

Let's Agree to Disagree

Celano's Struggle-for-the-Text Game as a Battle of the Sexes

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ABSTRACT

According to David Lewis, in ordinary communication, the attribution of meaning to words or symbols is a coordination game. Drawing on Lewis, Bruno Celano has argued that this does not seem to be true of legal language: the attribution of meaning to words in the legal domain, unlike the attribution of meaning to words in ordinary conversation, seems to be grounded in a non-cooperative game, which he calls the “struggle-for-the-text game” (*gioco lotta per il testo*). In this paper, I examine Celano's thesis. The problem is, in one respect, more serious than Celano presents it: the struggle-for-the-text game disrupts cooperation not only in the interpretation of legal texts but also in the determination of factual premises, such as documentary or testimonial evidence. In another respect, however, the problem is less serious. The struggle-for-the-text game is indeed a coordination game, just not a *pure* coordination game. If coordination were not involved, people would benefit from unilaterally assuming that legal terms have the meanings most convenient to them. And this is obviously not the case. People can benefit only from *converging* on some meaning that is more convenient, or less inconvenient, to them. I will thus argue that Celano's struggle-for-the-text games are coordination games, although not the type of coordination games that can be directly and easily solved through the establishment of conventions. They are battles of the sexes.

KEYWORDS

common knowledge, conventions, legal interpretation, legal evidence, judicial truth

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1. *Introduction*

I would like to maintain that the interpretation of legal language is not as different from the interpretation of ordinary language as some have argued. More specifically, I would like to discuss the thesis put forward by Bruno Celano according to which the attribution of meaning to words in the legal domain, unlike the attribution of meaning to words in ordinary conversation, is generally grounded in a non-cooperative game, which he calls “struggle-for-the-text game” (*gioco lotta per il testo*)¹. In arguing that the attribution of meaning to words in the legal domain is fundamentally different from the attribution of meaning to words in ordinary conversation, Celano is following in the footsteps of Chiassoni², who developed a theory of “interpretive games” in the sense of Wittgensteinian language games. Celano’s brilliant insight – which as we will see is extremely fruitful – was to analyse the same problem using game theory³. In referring to the “struggle-for-the-text game”, then, Celano means “game” in the sense of game theory. In what follows, I will use the word “game” in the same sense. In ordinary communication, as David Lewis showed⁴, meaning is fixed by coordination conventions: speakers assign a meaning to an expression because that is what other speakers do. It is only this conformity that makes communication possible. However, this conformity only exists for as long as the speakers have a shared interest in coordination. Celano’s central claim is that this shared interest is often absent in the field of law. This seems to imply that Lewis’s conventionalist theory of meaning does not apply to legal discourse. The attribution of meaning to legal texts is not a cooperative game, aimed at mutual understanding, but a conflictual strategic interaction in which each party attempts to impose on the text the meaning most favourable to them.

¹ CELANO 2006, CELANO 2017, CELANO 2020a, CELANO 2020b, ARENA 2020.

² CHIASSONI 2000; CHIASSONI 2019, 59-65. In turn, Chiassoni developed his theory in line with Genoese legal realism. Riccardo Guastini, arguably the most influential living exponent of this school of thought, writes: “In the legal domain, the meaning of normative statements is, in fact, a dependent variable – not only (or rather, only marginally) of the syntactic and semantic rules of the language in which such statements are formulated, but also and above all: of the particular interpretive technique employed (argument by analogy, argument a contrario, systematic argument, and so on), of the presupposed dogmatic theses, and of course of the (moral, political) preferences and practical aims of the interpreters” (GUASTINI 2019, 21, my translation; see also GUASTINI 2011, 404, where he explicitly refers to interpretation as a conflictual game (“gioco conflittivo”), rather than a cooperative one).

³ For a general introduction to game theory, see OSBORNE 2004 and DIXIT, SKEATH, REILEY 2009; for applications of game theory to law, see ZAŁUSKI 2013 and ROTOLO 2017. The notion of a game of strategic interaction and that of a language game are not unrelated. In particular, Wittgenstein’s idea of a “form of life” and the game-theoretic notion of common knowledge can be seen as complementary descriptions to the same underlying phenomenon, the implicit, pre-reflective background of shared expectations that makes coordinated human action possible. Exploring this connection, however, falls outside the scope of this article.

⁴ LEWIS 1969.

Of course, this does not mean that, according to Celano, legal language can never be used to communicate things. If I tell a friend that my bike has been “stolen”, or that I cannot meet him today because I have to go to the bank to apply for a “mortgage”, my friend will understand me perfectly well. But the communicative function of legal language seems to break down just when we would need it most: when legal language is used for its specific purpose, namely for the resolution of legal disputes. If I accuse my friend of theft, my friend will often have an interest in not agreeing with my definition of “theft”, and I will have an interest in favouring an interpretation that justifies my accusation, regardless of what my friend thinks. This is the typical pragmatic situation in which legal actors normally operate. This typical situation lacks the alignment of interests that makes a conventional use of language possible. The problem is further complicated by the fact that statutory texts, whose meaning is central in legal disputes, seem to lack a precise sender. Laws are, as Celano puts it, “messages without a sender” (*messaggi senza emittente*). The “legislators” are typically groups of individuals with differing interests and opinions, and this makes it impossible to attribute to the texts that they produce a single communicative intention in any plausible way. Statutes are expressions of incompletely theorised agreements, compromises whose meaning is sometimes left indeterminate precisely because indeterminacy was the condition for reaching agreement⁵. In such cases, interpretation cannot work in the way it usually works, i.e. through the recovery of the communicative intention of a sender, because no identifiable sender whose intention could be recovered exists⁶.

Celano connects the problem of the struggle for the text to a second problem, which seems to further threaten the rationality of legal discourse: what he calls the paradox of nomodynamics. It seems not only that legal concepts are characterised, for the reasons set out above, by a systematic indeterminacy, but also that the ordinary rules of logic do not apply to them. To illustrate the point, Celano offers a thought experiment, which clearly shows the independence of this problem from the previous one. Let us imagine taking a set of *very clear* rules, which thanks to their clarity do not give rise to the interpretive problems that normally characterise legal norms: the rules of Euclidean geometry. However, let us then modify this set of rules by introducing into it a single further rule, one that is typical, and arguably necessary, of any system of legal rules: a rule that says that, in the event of a dispute over the application of any rule, there is a competent authority, an arbiter, empowered to decide, and the decision of that arbiter, once a given procedure has been exhausted, itself becomes part of the system of rules. In this modified version of Euclidean geometry, a statement will count as a valid theorem not only if it follows from the pre-existing rules, but also if, even mistakenly, the arbiter declares it to be such. This, Celano observes, would produce systematic contradictions within the system. Here lies the paradox.

This article aims to contribute to the discussion of both of the problems identified by Celano, namely the struggle for the text and the paradox of nomodynamics. I will, however, focus mainly on the former, and deal with the latter only at the end, and only insofar as doing so is useful in supporting a premise assumed in the discussion of the former. In discussing the struggle for the text, I would like to show that, on the one hand, the problem it creates is more

⁵ CELANO 2017, 29.

