

# Legal Reasoning

## A Jurisprudential Model

Peter Wahlgren

### 1 Introduction

In jurisprudence methodological shifts of practical significance have seldom or never happened overnight. The discussion concerning legal methods and legal reasoning has been a challenge primarily for legal philosophers and many legal movements basically mirror a theoretical development.

Nor is it always an easy task to elucidate methodological aspects related to legal reasoning in works of jurisprudence. Contributions to the study of legal reasoning are often part of more general discussions on the nature of law. It is also noticeable that in comparison to studies devoted to the nature of law and related issues, studies focusing on legal reasoning are scarce.<sup>1</sup>

The relatively low interest in legal reasoning processes may perhaps be explained by the fact that this has been a less problematic aspect of legal theory. In a historical perspective it is plausible that the problem of, for example, justification of legal decisions and discussions about codifications have appeared as much more compelling issues. The fact that relatively few philosophers have devoted their efforts to legal reasoning processes is nevertheless surprising since all contributions to jurisprudence must include assumptions about legal reasoning.<sup>2</sup>

It should be stressed however that the scarcity of studies on legal reasoning is by no means all-embracing. Legal reasoning has been the object of numerous studies reflecting a variety of approaches. But although a number of important contributions have been submitted, it is not appropriate to claim that there exists

---

<sup>1</sup> See, e.g., Aarnio, A. *On Legal Reasoning*, 23 (1977) “Philosophers of law have not aimed at creating a theory covering [sic] prevailing legal thought. They have instead often stated the basic problem in the form: what is law? Thus they have tried to assign a precisely defined object to juridical research – and to legal thinking in general.”

<sup>2</sup> See, e.g., MacCormick, N. *Legal Reasoning and Legal Theory*, 229 (1978).

a uniform theory of legal reasoning. The models of explanation that have been offered reveal far-reaching differences of how the process is understood. It is also apparent that detailed studies on physical operations, sequences, and sub-processes within legal reasoning are rare.

In the studies focusing on legal reasoning processes it is possible to perceive two major approaches. The most common approach is, perhaps, to analyze legal reasoning by means of decomposing the process into more or less detailed phases.<sup>3</sup> Many researchers have also described legal reasoning as a rule-guided activity. Various aspects of legal reasoning are then related to different kinds of methodological rules (often hierarchically ordered).<sup>4</sup> Several contributions reveal a combination of these two approaches.<sup>5</sup> It is also noticeable that some researchers have suggested that legal reasoning is an example-based or case-based activity.<sup>6</sup>

Studies on legal reasoning based on decomposition into phases, conceptions of rules, or examples are however not the only existing approaches. *Aulis Aarnio* has, for instance, submitted a hermeneutical approach,<sup>7</sup> and legal reasoning has been also discussed in sociological,<sup>8</sup> mathematical<sup>9</sup> as well as cognitive terms.<sup>10</sup> Moreover, it has been suggested that there exists a demarcation between legal reasoning in a narrow sense (denoting arguments justifying decisions) as compared to legal reasoning in a broad sense (referring to “psychological processes undergone by judges reaching decisions . . .”).<sup>11</sup> Several researchers have also concentrated on logical aspects of legal reasoning<sup>12</sup> and some recent contributions have submitted models of explanation based on biological findings<sup>13</sup> as well as theories on neural networks.<sup>14</sup>

---

<sup>3</sup> See, e.g., Wasserstrom, R.A. *The Judicial Decision*, 27 (1961), Strömholm, S. *Den juridiska argumentationens relevanskriterier*, 644 (1974), Buchanan, B.G., Headrick, T.E. *Some Speculation About Artificial Intelligence and Legal Reasoning*, 53 (1970) and Hansen, J. *Simulation and Automation of Legal Decisions* (1986).

<sup>4</sup> See, e.g., Dickinson, J. *Legal Rules: Their Function in the Process of Decision* (1931), Hart, H.L.A. *The Concept of Law*, 77-96 (1961), Alchourrón, C.E., Bulygin, E. *Normative Systems* (1971) and Hamfelt, A. *The Multilevel Structure of Legal Knowledge and its Representation* (1990).

<sup>5</sup> See, e.g., Gottlieb, G. *The Logic of Choice*, e.g. at 66-77 and 155 (1968) and Bing, J. *Fra problem til resultat: Model av den juridiske beslutningsprocess* (1975).

<sup>6</sup> See, e.g., Levi, E.H. *An Introduction to Legal Reasoning* (1949) and Rissland, E.L., Ashley, K.D. *A Case-Based System for Trade Secrets Law* (1987).

<sup>7</sup> Aarnio *supra* note 1.

<sup>8</sup> See, e.g., Schubert, G. ed. *Judicial Behavior: A Reader in Theory and Research* (1964).

<sup>9</sup> Goldberg, S.P. *On Legal and Mathematical Reasoning* (1981).

<sup>10</sup> See, e.g., O’Neil, D.P. *A Process Specification of Expert Lawyer Reasoning* (1987).

<sup>11</sup> Golding, M.P., *Legal Reasoning*, 1 (1984).

<sup>12</sup> See, e.g., Tammelo, I. *Modern Logic in the Service of Law* (1978).

<sup>13</sup> Walter, C., Parks, M. *Natural Models of Intelligence* (1985).

<sup>14</sup> Warner, D.R. *The Role of Neural Networks in the Law Machine Development* (1990).

The variety of contributions is initially a bewildering feature. Legal reasoning is however a complex process and the fact that there exist different models of explanation does not necessarily imply that some contributions are less accurate than others. A number of things may explain the diversity. One obvious reason is that contrasting studies have often focused on various parts of the process. Some researchers have, for instance, concentrated their attention on justification, while others have devoted their interest to the role of logic during rule application, and so forth.

It is also apparent that studies of legal reasoning processes focusing on different areas of the law arrive at different conclusions about appropriate procedures. Likewise, the roles of legal decision makers may be of a very different nature.<sup>15</sup> That is to say that a judge who has to decide about sentencing in criminal court proceedings is in a different situation than a litigating lawyer who tries to predict the outcome of a trial concerning an infringement of patents.

Further complications originate from the fact that differences between prescriptive and descriptive arguments that appear in various discussions on legal reasoning have not always been made clear. In addition, an in-depth investigation of previous studies reveals that a number of things that initially stand out as dissimilarities may be explained by the lack of consistency in the use of terminology.

Reviewing various contributions to the theory of legal reasoning it is also apparent that diverse assumptions about the nature of law are reflected. It is therefore obvious that knowledge of different legal theories facilitates the understanding of methodological proposals.

