blockchain, which institutes its own normative order based on computer code, and on the scope of its hypothetical field of implementation and therefore control, which overlaps with that of the digital (Käll, 2018, 134). But what they translate above all, in political terms, is that blockchain materializes power issues at the same time as (allegedly) resolving them. Ultimately, it is the imperfect nature of the system itself that is revealed, and the need for an independent source of legitimacy that can be mobilized against or as a complement to an imperfect politico-legal order. The institutionalization of justice, decentralized or constitutional, is thus part of an attempt to reduce the duplication of reference, between the ideal order advocated, on the one hand, and the order actually instituted, on the other.

In the case of constitutional justice, positive law has never succeeded in fully absorbing natural law and its translation - often at least in part phraseological - in that, for example, in the French case, the rights of actual citizens have not yet absorbed and subsumed by human rights, which appear as a horizon that is never truly and perfectly reached. In France, it is this gap between positive and natural law that has enabled the emergence of a control of the constitutionality of laws (Baumert, 2009), which has itself completed the transition from the legal state to the constitutional state (Tusseau, 2013, 170-171).

The French Third Republic was indeed defined by the jurist Carré de Malberg (1920, 490) as the regime of the legal state insofar as it organizes—litterally—the rule of the law, a general and impersonal act voted upon by a Parliament henceforth elected by universal suffrage. More precisely, Carré de Malberg functionally defines

the legal state as the state in which every act of administrative power presupposes a law to which it is connected and whose execution it is designed to ensure.

At the time, the doctrine in which Carré de Malberg participated was not satisfied with such a system, since it denounced parliamentary omnipotence as a danger rather than viewing it as a guarantee. Beyond law and political-institutional guarantees, it therefore sought the safeguarding of freedoms and legal order in law itself and in judicial remedies, particularly against the arbitrariness of the state itself. While the constitutional state, concretized among other things through constitutional justice, does not constitute a perfect order, it marks substantial progress toward the "perfection" (Ibid., 492) of the politico-legal order. In the case of decentralized justice, the remaining imperfection of the established order, and the fact that this justice constitutes an attempt to reduce this imperfection, is revealed by its creation in response to the dichotomy between disintermediation and the cryptographic vulnerabilities it encounters, and above all, by the remaining aporias of the automated free market as the sole mode of regulation.

Just as constitutional justice marks the transition from a legal state to a constitutional state (which nonetheless remains imperfect), the emergence of decentralized justice marks the transition from contractual automatization—an illustration of the code-as-law principle—to algorithmic regulation tempered by fairness: algorithmic formalism does not, it appears, manage to subsume all the complexity of fairness, just as constitutional formalism does not succeed in guaranteeing a politico-legal order perfectly aligned with human rights.

1.3 A shared goal: the institution of a validator

According to many authors, the institution of constitutional justice is part of a specular logic, applicable to both democracy (in the sense of structuring principles) and representation (in the sense of procedural modalities).

The particular function of the constitutional judge teaches us that democracy or the sovereign are never immediately present: they must always be shown - i.e., instituted - but in a clerical (i.e., judicial) manner when placed on normativist ground (Desmons, 2000, 21-32). Through the paradigm of the mirror, a central element of his thinking (Becker, 2021, 16), Pierre Legendre has indeed revealed the extent to which modern politics, apparently secularized, still follows a theological logic: in Western modernity, the mode of representation enabling the fictitious existence of a symbolic third party guaranteeing the enclosure of the system of reference that is law is a technique of "the presence of power".

Each Society erects a reference point, creating the illusion of a great metaphysical Third in whose name it speaks, legislates and constitutes its own identity, as well as that of its members. The status of the Text is then that of a "living emblem of

omniscient knowledge”, and the status of those who are supposed to manage the relationship with this text makes them absolute interpreters.

These interpreters handle the mirror: they hold it up to the sovereign to make him exist in his own eyes and according to the founding reference that is the constitutional text. In so doing, however, they borrow a - clerical - medium on which hangs the suspicion of not corresponding to the secular canons of modernity, making the question of the interpreter's legitimacy all the more pressing.

We tend to believe that decentralized justice obeys a similar logic. Is decentralized justice not considered and presented as a “decentralized sheriff” (Bergola, Seif and Eken, 2022), enabling the complete conceptualization of “fully automated liberalism” (Reinsberg, 2021). Decentralized justice thus plays the role of impartial third party for the system to which it contributes, because it belongs to this system, i.e. because it shares certain techno-economic attributes with it.

The techno-economic innovations proposed therefore seem to fall into a repetition cycle of the same dogmatic assertion (technology is a solution to the principal-agent problem), justified by the same specular (mirroring) reasoning, which systematically refers the conditions for fulfilling the promise to the other component of a duality that is nothing more than a duplication of effort.

If decentralized justice truly was arbitration made “entirely self-sufficient” (Ortolani, 2019), why should it be aggregated to any specific system?

On the one hand, “decentralized justice” (which, in this case, can be considered as a sub- or super-system) is legitimized by the figure of “decentralization” it produces and will help bring about. On the other hand, this “decentralization” (or this decentralized system) is made truly legitimate (or ‘complete’, or “autonomous”) by its integration of such a specific justice system. To put it in functional terms, the system appears decentralized, in the end, because any “failure” can be resolved by a decentralized superior and final authority. But this authority itself only appears superior because it embodies decentralization, because its functioning and accomplishment relies on the decentralized network.