⁶ Francesca Poggi approaches the same set of issues from the perspective of Gricean pragmatics. Her book, *Il modello conversazionale*, undertakes a systematic examination of whether Grice’s cooperative principle and conversational maxims can be extended to legal interpretation. Her conclusion is largely negative. In ordinary communication, the cooperative principle functions because there is a general shared expectation among participants that all will follow the conversational maxims, and it is this expectation of general conformity that makes implicature possible. In legal interpretation, by contrast, different interpreters in fact employ conflicting criteria: there is no general shared expectation of conformity to a common set of interpretive norms, and therefore no stable background against which implicatures could be reliably generated and recognised. As Poggi argues, legal interpretation is not a cooperative activity in the Gricean sense precisely because it lacks the shared expectation of conformity that sustains the cooperative principle — and absent that expectation, the principle does not operate (POGGI 2020, 295-298).

serious (in scope) than Celano presents it as being and, on the other, that it is less serious (in structure). It is more serious insofar as it undermines the certainty not only of reasoning *in iure*, but also of reasoning *in facto*. The struggle-for-the-text game can characterise the pragmatics of *all* legal disputes regardless of their object. It can disrupt the ordinary cooperation among speakers both in establishing the meaning of the legal terms and in determining the meaning of speech acts that establish factual premises (such as documentary or testimonial evidence). The conflict may even affect the acceptance of factual premises that do not depend on the interpretation of speech acts, but that nonetheless are necessary for the application of rules to the case. The game centrally involves what game theory calls “common knowledge”. The misalignment of the parties’ interests makes the mutual recognition of common knowledge as a background for communication particularly difficult. The problem is less serious than Celano presents it, however, because the struggle-for-the-text game is *not* purely conflictual. It is a coordination game: just an *impure* coordination game. It is a battle of the sexes⁷. We can see this if we realise that people do not benefit from unilaterally assuming that words have the meaning most convenient to them. They can only benefit from other players’ *convergence* on the meaning that is more convenient (or less inconvenient) to them.

To understand the payoff matrix of the struggle-for-the-text game, we must begin with the idea that the parties who struggle over a text do so only because the meaning of that text has some *value* for them. Such value exists only if the meaning makes a practical difference to the parties involved. If I don’t care about what the other person thinks is the right interpretation, because I have no interest in reaching an agreement on it, then I have no incentive to play the game. I would not have an incentive to engage in legal interpretation at all! But if I do play the game, insisting on an interpretation on which the other party will never converge will have no chance of increasing my utility. Why might I want the other person to accept my interpretation? Maybe because I think that if she doesn’t, I will have to go to court, and this may turn out to cost me more than accepting hers. A struggle-for-the-text game may be played, for example, when, if the parties fail to agree on an interpretation, each may have to bear higher litigation costs than those they would bear if they accepted the interpretation favoured by the other party.

Of course, the game has this structure only if each side has an incentive to insist on her own interpretation. This is not always the case. It may be that one party, A, manages to convince the other, B, that if the case went to trial, the judge would rule in favour of A rather than B. In that case, the game would not be a battle of the sexes, since convergence on the interpretation favourable to A would be the dominant strategy for both A and B. The structure would be different again if the parties involved were two judges sitting on the same panel who have no ideological preference for either of the possible interpretations, but who debate solely in pursuit of the shared aim of avoiding reversal on appeal or before the Court of Cassation. In that case, the game would be one of pure coordination. All these are very common cases of legal interpretation in which the conflictual and non-communicative aspect of legal language that interests Celano manifests itself less intensely. In this paper, we will focus mainly on the case in which interpretive interaction takes on its most markedly conflictual character. My thesis will be that even in such cases the game is partly cooperative. It is a battle of the sexes.

In order to examine Celano’s problem critically, we will need to introduce several notions from game theory. These will constitute a toolbox that we will use to understand the incentives and payoffs of the agents involved in a struggle-for-the-text game and eventually draw the matrix of such a game. Legal interpretation has “common knowledge” both as an input and as an output. So understanding how it works and why it is important is fundamental for a game-theoretic understanding of legal language. In Section 2, I will introduce the notion of common

⁷ The battle of the sexes has already been applied to legal interpretation by ZAŁUSKI 2013, 199–200, who uses it to model the interaction between two judges who wish to coordinate on a single interpretation of a norm but hold divergent preferences over the available meanings.

knowledge. In Section 3, I will show how common knowledge can change incentives in coordination games. In Section 4, I will show how it can prevent or solve prisoner's dilemmas. In Section 5, I will turn to Celano's struggle-for-the-text game, examining the two problems he identifies – hostile communication and the message without a sender – and arguing that the second is reducible to the first. In Section 6, I will argue that even in its most conflictual form the struggle-for-the-text game retains a partially cooperative structure: it is a battle of the sexes. In Section 7, I will show how a game theoretic approach can help explain the paradox of nomodynamics. This will also allow me to draw a conclusion about the relationship between evidence and truth, arguing (against Jordi Ferrer's Evidence Rationalism) that the coordinative function of judicial authority does not require, and is in fact undermined by, a commitment to material truth as the primary institutional objective of the trial.

2. Common Knowledge

To understand why two parties interpreting a rule may find themselves in the situation described by the struggle-for-the-text game, we need to take a step back and show when and how “common knowledge” can alter incentives. In fact, both the constraints internal to the game and the payoff at which the players aim can be understood only if one sees that the text over which they struggle is a form of common knowledge. We must therefore first pause over this notion.

There are cases in which we have no interest in violating other people's expectations through our behaviour. On the contrary, our concern is precisely the opposite: to choose, among many possible actions, the one that others expect from us. Perhaps you have had to meet someone without first agreeing on a sufficiently precise meeting point and without being able to communicate, because your phone was dead, or theirs was. This usually happens because people do not know the place where they are going to meet very well and overestimate the precision of the directions they have given or received. For example, a friend who is hosting you in Bologna might say: “Let's meet in Piazza Nettuno at 3”. But when you get there from the station, in Piazza Nettuno, your phone is off and the square is packed with people waving flags for some demonstration. There are too many people to see clearly where your friend is, assuming she has already arrived. What do you do? You would probably stand by the statue of Neptune. Why? In purely functional terms, one place would be as good as any other. But Giambologna's complex, with the four-metre bronze god at its centre, surrounded by sirens from whose nipples water gushes in every direction, is, let us say, more noticeable than other places. For this reason, you think it is at least a little more likely that, having to choose a place at random, she will choose this place to wait for you rather than another. You not only think it is more likely that she would choose it; you also think that she thinks that you would do the same, thereby giving her an additional reason to choose that place rather than another. This thought of yours is itself predictable. And the fact that it is predictable is itself predictable. And so on, in a *mise en abyme* of thoughts about thoughts about thoughts. In light of all this, if these inferences hold, the choice of place loses much of its initial apparent arbitrariness.

The expression “common knowledge” is used here in a technical sense that must be clarified in order to avoid two possible misunderstandings. First, the word “common” does not simply mean that the parties who possess it share a certain mental content. As Steven Pinker puts it:

«In ordinary English, the expression *common knowledge* refers to something that many or most people know, especially open secrets, as in ‘It's common knowledge that the police around here can be bribed.’ This is almost the opposite of the meaning of the technical term from game theory and philosophy(...). Just as confusingly, *common knowledge* in the technical sense does not correspond to the literal meaning

of its words, namely “knowledge that people have in common,” since that could pertain to identical private knowledge, where everyone knows the same thing without necessarily knowing that the others know it»⁸.

«With *private knowledge*, person A knows something, and person B knows it. With *common knowledge*, A knows something, and B knows it, but in addition, A *knows* that B knows it, and B knows that A knows it. On top of that, A knows that B knows that A knows it, and B knows that A knows that B knows it, and so on, *ad infinitum*»⁹.

So we can say that the fact that *p* (e.g., the fact that *R* is a rule to be followed) is ‘common knowledge’ among the members of a group *G* if and only if each member of *G*: (1) knows that *p*; (2) knows that every member of *G* knows that *p*; (3) knows that every member of *G* knows that every member of *G* knows that *p*, and so on, for an indefinite number of iterations.