\*\*\*

The analysis undertaken in this article starts from a decomposition of the legal reasoning process into six different sub-processes. Each process is addressed separately (sections 2 – 7). Thereafter some remarks about the learning process which is necessarily related to legal reasoning are submitted (section 8). The important characteristics as well as the modus operandi of the sub-processes and their relations to each other are described. The description of the sub-processes is essentially rule-based, i.e. it is assumed that many mechanisms that are incorporated in legal reasoning may be described in terms of methodological rules.<sup>16</sup> In the concluding section (9) the various kinds of methodological rules as well as other kinds of influential factors that have been discussed are summarized.

---

<sup>15</sup> See, e.g., Patterson, E.W. *Logic in the Law*, 883 (1942).

<sup>16</sup> Methodological rules are of a different nature as compared to *rules of substantive law* or *primary rules* (focusing on original legal problems) in the sense that methodological rules do not deal with issues of substantive nature, but instead govern the legal decision making process and also determine how rules of substantive law may be applied, interpreted and changed. The phrases *secondary rules* and *meta-norms* are sometimes used as synonyms of methodological rules. See, e.g., Hart H.L.A. *The Concept of Law*, (1961), at 77-96 and Bing, J., Harvold, T. *Legal Decisions and Information Systems*, 19 (1977).

To start with, it should be pointed out that a rule-based *description* of legal reasoning does not say anything about the outmost nature of the process. In other words, the analysis of legal reasoning that is outlined here is not intended to address the question as to whether or not the process will eventually and in its ultimate meaning turn out to *be* rule-based. The objective of this exploration is to develop a jurisprudentially sound model of legal reasoning that may facilitate further investigations. The reason why a rule-based approach is preferred is thereby merely the fact that rules provide a feasible (easily understandable and traditionally well established) way to describe how lawyers (and people in common) appear to reason.

### ***1.1 Definitions and Terminological Remarks***

The word *lawyer* is used in this study as a collective description of many different legal professions (e.g. judges, advocates, law-teachers, prosecutors, company lawyers, and administrators in the public sector). The criterion of qualification is that the decisions made by the persons involved, in their normal work situation, must concern legal rules.

*Legal rules* appear both as rules of substantive nature and as methodological rules. Legal rules are the rules that lawyers have to consider in their work due to the doctrine of legal sources (a collection of theories about origin, validity and application of legal rules) or because of other legally authoritative reasons. Usually this includes rules that are reflected in statutes, in legislative preparatory material (*travaux préparatoires*), in precedents, in work of jurisprudence, or, as a last resource, in regularities that may be perceived as customs.

Within jurisprudence there is an on-going discussion concerning the relevance and the hierarchical order of legal sources and rules of different status. There also exist several theories concerning the justification of legal systems, the authorization, and the principles of legality. Although some aspects of these issues remain unsettled, this study adopts initially a perspective in which the validity of legal rules is taken for granted. In this respect this study rests on a positivist tradition. In the Scandinavian legal environment this is not an extreme position since there is a consensus on the relevance of the majority of legal sources. Nevertheless, in the description of the legal reasoning process that is carried out below, there are reasons to return to classifications and different attributes of legal rules. It may be therefore worth remarking right at the start that one characteristic, frequently reappearing feature is the distinction between the representation of legal rules (the written law) and rules of a semantic nature (as they are perceived by lawyers during legal reasoning).

*Legal reasoning* is used as a collective label for a number of mental processes leading to a legal decision. Some of these mechanisms focus on the event that has initiated the current issue and concerns situation-identification, interpretation, and fact evaluation. Other aspects of legal reasoning include law-search and involve choices between available rules and arguments. The process also comprises a constant evaluation of possible decisions and formalization activities. Legal reasoning is a crucial task since reasons that are formulated and

choices that are made during the process will be used as arguments in favour of a decision. Haphazardly conducted legal reasoning and superficial analysis, on the other hand, obviously can lead to poor arguments and result in legal decisions of low quality.

A legal reasoning process may be also very comprehensive and drawn out. It may also engage several individuals. The latter is, for instance, the case in a legislative drafting process. Likewise, it must be mentioned that in practical situations (e.g. in the preparation of litigation) it is a standard legal procedure to analyse and prepare several lines of reasoning that in a later instance may be employed alternatively depending on the kind of opposing arguments that are encountered.

*Legal decisions* are the result of the legal reasoning processes, and they may be more or less explicit. Legal decisions may be, for instance, visible in the way that they have a direct effect due to formal reasons (e.g. the decision of a judge closing a court proceeding, or the decision of a solicitor performing a transaction on behalf of a client). On the other hand, legal decisions may be also indirect and their effects may be hidden due to the fact that they are elements of complex situations. This is what happens in the usual counsel situation, with or without trial or connection to a dispute, and also in the legal teaching situation. The advice, the argument, or the description of the law is founded on a previous decision of the lawyer concerning the ways in which to handle the issue of the situation at hand. If the client follows the advice, if the court is in favour of the proposal, or if the student accepts the guidance, the decision may have effect. Naturally, due to misinterpretation, negligence or poor quality, legal decisions may also lack any effect, and between these extremes, many possible consequences may be perceived.

It should be also stressed that in many situations (e.g. during negotiations or court-proceedings) legal decisions are tentatively suggested in an argumentative manner and often reformulated, e.g. when the opposing party produces obstacles in the form of new information and counter-arguments. In other words, there is a close relation between the legal decision and the legal reasoning process due to the fact that a legal decision may give rise to more or less foreseeable effects, of which some may challenge and provoke the decision in such a way that a transformation is motivated.

## ***1.2 Legal Reasoning – Overview***

A legal reasoning process starts when a lawyer is confronted with a legal issue. For example, a potential client may visit a lawyer in a legal office and describe a situation, or a district attorney may put forward an alleged crime before a judge in a court-proceeding, or a company lawyer may receive a telephone-call from his manager to be informed of a possible legal problem emerging in a contracting situation, or a civil servant may find in his morning mail an unusual request from a citizen, regarding partly classified documents with references to the freedom of information act.

Rarely does the initial confrontation with a problem give the lawyer enough information to let him arrive at a legal decision. On the contrary, the lawyer usually has to find additional information. Depending on how familiar he is with the situation, the effort that he will have to make may be more or less time-consuming and cumbersome. Two extreme cases are possible to visualize; (i) the case when the lawyer immediately recognizes the description and makes a decision instantly without any additional efforts whatsoever, (ii) the case when the lawyer does not recognize any piece of information at all – everything, the whole situation as well as its elements, is a total mystery. Between these extremes, a continuum of alternatives can be imagined, and in some cases, as for instance in the case of court-proceedings, the lawyer will be obliged to follow formal rules guarding his decision making.