The “technicization” of the modalities one turns to obtain guarantees against the fallibility of the system has been criticized for its “technological solutionism (Morozov, 2013)”. Attention has even been drawn to the particular potential of blockchain in this regard (Brett, 2016 ; Jutel, 2021), sometimes in a very polarizing way (Golumbia, 2020 ; Campbell-Verduyn, 2021). In any case, however, it is not the preserve of decentralized networks, or more broadly of fields of activity that are highly technical due to their extensive use of digital technology, to be subject to such tendencies to radicalization.

Modern law has indeed a well-known tendency towards its own “absolutization”, notably highlighted by Alexandre Kojève : the “automation” of the existence of a natural law through its guarantee by a “disinterested”, ‘ordinary’ and

“interchangeable” third party already constitutes, for Kojève, the concluding and terminating modality of the historical dialectic of law (Kojève, 1943, 90-91).

To simplify, we could say that the totalizing perspective (Teubner, 2016) of decentralized justice is a teleological pleonasm, as is that of claiming to “perfect” democracy through a constitutional judge. Developments in decentralized justice therefore constitute daring and interesting experiments, but to which the reservations concerning the limitations of the systems they perfect apply a minima. In both cases (constitutional - decentralized), justice acts like a magical mirror: judges or jurors are holding it to the subject of justice for it to admire itself as it should be if the system were perfect and sufficient, one could say a monad.

The question: “who are the judges, why do they have such an authority” remains, even if they hide behind the mirror, and their very own existence highlights the difficulty, if not the impossibility, of resolving the aporia (for the time being) of their ultimate mandate with just pure law or pure crypto-economy.

2. The Value of a Study of French Constitutional Justice

2.1 The Fight for Establishment and Recognition

While debates on constitutional justice are certainly much older, the origins of today's French Constitutional Council can be traced with certainty to the inter-war years (Pinon, 2003). During this period, vigorous criticism of the Assembly system, characterized by the real domination of Parliament, led to a reformist undertaking of constitutional engineering aimed essentially at upgrading the executive, framing and limiting deliberative-legislative power, and restoring the judiciary, which was not even constitutionally considered at the time. Although the proposals put forward were heterogeneous, their motivation was already the same as that which would prevail in 1958, at the birth of the Fifth Republic, namely the rationalization and normative framing of deliberative-legislative power.

Debates on the desirability of a guarantee of constitutionality and the institution of a constitutional court were also rife in the aftermath of the Second World War and at the dawn of the establishment of the Fourth French Republic (Fargeaud, 2024). Most constituent members sought such a guarantee to protect their constituent work, but remained largely hostile to the idea of entrusting this task to a judge, whether ordinary or ad hoc. Some constituents therefore set out in search of a hybrid model designed to provide a constitutional guarantee that avoided both the disadvantages of control by a Supreme Court and the disadvantages of no control at all.

This quest will lead in 1946 to an embryo of constitutional justice, whose function is indeed the legal control of the conformity of laws to the Constitution, but whose particularity lies in the significant procedural and statutory limits: such a procedural handicap, and such a dependence on other constitutional bodies is then the condition for the acceptance of constitutional justice.

In a way, in 1946 as in 1958, the jurisdictional guarantee of the Constitution is organized and tolerated on the condition that it remains hampered by its composition, its methods of referral and the limitation of its reference standards. This compromise has proven in fact ephemeral due to the progressive affirmation of the Constitutional Council and its claim to embody a fully-fledged jurisdiction called upon to exercise a complete control of the constitutionality of laws.

Furthermore, an essential dimension explaining the physiognomy of the French body of constitutional review is that, in 1946 as in 1958, the jurisdictional guarantee was no longer contested in the name of the legicentric tradition specific to the

national legal culture, but in the name of the political nature of constitutional review highlighted by the appeal to comparative constitutional law; in other words, the difficulty in recognizing a democratic basis for the review of the constitutionality of laws.

Intended in 1958 by the Gaullist designers of the Fifth Republic to protect the executive against encroachments by Parliament, the Constitutional Council acquired, over the course of the evolution of its jurisprudence and the practices of power, the status of supreme guarantor of the rights and freedoms enshrined in the Constitution.

This trajectory of progressive affirmation of French constitutional justice finds a singular echo, all things considered, in the contemporary emergence of decentralized justice mechanisms. This arises from a desire for rationalization and supervision, but this time applied to private contractual relations rather than to relations between public authorities. Offering an alternative to traditional state justice by relying on game theory and algorithmic regulation, decentralized justice remains largely tolerated rather than fully recognized, precisely because it remains largely confined to relatively circumscribed digital ecosystems and accepts a form of organized powerlessness (dissipated in game theory and algorithmic regulation) as a condition of its development.

Just as French constitutional justice has had to deal with resistance linked to its political nature and democratic deficit, decentralized justice is subject to challenges that focus on its legitimacy and its compatibility with the fundamental principles of a fair trial. Blockchain arbitration decisions notably come up against the requirements of territoriality, physical signature, and arbitrator identification required by the New York Convention and national legislation (Lowther, 2020; Ferreira, 2021).