Second, the word “knowledge” might lead one to think that the initial mental state giving rise to the recursive mechanism of mental states about mental states about mental states... must necessarily be a true and justified belief. But this is not so. Common knowledge, and the coordination that stems from it, can also arise from *false* beliefs. For example, suppose that my friend has always pretended to be an intellectual, when in fact she is not. Believing her to be a great lover of books, I will assume that, having to choose a spot to wait for me in Piazza Nettuno, she will pick the stall of antique books set up just outside Palazzo Re Enzo. Anticipating this mistaken thought of mine, she will indeed be found in that very spot. Coordination will thus emerge, even though the initial mental state was a false belief. The power of common knowledge lies not in reflecting a pre-existing reality, but in constituting it. For this very reason, the acceptance of the proposition that forms the object of common knowledge can be entirely arbitrary.

This is what happens when common knowledge is created simply through public declarations that assign status functions to persons or things, such as the public declaration that two people shall henceforth count as husband and wife. This kind of speech act, which Searle calls a *declaration*, differs from an ordinary assertive in that it does not describe a pre-existing state of affairs but produces it by the very act of describing it, provided it is recognised as such by the participants in the institution within which it is embedded¹⁰. When a referee declares a player offside, or when an assembly resolves that a proposal has been passed, institutional reality is altered by the mere fact that the declaration is made in the appropriate context and recognised as valid. The truth of the declaration is, in a sense, produced at the very moment it is uttered and accepted. This mechanism has the structure of a self-fulfilling prophecy. If everyone believes, or believes that everyone believes, that a certain word has a certain meaning, or that a certain thing has a certain value, or that a certain ritual produces a certain bond, then that belief tends to generate the forms of conduct that make it true. The initial belief need not

⁸ PINKER 2025, 15.

⁹ PINKER 2025, 9.

¹⁰ The claim that declarations acquire their institutional relevance and succeed in imposing status functions in virtue of the incentives they create through their influence on common knowledge is a thesis Searle himself would reject. In his reply to Hindriks and Guala, Searle argues that the key to understanding social ontology lies in status functions and their irreducible normativity (SEARLE 2015). I think the game-theoretic reading of declarations offered here is closer to the account developed by SMIT, BUEKENS 2017. The broader theoretical context of this debate is the dispute over whether institutions are best understood as equilibria, as regulative rules, or as constitutive rules, and whether these three conceptions can be unified. HINDRIKS, GUALA 2015 propose a framework in which institutions are conceived as rules-in-equilibrium and argue that constitutive rules can be derived from regulative rules via the introduction of theoretical terms, thereby combining what had previously appeared as rival accounts. See also: GUALA 2016. For an alternative attempt of integrating Searle’s account of declarations to game theory cf. HÉDOÏN 2013 and HÉDOÏN 2015. As GUARNIERI 2019 notes, Searle’s account takes the status functions created by declarations as a given, but game theory may illuminate the underlying and possibly conflicting individual goals from which they may emerge.

be true: for the recursive circle of common knowledge to be set in motion, it is enough that the belief be recognizable and that there be sufficient incentives to recognise it.

Axel Hägerström showed that the notions of legal right and legal obligation were rooted, in archaic Roman legal thought, in the belief that certain rituals were capable of constituting, modifying, or extinguishing bonds of a magical nature¹¹. Contractual obligation, in particular, was understood as the effect of a ritual act, *promittere dextram*, the offering of the right hand and the ensuing handshake, which was believed to seal a real bond whose violation would draw divine wrath upon the wrongdoer. From an epistemic point of view, this belief was false: no magical bond truly joined the hands of the contracting parties, and no deity would avenge the oath-breaker's breach. Yet, from the point of view of coordination theory, the falsity of the belief became irrelevant. The social expectation that promises formed in this way would be kept created consequences practically equivalent to divine wrath and sufficient to ensure coordination.

3. Common Knowledge as a Solution of Pure Coordination Problems

The problem of meeting a friend in a square is a typical problem that can be solved by appealing to common knowledge. Common knowledge typically arises, in the first instance, to solve problems of this kind. It is therefore useful to examine them. They are problems of pure coordination. Only afterwards will we turn to the more complex case, in which common knowledge does not directly ensure cooperation and the related increase in utility, but prevents a conflict from arising by means of prior or separate coordination. This happens when a community conventionally establishes rules in order to avoid future prisoner's dilemmas.

Pure coordination games are situations in which we have no reason to behave in one way rather than another independently of other people's reasons, and the only relevant consideration is the likelihood that our conduct will align with theirs. Expectations about other people's behaviour create a kind of snowball effect, whereby reasons that were initially weak become stronger simply by becoming the object of common knowledge that is increasingly salient and entrenched.

Here are a few other examples.

- *Which side of the road to drive on.* It doesn't matter whether we drive on the right or the left, as long as we all drive on the same side.
- *Rowing.* If we want to row a boat without wasting energy, the rhythm is irrelevant as long as it is the same for all rowers.
- *Campers looking for firewood.* If there are several areas where wood may be found, it doesn't matter who covers which area; we just want to avoid two people exploring the same area while another goes uncovered.
- *Who calls back after a phone call is cut off.* It doesn't matter who calls back, as long as someone does and not both at once.
- *Appropriate dress at a party.* Whether my outfit is appropriate is not an intrinsic property of the clothes but depends on how everyone else is dressed.

Game theory allows us to model these situations precisely. Take the simplest case: two drivers, Antonia and Bella, travelling in opposite directions on the same road. Neither has any intrinsic preference for the right or the left; each wants only to avoid a collision.

¹¹ HÄGERSTRÖM 1941, 153-173.

	Bella drives left	Bella drives right
Antonia drives left	No accident (0,0)	Accident (-1,-1)
Antonia drives right	Accident (-1,-1)	No accident (0,0)

Both cells along the diagonal are Nash equilibria: given the other's choice, neither player would benefit from switching. The problem is selecting one of them. This is solved by a convention in the following sense:

«A regularity R in the behavior of members of a population P when they are agents in a recurrent situation S is a convention if and only if, in any instance of S among members of P: (1) everyone conforms to R; (2) everyone expects everyone else to conform to R; (3) everyone prefers to conform to R on condition that the others do, since S is a coordination problem and uniform conformity to R is a proper coordination equilibrium in S»¹².

The definition requires all three elements – regularity, expectation, conditional preference – to distinguish conventions from mere habits or fashions, which do not produce the most important effect of conventions: the solution of coordination problems. Only when all three elements are jointly present does the behavioural contagion that benefits all involved parties arise. And as the meeting-point example shows, a convention need not be established by law or public declaration. A sufficiently visible statue can do the work by making one option more salient than the others.

We have seen that in everyday life we very often resort to conventions to coordinate with one another. But we have not yet talked about the most fundamental convention, and the most fundamental coordination problem of human beings. When we coordinate – for example, by making an appointment – we do so because we already have a conventional way of making our behaviour predictable to others. Creating this expectation in the other person is what produces, for him or her, an incentive to behave in conformity. This in turn creates an incentive on our part not to disappoint the expectation, by ensuring that our behaviour aligns with what the other has planned by reading our intentions, and so on. The ordinary way in which we do all of this is language.

Language is the most fundamental convention. And as such, according to David Lewis's theory, it is the solution to a coordination problem. Let us ask ourselves what incentive we have for using the word “dog” to refer to dogs and not, for example, to fridges. If I asked a friend “Please go and get the beers I left inside the dog”, first of all he would be unable to follow the directive I have in mind, and second, misreading my thoughts, he would think I had lost my mind. If, however, for some strange reason, one fine day everyone started calling dogs “fridges” and fridges “dogs”, I would have an incentive to do the same. And if I said to my friend “Please go and get the beers I left inside the dog”, he would not bat an eye: he would go and get the beers from the fridge and bring them to me.