As to (i) it is necessary to underline that it is often possible to arrive at rule applications quite easily. This is for instance the case in situations in which the nature of the upcoming issues can be easily determined in advance and in which the law is stable and clear. In many fields of the law this is not an unusual situation. Anyone who has spent some months, for example issuing creditor's bills at a district-court in Sweden would probably willingly testify that problems related to the identification of the relevant law are extremely rare. Likewise, the vast majority of such cases provide few opportunities for mistakes concerning the identification of relevant facts. The same applies to many other kinds of legal issues of frequent occurrence, like for example cases concerning inheritance, traffic incidents, various taxation issues, etc. This aspect of legal reasoning is often neglected in works of analytical jurisprudence, but is reflected in the writings of *Benjamin Cardozo*.

“Of the cases that come before the court in which I sit, a majority, I think, could not, with semblance of reason, be decided in any way but one. The law and its application alike are plain. Such cases are predestined, so to speak, to affirmance without opinion.”<sup>17</sup>

The fact that rule applications may be arrived at with little or no effort does not, of course, mean that the underlying principles of reasoning cannot be of a complicated nature. The fact that legal reasoning often appears unproblematic indicates, however, that it is possible to generalize the process so that it can be easily executed. This, naturally, is an encouraging and important observation to keep in mind in any discussion concerning our ability to understand and handle the process in a better way.

In the second, more complicated case (ii), the lawyer must try to determine the relevancy of the encountered facts and identify the legally relevant elements, resolving any uncertainty surrounding them. In many situations a lawyer must also try to extract more information. Depending on the nature of the case (and on the quality of the description of the situation that is communicated to the lawyer) these tasks may be more or less cumbersome. The objective of these initial

---

<sup>17</sup> Cardozo, B.N. *The Nature of the Judicial Process*, 164 (1921).

activities is nevertheless in each case to be able to compose a legally relevant description of the issue. This may be called the *identification process*.

Identification is a process that is activated together with a *law-searching process*. The lawyer must find a description in the legal system that will reflect the current situation. This is the result of the if-then-syntax of legal rules. Legal rules can always be described in the form of conditional statements that is to say, they consist of an *if-side* – the antecedent or a situational description – and a *then-side* – the consequent.<sup>18</sup> The description of the antecedent must cover the facts of the actual event if the rule is to be applicable. The consequent of the rule is then indicated as a logical effect of the similarity between the current facts and the rule-antecedent. This means that rule application must always start with a comparison between the actual event and the available legal knowledge. Any law-search is, of course, guided by the identification that is being performed; the facts relevant to the current situation lead the lawyer in his search for adequate legal propositions.

Due to the fact that legal descriptions are sometimes of a fragmented nature, any law-search may turn into a complicated and lengthy procedure. It is also clear that the result of a law-search may indicate that an additional shift back into identification activities is necessary. This is the standard procedure in cases when the situational description retrieved from the rule system indicates that under the given circumstances additional facts ought to be investigated.

From a broader perspective the initial activities within legal reasoning may be seen as a search process following two lines. The lawyer must try to form a general description of the case which includes a search for relevant facts. At the same time he must search for a legal proposition that will enable him to form a legal rule that is applicable in a given case, i.e. a rule that contains a description of a similar situation. The objective of the process is to be able to subsume the specific situation under a general description of a situation in the legal-system.

Legal subsumption must not be, however, performed haphazardly. Rule application is normally guided by a number of elaborated methodological rules of a formal nature. Methodological rules determine and explain not only the presuppositions for rule applications, but they also determine how rule applications ought to be completed. In this context it is therefore proper to acknowledge a special *rule application process*.

By definition it is impossible to find a prefabricated description reflecting a new situation. The law cannot be constructed in such a way that would allow for direct mapping of new cases. Legal propositions are often designed so that they can be used as general descriptions, covering numerous individual cases. Alternatively, as in case decisions, the available legal material may reflect only separate events and have no reference to general principles. From this follows that descriptions in the legal system must be interpreted. Elements to scrutinize

---

<sup>18</sup> Sundby, N.K. *Om normer*, 197 (1974). See also, for a general comparison between various theories in legal philosophy, stressing the consensus, and the terminological discrepancy, of so called conditional statements (if *p* then *q*) in legal rules, Susskind, R.E. *Expert Systems in Law. A Jurisprudential Inquiry*, Appendix I (1987), at 128-39.

are thereby not only descriptions of complete situations, but more often detailed prerequisites, e.g. concepts, agents, time aspects, and relations. Some of the elements are thereby probably recognized by the lawyer without difficulties – others may be new to him and require the use of conceptualization and/or transformation activities. In this study such transformations of legal notions are viewed upon as components of an *interpretation process*.

Another important aspect of legal reasoning with strong implications for interpretation strategies is the potential effect of the intended rule application. Depending on how interpretation and identification guide the lawyer in his search for applicable rules, different consequences of legal rule applications are indicated. Some of these effects may be acceptable, others may seem less appropriate and indicate that another situational mapping ought to be tried. Such anticipation may lead the lawyer back to one additional round of identification, interpretation, law-search, etc., with a purpose of arriving at a rule application that will be different in some aspect from the previously intended one. In jurisprudence this method of adjusting legal reasoning to some perceived purpose is often referred to as a teleological method.<sup>19</sup> It may here be appropriate to call it the *evaluation process*.

Finally, after several rounds of identification, interpretation and evaluation, when the rule application has been completed, the lawyer must formulate the decision. Formulation activities, just like evaluation activities, may indicate that additional instances of identification, etc., are necessary. Depending on the situation, formulation may also be completed in many ways. In a legal counseling situation or in a hearing in front of a judge, the decision may be formulated in speech and submitted in an argumentative manner. On the other hand, in a contracting situation in which messages are exchanged by mail, or if a written statement is going to be submitted, the decision must be transformed into text. Disregarding the medium actually used, this may be called the *formulation process*. Formulation terminates the reasoning process by means of revealing a decision – which may, of course, immediately become an element in a new reasoning process.

In addition, legal decisions as well as reasoning processes that do not result in formulated decisions are likely to be remembered, which is why legal reasoning is also related to the learning ability. (Learning may be naturally also a consequence of a systematic investigation of legal material.)

The different aspects of the legal reasoning process and the main relations between them form a model of legal reasoning which may be depicted as in figure 1:

---

<sup>19</sup> Ekelöf, P.O. *Teleological Construction of Statutes*, (1958).