Faced with these difficulties in achieving legal recognition, practitioners are gradually developing a "hybrid model" which, like the constitutional compromises of 1946 and 1958, seeks to reconcile the effectiveness of technological innovation with the imperatives of acceptance by established legal systems. Decentralized justice is thus increasingly conceived as a "tool" to assist traditional arbitration, in particular, rather than as a complete alternative, reproducing this same pattern of progressive integration through compromise and self-limitation.

2.2 Diversification of Functions and Use Cases

Contemporary French constitutional justice belongs to the "Austrian Model" (Roux, 2013, 109): constitutional review is therefore a function that falls not to ordinary judges but quasi-exclusively to a specialized court that holds a monopoly over it. Initially conceived as a regulatory body for public authorities, the French Constitutional Council has, through its jurisprudential practice and in response to

events, considerably extended the scope of reference norms for its review, notably incorporating the rights and freedoms contained in the preamble of the Fifth Republic Constitution and, by reference to the citation made by this same preamble (which explicitly cites these texts), to the preamble of the Fourth Republic Constitution (which contains numerous so-called "economic and social" rights) and to the Declaration of the Rights of Man and of the Citizen of 1789.

By enriching its references in this manner, the Council opened the door to a consequential transformation of its role. The expansion of its referral jurisdiction, opened to the parliamentary opposition beginning in 1974, provided it with an additional and indispensable guarantee of organic independence from its appointing authorities (often politically majoritarian).

The French Constitutional Council exercises diversified functions that testify to this progressive evolution of its competencies. It first ensures a priori review upon referral of laws and treaties, as well as automatic a priori review of organic laws and assembly regulations. Since 2008, it has also exercised a posteriori review of laws through the mechanism of the priority question of constitutionality (QPC).

In this second case, which incidentally demonstrates a consequential extension of the field of norms subject to review, the Council indeed constitutes a jurisdiction that intervenes within the framework of a jurisdictional procedure whose outcome depends on its decision. It is precisely for this reason, as the European Court of Human Rights has noted since its *Ruiz-Mateos v. Spain* judgment of June 23, 1993, that all constitutional courts, insofar as the results of their decisions may influence the outcome of disputes argued before ordinary courts, must respect international standards regarding fair trial, notably the observance of adversarial procedure.

The Council also exercises legality and financial control over national electoral and referendum operations, control upon referral of respect for the domains of law and regulation, control of respect for the autonomy of overseas collectivities, as well as constitutional review of New Caledonia's "country laws." It also renders several types of opinions, notably regarding the use of Article 16 of the Constitution by the head of state in cases of crisis powers, and on draft decrees organizing national electoral and referendum operations as well as voter convocation.

This functional diversification finds, in our view, a striking parallel in the ecosystem of decentralized justice, which has experienced remarkable expansion in its domains of application. Since its deployment and initial developments focused on simple escrow and data curation functions on the Ethereum blockchain, the Kleros platform has thus considerably diversified its use cases, following an expansion trajectory similar to that of French constitutional justice.

Starting from basic functions of contractual dispute resolution, it has progressively extended to domains as varied as decentralized insurance (DeFi Insurance), which

allows protection against a multitude of risks related to decentralized finance protocols, notably wallet hacks and oracle failures; content moderation for Web3 communities, with tools like Kleros Moderate that provide decentralized and transparent (pre-litigation) content moderation for social media platforms; and prediction markets, regarding which Kleros intervenes as a dispute resolution mechanism concerning the results of future events.

Finally, from a "decentralized" (supreme) court — and therefore, "for the Internet" (Ast, 2019) (following the same logic as the potential expansion of blockchain to the entirety of the digital sphere) —Kleros could ultimately claim to position itself as a solution for dispute resolution in the "traditional" economy.

This expansion demonstrates an institutional logic comparable to that of the French Constitutional Council: depending on opportunities, an initially specialized institution progressively extends its field of intervention to respond to the needs of evolving ecosystems.

2.3 The Temptation of Self-Sufficient Normativism and the Risks of Formalism

From the outset, constitutional justice has been torn between claims to establish a purely technical system and recognition of the political character of its decision-making function, or even of its role in co-producing legal norms. By becoming increasingly visible due to the very expansion of its oversight, the Council has, in certain respects, cultivated a tendency to cloak itself in a mantle of impartial neutrality through the technical nature of its assessment.

Legitimation through pure legal logic, indeed, has the advantage of evading organic questioning. It is inscribed in the history of constitutionalism, or even in its very "nature," since a written constitution could not see its supremacy guaranteed in the absence of any mechanism preventing constituted powers from adopting unconstitutional rules (Tusseau, 2021, 244).

The validating nature of the oversight body lends itself particularly well to this kind of technicist discourse: if one admits that democracy only comes into existence through means that cannot be qualified as democratic on a formal (or electoral) level, it becomes inconsistent to legitimate constitutional justice through criteria belonging to the logic of formal democracy.

Nevertheless, such reasoning is complete only if one subscribes to a normativist definition of the function of constitutional justice, which entails several drastic conditions: the constitutional body must "state the law" without adding any new rule; it must rule only according to law, that is, according to legal motives and not allow itself to be influenced by political motives; it must not be able to reverse its

decision, which thus has the force of "legal truth" including for itself (Waline, 1928, 443-445).

Critics of the French Constitutional Council have demonstrated that there exists a form of dogmatism that irretrievably collides with the "irreducibly political" nature of constitutional justice (Baranger, 2012). Moreover, it is precisely because of this nature that "hyperformalism" is deployed in the French case (Ibid.), infused with the French tradition of legality control historically developed by administrative courts, and which makes the judge of the law "a sort of computer" (Ibid.).

