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## **WILL WE EVER FIND THE BIGGEST PUMPKIN?**

It has been a year since the new millennium began. European jurisprudence in its modern form is one thousand years old.

I have been working in the field of law for some 30 years. The biggest change I could like to see in the new millennium is that we might learn to ask questions that are small and clearly defined. There are probably no exact answers to the big questions. I will be true to my conviction and specify my perspective as follows:

### **Specification I**

At least in Scandinavian, legal theoreticians make the mistake of equating the practice of the science of law with legal decision-making. Although they can list a number of minor distinguishing features, they would still like to see a theory that covers both of these basic legal activities: the practice of the science and legal decision making.

The common factor in the two pursuits is what we term legal interpretation. Interpretation is the core of law and European legal theory. What does it mean when we restrict ourselves to interpretation? It means that in terms of its logical structure the findings of our science consist of interpretations of existing linguistic expressions presented through cases. And this is a significant limitation if we compare it to other sciences. Shouldn't we demand more of jurisprudence? And of legal decision making, too? It is simply not enough to restrict ourselves to interpretation.

### **Specification II**

My second specification concerns legal decision-making. For 15 years in my lectures I have presented the view that legal decision making is broken down into component factors that do not have a uniform philosophical basis. The attempt to see legal decision-making as a logical

syllogism prevents us from examining all the components of a decision closely. The desire to make legal decisions in the form of logical syllogisms is based on a misunderstanding of the nature of deductive/logical reasoning.

Deductive logic is not a mechanical activity nor does the consideration of a single step or move in deductive reasoning mean much in the scope of a legal decision.

I would like to suggest that we distinguish four separate areas in legal decision making.

Q1 In making a decision we must first find the appropriate legal norm (norm statement)

Q2 Every norm that we find and that proves applicable must be interpreted.

Q3 Statements of legal norms have been written to express the relationships between categories of cases. A concrete legal decision affects *actual cases*. We have to be able to determine the actual facts of an actual case. This issue will command most of my attention in what follows because I think that the basic terms of logic I am using are particularly well suited for examining this issue.

Q4 The question of legal consequence will receive less attention. I would like to point out, however, that in my view a legal consequence is never - or hardly ever - a logical or mechanical consequence of an act or failure to perform an act. Two justifications can be presented for this view, one philosophical, the other practical.

According to Wittgenstein, no object can define itself. (Wittgenstein, Tractatus statement 6.1 ff.) An object can be defined only in relation to other objects. In my view, it is consistent with this basic view to assert that it is impossible for a legal consequence to be the logical (tautological) consequence of an action. In any case, the legislator often requires that the consequences are determined by factors other than what has been done or left undone. "An eye for eye, a tooth for a tooth" is an outmoded approach. What this means for legal decision-making is that the final decision is made using arguments and perspectives which have nothing to do with the act or actor. Am I right here?

## **Question 1 and 2**

How can we find the applicable norm in an integrated Europe? In the future, systems of norms and the relations between and within them will be the major issue. I have just a couple of comments on this.

One of the grand ideals of the 17<sup>th</sup> century was that the legal order formed a deductive and axiomatic system.

If this means deductive and axiomatic in the sense in which Tarski has used these terms (see Tarski 1956, p. 60 ff.), the idea can most likely be rejected out of hand. There are a lot fewer axiomatic systems than we realize. A look at the legal systems around us today unmistakably shows that they are organized using an established set of concepts whose meaning and interrelationships are also well established. One can find legal norms in civil as well as common law systems using key words. The key word is “key word.”

It is more important to speak of the validity and effectiveness of the norms in a legal system. I myself distinguish three component factors in validity:

- (1) One can discuss the validity of norms on the basis of their historical development.
- (2) Closely connected with this is the question of competence. A norm can be valid only if it has been issued by a competent authority. This problem has been very well illustrated by Ross (Ross 1953, p. 93 ff.).
- (3) The most significant problem we face is probably establishing the validity of a norm through its meaning. It must be possible to avoid a conflict of norms.

