Embodied Cognition and Legal Concepts

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ABSTRACT
When lawyers determine what the law says about a certain case, they claim to do so by way of "classifying" the facts. This means that what the law says about the case is supposed to depend on certain *properties* that the facts display. Another way to put this is that events or objects in the case fall into certain legally relevant concepts in virtue of certain relevant properties they possess. Suppose Giovanni is caught shoplifting. Should Giovanni go to jail? Should he pay a fine? This depends on how we can classify this event. Was it a theft? A robbery? An attempted theft? The solution of the case will depend on the relevant legal concepts the case can be said to fall into. The act of classifying the facts in this way is not equivalent to a simple *description* of them, because it requires the speaker to make a double commitment about the properties of the case. The first commitment is that these properties exist, i.e., that they *de facto* characterise the case in question. The second commitment is that these properties are the ones that should *de iure* be selected as relevant for identifying that particular concept and thus deciding the case. Thus, to classify a fact as a referent of a concept is to take a stance not only on the nature of that fact, but also on the structure of the concept used to present it, and thus on the content of the law and, indirectly, on how the case should be decided. In this paper, we will try to explain some peculiar aspects of how legal concepts are used to describe and criticise states of affairs, drawing on cognitive science, and in particular the perspective on cognitive science called *embodied and grounded cognition*.

KEYWORDS
embodied and grounded cognition, legal concepts, internal point of view, H.L.A. Hart.

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Embodied Cognition and Legal Concepts

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1. *Introduction*

When lawyers determine what the law says about a certain case, they claim to do so by way of "classifying" the facts. This means that what the law says about the case is supposed to depend on certain *properties* that the facts display. Another way to put this is that events or objects in the case fall into certain legally relevant concepts in virtue of certain relevant properties they possess. Suppose Giovanni is caught shoplifting. Should Giovanni go to jail? Should he pay a fine? This depends on how we can classify this event. Was it a theft? A robbery? An attempted theft? The solution of the case will depend on the relevant legal concepts the case can be said to fall into. The act of classifying the facts in this way is not equivalent to a simple *description* of them, because it requires the speaker to make a double commitment about the properties of the case. The first commitment is that these properties exist, i.e., that they *de facto* characterise the case in question. The second commitment is that these properties are the ones that should *de iure* be selected as relevant for identifying that particular concept and thus deciding the case. Thus, to classify a fact as a referent of a concept is to take a stance not only on the nature of that fact, but also on the structure of the concept used to present it, and thus on the content of the law and, indirectly, on how the case should be decided.

In this paper, we will try to explain some peculiar aspects of how legal concepts are used to describe and criticise states of affairs, drawing on cognitive science, and in particular the perspective on cognitive science called *embodied and grounded cognition*. In the first section, we will give an initial summary definition of "concept" by briefly explaining the function that concepts, in general, play in our thinking. Since the word "concept" is sometimes used to mean different things, in the first section, we will clear up any ambiguities. At the same time, we will remain as neutral as possible about *theories* of concepts at this stage. In the second section, we will discuss the classical naïve way in which legal concepts are sometimes conceived by lawyers, namely as sets of conditions that are necessary and sufficient to identify whatever they are referring to (e.g., the concept of BACHELOR = criterion 1: unmarried; criterion 2: male; criterion 3: human). We will see that the main problem with this theory in the legal sphere is its inability to explain how subjects using a given legal concept can genuinely disagree about the possibility of applying it to a concrete case of which they have a common representation. In the third section, we will contrast this criterial, naïve view with a more plausible alternative. In the fourth section, we will try to explain how this more plausible view resonates with a strand of contemporary cognitive science: embodied and grounded

* This article is the result of a collaboration between a philosophy of law researcher, Michele Ubertone, and three cognitive psychologists, Anna M. Borghi, Caterina Villani and Luisa Lugli. Although the whole text is the result of a joint effort, the introduction and the sections with a mainly philosophical and jurisprudential content (2, 3 and 4) are mainly attributed to Michele Ubertone, while the following sections with a mainly psychological content are attributed to Anna Borghi, Caterina Villani and Luisa Lugli. The authors would also like to thank Corrado Roversi for his advice and feedback, without which the writing of this article would have been much more difficult.

cognition. We will explain in which sense some of the cognitive science literature talks of concepts in general as being "embodied" and "grounded" and ask what the consequences of these general features may be for the functioning of specifically *legal* concepts. In the fifth section, as an illustration of a possible methodology to meet this challenge, we will present an experiment carried out at the Laboratory of Legal Theory and Cognitive Science of the University of Bologna and explain its significance for legal theory. We believe that this line of research could show that aspects of open problems in legal theory probably cannot be solved with the traditional tools of conceptual analysis, but rest on empirical facts about the functioning of our minds.

This article often refers to the "internal point of view", a phrase used by HLA Hart to identify a particular way of using legal rules and the concepts they contain: using the law to justify and criticise behaviour, rather than merely to describe it. It is therefore appropriate to introduce a caveat at the outset. The purpose of this paper is not to reconstruct the historically most correct interpretation of what Hart meant by his theory of the internal point of view. The purpose of this paper is to explain what we can say about the internal point of view in the light of some lessons from embodied and grounded cognition.