This hyperformalism manifests itself through weak reasoning (criticizable in light of fair trial requirements and contemporary transparency demands) and masks the political nature of oversight, that is, the element of expediency control that takes into account political and not solely legal reasons, which likens the judge's activity to that of the legislator or even the administrator.

Decentralized justice, for its part, seems to manifest a similar tendency toward "ultraformalism," even going so far as algorithmic reductionism. Like the Constitutional Council, which tends to mask its political choices behind technicist discourse, decentralized justice platforms cultivate the illusion of absolute neutrality by claiming to almost entirely automate decision-making processes to avoid explicitly assuming their deliberative dimension.

In decentralized justice, as is often the case with constitutional justice, the authority of the decision does not claim to emanate from a power relationship, but from a transcendental truth relationship maintained with a supposedly objective referential (the rule of law, for constitutional justice), scientific and arithmetic (for decentralized justice), based on game theory. This approach resembles what could ultimately be qualified as "automated specular democracy," where normative choices are concealed behind governance algorithms that claim absolute objectivity.

The recent development of tools like Harmony, Kleros's mediating bot that uses GPT-4 artificial intelligence to facilitate dispute resolution, illustrates this tendency: preliminary human mediation itself is progressively replaced by automated systems that claim to apply preprogrammed principles, similar to work on "Constitutional AI" developed by Anthropic (Orozco y Villa and Menendez, 2025).

This algorithmic institutionalization of choice architectures stemming from an anthropo-economic vision presents a risk analogous to hyperformalism: that of ultraformalism at the risk of reductionism (Korhonen and Markovich, 2021, 46-68). In computer programming, human expression is filtered through qualitative language theory that eliminates any margin for formalization. Rather than a culture of formalism, we could ultimately enter an era of "ultra-formalism and reductionism"

where the complexity of human judgment is systematically eliminated in favor of purely computational rationality.

For decentralized justice, since the recognized vulnerabilities of the technique are socio-economic (Sybil attacks, lazy strategies, etc.), it is therefore exclusively through an economic mode of rationality that one proceeds to evaluate the legitimacy of these systems. This reductive approach evacuates the proper political and ethical dimensions of judgment, thus reproducing, in a technologically sophisticated form, the same flaws as those denounced in the hyperformalism of French constitutional justice.

Although the French Constitutional Council has undeniably, in some respects, contributed to establishing fundamental philosophical and political principles such as national representation and the separation of powers as structuring and enforceable legal norms, the content given to them by constitutional jurisprudence has not led to the production or validation of an institutional theory based on these same principles.

Several authors have pointed out that, beyond repeating formulas of principle, French constitutional judges only produce and apply technical benchmarks (in particular, ranges with unknown minimum and maximum thresholds) that allow for what is perceived as a reasonable conciliation between these principles and, where applicable, rights and freedoms. As a result, French constitutional justice produces little more than technical benchmarks relating to electoral boundaries or the composition of electoral bodies, for instance, but does not address political representation (Daugeron, 2018), which is nevertheless the basis for its existence.

Similarly, French constitutional justice does not produce a structured theory of the separation of powers: it only and notably has a gauge for the acceptability of parliamentary interference in governmental prerogatives or, more broadly, elements for modulating the degree of constraint that the general interest—the relevance of which is defined and measured by other constituted powers—places on rights and freedoms (Mouton, 2019).

If we transpose these issues to decentralized justice, it becomes possible to consider that the limitations (particularly in terms of its legitimacy) arising from its structural hyperformalism could be overcome by the production or validation of theories on concepts as sensitive as that of “decentralization.” Would decentralized justice be capable of producing theories on decentralization? Would it be capable of addressing the substance of what is undeniably a pragmatic-transcendental presupposition of its own existence?

As things stand, would a “decentralized” jury be capable of producing, in support of a sentence, a definition that would live up to the reflections of both Web3 pioneers,

such as Vitalik Buterin (2017), and legal experts, such as Angela Walch (2019)? Will it be capable of doing so in the future?

3. Compared Shortcomings of the two Models

The comparative analysis of French constitutional justice and decentralized justice reveals common structural weaknesses that, despite their distinct contexts of emergence, demonstrate similar tensions between legitimacy of impartiality and functional efficiency. The abundant literature on the French case, constantly renewed, finds its counterpart in the debates that have accompanied the emergence of decentralized justice in recent years, during which a significant potential for undermining the conditions of impartiality and legitimacy supposedly subsumed by cryptoeconomic disintermediation has frequently been noted.

We propose here a comparative typology of these legitimacy failures structured around two main axes: organic-systemic legitimacy, which concerns the origin, composition, and methods of appointment of decision-makers (3.1), and functional legitimacy, which addresses the procedures, transparency, and efficiency of decision-making processes (3.2).

3.1 Organic-systemic Legitimacy

According to numerous specialists, the composition of the French Constitutional Council suffers from major structural deficiencies that undermine its organic legitimacy.

The issue of insufficient guarantees regarding the procedure for appointing judges constitutes a persistent central concern (Hennette-Vauchez, 2025, 53). This insufficiency manifests through inadequate organic proximity to the electoral principle, insufficient legal competencies (Lemaire, 2025), deficient representativeness, and inadequate procedural requirements for consensus on nominations.