	My friend uses the word “dog” to refer to dogs	My friend uses the word “dog” to refer to fridges
I use the word “dog” to refer to dogs	Communication succeeds (1,1)	Communication fails (0,0)
I use the word “dog” to refer to fridges	Communication fails (0,0)	Communication succeeds (1,1)

¹² LEWIS 1969, 42.

According to David Lewis, this is how words acquire meaning: through pure coordination. It is irrelevant which letters we associate with which sounds, or which sounds with which meanings, which endings with which verb tenses, which turns of phrase with which innuendos, or which syntactic structures with which logical structures. Communication and interpretation work because the parties involved share a common purpose: to cooperate intellectually, to make information available to one another. This idea of cooperation should not paint too rosy a picture of human relations: I cooperate with an interlocutor even when I call him an idiot. If I say “idiot”, I want him to understand precisely “idiot” and not, say, “Peloponnesian War” or “my darling”. I intend to produce a psychological effect in him, and in attempting to produce it, I rely on the fact that he too, if he is listening to me, is interested in knowing how I am insulting him¹³. We may disagree on everything, and be unwilling to cooperate in almost anything in our dealings with one another. But usually if we are talking to one another, at the very least, we share the purpose of understanding one another and we cooperate in achieving that purpose.

4. *Common Knowledge as a Solution of Prisoner's Dilemmas*

The rules we have discussed so far, namely conventional rules, have distinctive properties that, at first glance, most rules with which lawyers are concerned do not share. In particular, conventions about where to meet, linguistic rules, or traffic rules seem to produce their effects simply by being known. The mere knowledge of the rule by the members of the community creates an incentive for them to follow it and makes the rule effective. This means that the rule sustains itself, without any need for someone to monitor compliance and sanction those who do not wish to comply with it. The Italian Traffic Code does, in fact, provide for a sanction against those who drive on the wrong side of the road, but the sanction is almost never imposed, because people have no interest in driving on the wrong side of the road. It is certainly imposed less often than the sanctions provided for illegal parking and speeding. In situations such as those listed above, such as the choice of the side of the road on which to drive, the choice of a rowing rhythm, the search for firewood, and so on, the sanction is not needed. Similarly, perhaps there is some old professor ready to sanction, with his disapproval, those who fail to follow the rules of grammar; but most of us choose how to speak with the aim of coordinating with others and being understood, not with the aim of avoiding some professor's disapproval. To solve coordination problems such as these, it is enough to coordinate by establishing a convention. The mere fact that the rule is common knowledge produces, as if by magic, the incentive necessary for its effectiveness. None of this applies to another extremely important category of norms: those that serve to prevent and resolve conflicts between persons, rather than simply to coordinate them.

Imagine a fishing village overlooking a small lake. The fishers depend on the lake's fish stocks for their subsistence, and one bad day they realise that these stocks are beginning to run low. They are fishing too much: the fish do not have time to reproduce. If they were to become extinct, this would be a disaster for everyone. They therefore decide to introduce maximum annual quotas of kilograms of fish that each fishing company must not exceed under any

¹³ This account is coherent with Grice's idea that conversation is guided by a cooperative principle. When speakers appear to violate one of the rules on which this cooperation rests (Grice's conversational maxims), hearers do not immediately treat the utterance as non-cooperative in communication. Instead, they rely on the assumption that both parties are still engaged in a shared attempt to make communication possible. This allows them to draw on their common ground of knowledge in order to recover the speaker's intended meaning (GRICE 1989). According to Poggi this process does not apply to the interpretation of law, but has a limited application in the interpretation of contracts (POGGI 2020, 17, 285 ff., 340 ff.). The idea that understanding is only possible if the parties involved in the exchange draw on a common ground is also present in many other authors among which STALNAKER 1978, STALNAKER 2002 and of course in Searle's notion of the Background (SEARLE 1983).

circumstances. They have done the calculations and seen that, if everyone does their part, they may have to tighten their belts for a few years, but eventually the situation will return to normal. Here too, for the sake of simplicity, let us imagine that there are only two agents, Limne Ltd. and Rete Blu Ltd., and let us represent their choice of how much to fish as dichotomous, compliance or non-compliance with the rule, for the sake of simplicity.

	Rete Blu Ltd. complies with the rule	Rete Blu violates the rule
Limne Ltd. complies with the rule	No one goes bankrupt (-1,-1)	Limne goes bankrupt (-3,0)
Limne Ltd. violates the rule	Rete Blu goes bankrupt (0,-3)	Both go bankrupt (-2, -2)

Let us suppose that the rule has been established, but that there is no one to check whether it is being observed, or that, in any case, no one is able to sanction any overfishing. What is it in the two firms' interest to do? Here too, as in the other case, the behaviour of one agent depends on what that agent expects the other to do. Yet the kind of considerations they make are very different. Let us examine the situation. If both did their part, they would have much lower profits this year. It would be difficult, but in the meantime the lake's resources would recover, and this would ensure prosperity and security for the years to come. But perhaps, each of them thinks, there is a way to avoid reducing this year's revenues: taking advantage of the rival's reduced competitiveness, due to its compliance with the rule, in order to drive it out of business, while continuing to fish exactly as much as before and selling fish at a lower price than the rival. At that point, only one fishing company would remain on the market and, with fishing reduced by half, the fish resources in the lake would return to normal. The problem is that both have this idea. Both know perfectly well that the other might make this dishonest move. But if both actually made it, the consequences would be serious: the fish resources would be depleted and both would go bankrupt. So what is it in their interest to do? Each of the two, let us suppose Limne, reasons as follows. What is it in my interest to do if Rete Blu respects the quotas? Well, it is in my interest not to respect them. And if it does not respect them? Well, in that case too it is in my interest not to respect them: at least I will take my share of the remaining fish until they are completely depleted¹⁴.

This tragic situation is a prisoner's dilemma, and it cannot be solved by a mere convention, but only by making dishonest behaviour disadvantageous, that is, by sanctioning those who fail to comply with the rules. In this case, failing to comply with the rules simply means opportunistically reducing someone else's utility. Imagine subtracting 3 in utility from the agent who does not cooperate. Once you do the calculations, you will see that each agent will then have a sufficient incentive to cooperate. The sanction will never actually be imposed, and both the lake's fish stocks and the two companies will be safe. The paradox is this: the introduction of a mechanism capable of harming someone in a hypothetical future scenario benefits everyone.

This simple example, when compared with the previous ones, allows us to distinguish two very different types of rules: conventional norms, on the one hand, and what we may call social norms, on the other. The former serves to solve coordination problems, such as meeting in a square, moving through traffic, or communicating through language. The latter introduce formal or informal sanctions against non-cooperative behaviour. But there are also rules that belong to neither of the two previous categories, and that are distinguished by the fact that, unlike conventional and social norms, they do not benefit all members of the community. Their

¹⁴ Technically, we say that one strategy "dominates" another. In the prisoner's dilemma, defection is the dominant strategy. This type of reasoning is called dominance reasoning. Cf. KUHN 2026, ROTOLO 2017.

introduction benefits some at the expense of others. This third category includes all the norms underlying the welfare state, inspired by criteria of fairness. We may call them political norms¹⁵.

The first kind of norms, as we have seen, can be created simply through a declaration, perhaps a somewhat theatrical declaration, or one sufficiently clear for all its addressees to use it to select just one among many possible ways of behaving. The interesting question is whether it is possible to create, in the same way, through conventions, the necessary conditions for the stability of the other two kinds of norms. It is possible. This can happen in at least two different ways, united by the same mechanism. These are situations in which some agents have an interest in coordinating in order to modify another game, which is not necessarily a coordination game. We may call these two modes *synchronic heteronomous* and *diachronic autonomous*. The first involves the members of a group A coordinating in order to regulate the interaction among the members of a group B. The second involves the members of the same group at a time t_1 coordinating in order to regulate their interaction among themselves at a later time t_2 . Let us consider the two cases separately, with examples.