2. *What we mean by "concept"*

Lawyers, philosophers and cognitive psychologists all use the word "concept" in their respective fields of interest, but it is not obvious that in using it they mean exactly the same thing. Different traditions use the word with slightly different meanings and this difference does not always depend on substantive disagreements on mind, language, or logic but merely on different linguistic conventions. For this reason, it is probably a good idea to start with a terminological clarification. In what follows, we will use the word "concept" in the sense provided by Elisabetta Lalumera:

> «Something is a concept by virtue of the function it performs within a cognitive system, and something is the concept of a certain category C (at least partially) by virtue of the further specific function of representing it. It is a further question whether or not the functional kind "concept" is realized by natural kinds[1]. Functional kinds can be individuated and described independently of their realizers. [C]oncepts can perform a double function—namely, abstraction and projection of knowledge—and that are able to be recombined almost freely in order to form more complex concepts and thoughts. [...] Abstraction is the "bottom-up" process of extracting information from a single encounter with an object or property-instance, and generalizing such information to all encounters with that object or property. The experience of tasting rhubarb once and finding it bitter would be of no use if I could not store it as information about rhubarb independently of the specific episode of tasting it, by means of a general representation—a concept. Category induction is the complementary "top-down" process of projecting such knowledge to new encounters. When you tell me you like rhubarb pie, I form the expectation that you will also like other bitter-tasting foods. This is an application of my concept of rhubarb. Thus, the function of a concept is that of a "mental glue," which connects one's past experience with the present. It is because they perform this complex function that concepts are used by default in our higher cognitive capacities, and not vice versa» (LALUMERA 2010, 217 f.)[2].

In adopting this definition, we wish to remain as ecumenical and non-committal as possible. We don't commit ourselves to any theory of what might fulfil the classificatory (*abstraction*)

[1] On natural kinds see fn. 9.

[2] The idea of concepts as "mental glue" originally comes from MURPHY 2004.

and informative (*projection*) functions that characterise concepts. We just want to use the word "concept" to identify whatever cognitive mechanism performs this function. It should be noted that this definition is very different from the one adopted by philosophers such as Gottlob FREGE (1952). For Frege, "concept" is not the name of a cognitive mechanism that performs a particular function, but rather of an abstract entity that exists independently of its comprehension by any human being, an abstract entity which human cognitive faculties merely "grasp" or represent, but don't constitute. Whether such abstract entities exist, and whether it makes sense to consider them as separate and independent from the cognitive mechanisms by which we represent categories of things, is a controversial metaphysical issue that we need not address here. In fact, what we are interested in here are cognitive mechanisms, the existence of which is not disputed, not abstract logical entities.

In order to explain the importance of this cognitive mechanism in our thought it may be useful to refer, as Lalumera does, to a famous short story by Jorge Luis Borges: *Funes el memorioso*. It is the story of an unfortunate individual, Ireneo Funes, who, after falling from a horse and hitting his head, acquires a prodigious memory. From that moment on, Funes remembers everything: every experience of his life, from birth to the present day; the precise facial features of everyone he has ever met; every mental event in his own stream of consciousness, including every past act of recalling memories. But this amazing memory is his curse. For Borges—and this is the most interesting aspect of the story—Funes is not a genius, but an idiot. By unlearning to forget, Funes unlearns to think. Funes' story is useful for illustrating a key principle of concept theory: thinking, in a sense, means forgetting differences.

«Borges suggests that perhaps Funes was incapable of thinking, of really using the mass of data in his possession. Each representation in his mind, we might say, was so detailed that constituted a separate type, it was hopelessly specific. To remember a day, Funes needed another whole day, and that was completely unnecessary» (LALUMERA 2009, 16, our translation).

Thought is realised by classifying into categories the things that exist in the environment with which we interact. Such classification consists in the act of looking at the world, forgetting, so to speak, irrelevant differences. For example, to have the concept APPLE, I need to be able to identify the characteristics common to a particular type of fruit. I need to fix these characteristics in my mind and divert my attention from the contingent details of each individual apple. If, in perceiving an apple, I were not able to select the characteristics it has in common with other apples, I would not be able to think of that apple as an instance of the concept APPLE. The cognitive economy that makes concepts possible and that makes thinking possible would not be taking place.

What criteria of relevance or irrelevance we use to form concepts is highly controversial, and there is much debate in the psychological literature about how the brain comes to determine them. What is certain is that the conceptual network we form through these classifications has the extraordinary property of relating our present interactions with our environment to our past experiences of it. This allows us to recognise in new and unseen objects the characteristics of objects with which we have interacted with in the past. For example, my interaction with a series of apples, pears and bananas since childhood has allowed me to form three distinct concepts: APPLE, PEAR and BANANA. Each of these concepts allows me to classify new and never-before-seen individual fruits and to infer from their superficial characteristics underlying characteristics that are useful to know when interacting with them, but not immediately accessible to those without such concepts. For example, I know that I like pears best, that I like apples only when they are green, and that I like bananas only when they are peeled. If I see a fruit and recognise it as a pear, I can predict that it will taste good; if I recognise it as an apple and see that it is red, I will not eat it; if I recognise it as a banana, I will make sure that I have peeled it before eating it. The fact that I have a concept of APPLE that is distinct from the

concept of PEAR and from the concept of BANANA is closely related to the fact that, given certain sensory inputs, I can infer that a given object is an apple rather than a banana or a pear, and from this qualification I can infer certain interesting information about its nature.

Concepts are often thought of as the meanings of words, but this is not necessarily the case. It is very important, for the understanding of what follows, to admit the possibility that the classificatory function we have designated as distinctive of the notion of concept can be performed by entities that do not coincide with public meanings represented in the same way by various speakers. It is not part of the definition of "concept" that we use here that it should be associated with a word. As we shall see, this is the case in a naive theory of concepts, but in more recent and sophisticated theories the association of concepts with word meanings has been mitigated. Whether or not a subject can create completely idiosyncratic concepts that do not correspond to the shared language of its community is a question that cannot be settled by a stipulative definition of "concept": it is a controversial issue. Ludwig Wittgenstein famously denied that we can follow rules (linguistic or otherwise) that are not shared: If I try to make a rule just for myself, there is no fact in the world that distinguishes the situation in which I think I am following that rule from the fact that I am actually following it. For this reason, according to Wittgenstein, I cannot create a private language and follow a set of rules for identifying references without the help of other subjects in the linguistic community to which we belong (KRIPKE 1982).