The appointment of a new president of the institution in early 2025 perfectly illustrates these failures, as it passed by only one vote from an opposition to the 3/5 majority of parliamentary committees consulted for advice, which would have rendered it impossible. Such a minority nomination undeniably weakens the institution by reducing the limited indirect democratic legitimacy it possesses.

This situation contrasts with the legitimacy of the political authorities that the Council censures and, by extension, with the powers it exercises, whether virtually or effectively. It should be noted that the question of the institution's representativeness also arises in bureaucratic terms, insofar as the Council's administrative apparatus, particularly the Secretary General who heads it, exercises

considerable influence on the orientation of the institution's mission and its jurisprudence (Perroud, 2019). The limited evolution of this organization since the Council's creation can be considered both the product and factor of institutional "inertia" (Jeanneney, 2025, 955).

Decentralized justice, for its part, suffers from symmetrical but distinct organic legitimacy failures.

First, jurors are purely economic agents, operating according to a utilitarian logic of "justice by econs for econs": impartiality is guaranteed only by the supposed positive externality of a juxtaposition of individualities (Garapon and Lassègue, 2018, 206) subject to the Rawlsian veil of ignorance (Tulsyan, 2023), and no acculturation modality guards against the potential pitfall whereby dispersed persons who may have different legal and cultural interpretations of a particular dispute may not be able to rally around the "right solution" (Metzger, 2018).

Second, the legitimacy of courts fades behind a technical facade, resting on their cultivated appearance as a pure computational-cybernetic system, diluting residual economic uncertainties in code and cryptography. The use of decentralized justice becomes a commodity that aims to attempt to synchronize government-governance with the "high pace of socio-economic and technological changes" (Rosa, 2011, 369). Any human intervention in a "transaction" signifying slowdown, thus lower overall processing capacity and poor service quality, blockchain's great strength is to accelerate transactions while eliminating the need for trust or redirecting it toward technical architecture.

In favor of deploying an era of "integral calculability" (Dastur, 2006, 37), this represents a technicist approach to the legal phenomenon: it assumes entry into a world of automated functions, supposedly governed by mathematical consensus divorced from any fundamental dogma, but in reality conditioned by and indexed to an imperative of operability. It illustrates anew the "graphic and symbolic revolution" that digital writing represents, which "disrupts the very long continuity of writing by making normative force migrate within the new writing itself, in its very effectuation" (Garapon and Lassègue, 2018, 54), and consequently dispenses with interpretation. A "positive" law (Regourd, 2019, 217) emerges, first contractual, then automatically implemented, where applicable, by code.

3.2 Functional Legitimacy

The functional legitimacy of the Constitutional Council is compromised by several major procedural deficiencies, whose litany can constitute a useful reference framework for decentralized justice, if only for the vast spectrum they cover.

Insufficient procedural formalism constitutes the first criticism, particularly concerning given the political nature of the process. As Denis Baranger (2012) indeed observes, "constitutional legality is nothing other than reconfigured politics."

More precisely, according to the author, "It is actually almost impossible to distinguish the constitutional legality of which the judge would be the guarantor from the political arguments from which he would respectfully distance himself" because "Even when he seems to reason only in 'pure law,' the judge is therefore constantly confronted with political reasons.

If his control excluded these reasons, it would miss its purpose." "What matters is that the 'good reasons' for or against the law enter the discussion at the moment of constitutional review, in a form compatible with this type of control. It nonetheless remains that we know neither in advance nor after the fact what these good reasons were. [...] And this is why the question of motivation remains important. The underlying requirement to 'produce good reasons' is hardly compatible with a weak motivation system."

This weakness, moreover, runs counter to the fair trial model and is hardly in phase with the contemporary requirement of transparency. In the same vein, the insufficiency or nonexistence of publicity for contradictory opinions constitutes another major pitfall for the Council. This practice is aggravated by the inappropriate weight of official commentaries which, lacking legal existence, allow the Council to "justify the weakness of its argumentation in its decisions" (Bonnet and Gahdoun, 2025).

Subsidiarily, the problem of "narrow doors" perfectly illustrates this deficiency: the "external contributions" of individuals, organizations, or interest groups to influence the Council's decisions remain largely opaque, and the procedure before the Constitutional Council emerges as "triple deficient: the parties are not placed on equal footing [...], the procedure is moreover not public [...], which does not allow close control of the judge" (Perroud, 2019).

Furthermore, the timidity (self-restraint) and impotence of abstract control in the face of truly important issues (Bonnet and Gahdoun, 2025) generate problematic "byzantinism" on fundamental rights questions (Bottini, 2025), partly produced and maintained, incidentally, by the institution's bureaucratic culture (Fargeaud, 2025).

To these procedural insufficiencies are added safeguards against conflicts of interest largely perceived as insufficient (Tchilabalo, 2024), and a proven insufficiency of resources to handle mass litigation within reasonable timeframes. The "fiction" of integral control exercised a posteriori masks in this regard a structural incapacity to exercise genuine control (Jeanneney, 2025), with QPC control not being truly open to "citizens," as QPC is reserved for litigants who are parties to a trial, and is predominantly exercised by private legal entities (Benzina, 2020).