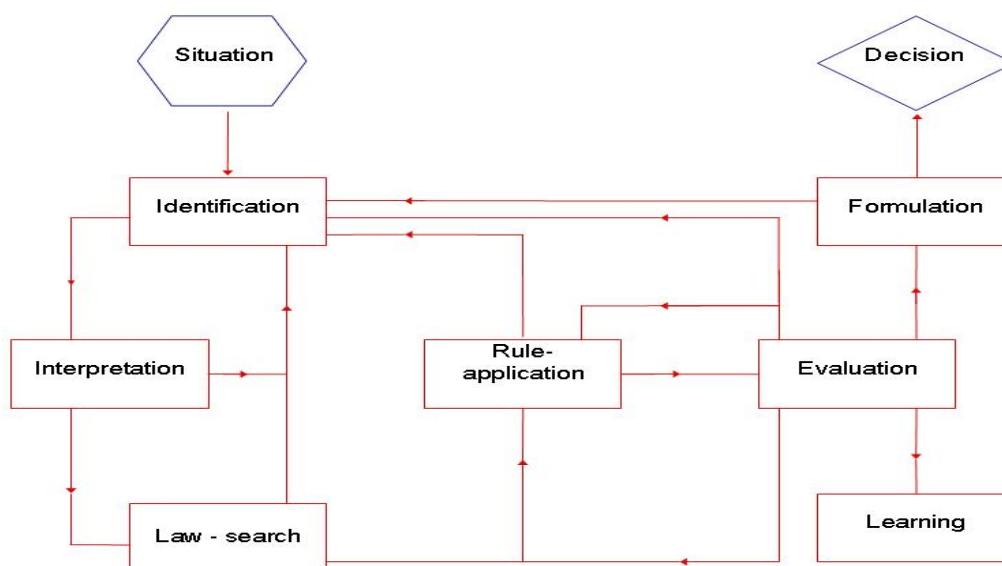


Figure 1 Overview – mechanisms involved in the legal reasoning process.

## 2 Identification

### 2.1 Introduction

The aim of identification is to be able to define a situation in a legally relevant way. Various factors influence the way in which relevancy is determined but in the legal identification process there is little doubt that the encountered facts must be related first and foremost to *the legal system*.<sup>20</sup> From this follows the fact that the process of identification interacts with the processes of search for legal descriptions, and with the lawyer’s recollection of prerequisites used in legal descriptions. Interaction here means that the attention of the lawyer must oscillate between the actual situation and legal descriptions.

[T]here is the process of fact recognition and characterization. The facts suggest some possibly applicable rules; these rules and the cases using them suggest the relevance and importance of certain facts. The rules that are being explored will influence the decision about which facts are relevant. Working with these

<sup>20</sup> Cf. Wilson, A. *The Nature of Legal Reasoning*, 278 (1982) “In this process the judge performs the mental operations of ‘identification’ and ‘classification’: identification of the empirical data – be it a present object or evidence of parts action – and its classification under a relevant legal figure ...”

interrelations is one aspect of recognizing relevant facts in legal problem solving.<sup>21</sup>

The fact that legal reasoning presupposes the establishment of a connection between upcoming situations and corresponding descriptions in the legal system is uncontroversial and probably quite well-known. Nevertheless, it leaves a number of questions concerning legal identification unanswered, providing rather superficial explanations as regards the legal identification process. Analysing legal identification more closely it is clear that various sub-processes may have to be completed during the process. At least three general procedures can be perceived here:

i) A description of a situation, as it is first encountered often contains redundant information, i.e. elements which from a legal perspective, are irrelevant. Sometimes the amount of unnecessary information is huge. Simultaneously, facts relevant to the case may be few. This may, for instance, be the case in an emotionally affected client report. A lawyer must then be able *to recognize the relevant facts and to omit the irrelevant elements*.<sup>22</sup>

ii) Encountered information may be incomplete. In such cases one or more additional facts have to be established before a legally relevant situation may be comprised.<sup>23</sup> This is a normal condition in all kinds of legal work. Hence, lawyers must be able *to find additional – supplementary – facts*.

iii) The components of a description may be disputed and sometimes mutually exclusive or inconsistent facts appear. This is, for example, an ordinary situation for a judge listening to opposing parties in trials. In procedural law this is sometimes referred to as evaluation of evidence. Likewise, the concepts used in situational descriptions may be vague.<sup>24</sup> Legal identification presupposes therefore an ability *to establish uncertain facts*.

## 2.2 *To Recognize Relevant Facts*

A crucial observation when it comes to determining relevancy is that a lawyer encountering the situation for the first time has no knowledge as to which elements he should scrutinize. In many cases this does not need to be a problem, though. For example, when a lawyer meets an upcoming issue in a field with which he is familiar, he may be able to instantly recognize the relevant facts. In

---

<sup>21</sup> Buchanan, Headrick *supra* note 3, at 51. See also Wilson *Id.* at 279 “The process of reasoning involved in the judge’s interpretation of facts as legally relevant is made up of two heterogeneous, irreducible elements: his knowledge of the normative – legal system, whose rules, principles, categories and definitions provide the scheme of interpretation, and the evidence of the facts in the case at hand.”

<sup>22</sup> Bing, Harvold *supra* note 16, at 18 (1977) refers to this as “extracting the legal problems out of the totality”.

<sup>23</sup> Cf. Alchourrón, Bulygin, *supra* note 4 at 33 who refer to “gap of knowledge”.

<sup>24</sup> Cf. Hart, H.L.A. *Positivism and the Separation of Law and Morals*, 607 (1958) who discusses “problems of the penumbra” and Alchourrón, Bulygin *supra* note 4, at 33 who refer to “gap of recognition”.

other cases, however, he may encounter difficulties in the recognition of relevant items in an encountered description. In some cases there may be even some doubt as to the relevant legal area. To commence a process of identification from a vague description of a situation is therefore not always a trivial and easy task. Bing expresses a truly valid observation when he writes that this “may easily be perceived as one version of the paradox on what came first, the egg or the hen: The relevant facts cannot be qualified without knowledge about the applicable rules – and, ... the rules cannot be found without a basis in the relevant facts.”<sup>25</sup>

Initially, it may however be assumed that the process of identification is triggered off by the encountered situation.<sup>26</sup> That is to say that a process of legal reasoning is normally initiated by external factors, not by a lawyer’s salient contemplation of legal issues. The establishment of the relevant facts poses, nevertheless, apparent problems for several reasons. Difficulties with relevancy may appear, for instance, in extremely complex situations in which many elements of various kinds are integrated. Problems concerning relevancy may also appear when the encountered situation is vague and obscure. All this looks even worse when we realize that right from the start a lawyer does not have immediate access to any written representation concerning the relevancy of the encountered issue – except, perhaps, in highly formalized situations, i.e. in situations in which the nature of upcoming issues can be foreseen. The vastness of the accumulated legal material, and the fact that different parts of the legal system may turn out to be relevant in different situations, however, make such instant access impossible in most practical situations.