Others however have a different opinion to Wittgenstein and think that some concepts are idiosyncratic and others are shared[3]. In many cases, it may seem that the possession of a concept (and the consequent acquisition of the related capacities of abstraction and projection) is independent of the sociolinguistic information that is necessary to name it. That is, it may seem that the name of an object, after all, is not necessary information in order to have the category to which that object belongs as a concept. The fact that an object is called "apple" by other speakers might seem not necessarily relevant to my acquisition and use of *a* concept of APPLE. As Shakespeare's Juliet famously says: "A rose by any other name would smell as sweet" and what applies to roses in this case seems to apply *mutatis mutandis* to apples. If I had never learnt to speak, if, for example, I had been abandoned as a child in the jungle, I would not have given the concepts of APPLE, PEAR and BANANA the names that designate them in the English linguistic community: the names "apple", "pear", "banana". If, however, I had sufficient need to classify apples, pears and bananas in my everyday life, I would arguably have acquired some version of those concepts anyway[4].

In other cases, on the other hand, the possession of a concept seems to depend more crucially on the acquisition of a word[5]. If I believe that Bill has eaten an apple because Anna has told me

[3] Some abilities of categorization that are shown in linguistic behaviour can manifest themselves also in totally non-linguistic tasks. This supports the idea that it is possible to talk of non-lexicalized concepts. The abilities underlying both linguistic and non-linguistic categorization have common, distinctly recognizable properties such as typicality: «It is well-known that typical objects are categorized more quickly and more accurately than atypical objects. (...) [T]hese properties are common to lexicalized concepts and to non-lexicalized concepts. We decide more quickly that a robin is a bird than that a penguin is a bird. Similarly, when subjects learn to classify meaningless, abstract, and non-lexicalized figures into different categories and are then asked to classify new figures into these categories, typical figures are classified more quickly and more accurately than atypical figures» (MACHERY 2009, 59-60).

[4] After all, even animals lacking language are presumably able to classify and recognise different types of fruits and to act according to this classification. By virtue of this acquisition, even without having the ability to recognise APPLES as "apples", I would still have acquired the ability to distinguish them from BANANAS and, for example, the ability to predict that I like red apples statistically less than green ones. The sociolinguistic information that apples are called "apples", which my hypothetical wild alter ego lacks, and which the real me possesses, is simply an additional piece of information about the category and is not necessarily essential for the performance of all the cognitive activities that my concept of APPLE enables me to perform.

[5] This has been evidenced in particular with abstract concepts. See BORGHI 2023, BORGHI et al. 2019, DOVE 2022, CONNELL 2019, HENNINGSEN-SCHOMERS & PULVERMÜLLER 2022, STRIK LIEVERS et al. 2021.

that Bill has eaten an apple, the identity of the concept APPLE used in entertaining this thought will depend essentially on the fact that its extension comprises what the speakers of the English language, and in particular Anna, call "apple". The formation of the concept in this case entails a coordination problem. In yet other cases, not only is the structure of the concept that one subject entertains coordinated with the structure of the concept entertained by others, but the competence in the use of the concept by one depends crucially on the competence of another subject. In other words, subject A could not possess and use concept X without the help of subject B. Imagine you have a pain in one hand. Since this pain persists after a few days, you go to a doctor who, after a series of tests, diagnoses a form of arthritis. Let us assume that you have never heard of arthritis. In this case, your interaction with the doctor will enable you to acquire some concept of ARTHRITIS that will depend crucially on your relationship with the doctor[6]. You will only call "arthritis" that which the doctor, based on criteria only partly known to you, calls that way. The elaboration of concepts through which we interpret and understand the world is often a collaborative activity mediated by language. Almost everything we think is interwoven with beliefs based on the opinions of others, opinions that are conveyed to us through language. The division of cognitive labour goes hand in hand with a division of linguistic labour. Thus, the experts in a certain field, i.e. those in a community who are deputed to perform particular cognitive tasks, are typically also the repositories of particular categorisation criteria.

3. *The naïve theory of concepts and the problem with conceptual disagreements*

The prevailing lay view of the nature of concepts, understood as cognitive mechanisms for representing classes, is that they are something like definitions: a representation of the necessary and sufficient conditions that an object must possess in order to belong to a particular class (MARGOLIS & LAURENCE 2022). For example, according to the naïve view something counts as the referent of the concept BACHELOR if and only if it meets a list of necessary and sufficient conditions (criterion 1: unmarried; criterion 2: male; criterion 3: human). According to this view, linguistic definitions merely make explicit the reference-fixing criteria of the concepts that are conventionally established and shared in a linguistic community. We manage to communicate because we manage to coordinate and match the definitions we give for each term, and thus the structure of the associated concepts.

The idea that communication is a coordination problem and language is fundamentally a complex set of conventional criteria was famously advocated by the American philosopher David LEWIS (1969). The fact of knowing that others use the word "apple" to indicate the concept APPLE gives me an incentive to use the word "apple" in the same way. If others used the word "apple" to mean BANANA I would have a reason to use the word "apple" as meaning BANANA.

	B interprets "apple" as meaning apple	B interprets "apple" as meaning BANANA
A interprets "apple" as meaning APPLE	**Both A and B can communicate**	both obtain nothing
A interprets "apple" as meaning BANANA	both obtain nothing	**Both A and B can communicate**

[6] This example is inspired by a famous thought experiment by BURGE 1979.

It is the same kind of matrix that we can use to explain why different people have reasons to drive on the same side of the road.