Decentralized justice, for its part, presents specific functional vulnerabilities that call into question its capacity to render effective justice that is legitimate because it is perceived as impartial, that is, as a procedure "in which factors extrinsic to the merits of a dispute have no tendency to favor one side of the dispute over another" (Peters, 2011, 125).

Conflicts of interest, corruption, and collusion, reinforced by the anonymity of jurors (Lamontanaro, 2020) and the absence of ethical oversight, constitute systemic risks that are insufficiently addressed. The mechanisms intended to prevent them are hardly developed, or rely exclusively on economic obstacles (Ast et al., 2023).

The absence of deliberation, motivation, and contradiction moreover characterizes these largely automated systems where the pursuit of efficiency largely evacuates procedural requirements considered fundamental according to more classical standards. If and when they exist, these dimensions remain largely opaque, because while blockchain transactions are public and verifiable, the identity and motivations of decision-makers remain inaccessible. This deficiency is aggravated by a limited capacity for intervention and complete resolution of cases outside web3 ecosystems (for a definition, see Nabben, 2023), whether one reasons in terms of service accessibility (cognitive, financial, technical) or enforceability of rendered decisions.

The growing use of artificial intelligence, for incentive or advisory purposes, introduces additional risks of fossilization (lack of adaptability) and lack of transparency (black box effect), a problem now well known in the literature and among practitioners exploring the possibilities of using machine learning systems to aid decision-making.

*

The comparative analysis reveals that despite their technological and institutional differences, French constitutional justice and decentralized justice suffer from similar structural failures that call for common responses that we have grouped according to the four imperatives they appear to address: accessibility remains a major challenge for both systems: restricted access to the Constitutional Council on one side, techno-economic barriers on the other.

Independence and impartiality are compromised, notably by politicized appointment methods in one case, reduced to economic considerations in the other.

Transparency is lacking both in the Council's procedural formalism and in the decisional anonymity of decentralized jurors.

Finally, evolutivity poses questions in the face of French procedural conservatism, on one hand, and social acceptability, the capacity to export beyond defined

ecosystems, and potential algorithmic fossilization, on the other hand. These elements are summarized in the table below.

Figure 1. Summary table of compared deficiencies

| Meta-category | French Constitutional Justice | Decentralized Justice |
|--------------------------------------|---|---|
| Accessibility | <ul style="list-style-type: none"> • Referral limited to certain authorities • Restrictive filtering of the QPC • Indirect and restricted citizen access | <ul style="list-style-type: none"> • Technical mastery required • Access costs |
| Independence and Impartiality | <ul style="list-style-type: none"> • Politicized and poorly controlled appointments, very low democratic legitimacy, low representativeness, and insufficient qualifications of members • Inadequate conflict of interest prevention system • Technical and cultural weight of bureaucracy • Low motivation for decisions | <ul style="list-style-type: none"> • Lack of motivation, deliberation and contradiction • Purely economic safeguards • Lack of deontological control • Anonymity preventing accountability • Risks of collusion and corruption |

4. Suggestions for an Institutional Acculturation of Decentralized Justice

This comparative investigation reveals parallels between traditional institutional inadequacies and those that emerge in supposedly revolutionary decentralized systems, calling into question the assumptions that blockchain technology could truly offer substantial procedural improvements to dispute resolution mechanisms.

Far from constituting an epistemological rupture, these new arrangements seem rather to fall within a logic of institutional sedimentation (4.1) that calls for a strategy of progressive acculturation (4.2).

4.1 Recognizing the Need for Acculturation: Decentralized Justice as the Next Sedimental Layer of Justice

The Legendrian perspective of institutional sedimentation offers a particularly illuminating analytical framework for understanding the emergence of decentralized justice. As Pierre Legendre emphasizes, the normative principle "produces, through historical accumulation, the equivalent of geological terrain," and one must "learn to grasp diversities, to distinguish so to speak the sedimentary layers of which the present is made, measure historical distances" (Legendre, 1995).

From this perspective, decentralized justice does not constitute a radical alternative to established jurisdictional forms, but rather a new stage of sedimentary experimentation in constitutionalism that, while drawing profit from proven forms and content, embodies the culmination of reflection on the potentialities of a partially computational societal constitutionalism, which seeks to be a complete and effective digital constitutionalism (see below).

This approach allows us to move beyond the sterile opposition between conservative technophobia and naive techno-solutionism. Like the incremental reforms that progressively legitimized the French Constitutional Council - relative improvement in the representativeness of appointments, elaboration of procedural rules, publication of "narrow doors" since 2019 - decentralized justice calls for a strategy of progressive acculturation that recognizes both its potentialities and its structural limits.

The legitimacy of democratic institutions, analyzed by Pierre Rosanvallon (2008) according to three complementary dimensions - legitimacy of impartiality, proximity, and reflexivity - offers a relevant normative framework for evaluating and orienting this acculturation. For decentralized justice to claim durable institutional

recognition, it must demonstrate its capacity to embody these three forms of legitimacy without being content with procedural efficiency alone.

The challenge therefore consists in facilitating the emergence of a *lex cryptography* that would present itself as a third way between what Legendre denounces as "the pathos of transparency," on one hand, and "suspicion toward the buried layers of the social or institutional phenomenon - the sediment" (Segers, 1991). The proposed path is that of "understanding the institutional phenomenon" conceived as "an assemblage of discourses, constructed on the basis of the universal requirement of legitimacy" (Legendre, 2019): it is that of the consequent admission of the necessity of acculturation.