### 2.2.1 The Use of Background Knowledge

The lack of access to relevant legal sources in the initial stages of the legal identification process is not an insurmountable obstacle. Assuming that the lawyer has a typical professional background, as a rule he will be able to discover the necessary indicators on how to proceed, even when the description of the situation is vague. In such situations the *background knowledge* of the lawyer will function as a tool for classification. In other words, one can say that lawyers are spontaneously aware of a number of general criteria that are embedded in the legal order.<sup>27</sup>

Relations between a current situation and a legal description may be confirmed at various levels of detail. The particularization that has to be completed is determined basically by the generality of the legal system. If a legal description is very detailed, the identification of a situation may have to include patient scrutiny of the corresponding facts. Other rules may, on the other hand,

---

<sup>25</sup> Bing, J. *Legal Decisions and Computerized Systems*, (1990), at 228.

<sup>26</sup> Cf. Bing, Harvold *supra* note 16, at 20 “To us it is important to stress that our model takes the *facts* of the case, rather than the *legal norms*, as the point of departure”.

<sup>27</sup> See, e.g., Bing *supra* note 25, at 228 “The lawyer may lack a detailed understanding of the relevant legal rules, but he or she probably will have some *general* understanding of that area of law. And even if that is lacking, the lawyer has a general understanding of what types of facts or circumstances the law recognizes”.

force lawyers to generalize from the encountered elements in order to find related legal concepts.

The existence of various levels of descriptions and the fact that, depending on their experience, different lawyers may have had the opportunity to memorize a greater or smaller number of illustrations and examples entail that in the initial stages the process of identification may be individualized to a large extent. An experienced lawyer may recall a large number of previously instanced facts without difficulty and be well aware of how different elements are interrelated with each other in the legal system. An inexperienced lawyer, on the other hand, may have to repeatedly initiate the search processes and consult “external” legal sources (written material, colleagues, etc.) in order to determine the relevancy and the relations between the encountered facts.

The nature of background knowledge and the general criteria within the law, however, are not very well defined phenomena. Divergent opinions have often been put forward, not only about the nature of law but also about appropriate classification of legal elements. And, as will be illustrated further on, different assumptions about the basic entities mentioned above are also present in discussions about legal identification and background knowledge. The claim that the number of opinions is at least as large as the number of legal philosophers would not be far from the truth<sup>28</sup> but at a more general level two basic theories may be detected. These two models correspond in much to the well known notions of legal positivism and legal realism.

#### 2.2.1.1 The Positivist Approach

In legal systems leaning towards positivism much work focuses on legal dogmatics. In other words one central aim of jurisprudence is to systematize and clarify *legal concepts* and *legal rules*.

Legal rules are entities that may be studied at various levels. At the aggregated level the legal order is not seldom perceived as a *system of rules*,<sup>29</sup> which is why contributions to the legal theory are often based on subdivisions of that system, e.g. civil law, criminal law, etc. Within a legal sub-area it is in turn common to systemize the rules in various ways, e.g. around some legal issue or as decompositions of general and special parts. Various aspects, e.g. objects or functions, may then be used as a means of classification. For a long period the notion of *rights* has played an important role. Likewise, a lot of effort is spent on

---

<sup>28</sup> Discussing the elements in background knowledge it may be appropriate to recall the words of Cardozo *supra* note 17, at 13 “In this mental background every problem finds its setting. We may try to see things as objectively as we please. None the less, we can never see them with any eyes except our own.” *and*, on a general level, Wittgenstein, L. *Philosophical Investigations*, 115 (1953) “The mental picture is the picture which is described when someone describes what he imagines.”

<sup>29</sup> See, e.g., Aarnio, A, Alexy, R, Peczenik, A. *The Foundation of Legal Reasoning*, (1981), at 423. “The legal order is the sum of legal norms which have been put together (systematized) on a certain basis.”

penetrating the content and meaning of legal concepts. And, just like legal rules, legal concepts are entities that may be studied at different levels.

Implicit in the positivist approach is also the pursuit of ways to reduce the existing gaps and inconsistencies. The analysis is basically held on a general level and in e.g. Scandinavian legal theory the task of providing theoretical knowledge of this kind is held to be central. Ross concluded in 1953 that “The task of jurisprudence is also to systemize the legal rules, i.e. to provide a representation of the law that is as simple and perceptible (*overskuelig*) as possible.”<sup>30</sup>

The assumption that law may be described in terms of legal rules is intimately integrated with the legal curricula. At law school students learn to recognize legal rules and concepts in different areas of law. The courses focus on the study of the existing legal system, as it is codified in statutes and other kinds of legal material, but they also include investigations of various issues and factors appearing in previously settled cases, as well as discussions about facts in hypothetical examples. In this way, in the process of education law students become accustomed to identifying and relating the upcoming situations to the relevant legal sub-areas, the corresponding legal rules and concepts. There is therefore no doubt that one basic function of legal education in the positivist paradigm is to communicate and develop a conceptual structure that is ready to function as an effective fact recognition and classification tool.<sup>31</sup> Likewise it is obvious that the basic components that are employed in this process are legal rules and concepts.

### 2.2.1.2 The Realist Approach

In the tradition of legal realism, i.e. in Anglo-American jurisprudence, it is usual to adopt a critical position vis-a-vis the concept of legal rules. Instead, the importance of *cases* and *examples* is often underlined.

The emphasis on cases and examples is also reflected in North-American legal education<sup>32</sup> where the value of oral discussions has been given a more

---

<sup>30</sup> Ross, A. *Om ret og retfærdighed* (1953), at 207 (original text in Danish). See also, e.g., Aarnio, Alexy, Peczenik *id.*

<sup>31</sup> Cf. Dickinson, *supra* note 4, at 849 “The operation of rules is to make certain factors the primary elements before the judge’s attention and to push other considerations into the background until he has reached conclusions on those which the rules single out as primary. It thus helps him to decide without making the ultimate decision for him; it supplies a structure for his thought to follow ...” (footnote omitted), Kelsen, H. *Reine Rechtslehre*, 198, (1970), at 4 “The judgement that an act of human behaviour, performed in time and space, is ‘legal’ (or ‘illegal’) is the result of a specific, namely normative, interpretation.” and “The norm functions as a scheme of interpretation” (original text in German) Gottlieb, G. *supra* note 5 at 157 “The concept of rule developed in this book characterizes rules as devices for the guidance of *mental processes* of inference leading to choices, decisions, actions, attitudes, judgements, conclusions and the like.”