Synchronic heteronomous mode. An elementary school has many wonderful play structures in its garden, which the children can use during recess. The children run from one place to another, and the teachers cannot always keep an eye on all of them. Some attractions are more desirable than others, for instance a beautiful slide located in the middle of the garden. At first, everyone takes turns using the slide and the other more entertaining play structures. But at a certain point some unscrupulous bullies notice the general commotion and the adults' lack of attention. They begin to ignore the turns: cutting the line, pushing classmates aside, and so on. At this point even the honest children can no longer rely on the fact that, by respecting the line, their turn will eventually come. The result is chaos, the Wild West, a war of all against all. The adults see the problem and obviously want to solve it. But it is difficult to know how. Teacher Carla's intervention proves providential. She says to the others: "Let's do this: I'll watch the big slide; Sandro will watch the walkway; Gio will stay near the swing; Ahmed will keep an eye on the playhouse. If a child pushes or cuts in, whoever is closest stops them and sends them back to the line. And on the second warning, we will inform their parents". Problem solved. The social norm requiring respect for the line becomes effective again. This is a case in which solving a coordination problem among adults makes it possible to solve a network of prisoners' dilemmas among children. Being able to rely on turns for using the slide and the other play structures ends up being advantageous for everyone, even for those bullies who were able to prevail over others only while that expectation still existed.

Diachronic autonomous mode. Two hikers have become lost in a snowstorm and must cross a pass in the hope of finding help. They do not trust each other very much, but they know that by cooperating they would increase their chances of survival. They also know, however, that anything might happen during the crossing and that, if one of them finds himself in difficulty, the other might have no incentive to cooperate. They therefore decide that one of them will carry the flare needed to call for help once they have crossed the pass, while the other will carry the lighter. In this way each can rely on the other, because each will know that only if they both reach the other side will either of them have a chance of being saved. Here too we have a convention that makes it possible to solve a prisoners' dilemma and to sustain a set of social norms aimed at mutual cooperation in crossing the pass. Each has a weapon against the other: "If you don't help me, I'll throw away the lighter", or "If you don't help me, I'll throw away the flare". The conventional

¹⁵ Here by "norms" I mean exclusively social mechanisms capable of causally influencing other social mechanisms. The tripartition of norm types is inspired by ULLMAN-MARGALIT 1977. She calls the first type *coordination norms*, the second *prisoner's dilemma norms*, and the third *norms of partiality*. I will instead speak of conventional norms (or simply conventions), social norms, and political norms — partly to avoid giving the mistaken impression that I intend to adopt Ullman-Margalit's surrounding theoretical framework in its entirety, and partly for the sake of expressive simplicity.

institution of this reciprocal sanctioning power at t_1 is advantageous because, like the sanction in the fishermen case, it restores the advantage of mutual cooperation at t_2 , which guarantees a higher payoff than mutual defection. A coordination game at t_1 prevents the emergence of a prisoners' dilemma at t_2 .

Without claiming to be exhaustive, we may say that law often uses mechanisms of this kind to ensure its own efficacy. The parties who enter into the convention that resolves or prevents the conflict are not the parties in conflict: either they are different people altogether, as the adults are in the elementary-school example, or they reach an agreement before the conflict can arise, as the hikers do in the example of the pass to be crossed. Or, of course, both: the convention is entered into by subjects different from those involved in the potential conflict and before that conflict arises.

5. *The Struggle-for-the-Text Game*

We have seen that common knowledge of facts and rules serves both to solve coordination problems and to prevent conflictual situations, such as prisoners' dilemmas. The question we must now ask is what happens when this common knowledge is indeterminate, and in particular whether the subjects engaged in interpreting it are involved in a conflictual game or in a cooperative game. Celano's answer seems to be that, if an indeterminate rule is invoked within a conflict, the strategic interaction game in which its interpreters are involved will have the same structure as the conflict that the rule purports to regulate. By contrast, I will argue that the interpretation of rules, and more generally the interpretation and integration of common knowledge, is always at least partly cooperative, even when it takes place in order to resolve a conflict, or when the norm being interpreted may produce a benefit for one of the players and a detriment to another.

Celano notes that Lewis's conventionalist conception of meaning does not hold up in the context of legal discourse. Or, more precisely, in many cases, when we speak using legal concepts, it is obvious that the game we are playing, in assigning meaning to words, is not the one described by Lewis. Here, often, we are not playing a coordination game aimed at communication, but a different game, the struggle-for-the-text game: a game he describes as conflictual, in which each agent attempts to attribute to a given expression, to the "text", the meaning most favourable to himself or herself. In this regard, Celano identifies two problems:

In ordinary communication, the use of language has a conventional character. In legal discourse, the relation between signifiers and meanings is not purely conventional. Consequently, interpretive disputes arise in law: the struggle for the text. Interpretation becomes an object of controversy; participants put forward conflicting interpretive arguments.

In law, in many cases, there is no precisely defined and identifiable sender of the relevant texts: messages without a sender. This too gives rise to interpretive questions and controversies. To fill this void, participants put forward ingenious interpretive arguments¹⁶.

We can call the first of these two reasons the *problem of hostile communication*, and the second the *problem of the message without a sender*.

I will illustrate them with an example of my own. A public prosecutor and a defence lawyer are arguing over whether a defendant did a certain thing. These are the facts. Enrico entered a supermarket and was immediately noticed by the staff because of the bulky raincoat he was wearing. A staff member, Marisa, began to follow him without being seen. She saw Enrico take several cans of beer and put them in his pockets. Then he took a packet of mints and approached the checkout counters. At that point, Marisa called her manager, Valentino, who searched Enrico, found the beers, and called the police. As they argue, the defence lawyer and the

¹⁶ CELANO 2017, 48-49 (my translation).

prosecutor are dealing with a series of texts: the testimony of various people, Enrico, Marisa, Valentino, and above all legal texts, mainly the Criminal Code and the case law of the Court of Cassation on theft and attempted theft in supermarkets. Celano, to be sure, does not discuss the language in which the facts at issue in the trial are reported, such as the words of witnesses, but focuses exclusively on the language of the texts used to derive the major premise of the judicial syllogism: statutes, contracts, regulations, judicial precedents. Yet the first of the two problems I mentioned in Celano's quotation, the problem of hostile communication, is certainly also applicable to the texts and discourses from which the premises of evidential reasoning are drawn, as we shall see shortly. It is therefore worth considering this as well.

Simplifying as much as possible, we can say that what would typically happen in a legal dispute of this kind is the following. In her closing argument, the prosecutor will maintain that the witnesses say (and of course say credibly) that Enrico did *x*, and will maintain that the law says that, if Enrico did *x*, he must be convicted. The defence lawyer, in response, will deny both claims: "That is not true. The testimonial evidence does not say that Enrico did *x*, and the law does not say at all that, if Enrico did *x*, he must be convicted".

Starting precisely from the aspect Celano does not discuss, the question of fact, let us imagine Marisa's testimony and the use Enrico's lawyer might make of it. During the cross-examination conducted by the latter, in response to the question, "When Enrico took the beers and, according to what you say, put them in his pockets, had he turned toward you?", Marisa replies, "Of course. I saw him perfectly well". At that point, the lawyer says, "No further questions". The lawyer had intentionally said "had he turned" rather than "was he turned" in order to prepare an argument for later, namely this: Enrico knew perfectly well that he was being seen, so much so that he *had* turned toward Marisa so that she could clearly see the beers he was taking and putting in his pockets. Obviously, the lawyer will use this interpretation of Marisa's words to say that his client had no intention of stealing; he had simply forgotten to take a cart and did not want to hold all those beers in his hands. The prosecutor will obviously give another interpretation of the testimony.