4.2 Incrementally Facilitating Acculturation: Making a Jury Out of Decentralized Jurors

One of the major challenges of decentralized justice lies in its technical complexity, which tends to exclude non-initiates from the process, and limits if not its accessibility, at least its legitimation. As one author formulates regarding voting methods, "it is essential that the voter understand how this transformation [from votes to seats] is carried out in order to adapt his choice to this operation. Unless we consider that each voter can be a candidate for the Fields Medal, an excess of technique should not unnecessarily blur this message" (Gevonthian, 2017, 100-101).

This requirement of comprehensibility is all the more crucial as the passage from text (in comparison with the founding constitutional reference) to the effectuating technical structure itself (even if official documentation exists), entails "numerous consequences with regard to the modern approach to law (partial disappearance of publicity, significant retreat of intelligibility and accessibility, disappearance of interpretation...)"

Contrary to the assertion that citizens should "not be forced to explain blockchain technologies because no one should even care about them" (quoted by Berryhill, Bourgery and Hanson, 2018, 31), the objective of impartiality on the contrary requires increased transparency and pedagogy.

Acculturation therefore necessarily involves the development of interfaces and processes that make cryptoeconomic mechanisms intelligible without falling into the laudatory simplification that sometimes characterizes the promotion of these technologies. Like the Constitutional Council which fallaciously presents the QPC as a "citizen question" when it manifestly is not given the conditions of referral and the effects of decisions, decentralized justice must avoid misleading marketing discourse (Walch, 2017) to favor genuine institutional pedagogy.

The transformation of decentralized jurors into genuine juries requires first the inscription of their action within an identifiable framework, and consequently the elaboration of a digital constitutionalism that is both societal and computational. This approach presumes, in our view, three complementary dimensions.

Societal constitutionalism is characterized as an immanent and founding process (Sciulli, 1992) that organizes the modalities of collective decision-making without totalizing pretension. It aims to be transversal and open, integrative as well as integrated, allowing the emergence of a "natural" community that preexists the judges and whose Constitution defines competence.

Computational constitutionalism (Tan et al.) translates into code the rights and norms founding and limiting the exercise of power. Smart contracts become the translation of "profane" constitutional principles, without excluding complementary recourse to existing external solutions insofar as they respect the established constitutional framework.

Digital constitutionalism adapts fundamental constitutional values to the needs of digital society (Celeste, 2022). Ideally, it is neither platonic nor hemiplegic: it does not limit itself to granting a Charter of rights and freedoms by a platform that considers them as simple adjustment variables without an overall vision of the social (Costello, 2023), but specifies "which authorities represent whom, and with what limits, establishes and renews a separation of powers, and thinks in terms of responsibility, including political" (Griffin, 2022).

This multidimensionality suggests that neither a return to traditional institutional fundamentals nor technological escapism constitute sufficient solutions to contemporary challenges of justice, including when it is decentralized. Durable responses probably require hybrid institutional innovations capable of articulating classical democratic requirements with possibilities offered by new technologies, without sacrificing fundamental procedural achievements to imperatives of efficiency or modernization. Through abstraction (use of similar structuring principles) and through disaggregation (borrowing techniques), decentralized justice can be an innovative and augmented translation (Walker, 2012, 449-450) of this past experience.

Just as the French Constitutional Council is not truly a judge, Kleros juries, and more broadly decentralized justice, are not truly juries. A jury, as Édouard Laferrière noted in 1869, is certainly suitable for settling disputes in which "a competence that is not superior to that of the people" given, "precisely the extreme volatility, the omnipresence of chance in such assessments [here regarding freedom of the press]" (Laferrière, 1868, 258).

Where we perceive that in certain cases, nevertheless, specific competence will be more than welcome. Where we perceive, above all, that the jury must in any case embody a collectivity in whose name it pronounces (Garapon and Lassègue, 2018, 204-207) and cannot be merely a rootless formation united only by rational-economic motivation.

The innovations currently being deployed or projected by Kleros, namely Proof of Humanity mechanisms (with soulbound IDs) and Soulbound Tokens (George, 2024; 2025), designed to allow differentiation of jurors based on external qualifications (other than probabilistic and statistical ones, therefore), go in our view in this direction of incremental acculturation to address the legitimacy challenges previously identified.

From this perspective, cryptoeconomic innovations must avoid the persistent pitfall of techno-solutionism. Mechanisms such as weighted fees and deposits, peer-predictions, or the institution of a "Juror Misbehaviour Court" (George, 2023; 2024) are usefully complemented by the identification elements mentioned above, as well as by Kleros's evolution toward Kleros 2.0, whose modular architecture constitutes recognition of the fact that the "jury" is not, by default and even if economically incentivized, adapted to all jurisdictional functions.

In the same vein, the use of artificial intelligence for evidence analysis, case categorization, pattern recognition in similar disputes, and assistance to jurors can contribute to improving the quality of decisions without substituting for human deliberation. This approach falls within a broader trend of judicial automation, which also occasionally interests the French Constitutional Council (in electoral justice matters, see Rambaud, Hafsaoui and Bligny, 2023, 1323).