I can immediately embrace the notion that there are certain logical (tautological) relations that obtain between deontic concepts. I can also readily accept that certain logical and conceptual relationships exist between established legal concepts (see Hohfeld 1946). I can also accept that both within and between these levels it is possible to construct a relation based on the language of set theory (Alchouron - Bulygin 1971). This does not mean, however, that norms issued through legislation form a deductive (and axiomatic) system. Why not? Because legislation is not an activity intended to convey to us logical (tautological) truths. Legislation is the organization of non-legal relations. Legality rests on the non-legal (supervenience, Hare 1952) and it should be possible to define the relationship between legal language and non-legal language in a principled fashion. I do not claim to have proven anything but I would assert that deductivity as we use the term in legal language means something quite different from deriving a new legal norm from an existing one. I will attempt in what follows to illustrate a completely different way of understanding deductivity in the legal context.

## Proposition

In autumn of 1987, Professor Jaakko Hintikka gave a series of lectures at the University of Lapland. These lectures dealt with the question of whether it is possible to create a logic dealing with discoveries, an issue I will take up later. Professor Hintikka also discusses the problem of deductivity. What do we mean by this in general and in the legal context in particular? There are two alternatives:

We can speak of deductivity and consequences to mean the relation between statements, including statements of legal norms. We can ask which statements of legal norms are logical consequences of other such statements or which norm-propositions (von Wright) are the logical consequences of statements of legal norms.

On the other hand, we can understand consequence to mean consequences within the framework of a particular model. We must then ask what consequences the theory - the legal order as a body of legal norms - has with respect to the entities we define in our model (Hintikka 1984, pp. 177-185). We must also ask what follows from the theory along with the units in the model we are looking at. According to Hintikka (Hintikka 1987) this is possibly the more important concept of the relationship between deductivity and consequence in the legal context.

The problem can also be illustrated with reference to Napoleon's well-known statement that the then recently codified Code Napoleon was complete.

Did Napoleon mean that for every statement presented in justifying a legal decision one could say whether it could be deduced from statements in the Code (the condition of completeness)? On the other hand, one might think that he meant that for each description of facts one could say what the implications of the theory, the legal order, were *in conjunction* with this description (model completeness condition). It is likely that Napoleon was referring to the latter. One can derive a solution for every conceivable problem, or description of reality, from the Code Napoleon.

I cannot approach this problem without the support of the philosophers. What I would like to suggest is that we address it seriously. In my opinion it is quite a paradox that the Code Napoleon was created, like all codifications, at a time when the great bodies of norms were being organized on a deductive and axiomatic basis yet the completeness of the entities we

created, their ability to solve every problem that may confront us, is not directly related to how the statements in that entity relate to one another. What is decisive is that these statements stand in a particular relation to bodies of statements which describe reality, that is, are models of reality. The salient features of the legal system then becomes model completeness (Hintikka 1984, p. 177 ff.) and identifiability (Hintikka 1991, pp. 161-183).

### **Q3 How should we model the fact-finding process?**

I do not know of any attempts to model the fact-finding process in legal decision-making using the tools of logic. I do know of discussions in Scandinavia and internationally that concern facts and are known as proof theory (Stening 1975). The perspective of proof theory is limited and I view a proper proof theory as referring to the whole process, including the events and measures before the trial.

The first major question is where the emphasis lies in the process dealing with the facts: should one concentrate on a model by which one can conduct the trial *efficiently*? Alternatively, we could concentrate on how the part of the decision dealing with facts is justified. Here, it is a question of what kind of justification is logically or rationally satisfactory and sufficient. I will present only a few basic ideas; my remarks deal with both aspects.

Can a model be found for the fact-finding process? What would such a model look like? In the theory of science there is a debate over two models: how do we understand justification on the one hand and discovery on the other.

A good overview of the issues can be found in Thomas Nickles' article "Scientific Discovery and the Future of the Philosophy of Science" (Nickles 1980). In my view, the basic question is how these two activities can be distinguished or whether they can be. I will leave this question for the philosophers to decide and simply state that I am a friend of discovery and for this reason think that no model of justification is sufficient to account for the fact-finding process. (See Halttunen 2000).

This is the case for the simple reason that our problem is not primarily the logical or rational conclusions to be drawn from facts but what entitles us to accept a new fact in the trial process. It is my contention that justification is primarily concerned with what conclusions can be made on the basis of existing facts. In a trial, on the other hand, the question is primarily whether

certain facts can be asserted as the basis for a decision for the express reason that they have been acquired in a reliable fashion: the trial has then been fair with respect to these facts and the chain of reasoning *may include these facts* if they can be discovered after the fact logically and rationally using the rules of the logic of discovery as a point of comparison.

### **Q3.1 Discovery**

Among philosophers of science, there is some confusion whether a logic can be created for an activity which is called discovery.