<sup>32</sup> The notion that law can be learned from cases was introduced by the American Law professor C.C. Langdell in the 1870s and “[b]y the end of the first decade of this century

predominant place. As a reflection of this and following the old Greek tradition the process of legal education is often compared to the Socratic method of reasoning. *Michael Dyer* and *Margot Flowers* have summarized the perspective in the following way:

[A]lthough numerous legal crib notes exist which attempt to explicitly formulate the rules of contracts, most lawyers look down on learning law in this way. Instead law schools claim to teach by a socratic method of reasoning and debate which is extremely example-based. Law students examine famous and prototypic cases.<sup>33</sup>

The focus on cases and examples has also a definite influence on how legal identification is understood. Dyer and Flowers illustrate this by stating that “In our experience, when a lawyer is given a situation to analyse, he or she immediately recalls one or more prototypic cases which involve similar issues.”<sup>34</sup> As regards the topic of background knowledge, the American researcher *Peter O’Neil* further elaborates this perspective by concluding that:

The reasoning and problem solving behavior demonstrated by our expert involves the construction of rich semantic models developed on the basis of prototypical stories and expectations from previous case experiences across multiple contexts. These previous case experiences are used for gathering information to develop theories about the case, gauge what typically fits within expectations, notice anomalies, and generate mentally simulated predictions about how the new case may be concluded ... . Mental models are summarized in the form of ‘stories’ and ‘legal theories’ by our expert and reflects particular characterizations and instantiations of the components models outlined.<sup>35</sup>

Thus, legal realism as compared to legal positivism reflects different assumptions about the nature of basic entities of legal background knowledge, and, with little doubt, these assumptions reflect different ways in which legal systems and their components are perceived. From the citations above one can nevertheless see that despite different legal traditions the *functions* of the legal system are to a large extent similar. That is to say that, although on the surface exist huge differences in the way the legal order is perceived and described, an important function of the legal order in both positivism and realism is to provide

---

these techniques had been generally accepted in law schools throughout the country.” Farnsworth, E.A. *An Introduction to the Legal System of the United States*, (1983) at 16-17.

<sup>33</sup> Dyer, M.G., Flowers, M. *Toward Automating Legal Expertise*, 57 (1985).

<sup>34</sup> *Id.*

<sup>35</sup> O’Neil, D.P. *A Process Specification of Expert Lawyer Reasoning* (1987), at 57. The suggestion that lawyers store legal experiences in the form of prototypical stories and expectations from previous case experiences is similar to the concept submitted by Dyer, Flowers *supra* note 33, at 53, where, after analysing an actual instance of case identification, the authors conclude that a crucial aspect is the access to “a legal memory organized around abstract *conceptual issues*.” Moreover, it is submitted that “[t]he indexing scheme for these issues had been built up in the lawyer’s mind through the experience of attending law school.”

effective fact recognition and fact classification assistance in legal reasoning. In addition, there is little doubt that initial legal identification is possible due to the fact that legal classification schemata of a general nature are reflected to a large extent in the background knowledge of lawyers.

In other words, legal identification is affected not only by the kinds of elements contained in the situation (the nature of the facts) and by the existing legal descriptions about similar things (available concepts, decided cases, and rules of a substantive nature), but it is also heavily influenced, especially in the initial stages, by the lawyer's immediate recollection of relevant legal categories (the nature and richness of general legal notions in the background knowledge).

It should be noticed furthermore that the relation between the elements of upcoming situations and the legally relevant concepts need not be direct. Through chains of inferences associating arrays of concepts of a non legal nature (sub-concepts, co-ordinated concepts, attributes, higher level classifications, etc.), elements of an encountered situation may also provide indirect relations to the law. In this respect it may be concluded that effective legal identification in many cases presupposes also elaborated domain knowledge of a non legal nature.

### 2.2.2 Tentative Identification

The existence of legal background knowledge is not the only factor involved in the commencement of the initial identification process. An analysis of legal identification must also consider the tentative and the interactive nature of the process.

This aspect is illustrated by the observation that even vague situational descriptions usually contain pointers to certain parts of the legal system. For example, in encountered situations reflections of rule-functions, requirements of actors, and various legal concepts may serve as triggers for the initial identification activities. These pointers may in turn, by means of extracting interconnected concepts in background knowledge, direct the mind of the lawyer to related sub-concepts, relations, and attributes, etc., which may be used as check-lists for additional eliciting activities. Of course, these initially perceived pointers may be inadequate, but even superficial scanning of different legal fields usually helps the lawyer to solve the dilemma of choosing the way to proceed.<sup>36</sup> A superficial investigation of rule-structures in family law, for instance, will indicate whether any of the issues raised in the current situation are anywhere near the situations regulated in that field. Presumably, in most cases the first round of such research is done causally and without any search-tools.

---

<sup>36</sup> Bing, J. *supra* note 25, at 228 “[T]he initial extraction of relevant facts or circumstances is *tentative*. The lawyer has available, as a latent resource, the full bag of details comprising the problem as part of the world, with all its parties, witnesses and documents. At any time, the lawyer may refer back to this wealth of details, sift through them once more for extracting new facts to replace or supplement those made available in the first selection.”

It should also be mentioned that many legal concepts may be used as *disqualifying facts* in order to pin-point a relevant legal field by means of trial and error. Some concepts that may be used in this way are very general. For instance, the most important parts of criminal law may be ruled out if the initial fact-eliciting regarding the actor shows a lack of intent. Family law will be ruled out if the persons involved are not related to each-other, etc.

The fact that situations as they are described in rules normally consist of several relevant prerequisites indicates that a strategy of finding one disqualifying fact that excludes whole situations, or eliminates a large number of possibilities, is probably the most effective method in initial identification phases. There are also reasons to believe that initial identification is sometimes conducted by means of a systematic and tentative investigation of disqualifying facts.<sup>37</sup> In other words, it may be assumed that experienced lawyers are normally well aware of concepts that may be employed as disqualifying facts, and can therefore easily identify and rule out the facts that are irrelevant to the upcoming issue.

### 2.3 *To Find Supplementary Facts*

As the identification during a legal reasoning process progresses, with or without the assistance of external legal material, and guided by continuously increasing perception of legal rule-descriptions, the facts that are to be investigated and identified in the current case become more and more clear. The question now is no longer what to look for, but how to find the missing elements in an effective way. At this stage the problem is not to establish the kind of legal situation, but to determine the existence of elements that are related to an already perceived description in the legal order.

Methods of eliciting additional facts vary with the situation at hand. If the lawyer knows what kind of information he is looking for, he will be able to choose the best way to find it. In a face-to-face confrontation he can ask questions using a more or less free interview-technique. Alternatively, he may request information by mail or telephone from different sources. Naturally, there are many more or less efficient ways of conducting this kind of fact collection, and, one important ability in this phase of legal reasoning is undoubtedly to be able to act as an apt fact-finder. In this respect it is, of course, also essential to be able to use communication facilities effectively.