The acculturation of decentralized justice could, on the occasion of subsequent research, lead to establishing a matrix of different use cases/specializations of decentralized courts and juries, which would match specific cases with adapted lists of ethical requirements inspired by contemporary (constitutional) justice, allowing satisfactory degrees of legitimacy and impartiality to be achieved for each court.

However, this enterprise must avoid the identified pitfall whereby "attempts to circumvent the resulting political problem with blockchain technology have missed their target, because they focused on decentralizing rule enforcement, while real power lies in rule-making" (Lehdonvirta, 2022, 9). This fundamental critique of the intrinsic limits of cryptoeconomics as a governance paradigm suggests that purely economic incentives, while effective for certain coordination mechanisms, may constitute a glass ceiling for the development of more sophisticated forms of governance (Schneider, 2021).

Progressive acculturation would instead contribute to developing computational constitutionalism for decentralized justice, which would be an eminent and promising component of contemporary digital constitutionalism, capable of responding to contemporary challenges of justice without sacrificing fundamental procedural achievements to imperatives of efficiency or technological modernization. While decentralized justice undeniably represents a significant procedural innovation, its revolutionary pretensions must be tempered by recognition of its structural limits. The challenge of acculturation consists precisely in identifying these domains of optimal efficiency while developing hybrid mechanisms for cases where purely economic incentives prove insufficient.

Conclusion

At the end of this study, it seems to us that the study of French constitutional justice, its specific characteristics and its remaining aporias, can provide solid theoretical and empirical evidence to support a structural evolution of decentralised justice, capable of significantly increasing its legitimacy. Two of our initial hypotheses thus appear to be largely validated, or at least to provide a basis for further research.

Firstly, it appears that blockchain systems and constitutions do share the common pretension of establishing autonomous normative orders, and that decentralized justice and constitutional justice share the common goal of perfecting the autonomy of these orders, to which they participate. These two types of “justice” share the characteristic of being at the same time part of a system (for which they constitute one of its “checks and balances”) and erected somewhat above this system (for which they act as a super-representative).

In this respect, the institutionalisation of this “justice”, decentralized or constitutional, is part of an attempt to reduce the duplication of reference, between the ideal order advocated, on the one hand, and the order actually instituted, on the other, but is doomed to never truly and completely bridge this gap, because this bridging only occurs on a symbolic level, due to the human nature of the architects and subjects of these justice systems.

Secondly, il apparaît que l'étude du cas français est particulièrement pertinente pour it appears that the French case study is particularly relevant in shedding light on the current situation of decentralised justice, notably due to several characteristics of the former : constitutional justice, in France, has long fought - and is still fighting - for its establishment and recognition, and notably to resorbate the tension between its legitimacy of impartiality and its functional efficiency. Still, it has managed to establish some undeniable legitimacy. It has both done so, as well as it has been driven to so, thanks to or because of the diversification of its functions and use cases, while at least partly failing, for historical and structural reasons, to fully avoid an excess of formalism or even what has been coined as hyperformalism.

In the case of French constitutional justice, this accumulation of shortcomings, provides a rich material from which we have drawn a preliminary and general comparative matrix with decentralized justice (see Figure 1), and which has led to the incremental and institutional development of an “hybrid” model of (constitutional) justice : a trajectory that presents many resemblances with the one we consider decentralized justice has taken (extending its field of intervention to respond to the needs of an evolving ecosystem), is currently looking towards (under

the influence or its own actors and of its many critics), and has even started to engage with (with the latest planned developments of Kleros).

Therefore, our initial hypothesis appears to need some qualification. Some developments of decentralized justice (notably the extended use of AI) most certainly present a risk analogous to hyperformalism : compared to the symbolic and institutional dimensions of “justice”, the algorithmic institutionalization of choice architectures stems from a very reductive anthropo-economic vision. It is not entirely true, however, that the recent developments of decentralized justice, maintain the fiction of a decentralized web3 made self-sufficient by the existence of a decentralized justice system. On the contrary, it also appears that Kleros in particular,

In the end, we consider that the dispute resolution solutions built upon blockchain systems seem to fall within a classical logic of institutional sedimentation, that calls for a strategy of progressive acculturation. The transformation of decentralized jurors into genuine juries requires first the inscription of their action within an identifiable framework, and consequently the elaboration of a digital constitutionalism that is both societal and computational.

“Traditional” institutional structures are thus not only burdensome heteronomous constraints that need to be overcome, but provide many hints on how to establish an institutional system that does not lock its subjects into a deterministic relationship : a sedimentary approach, considering decentralized justice as a complementary tool, will most certainly help to grasp to what extent and how individuals or groups can participate in shaping the political entities that are blockchain systems and decentralized justice systems.

Jurors can certainly do so, and should certainly be led to do so : in both effectively and symbolically reintroducing the room for a valid and sanctioned interpretation of the norms shaping the system and of their applications, juries reveal that we are in fact dealing with institutions and not entirely automated algorithmic structures. At the same time, they offer the opportunity of shaping the place and practice for an intelligible interpretation, that can provide a bridge between blockchain and the world of representation, in which the question of meaning can alone be answered.

Some authors argue that digital economic institutions are in their “dark age” (Lehdonvirta, 2022, 212), referring to the risk of concealment and concentration of power by networks established as platforms that have become “functional sovereigns” (Pasquale, 2017). In the case of decentralized justice, one could consider that we are rather in an antique age, with all that this term can imply in terms of promise and inspiration, and in which the courtroom is also a forum.

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