While I wait for a final determination of the question, I would like to say two things: I strongly believe that deductive logic is not appropriate for describing the process of discovery. I will maintain this belief until something wholly new is revealed about deductive logic, in particular its tautological nature. On the other hand, a simple naturalist perspective on the problem will not suffice. Historical descriptions of scientific discoveries and/or the personal characteristics and psychological traits of those who have made them cannot describe discoveries in a scientifically satisfactory manner.

I do not deny, however, that descriptions of actual trials or an examination of actual justifications would be useful. However, a theoretician should always be able to say something about whether an error has been made at a trial from a logical or rational point of view. We need some sort of normative perspective which the general logic of discovery might offer.

### **Q3.2 The Logic of Discovery**

Is a logic of discovery possible? While we wait for the answer we will have to be content to use what has been achieved thus far. This application of the logic of discovery is made possible by the nature of the legal fact-finding process.

In my opinion an appropriate model is Jaakko Hintikka's interrogative logic. Hintikka probably does not want to claim full paternity; I think he will graciously cede the honor to the Greek philosopher Socrates. Some forms of interrogative logic were already developed in Ancient Greece (Hintikka 1991) The basic model can be expanded such that instead of or in addition to two opponents in a debater, one has a special source of knowledge such as nature or a particular

store of knowledge (oracle). In law, this source is often a witness or, in the modern age of legal informatics, a computerized database.

According to Hintikka, the process of asking questions to achieve new knowledge involves a game between two players or a player and a database. The game has two types of rules. A game always has to have rules which define how the game is to be played properly. But the fact that a player knows how to play game does not mean that he or she does so efficiently.

If I have understood things correctly, we have particular trouble forming rules which tell us how to play effectively, i.e., what the best strategy would be to obtain the desired result. The history of science also offers examples of this: the biggest breakthroughs were often accidents. Hopefully no self-respecting legal scholar will be insulted if I say that it is not the job of a representative of the legal profession or a practicing lawyer to make great and revolutionary discoveries. It is our task to trace reality as was at some point in the past. It seems to me that to the extent that we use the logic of discovery for our own purposes we have to concentrate on rules which define the legal moves or steps in the game. A trial is fair when the general rules of discovery have not been violated. Of course, we should be able to avert wrong legal strategies such as concealing information but we can only use logically and rationally sound means, or moves, in doing so.

### **Q3.3 The moves**

Professor Jaakko Hintikka presented the basic ideas in his model at the University of Lapland in 1987, and a number of articles have been published on it since (see Halttunen 2000). According to Hintikka (1987), the process of discovery comprises four moves:

One can of course use deductive moves to achieve a particular result. One can deduce new facts from previously proven ones through deductive reasoning.

Reasoning alone will not often get one to the end result in a real trial. What we need is new information and this can be had from an information source, such as a database on computer or in a folder or a witness. We can use the term question/answer move.

From a logical point of view the order in which we ask our questions is not at all irrelevant. Although we do not always insist on it in law, we should ask a question and require an answer only when the presupposition of that question has been proven. (Presupposition means, for

example, that it must first be proven that something has happened before we can ask when it happened or what caused it. ) Otherwise progressing from one fact to another is more like hopping around in a field than a logical activity. Another significant concept is the condition of exhaustiveness, which means that the question defines the conditions for what constitutes an exhaustive answer to it from a logical point of view. In a real trial, this condition is sometimes violated. For example, a witness might answer a question such that the reply is not really an answer to what was asked. I think that the effectiveness of a trial could well be measured by the number of violations of this condition.

In presenting his interrogative model, Prof. Hintikka included definition and assertion moves. These figure less prominently in the current elaboration of the model. Where definition moves are concerned, this gap is filled by the extensive literature on definition. Although definition steps are central in legal decision making, I will finish my presentation by presenting reasons why we need a logic of discovery to be able to examine trials or reasoning from a logical and rational viewpoint. There are two reasons: first, deductive steps are not the only crucial ones in fact-finding in a trial. Second, the fact-finding stage cannot be modeled such that we first carry out moves of one type and then moves of another. Put in another way, not all deductive moves can be made at the end; it should be possible to combine the moves freely. Processes of justification entail the requirement of total evidence and the deriving of all logical consequences from total evidence is not applicable in situations in which the acquisition of evidence is central. The acquisition of evidence is only possible if we do not restrict steps or moves to deductive moves and do not restrict the order in which these are applied. What we need is a discovery procedure.

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