In addition, psychological aspects, as well as the use of power and authority, must be taken into consideration. In some situations (e.g. in client consultations) it is important for a lawyer to be able to establish confidence. In other cases (as

---

<sup>37</sup> Cf. Dickinson *supra* note 4, at 849 “[I]t may thus be said that legal rules, even of a highly specific character, operate on the decision mainly by determining whether or not any issues, and if so which ones, remain to be decided ...” See also Hamfelt, A., Wahlgren, P. *Datorstödda beslut: Artificiell intelligens och juridik* (1988), at 28 Hayes-Roth, F., Waterman, D.A., Lenat, D.B. eds. *Building Expert Systems*, (1983) at 44 “Expert behavior seems to demand that blind search through large numbers of hypotheses be avoided in favour of quick elimination of many possibilities in each inferential move.”



in court proceedings) it may be necessary to have access to means of pressure in order to extract relevant facts from individuals that for some reason are unwilling to impart their information.

The process of fact eliciting is not always an activity that can be conducted in a casual way. On the contrary, in some situations strictly formalized rules for fact collection must be followed. At least two different kinds of regulations that guard fact eliciting may be detected. One type of methodological rules focus on *sequences*, where rules determine in a step-by-step fashion the outer order of the fact collecting process. This is for instance the case in criminal proceedings where a well defined order determining how and when questions may be asked applies. Similar regulations may be found in procedural law and in regulations concerning activities of public authorities. Methodological rules of this kind may be, however, also of an informal nature and evolve more or less spontaneously for practical reasons.

Other kinds of standards applied in fact elicitation appear as *lists of prerequisites* that must be established in order to determine a certain situation. Registers of the latter kind may be more or less formalized. They may be composed of, for instance, prerequisites that can be found in statutes and/or precedents. On such occasions prerequisites from various legal sources may have to be juxtaposed in order to form complete check lists. The length of a check list used for fact elicitation depends, of course, on the complexity of the situation (i.e. on the number of prerequisites that have to be established).

It is difficult to determine a particular category of issues that might generate any fixed procedure in the legal identification process. Formalized sequences and check lists for legal identification are tools that may appear in different shapes in connection with any process that is frequent enough. In legal work informal routines develop sometimes into more or less firmly established check lists. At the same time the qualities of effectiveness, the achievement of equality, and the principle of predictability (to be explained) often impose strong limitations on any serious departure from the instituted orders of fact collection.

Regulations of legal fact elicitation may, in addition, be issued for situations that are for some reason considered to be especially important. The most obvious examples are court proceedings, but one can also observe established fact eliciting sequences integrated into work processes in various organizations, companies, etc. (An obvious and tangible example of this is the wide-spread use of printed forms.)

It should be also noticed that established regulations for fact eliciting may include preventive clauses in order to hinder the examination of some facts. There may be several reasons for such limitations. Within legal systems it is, for example, often explicitly stated that certain kinds of information (e.g. political or religious preferences of the persons involved) should be considered irrelevant for the judgement of cases. Other reasons imposing restrictions may be founded on considerations related to personal integrity, and in some cases the examination of certain facts may be in conflict with the purpose of the related rule (for instance, in order to secure the intentions behind a regulation concerning freedom of information it may be forbidden to investigate the

identity of persons approaching public authorities with the objective to take part of public documents).

Although regulations in the legal order as well as elaborated check lists may be a good help in fact elicitation, it must be admitted that in many fields of law it is not possible to find formalized indications on how to proceed with the process of identification. Likewise, it is obvious that the existing check lists often account for only a small part of the knowledge that must be accessed if effective identification is to be accomplished.

In spite of this, in the process of collecting supplementary facts it must be assumed that access to useful sequences and to more or less elaborated check lists for the purpose of fact eliciting is an important condition for effective identification in the legal reasoning process. Moreover, since often only fractions of methodological knowledge of this kind can be obtained from written sources, the nature and richness of the background knowledge of lawyers play undoubtedly a crucial role also in this aspect of legal identification.<sup>38</sup>

#### 2.4 *To Resolve Uncertainty*

The third aspect of legal identification that is dealt with in this study concerns the ability to resolve uncertainty. In legal reasoning, problems concerning lack of certainty must be always solved in an explicit manner. This is one consequence of the *non liquet* prohibition. The principle of *non liquet* entails the fact that courts must not refuse to make a decision on the grounds that a situation is not covered by the law, or by claiming that the situation is vague or poorly defined. A judge who does that is guilty of *déni de justice*, which is considered to be a serious fault.<sup>39</sup> The doctrine of *déni de justice* is specifically defined for judges presiding in courts, but similar conventions apply even outside the courts. Practicing lawyers, e.g. during client consultations or negotiations, would accomplish little by suggesting that they do not know how to handle the issue, or by stating that they are unable to decide.

Several things may cause uncertainty, which in turn may concern the identity of isolated facts as well as the nature of complex situations. Perhaps the most common reason for the appearance of uncertainty is that the lawyer fails to recognize the elements that are communicated to him due to the fact that the reports he receives are imprecise or incomplete from a legal point of view, e.g. because of the witnesses' poor memory, or because written information concerning some details is missing. Uncertainty may be however also due to the fact that people make mistakes about what they have seen, or because some information about past events is no longer available. A similar common reason

---

<sup>38</sup> Hamfelt, Wahlgren *id.*, at 45.

<sup>39</sup> The doctrine of *déni de justice* was introduced in *Code Civile*, article 4, after the French revolution and gradually imported into the Scandinavian legal system during the 19th century. See generally, on *déni de justice*, Sundberg, J.W.F. *fr. Eddan t. Ekelöf*, (1978), at 146-48 and, on *non liquet*, Stone, J. *Legal System and Lawyers' Reasonings*, (1964) at 186-92, 213-14 and Strömholm, S. *Rätt, rättskällor och rättstillämpning*, (1996) at 411-14.

for prevailing uncertainty may be that conflicting reports of past time occurrences are presented, which may be due to the fact, for example, that opposing parties have different opinions about how to describe a situation in front of a lawyer, or simply because people consciously tell lies.

Problems concerning uncertainty in identification instances, do not, however, depend only on the quality of the evidence for a case. Also the nature of the situation that is to be investigated must be taken into account. That is simply to say that in some cases the encountered facts may be few and easily identified, whereas in other situations the facts to be established may be very intricate. The facts under scrutiny may be, for instance, the elements of various prerequisites that have been indicated by a party in order to prove a sequence in a story comprising numerous crucial facts. Simultaneously, an opposing party may give a different account of how the relevant chain of events ought to be understood. Some events may therefore stand out as main themes of proof, others as supporting, or opposing themes of proof, and so forth.<sup>40</sup> In such cases the process of the examination of the existing evidentiary facts may be a cumbersome and prolonged procedure.