The prosecutor and the defence lawyer will also have to interpret many normative texts – and here we come to the point on which Celano focuses – including Article 624 of the Criminal Code: "whoever takes possession of another's movable property, removing it from the person who holds it, with the purpose of obtaining profit for himself or for others, shall be punished with imprisonment from six months to three years and with a fine from 154 euros to 516 euros". When the legislature says "remove", does it mean to imply that the thing must in some way have left the control of the owner, or of the staff entrusted by the owner? If I am in your house and I take a book from your bookshelf, you see me, and you can take it back at any moment, have I "removed" it from you, or have I only attempted to do so? The prosecutor and the defence lawyer will have an interest in giving opposite answers to these questions, each in support of their own thesis.

This is the struggle-for-the-text game. According to Celano, it is evident that the game is conflictual because each party is trying to tilt the outcome in their favour. Whereas in Lewis's model each speaker's payoff is highest if the interpretation he adopts coincides with that of the others, and zero otherwise, here things are different. Since speakers do not assign meaning to words in order to communicate, but in order to win the case, they have no interest in making their interpretation of the terms coincide either with the interpretation given by the speaker or, still less, with the interpretation given by the opposing party to the text in question.

Despite what Celano suggests, this problem of strategic interaction arises not only in the interpretation of legal texts, but more generally in the interpretation of the premises that may legitimately be taken for granted in the conversation, and these premises may concern both questions of law and questions of fact. Relatedly, the problem of communication without a sender, which we typically find in the interpretation of normative texts but not in texts reporting factual data, does not constitute an autonomous problem. It is reducible and derived from the problem of hostile communication. Let us see why.

In determining the meaning of normative texts, in addition to the problem of hostile communication, there is also the problem of communication without a sender. At least in the abstract, one could still ask Marisa what she meant, even though the information, if obtained outside the trial, would be irrelevant. One cannot ask the legislator. This is not because it is difficult to find the telephone numbers of members of Parliament, but because neither the current members nor the Fascist members who wrote the Rocco Code in the 1930s are “the Legislator”. The Legislator is a theoretical construct, a fictional entity like Sherlock Holmes, the result of a thought experiment. This, however, does not mean that it is *impossible* to reconstruct rationally the meaning of its words. It is a case of abduction from hypothetical premises, structurally not very different from the one made with regard to Marisa. In both Marisa’s case and the Legislator’s case, we ask ourselves: “What is the best explanation of these words? What communicative intention is it most reasonable to attribute to the use of this term or expression in this context?” Neither Marisa nor the legislature can be questioned at the time of the defence speech and the prosecutor’s closing argument: Marisa because her testimony is over (if you prefer, we can even say that she is dead just to make the thought experiment work better) and the Legislator because it is a fictional entity. In both cases, the reasoning proceeds by using similar inferences, and in practical terms, in both cases, external criteria for checking those inferences are lacking. After all, you too, who are reasoning about Marisa, who is in fact – I assure you – an entirely imaginary character, could interpret her words by means of the same logical inferences you use every day when you speak with other people.

The real problem to be examined in order to address the sceptical doubt that concerns us is hostile communication. Indeed, even the problem of the message without a sender depends on it. Let us see why with an example. Suppose Sharmila is a progressive left-wing member of Parliament who introduces a new bill in Parliament. The bill concerns the allocation of economic incentives to encourage the entry of more women into the police, thereby promoting gender diversity in law enforcement. In her view, it is obvious: trans women are women. Some members of her party would even find it offensive to make this explicit in the statute. At the same time, however, she knows perfectly well that members of the conservative party would not vote for the statute, and that it would not pass, if this were specified. An intentionally ambiguous statute is therefore enacted. Whatever the true meaning of “woman” for the purposes of that statute may be, that meaning is not conventional. There seems to be no available regularity of behaviour *R*, concerning the identification of the reference of that word, such that everyone conforms to *R*, everyone expects the others to conform to *R*, and everyone prefers to conform to *R* on condition that the others do so as well. Progressive judges and conservative judges will have different views. Above all, the parties involved in a trial in which the provision is relevant will often want to support conflicting interpretations.

What makes legal interpretation apparently incompatible with Lewis’s model is that, in a great many cases, the parties involved in it have incentives different from those of a pure coordination game. In order to try to solve Celano’s problem, we must therefore focus on this: the parties’ incentives. What kind of game is the struggle-for-the-text game? In what sense is it not, as Celano says, cooperative? And if it is not cooperative, why do we play it?

6. *The Struggle-for-the-Text Game as a Battle of the Sexes*

There are cases in which even the interpretation of a legal text can constitute a problem of pure coordination. This happens with normative texts whose very purpose is to solve problems of pure coordination. For instance, interpreting a sign at the post office that reads ‘Go to counter A for registered mail and counter B for parcels’ will be, for both staff and customers, a pure coordination game. If it were no longer clear which counter is A and which is B, it would

suffice for one person to suggest an arbitrary solution for all others to have an interest in accepting it. But the disputes that arise in courts typically do not concern rules of this kind – they concern rules in which interests are at stake: the prevalence of one interpretation will benefit the plaintiff and disadvantage the defendant, or vice versa, or in criminal cases, benefit the accused and disadvantage those who wish to see their conduct sanctioned, or vice versa.

Let us therefore imagine a dispute concerning a rule whose application is not advantageous to all parties involved in the interpretive game, but only to one at the expense of the other. Imagine two parties, each defending an interpretation that favours themselves and harms the other. These could be the two parties involved in the prisoner's dilemma described above – Limne ltd. and Rete Blu ltd., the two fishing companies operating on the same small lake. Let us recall the situation. The lake is exhausting its fish stocks because both companies are fishing too much. The two companies decide to introduce maximum annual fishing quotas. However, without an authority capable of verifying and sanctioning violations, the agreement cannot hold. The structure of the game is that of a prisoner's dilemma: whatever the other does, each company is better off exceeding its quota. The result is that both exceed their quotas, the fish go extinct, and both companies fail. To escape this situation, the two companies need an authority capable of making non-compliance with the quotas costly: an institution – a court or an arbitrator – that can ascertain violations and impose sanctions heavy enough to make defection unattractive. With this possibility in play, the structure of the game changes: the expected utility of defection decreases, and cooperation becomes the rational equilibrium for both parties.

If Limne and Rete Blu operate within a complex legal system, they have the option of entering a contract with the reasonable expectation that it can be enforced by an independent court. In doing so, they act somewhat like the two explorers lost in a blizzard who divide up the rescue kit. They cooperate to avoid a future prisoner's dilemma situation which they know would be harmful to both, as it would lead to the extinction of the fish stock in the lake and to the bankruptcy of both companies. To avoid this outcome, each provides the other with an instrument for the event of defection. Let us therefore suppose that they have entered into a contract but that its interpretation turns out to be disputed. (We could also imagine a dispute of fact concerning the interpretation of documents recording the quantity of fish caught by both companies: this would change nothing for the purposes of the game.)