	B drives left	B drives right
A drives left	**No car crash**	Car crash
A drives right	Car crash	**No car crash**

It is the kind of situation that game theory (a branch of mathematics concerned with strategy) calls a *pure coordination game*. Pure coordination games can all be solved by establishing conventions[7]. The fact that language is conventional also explains a guiding principle of linguistic interaction: what Paul Grice has named the cooperation principle (GRICE 1989; see also CHRISTIANSEN & CHATER 2022). Two or more people attempting to communicate with each other will try to cooperate to attribute same meanings to same instances of language use[8].

An objection that can be raised against Lewis's theory concerns cases of words standing for *essentially contested concepts*, words like "art" or "science" or "love" (GALLIE 1956). In such cases, it seems that people within the same linguistic community may reasonably disagree on what the true meaning of the words are. We believe these words mean something, but we do not think that the reference of the words can be understood merely by analysing the sociolinguistic conventions associated with them. The same goes with natural kind words[9]. We know that "Water" means H_2O not merely because we know conventions associated with the word, but because experiments were run that *proved* that H_2O was the right meaning[10].

The same problem emerges in the field of law[11]. If legal concepts were to be explained through the naïve theory, this would mean that genuine disagreements about the content of legal concepts are just impossible. Let's go back to Giovanni's shoplifting case. Imagine the staff had noticed his suspicious behaviour since when he entered the supermarket. Someone from the security followed him and waited for him to take a bottle of beer from the shelf and hide it under its coat. At this point the security stopped him and called the police. Was this "theft" or "attempted theft" or maybe neither of the two? If the concept THEFT were merely a set of rigid conventional criteria of application associated with the word "theft", a checklist to determine conclusively whether a given event falls into the category of theft or not, then the disagreement between two people in a case like the one we have imagined would never be a

[7] The profiles in which both players converge on a same course of action are Nash equilibria: the most rational response of each player to a given course of action is choosing the same course of action.

[8] The problem of whether legal concepts are conventionally defined must be kept distinct from the problem of whether legal systems are based on a conventional rule of recognition, a thesis often attributed to Hart. Against the thesis that the rule of recognition is a convention in the sense of Lewis, see CELANO, B. 2023.

[9] A natural kind is a division of reality that is supposed to follow the "natural structure" of reality itself. Supposed examples of natural kind concepts are FOX, ATOM, MALARIA, LIVER. The fact that we have words and concepts to identify foxes, for example, does not seem to be due to arbitrary conventions in the classification of the external world, but to the intention of speakers to accurately reflect in their language and thought the existence of a species whose distinction from other species is assumed to already exist in nature. The very existence of natural kinds, however, is controversial: BIRD,TOBIN 2022.

[10] On the idea that referents of natural kind concepts (like WATER) are identified independently of a mental representation of their properties by speakers see PUTNAM 1975.

[11] Bruno Celano has suggested that legal concepts are defined by engaging in a kind of game, the aim of which is not mere coordination, and which is not simply to establish a convention. Unlike the game described by Lewis, the game lawyers play in defining concepts is non-cooperative and cannot be solved by simply establishing a convention. See: CELANO 2017.

genuine conceptual disagreement. Disagreement about the application of the use of the word "theft" to the case could only be due to one of two circumstances: either the parties disagreeing associate the word to the same concept and then merely disagree because they have different beliefs about the facts of the case or they have a common representation of the fact of the case and then their disagreement must be due to the fact that the associate the word with different criteria of application and then different concepts. In both cases, there would be no identical concept about which the parties are disagreeing.

This resonates with one of Dworkin's critiques to Hart. If legal concepts, and specifically the concept of legal validity, were applied according to a conventional rule of recognition, as Hart says in his *Concept of Law*, then disagreements about legal validity between lawyers would never be genuine. A version of this critique was reformulated by Nicos Stavropoulos in the 1990s with specific reference to the semantic theory that Hart seems to presuppose (STAVROPOULOS 1996). According to Stavropoulos, Hart has an overly internalist, criterial (à la Lewis) conception of legal concepts, a theory that underestimates the interactive relationship that exists between our conceptual classifications of the external world and the actual structure of the external world itself. Stavropoulos thus reformulates Dworkin's theory on the basis of externalist semantics such as those of PUTNAM (1975) and, KRIPKE (1980), theories according to which the meanings of words we use, and the related concepts, are not "in the head" of speakers, but they are something we discover little by little as we interact with the world and with each other. According to these theories, we form the classification criteria associated with concepts on the basis of a pre-existing intuitive and indexical relationship with their referent, not vice versa.

4. *A less naïve approach: Contemporary interpretations of internal point of view statements*

Although the criticism of Hart by Dworkin, Stavropoulos and others assumes that he adopts a naive theory of concepts, his distinction between the "internal" and "external" points of view on law allows a more sophisticated interpretation, one that can explain the phenomenon of disagreement about the content of legal concepts. According to Hart, legal concepts are used differently depending on whether they are intended simply to describe a state of affairs or to criticise (or justify) it. In his language, when one uses law (and thus the concepts it employs) to *describe* a state of affairs, one is looking at law from an external point of view. When, on the other hand, one uses law to *criticise* states of affairs, one looks at law with the internal point of view. While ordinary citizens may or may not be able to adopt the internal point of view, it is necessary for legal officials to be able to do so. It is part of the bread and butter of lawyers, judges and civil servants to use legal concepts in this way.

For example, take the simple statement "This is a contract" and imagine saying it in two different scenarios. First scenario: You walk into the office of a friend of yours and point to a piece of paper on his desk and ask him, "What is this?". "This is a contract," he explains. In this case, the statement has the sole purpose of describing the nature of the indicated object, it does not express any criticism, claim, justification: it simply states a fact. Second scenario: Imagine that the same friend of yours takes the same piece of paper and waves it in the face of his boss during an angry argument in which he claims that the boss is not respecting the contractual salary conditions. In this case, the same claim would have a different meaning. The legal concept CONTRACT would be used not just to give *reasons for belief* by describing a state of affairs, but to give *reasons for action* by expressing a legal claim.

The use of legal concepts with the internal point of view is illustrated by the second scenario. The speaker invokes the legal concepts to justify or criticise a state of affairs not merely to describe it. The speaker, yes, on a literal level merely communicates to his interlocutor that

what he holds in his hands is a contract, but in doing so, on a pragmatic level, he intends to invoke what is written in the contract in order to criticise behaviour.

Hart does not explore much the issue of the non-merely descriptive character of statements made with the internal point of view in *The Concept of Law*, but he does explore this point in an earlier essay, *Definition and Theory in Jurisprudence*.

> «If we take a very simple legal statement like 'Smith has made a contract with Y', we must distinguish the meaning of this conclusion of law from two things: from (1) a statement of the facts required for its truth, e.g. that the parties have signed a written agreement, and also from (2) the statement of the legal consequences of it being true, e.g. that Y is bound to do certain things under the agreement. There is here at first sight something puzzling; it seems as if there is something intermediate between the facts, which make the conclusion of law true, and the legal consequences. But if we refer to the simple case of a game we can see what this is. When 'He is out' is said of a batsman (whether by a player, or by the umpire) this neither makes the factual statement that the ball has struck the wicket nor states that he is bound to leave the wicket; it is an utterance the function of which is to draw a conclusion from a specific rule under which, in circumstances such as these, consequences of this sort arise, and we should obviously neglect something vital in its meaning if, in the attempt to give a paraphrase, we said it meant the facts alone or the consequences alone or even the combination of these two. The combined statement 'The ball has struck the wicket and he must leave the wicket' fails to give the whole meaning of 'He is out' because it does not reproduce the distinctive manner in which the original statement is used to draw a conclusion from a specific but unstated rule under which such a consequence follows on such conditions. And no paraphrase can both elucidate the original and reproduce this feature» (HART 1982, 40).

In this passage, the example taken from the game of baseball is intended to illustrate the fact that in the internal point of view use of a legal concept there is a form of engagement that transcends the mere description of a state of affairs and even the description of a legal situation. The speaker in saying that the ball is out expresses a reflective critical judgement that is not reducible to its factual and normative premises.

In more recent literature, Hart's theory has been characterised as "quasi-expressivist" (FINLAY & PLUNKETT 2018)[12]. According to Finlay and Plunkett, statements made with the internal point of view have a descriptive semantic content, but also and most importantly an expressive pragmatic function. They literally describe, but they do so with the function of prescribing, and thus ultimately of expressing the motivation to act in a certain way or to accept or criticise a certain state of affairs. A statement of the form «"it is the law that L (in X)" semantically expresses the proposition that L is a rule [...] satisfying the criteria of the rule of recognition R of legal system X» (FINLAY & PLUNKETT 2018, 54 f.). At the same time, implicitly relying on the salience of that rule of recognition in that context, it expresses the speaker's motivation to act or have other act in accordance with L.

As already stated in the introduction our aim here is not to reconstruct what Hart really thought about the nature of "internal point of view", but rather to reconstruct This is a charitable interpretation of Hart because it allows his theory to better explain disagreements about the content of legal concepts. According to the naive theory, mastering a concept entails mastering a set of criteria of application. So, if two people both master a concept, a priori they will be able to apply it to specific cases in the same way. In other words, two people who disagree about the application of a concept to a particular case are either talking past each other (because they do not

[12]. The quasi-expressivist interpretation was developed in response to a fully expressivist interpretation proposed in TOH 2005.

understand that they are actually using different criteria of application, and hence different concepts), or have a factual disagreement (they agree about what the criteria of application are, but disagree about whether the object they are describing *de facto* satisfies them or not). But the quasi-expressivist interpretation of Hart's theory allows for a third possibility. This is that two people understand exactly what both mean when they use a word in a particular way, but they disagree about whether the word *should* be used in that way, with that particular practical function. The conceptual disagreement between them is normative. Whether we look at the concepts THEFT or ATTEMPTED THEFT adopting the internal point of view, a problem such as that of whether Giovanni committed one or the other cannot be solved merely based on the linguistic conventions associated to the use of the corresponding words: "theft" or "attempted theft". The speech act of calling this behaviour one thing or another is not merely a description of the events to be used by people who share certain criteria of application of a certain word, but a critical evaluation of those events, and the plea to modulate the extension of the concept in a way that is consistent with this critical evaluation. By calling the event a "theft" or an "attempted theft" a lawyer or a judge *takes a stance* on how certain types of events *should* be classified given the practical normative function that a certain concept or set concepts is understood to have. Classifying the fact as "theft", one expresses his or her views on the appropriateness of a certain type of regulation with respect to a certain type of behaviour.

Another more recent and alternative interpretation of Hart's account of internal point of view statements is an inferentialist one (Ziyu 2023). The inferentialist approach rejects the distinction between semantics and pragmatics and reconstructs the meaning of legal statements solely in terms of commitments, entitlements, and incompatibility. According to inferentialism, the meaning of a speech act is given by the network of inferences that can legitimately be drawn from it. The difference between internal point of view and external point of view statements can then be understood as a difference in meaning because different types of commitments can be inferred from them.