Let us set aside the specific wording of the contract. Suffice it to say that it is a text to which Limne and Rete Blu wish to assign two entirely divergent interpretations. In Celano's terminology, Limne and Rete Blu are fighting over the text. But what is the point of this struggle? What is the spoil of war that each wants to claim? Obviously, it is not an interpretation that belongs to one party alone. Such a unilateral attribution would be irrelevant. What each party wants is for its own interpretation to be recognised by the other as well. They want a way to impose it on the other. And they want the other to act on the basis of it and in their interest. Let us call $I(\text{Limne})$ the interpretation preferred by Limne (for example, an interpretation under which Rete Blu is in breach of the contract in calculating the quotas and is liable to pay damages to Limne) and $I(\text{Rete Blu})$ the interpretation preferred by Rete Blu (for example, an interpretation under which Limne is in breach of the contract in calculating the quotas and is liable to pay damages to Rete Blu).

	Rete Blu chooses $I(\text{Limne})$	Rete Blu chooses $I(\text{Rete Blu})$
Limne chooses $I(\text{Limne})$	Conflict solved (1, 0)	Conflict persists (-1, -1)
Limne chooses $I(\text{Rete Blu})$	Conflict persists (-1, -1)	Conflict solved (0, 1)

Suppose that if the two parties fail to converge on any common interpretation, they will obtain the lowest payoff: they will be forced to go to court at increased cost, and the uncertainty created by the cooperative conflict will, in the meantime, worsen the already precarious situation of the lake. Nevertheless, the two ways in which the two companies can coordinate do not assign the same payoff to both: convergence on I(Limne) is more advantageous for Limne, while convergence on I(Rete Blu) is more advantageous for Rete Blu.

We can also modify the example by stipulating that only one of the two parties would suffer harm from the continuation of the conflict. In that case, it seems that the other would have no interest in converging on a common meaning. This is certainly true. But in that case the party would not be engaged in an exercise of legal interpretation. It would have no reason either to compete or to cooperate with the other party in determining meaning. It would have no incentive to take part in Celano's struggle over the text. In that scenario, it would probably engage in legal interpretation only if a judge capable of enforcing the contract were to become part of the game. But this would again require providing an interpretation on which at least the judge can converge. So, once again, coordination would be implicated.

This situation of strategic interaction, in which two parties in potential conflict must cooperate to find a shared meaning for the rules governing their conduct, rarely arises spontaneously¹⁷. It arises because it is cleverly arranged – either by the interested parties themselves or by third parties, typically by the political or social community of which the rivals are members, which has an interest in reducing the costs arising from its internal disputes. Even two isolated individuals may have an interest in cooperating to turn their future conflicts into partially cooperative games of this kind rather than prisoner's dilemmas. We saw this in the case of the two hikers (the autonomous diachronic mode of game transformation). But this is typically done by involving disinterested third parties in the game, either because they intervene on their own initiative (the heteronomous synchronic mode) or because their intervention is preplanned by the parties involved in the conflict as in the example imagined above. Two children, to avoid the costs of constant disputes over the use of a toy, might have an interest in invoking the authority of an adult capable of settling their quarrels and making their decisions effective. Two companies might have an interest in jointly investing in conflict resolution, since the cost of paying arbitrators who guarantee expertise, impartiality, and predictability of decisions might be lower than that produced by future prisoner's dilemmas which, as we have seen, in the absence of external intervention, systematically produce inefficient outcomes for all players involved. But in complex societies, the transformation of incentives necessary to make legal discussion possible is a public service provided by the state – one of the most important, alongside healthcare and education: the administration of justice.

Legal interpretation in Limne's and Rete Blu's example is therefore an impure coordination game. What is the best way for the parties to approach it? If both parties believe that a judge called upon to decide the case is equally likely to rule in favour of either side, the best course of action for both is to reach a settlement: one party might offer to compensate the other for accepting its preferred interpretation. But let us slightly modify this initial scenario and imagine that Limne knows that a judge would almost certainly rule in its favour. At this point, Limne would have no interest in settling and would instead have an incentive to bring the case to court. Before doing so, however, the best course of action would probably be to inform Rete Blu

¹⁷ According to Kaushik Basu, this would indeed be the only foundational power of law, from which all other powers derive: to suggest a focal point among various possible equilibria: "The law is like putting up a Meeting Point signboard up in an airport terminal (...). It chooses an equilibrium, from among all available equilibria, and says that that will happen and by doing so, it hopes to make that outcome focal" (BASU 2015, 21). According to Basu, therefore, the coordination problems that law solves would ultimately all be traceable to cases of pure coordination. The organization of the institutional apparatus that allows for the solution of apparently different problems as well – such as prisoner's dilemmas – would depend in the final analysis on the solution of pure coordination problems involving also those agents entrusted with the imposition of sanctions.

of the situation. After all, it can be presumed that recourse to legal authority would carry costs for Limne as well: legal expenses, uncertainty, delays, and so on. What interest would Rete Blu have in such a case? Rete Blu would do well to listen very carefully to Limne's arguments, follow the internal logic of its reasoning, and assess whether it genuinely has any viable lines of defence. Perhaps Rete Blu forms a different prediction from Limne because its judgement is clouded by various biases. In that case, its inferior legal competence would constitute a serious disadvantage. A close inspection of scenarios like this, through the lens of game theory, silences the more radical forms of interpretive scepticism and shows just how unrealistic certain views that award themselves the honorific title of Realism can be.

7. *Common Knowledge and Judicial Truth*

The "struggle for the text" game is only one of the two open problems in the theory of interpretation that Celano has brilliantly illustrated. A second, related problem is the one posed by the paradox of nomodynamics. It seems that legal reasoning has no hope of being a rational practice not only because the parties involved in it do not cooperate in establishing common knowledge, that is, because the preconditions are absent for the existence of a Lewis-style conventional meaning that could form the subject matter of the dispute. The irrationality of legal practice would be increased rather than resolved by the possibility of appealing to the authority of the courts in cases of interpretive conflict. I shall address this second problem only partially, namely only insofar as doing so is necessary to justify my game-theoretic reconstruction of the struggle-for-the-text game.

When two people discuss how to interpret a legal text, or how to reconstruct the facts for the purpose of applying a legal text in order to resolve a dispute between them, they do so only because establishing a shared interpretation or a shared version of the facts has some value for them. This happens because coordination on an equilibrium, whether the one more advantageous to one party or to the other, is for both a preferable solution to failed coordination. If, for one of the two, the preferable solution were failed coordination, the attempt to persuade the other would be pointless. As we have said, the fact that this game occurs is usually the planned result of a prior regulation of the conflict, and this kind of regulation is one of the fundamental services that a complex legal order provides to its citizens. If there is the possibility of appealing to authority, many games that would otherwise be conflictual become cooperative games to the mutual advantage of all parties involved.

The question we can now ask, however, is this: what kind of activity must a court perform in order to produce this effect and provide this service? Must it be able to provide "correct" or "true" answers to the interpretive problems raised by the parties to the game? If the answer to this last question were yes, the entire explanation of the struggle-for-the-text game offered so far would be exposed to a sceptical doubt. If there is no correct answer to interpretive dilemmas, then, on this view, there could not even be the authority that makes the struggle for the text a meaningful exercise and that makes the prevention of conflict situations through appeal to authority possible. The answer I would like to offer to this dilemma is that authority succeeds in producing the desired transformative effect on the game even if it does not promise to provide correct answers. Indeed, my thesis will be more radical: in order truly to succeed in this undertaking, it must be willing to renounce a correct answer.

The argument in support of this thesis will be based on a thought experiment. We shall imagine two courts, which we shall call Court M, from material truth, and Court J, from judicial truth, operating in different ways: M aims solely to provide correct answers to the questions of law and fact raised by disputes between the parties; J adopts values other than correctness as its principal objectives and is willing to provide incorrect answers if doing so is

functional to the fulfilment of these different objectives. Since the struggle-for-the-text game, as we have seen, may concern both disputes over questions of fact and disputes over questions of law, and since it is more controversial whether true or correct answers can exist to questions of law than to questions of fact, the thought experiment will focus on a factual dispute. However, the argument could be constructed in exactly the same way by referring it to a legal dispute: in that case, it would show that even if correct answers to problems of substantive law existed, providing such answers should not be the courts' primary objective.