What the quasi expressivist and the inferentialist reading share is the idea that legal statements bear an added layer of meaning which transcends the representation of the referents of the legal concepts employed. Statements employing legal concepts of the type "X falls under legal concept C" can be understood as having different meanings depending of what commitment the speaker is taken to express. The speech act will be ambiguous unless the context clarifies whether the speaker's commitment is either about X or about C. It may not be clear whether the speaker intends to simply say that a certain object has certain properties/a certain fact took place, on the one hand, or whether, on the other hand, their intent is to say that the fact or the object, given its factual properties, should be legally classified in a certain way, and then the relevant concept should be modulated accordingly. For example, in saying "there was a theft at the supermarket", I could simply be informing an unaware person about what happened at the supermarket on the presupposition that she has the same conception of THEFT that I do, or on the other hand I could be telling a person who already knows very well what happened that the fact should be considered a THEFT, rather than, for example, an ATTEMPTED THEFT. In the two cases the meaning is different. In the *de facto*, external point of view, version of the statement I make no claim and express no commitment as to how the concept THEFT should be defined. I merely presuppose that the conception I am presupposing is part of the conventional common ground my interlocutors need to know and accept to be able to infer what I am trying to say. In the *de iure*, internal point of view, version of the statement I make no claim and express no commitment as to what happened. I am presupposing that the fact that a certain event took place is part of the common ground I am sharing with my interlocutors, and based on that common ground I am committing myself to the effect that this event, if it happened, should fall under the concept THEFT (Ubertone 2022).

All of this has consequences on the type of disputes that can arise over the conceptual classification of events, objects or behaviours. It may be that two people who have exactly the same

opinion as to what happened in the supermarket may still be sensibly arguing on whether what happened was an instance of THEFT or not. These types of disputes are conceptual rather than factual and even if they are particularly common in the legal domain, they sometimes also occur in other contexts of everyday life. Consider this example. Anna and Bruce go hiking on the Bologna hills. When the time comes to have lunch, Anna says: "Look at the picnic table at the end of the path! That would do!" Bruce replies: "No, that is not a picnic table... it's just a big stone. It doesn't even have chairs around it". There is something odd about this kind of dispute. How can Bruce consistently recognize that X is the referent of the expression "that picnic table" used by Anna and at the same time deny that X is a picnic table? Bruce *knows* that in Anna's idiolect it is not necessary that an X has chairs around it for X to count as a picnic table. We even can imagine that they both perfectly understand each other's presupposed definitions: they both know that X is a [picnic table]$_{Anna}$ and it is not a [picnic table]$_{Bruce}$. Why then do they still disagree? What Bruce is really saying is not that Anna has wrongly applied *her own* concept of picnic table and is not even necessarily committed to the idea that he has wrongly applied the linguistically correct meaning of the expression "picnic table". What he is really getting at is that [picnic table]$_{Bruce}$ is a *better* concept to use than [picnic table]$_{Anna}$, in the context of the practice in which both Anna and Bruce are involved. This conceptual dispute is actually a dispute over a plan of interaction with the environment. If X is recognized as a picnic table a certain plan is more likely to be performed than if it is not recognized as such. We can easily imagine the emotions that may motivate both parties in this discussion. Maybe Anna thinks sitting on the grass is really part of what is valuable in a picnic experience, and maybe Bruce is afraid of ticks.

The real disagreement between Anna and Bruce is not concerned with empirical facts about X, but about how X-type objects *should* be used. In our example, the dispute is not about picnic tables, or about the world, but about how the signifier "picnic table" and certain objects (candidates as possible referents of the concept PICNIC TABLE) should be used. These are not factual disputes about what is the most adequate description of a particular state of affairs, but normative disputes about what are the best plans of action should a particular factual situation arise in the world. This is a feature of all disputes over the affordances of artefacts as well as all disputes about the legal classification of events. The disputants don't have different opinions about empirical facts, they just feel differently about what is important and have different dispositions as to what should be done. If we accept the inferentialist view, we can say that the real disagreement depends on the difference in commitment between the two disputants, and that while the features of the classified object are part of the common ground between the two speakers, what is really at stake is the criteria of classification that should be employed.

For the purposes of this article, it is irrelevant whether the non-conventionalist and non-representationalist (be it quasi-expressionist or inferentialist) reading of Hart's theory is justified philologically. What is of interest to us is that, as we will see, this type of reading provides a good basis for linking the philosophical idea of an internal point of view on legal concepts with actual experimentally observable mental phenomena.

5. *Embodied and grounded perspectives on legal concepts*

Research on human conceptualisation has long assumed that our ability to form categories and think in terms of them is the result of fixed, abstract, symbolic representations of necessary and sufficient conditions that are somehow encoded in our brains. Concepts have traditionally been thought of as such representations, and have been described as the product of a kind of translation: a translation from sensorimotor language into what we can define as an "a-modal" language, i.e. a language made up of symbols that (much like words written in a non-ideogrammatic alphabet) bear no trace of the sensory modality involved in practical interaction

with the represented object or in the process of perceptual acquisition of the representation itself. The traditional, naïve view conceived concepts as disembodied and detached from the mechanisms that regulate perception and action. According to this view, our concept CHAIR, for example, has nothing to do with the visual image of a chair, the experience of sitting down, or the physical and social environment in which we use the concept of a chair. However, recent research has provided increasing evidence that this traditional view is misguided. Concepts have been shown to be deeply embodied. They are patterns of neural activation that re-enact the experience originally had with their referents[13]. This is consistent with the idea that the possession of concepts may involve not only propositional knowledge, but also certain kinds of know-how and emotional dispositions that may vary according to the degree of expertise of the speakers.

We have seen that the naïve conception has, among others, the shortcoming of not explaining the phenomenon of conceptual disagreements. Important criticisms against Hart were grounded on the assumption that he accepted this view. However, Hart can be read as departing from the naïve view of concepts in at least two important ways that resonate with contemporary cognitive science. First of all, according to Hart, same legal terms are conceptualised differently by different subjects depending on the actual use they make of them. The use of the same word is associated with different practices and experiences, and thus different psychological states and practical dispositions in different people. There is a division of cognitive labour between more and less expert subjects within the same linguistic community. Some users who are legal officials (who take the internal point of view) play an active role in defining the criteria through which a referent is represented while others (who take the external point of view) accept more passively those criteria.

On the other hand, as we saw, Hart seems to depart from the naïve view is that, according to his theory, legal concepts cannot be reduced to mere "representations". Hart famously has a "practice theory of social rules". He believes that rules are defined by practical dispositions to behave in certain ways. Hence, one can legitimately ascribe to Hart the idea that the internal point of view use of concepts defined by legal rules expresses certain practical commitments or dispositions. The fact of subsuming a fact under a legal concept is not necessarily an instance of "representing" reality, but can be also a way of expressing a critical judgment on it, and a practical disposition to act upon that judgment. To master a legal concept is not just to be able to *describe* a given referent presupposing a certain set of properties that conventionally identify it, but also to be able to say, on the assumption that that referent displays certain properties, that a certain set of criteria should be conventionally considered relevant to identify it, and thus that the concept in which the referent is subsumed should be shaped in a certain way. This is a way to pass a practical, albeit not necessarily moral, judgment. This conception of concept-use also explains the way in which concepts are collaboratively shaped and changed. Experts in law take the internal point of view, and take part in a complex conversation that shapes and modulates shared legal concepts, while ordinary citizens often use these concepts to describe the social reality they live in, and thus take the external point of view. Experts in law take active part in a complex conversation that shapes and modulates shared legal concepts, while ordinary citizens often use these concepts merely to describe the social reality they live in.

Both the division of cognitive labour and the non-representational conception of concepts resonate with ways in which contemporary cognitive science looks at concepts. The word "concept" may denote two distinguishable, but related entities. On the one hand, concepts can be described as individual psychological states, or, to put it more crudely, patterns of neurons activated in each individual's brain, encoding plans of interaction to respond to social and physical environmental cues. On the other hand, they can be seen as social objects, tokens of

[13] See BORGHI 2005, BARSALOU 1999, BARSALOU et al. 2008, WELLSBY & PEXMAN 2014, GALLESE & LAKOFF 2005, KIEFER & PULVERMÜLLER 2012.

information, *ways* of shaping patterns of neurons and adapt them to the social and physical environment that can be transmitted to one another. Concepts in this second sense are *memes*: dynamic social tokens that can be transmitted, changed and modulated within a community[14]. These two types of entities coevolve and interact dynamically. Concepts, in the first sense, namely as individual patterns of activations of neurons, are ways in which each of us encodes the complexity of one's own experience to respond to future cues in our environment, heavily influenced by each subject's sensorimotor experiences. Concepts in the second sense are the result of our ability to exchange and compare concepts in the first sense.

If we accept this reconstruction, it is clear how embodied cognition could help us to understand how legal concepts are formed, and that it could prove or disprove the fact that experts and non-experts in law use them differently and contribute to their formation in different ways. Each person using a legal concept will understand it slightly differently, associate it with different experiences and emotions. And, most interestingly for us, depending on their level of legal expertise, experts and non-experts will have a different tendency to associate it with the practical commitments that Hart calls the "internal point of view".

6. *An experimental study on the internal point of view*

The conception of the internal point of view on concepts that we have elaborated in the previous sections, linking it both to practical know-how and to the emotional disposition to act in a certain way, provides valuable insights for empirical investigation. In particular, by testing the use of legal concepts by lawyers and non-lawyers, and in particular data about their perception of their reference as something concrete and artifact-like on the one hand and as emotionally important on the other we can start to gather evidence in favour or against the following two hypotheses.

> *The Division of Cognitive Labor.* Different people conceptualise institutions in a different way. Some of them take the internal point of view on them, some don't.
> *The Internal/External Point of View Divide.* Legal concepts are multifunctional cognitive tools: they are both means to represent the existing institutions as well as means to actively engage in the normative practice which constitutes them.

Researchers at the Legal Theory and Cognitive Science Laboratory of the University of Bologna designed an experiment to show how legal concepts differ from other types of concepts in that they are used differently by people with different legal expertise, and in particular that the difference in use reflects a higher disposition of experts to consider them relevant from an emotional and arguably normative point of view. The data gathered support both hypotheses.

For the experiment, 567 volunteers were recruited from among students and researchers at the University of Bologna and people working in the Bologna area. The participants were divided into two groups: a law group and a control group. The law group was made up of 289 law graduates or professionals, and the control group was made up of 278 graduates or

[14] The word "meme" is used to indicate tokens of social or cultural information that can be passed from a social animal to another one, which get copied, transmitted, modified, evolved in much the way in which genes are. «They are a kind of way of behaving (roughly) that can be copied, transmitted, remembered, taught, shunned, denounced, brandished, ridiculed, parodied, censored, hallowed. [...] [W]e might say that memes are ways: ways of doing something, or making something, but not instincts (which are a different kind of ways of doing something or making something). The difference is that memes are transmitted perceptually, not genetically. They are semantic information, design worth stealing or copying, except when they are misinformation, which, like counterfeit money, is something that is transmitted or saved under the mistaken presumption that it is valuable, useful. [...] Words are the best examples of memes. They are quite salient and well individualized as items in our manifest image» (DENNETT 2017, 206-207).

professionals in fields other than law, such as philosophy, art, communication sciences. The researchers asked them to fill in a Google form and rate 56 Italian words according to various criteria. This allowed to classify the words according to different "dimensions", such as how abstract or concrete the word was considered to be, how easy it was to contextualise its referent, how imaginable its referent was considered to be, and so on. More specifically, both groups were asked to evaluate four types of concepts (i.e. institutional[15], theoretical/scientific, food, artefact) on the following dimensions Abstractness-Concreteness (ABS-CNR); Imaginability (IMG); Contextual Availability (CA); Familiarity (FAM); Age of Acquisition (AoA); Modality of Acquisition (MoA); Social Valence (SOC); Social Metacognition (META); Arousal (ARO); Valence (VAL); Interoception (INT); Metacognition (META); Perceptual Modality Strength in the modalities of vision, hearing, touch, taste and smell (VIS, HEA, TOU, TAS, SME); Body-Object Interaction (BoI); Mouth Involvement (MOUTH) and Hand Involvement (HAND). The 56 words used in the experiment are the following:

- 14 words denoting institutional concepts: contract, state, president, marriage, parliament, process, property, norm, rights, duty, sanction, responsibility, validity, justice;
- 14 words denoting theoretical/scientific abstract concepts: mass, acceleration, subtraction, temperature, sum, energy, litre, metre, gravity, calculation, equation, molecule, electron, multiplication;
- 14 words representing food concepts: banana, carrot, grape, strawberry, mushroom, aubergine, pepper, tomato, pumpkin, basil, apple, orange, chestnut, potato;
- 14 words denoting artefact concepts: hammer, wheel, knife, pot, spoon, tower, umbrella, bed, screwdriver, painting; chair, sculpture, book, computer.

For each dimension, the researchers carried out a Generalised Estimated Equations model (GEE), a statistical analysis that makes it possible to check whether the rating scores obtained with institutional concepts differ significantly from those of other categories of concepts and between the law group and the control group. Specifically, category (institutional, theoretical/scientific, food and artefact) was taken into account as a within-subjects factor and group (legal and control) as a between-subjects factor. Data showed that legal experts rate institutional concepts as being more contextually situated, more familiar, acquired at an earlier age, more "touchable", and associated with a more positive valence. In other words, lawyers understand legal concepts better, they "see" them as concrete things in way in which non-lawyers don't. But what is most interesting is that this epistemic ability is associated with an emotional and arguably practical disposition. Legal experts pair their capacity to concretise more abstract institutional concepts with a special emotional adherence to them. This suggests the existence two related but analytically distinguishable aspects in what Hart calls the internal point of view. This can be taken as a feature of the practical internal point of view, as defined above, and seems to strengthen the idea that a feature of the internal point of view is that of seeing institutions in their social significance. Non-experts, too, perceive broad social notions like validity, justice, rights, and duty as emotionally arousing in a positive way, though their rating is lower than the one given by experts. However, non-experts perceive pure institutional concepts as negatively arousing—as if they amounted to a cold, technical, and often disabling machinery connected with authoritative dictates—, whereas legal experts show a high degree of positive emotional arousal in regard to all institutional notions[16].

[15] Although, in the abstract, the term "institutional concepts" is broader than the term "legal concepts" (there are arguably institutions that are not, strictly speaking, legal institutions), the study we refer to uses the term "institutional concepts" to characterise concepts such as "law", "validity", "judge" or "contract", i.e. concepts that are used in the legal sphere and that shape legal practice and the institutions in which it takes place. So for our purposes the phrases "institutional concepts" and "legal concepts" are interchangeable.

[16] More details about this experiment can be found in VILLANI et al. 2021 and ROVERSI et al. 2023.

7. *Conclusion*

In this article we have attempted to describe a peculiarity of legal concepts. Hart's theory already shows how norms, and thus—we may add—the concepts employed by norms, can be used both to describe states of affairs and to criticise or justify them. In Hart's language, these two ways of using norms are called internal and external point of view. According to Hart, not all people are equally inclined to adopt each of these two points of view. Legal practitioners, professional jurists, and in particular public officials *necessarily* adopt the internal point of view. That is, they use legal concepts to justify particular conclusions of practical reasoning. Ordinary citizens, on the other hand, are sometimes more inclined to use them to describe states of affairs by deferring to a community of more experienced speakers the cataloguing of particular cases within or outside particular concepts for the purpose of justifying practical conclusions. Developing Hart's theory, we can observe that literally identical statements made using the same legal term can be read in alternative ways. To take an example given earlier, the statement "this is a contract" can be understood either as the description of a particular object or event, or as the legal claim that a particular institutional object or event should count as a contract. The first use, the use made with the external point of view, consists in describing a fact (the document or behaviour performed by the contracting parties) assuming the structure of the legal concept (the concept associated with the word "contract") as unproblematic. The second use, the use made with the internal point of view, consists in taking a position on the structure of the legal concept (taking a position on what in general should count as "contract") assuming as unproblematic the accuracy of the fact to which it is to be applied (the nature of the object or fact to which the concept is to be applied).

The idea that the act of applying a concept to a concrete case can be performed in two alternative ways, reflected by two distinct categories of speakers, distances itself from a naïve theory of concepts, according to which concepts are criterial and amodal ways of identifying referents. This idea is closer to more contemporary theories of concepts, and embodied cognition in particular. Various studies carried out within the framework of this theory show how concepts associated with the same terms are modulated differently depending on the background of the individual subject, their experiences, their interaction with the environment. More specifically, the concrete use we make of each concept leaves a perceptible trace in the neuronal pattern to which that concept materially corresponds. The concept for each speaker is not the abstract definition of a term, identical to that of every other speaker in the linguistic community to which they belong, but an idiosyncratic entity that reflects the history of that subject's interaction with a set of concrete situations. Therefore, if, for example, one speaker is accustomed to use the word "contract" solely to describe states of affairs while another speaker is also accustomed to use it to legally justify or criticise states of affairs, this should be somehow reflected in the pattern of neurons that the word activates in the individual speaker. The speaker who uses the word with the internal point of view will presumably describe the concept as eliciting different emotional responses and distinctively practical dispositions. The study of legal concepts therefore lends itself to an interdisciplinary approach that opens up new research perspectives. The empirical results collected by the Laboratory of Law Theory and Cognitive Science at the University of Bologna suggest new ways of specifying the nature of the internal point of view that will be hopefully expanded in the next few years.

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