The fact that the thought experiment concerns a factual dispute will also make it possible to show the close correlation between the problem discussed by Celano in relation to the theory of legal interpretation and another problem discussed within the theory of evidence, namely whether there is necessarily a teleological connection between evidence and truth. The currently dominant theory, evidence rationalism, maintains that such a connection exists¹⁸. The thesis, as defended by Jordi Ferrer Beltrán¹⁹, oscillates between being a conceptual theory and a normative theory: Ferrer speaks of truth ascertainment as the institutional objective of the trial and of evidence as the instrument designed for that purpose. Since courts aim to bring about the states of affairs prescribed by laws for certain hypothetical scenarios, they must necessarily devote all their available resources to verifying when those hypothetical scenarios have occurred. It is in a similar vein that Ronald Allen states that "accuracy in fact-finding may be more fundamental than rights and obligations, for without accurate fact-finding, rights and obligations are meaningless"²⁰. Rationalism makes this teleological connection one of its main theses in order to distance itself from a now minority line of thought according to which evidentiary statements are not assertive speech acts, but declarations in Searle's sense. We may call this thesis evidentiary legalism, and the views of Francesco Carnelutti and Hans Kelsen may be traced back to it (Ferrer 2007), as may, more generally, the views of all those who insist on a distinction between material truth ascertained in a scientific laboratory and procedural truth produced or fabricated in court.

Our thought experiment therefore aims to do two things: first, to explain how conflicts concerning the application of law to concrete cases can be partly cooperative even if the judicial authority that can be invoked is not primarily oriented toward providing true answers to the questions under discussion; second, to explain why, both normatively and conceptually, it is not reasonable to postulate a teleological connection between evidence and truth, and thus to maintain that, at least from this point of view, evidentiary legalism is right and evidentiary rationalism is wrong. The argument must be read in connection with what was said earlier about common knowledge and the fact that it produces its typical effects independently of the truth of its object. Common knowledge produces its coordinative effects not because it reflects a pre-existing state of affairs, but because it constitutes one. The power of common knowledge lies in its publicity, not in the truth of the propositional content on which it bears. A false belief, if it is common knowledge, can produce coordination just as effectively as a true one.

Let us therefore proceed to construct our thought experiment. Imagine that a dispute arises between Limne and Rete Blu, the two fishing companies that featured in the earlier examples, concerning compliance with the quotas. Let us ask under what conditions this dispute is transformed into the struggle-for-the-text game, and in which cases it instead remains a prisoner's dilemma. We shall imagine two counterfactual scenarios: one in which the competent body that can be invoked to decide on possible quota violations is Court M, and one in which it is Court J.

¹⁸ ACCATINO 2019; FERRER BELTRÁN 2007; FERRER BELTRÁN 2021; ANDERSON, SCHUM, TWINING 2005; TWINING 1994.

¹⁹ FERRER BELTRÁN 2021, 18.

²⁰ ALLEN, FRY, NOTEBAERT, VANDAM 2014; cf. ALLEN 2013.

Court M has adopted as its institutional aim the ascertainment of material truth. It behaves like a scientific laboratory: it gathers as much evidence as possible, freely assesses its reliability, refuses to be bound by rigid procedural rules or predetermined standards of proof, and deliberates for as long as necessary before pronouncing judgment. Court M is, in a word, optimised for truth. Court J, by contrast, has adopted as its institutional aim not the ascertainment of material truth, but the certification, on the basis of conventional, predictable, and publicly known criteria, of which factual propositions may count as proven within legal reasoning. Court J does not ask which version of the facts is more probable in absolute terms; it asks which version satisfies the conventionally established conditions for being declared proven.

Both courts will frequently fail to ascertain the truth. Absolute certainty is not of this world. But there is a difference both in the quantity and in the quality of their failures. Court M probably discovers the truth more often. Court J, however, fails in much more predictable ways. Where the objective of ascertaining the truth cannot be reached with sufficient reliability within a reasonable time, Court J's evidentiary reasoning accepts this and resorts to procedures that produce a version of the facts in a predictable way – refusing, for instance, to take into account evidence not produced within the prescribed time limits, or declining to use the judge's private knowledge, however reliable it might be, precisely because its use would make the judgment uncontrollable from the outside and suspect of bias.

What effect would these different institutional designs have on Limne and Rete Blu? Recall that the point of having an authority at all is to transform the strategic interaction between the parties: to make cooperation rational by making defection costly, and to do so reliably enough that both parties can predict, in advance, how the authority will decide. This is the coordinative function that the authority must perform. It is also, as we saw in Section 3, the function that makes the agreement between the two companies more than a gentlemen's agreement, one that actually stabilises cooperation and prevents the prisoner's dilemma from arising.

The scenario in which Court M has jurisdiction over their disputes produces two related problems for Limne and Rete Blu.

The problem of predictability. In all difficult cases, cases where the evidence is genuinely ambiguous, as disputes over quota calculations often will be, Limne and Rete Blu would have no reliable way of predicting how Court M will decide. The court's unlimited investigative powers and its freedom from procedural constraints mean that the outcome depends on what evidence the court happens to uncover, and this is precisely the kind of information the parties cannot anticipate. In all such cases, the court's presence would have no effect on the parties' strategic interaction: a potential prisoner's dilemma would remain a prisoner's dilemma, because the probability of sanction would remain too uncertain to deter defection.

The problem of impartiality. Because Court M relies on informal channels of investigation, including methods unavailable to the parties, neither Limne nor Rete Blu can monitor its reasoning from the outside or verify that it is deciding with the aim of ascertaining the truth rather than favouring one party. This makes Court M an unreliable instrument even in easy cases, where the truth is clear. Even where Rete Blu has flagrantly exceeded its quota, Limne cannot be confident that bringing the matter before Court M will be an effective way of having its claim upheld. Even in easy cases, therefore, the court provides insufficient incentive for cooperative behaviour.

Court J, by contrast, solves both problems. Where the court competent to decide is J, citizens would know exactly which facts can be proved and in which cases, instead, the court would decide on the basis of fictions. This would probably lead Rete Blu to assume responsibilities that, under the contract, would not be theirs, simply because Rete Blu would know that Limne would prevail in court. But this injustice would be offset by other injustices equal and opposite in kind: Rete Blu would not assume responsibilities that were theirs under the contract simply because Rete Blu would know that they could shift them onto Limne if a dispute arose. This

would have the effect of replacing the theoretical allocation of responsibilities provided for by the contract with another allocation which, at the functional level, would be just as effective in producing cooperation and preventing the prisoner's dilemma. Limne and Rete Blu can take Court J's likely future ruling into account, also in cases where Court M's future ruling would be unpredictable. And it is only this predictability that transforms their interaction from a prisoner's dilemma into a game in which cooperation is rational. Moreover, because Court J's procedures are transparent and its criteria publicly known, the parties can monitor its decisions from the outside and verify that it is applying them impartially. This impartiality, once it becomes common knowledge, increases the court's authority and makes the parties even more willing to defer to it.

Notice what this argument shows. The value of Court J's decisions does not derive from their accuracy. It derives from their *publicity* and their *predictability*. Truth is only instrumentally sought when this is necessary to ensure these two other values. What the parties need from an authority is not an oracle that reliably tracks the truth, but a mechanism that makes common knowledge reliable. The relevant metric is not how often the court gets things right per se, but how effectively its likely future decisions can transform the parties' incentives and thus make cooperation rational.

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