Recognizing the fact that the process of determining uncertainty is related to the nature of the upcoming situations it must be admitted at the same time that problems with uncertainty are intimately related to the nature of the existing legal descriptions of certain issues. This is a natural and necessary result of the fact that legal situations are ultimately defined by the legal system. It is furthermore rather obvious that the identification of situations reflected in many prerequisites of abstract nature will imply a higher degree of difficulty as compared to situations that may be described in a few prerequisites of a tangible nature. From this also follows that the recurrence of situations of uncertainty in a certain field of law may indicate that the quality of the underlying legislation and/or the consistency of the leading cases related to the issue is of a less satisfactory nature.

---

<sup>40</sup> Within legal theory special terminology and a considerable literature has evolved around the *evaluation of evidence*. The proposition that is to be identified is often denoted as the *theme of proof* and may in a standard case be a fact corresponding to a prerequisite in a legal rule. The element that is invoked in order to establish the theme of proof is sometimes denoted as the *evidentiary fact*. An evidentiary fact is a circumstance from which it is possible, by means of employing *propositions of experiences*, to draw conclusions about the theme of proof. A theme of proof may in turn be a evidentiary fact for an other theme of proof in a *chain of evidence*. In such a chain “the farthest theme of proof, ... is always a legal fact, i.e. a fact to which a legal consequence is connected according to a legal norm.” A theme of proof may be supported by a number of facts of evidence which in turn may be of various strength; that is to say that the proposition of experience may be more or less plausible and sometimes this relation is described in terms of *evidentiary values*. In a similar relation a fact of evidence may be affected by *auxiliary facts*, which in turn may be of a positive nature (i.e. strengthening the value of a evidentiary fact) or of a negative nature (i.e. weakening the value of the evidentiary fact). See, for further elaborations, Ekelöf, P.O. *My Thoughts on Evidentiary Value* (1983), quotation from page 11.

### 2.4.1 Formalized Support

More or less formalized methodological rules designed to facilitate the process of identification of disputed and/or vaguely defined facts have been in existence for a long time. Rules related to the resolution of uncertainty are linked by a common objective to find a balance between trustworthiness and the necessity to determine each issue that is being submitted. The methods that have been employed in order to reduce uncertainty have varied from time to time and, as in many other cases, the most elaborated regulations concern court proceedings. The possibilities to find effective solutions to these kinds of problems are for natural reasons limited and the attempts to establish a more formalized process have resulted sometimes in solutions that appear quite odd from the modern perspective.

A historical example can be found in the old Swedish procedural code in which a rule stipulating that unanimous statements made by two witnesses should be treated as undisputable evidence.<sup>41</sup> In France a similar rule was employed, but there, if the witnesses were female, three unanimous statements were necessary to establish sufficient evidence.<sup>42</sup>

In more poorly developed forms of legislative systems not only more or less tangible (race, social class, etc.) and formalized attributes (e.g. confessions, disregarding the fact that they may be the result of torture) but also various forms of purely metaphysical tokens have been – and sometimes still are – used in order to resolve issues of indeterminacy.

The possibilities to establish substantive truth values about the past events using formalized rules of evidence have turned out, however, to be limited. As a result of this one can perceive that many judicial systems are abandoning detailed regulations in favour of a more or less free process, accepting less restricted principles such as “the best evidence rule”.<sup>43</sup>

Important indications of how evidence is to be evaluated still exist, nevertheless. Rules of this kind are the reflections of the accumulated experience, indicating that in some situations and for various reasons the collected information may be biased or inexact. A common example of this are rules limiting the weight of evidence coming in the form of testimonies received from witnesses with family relations to persons involved in the issue that is to be decided.

Other kinds of methodological rules stipulate the way in which facts are to be submitted, e.g. that certain kinds of evidence must appear in written form, and how judges are to act if those requirements are not met. If, for example, the standards concerning witnesses’ signatures are violated a judge may be obliged to exclude such evidence for formal reasons.<sup>44</sup>

---

<sup>41</sup> The Swedish procedural act (RB 17:29) wording of 1918.

<sup>42</sup> Ekelöf, P.O. *Rättegång: Fjärde häftet*, 16, note 24a (1977).

<sup>43</sup> Lindell, B. *Sakfrågor och rättsfrågor*, 62-95 (1987).

<sup>44</sup> Cf. Summers, R.S. *Form and Substance in Legal Reasoning*, 710 (1986), who illustrates this with the requirement of the signatures of two witnesses for a valid will. “The court requires

Still other rules prohibit the importation of certain kinds of evidence. An example of the latter is the hearsay rule in the legal system in the U.S.A., entailing that a witness in front of a court must be able to give a first-hand account of the topic he or she is questioned about.<sup>45</sup> A similar regulation is the principle of directness in the Swedish procedural law, limiting the matter to be decided upon to the elements that have been presented to the court during the trial.<sup>46</sup> Methodological rules with a similar function appoint the burden of proof in court proceedings; in civil procedures it is, for instance, normally up to the party that refers to a certain fact to prove the existence and the relevance of that fact.<sup>47</sup>

Other forms of support of how to handle uncertain facts appear in the form of indications on various degrees of *evidential strength* (*degrees of certainty*, *degrees of probability*) that must be present if a legal proposition is to be applied. Guide-lines of this kind are often integrated into the legislative system and appear in surprisingly many forms. Swedish legislation, for example, provides a rich selection of more or less well defined levels of confirmation. In certain statutes it is therefore stipulated that legal consequences may occur if a certain condition can be *assumed*. In accordance with other statutes, rules may apply with a growing degree of evidential strength depending on whether something *is reasonable*, *may be presumed*, *may be suspected*, *for good reasons may be suspected*, *for good reasons is beyond any reasonable doubt*, *is obvious*, and so forth.<sup>48</sup>

Although phrases of this kind indicating various degrees of evidential strength and looked upon as isolated expressions may seem imprecise, most of them have been discussed and debated upon within jurisprudence for a long time. Thus, indications of this kind enable practicing lawyers to find pointers toward relatively well defined methodological sub-rules and/or illustrations describing the nature of evidence that is required. It is however noticeable that support of this kind is significantly of a domain dependent nature.

---

the signatures of two witnesses regardless of the over-riding weight of contrary substantive reasons emergent in the circumstances (e.g., testimony of forty Bishops who did not sign, yet saw the testator make the will, combined with gross hardships to a deserving beneficiary if the will is held invalid and the property goes to undeserving parties).”

<sup>45</sup> Rules of these kinds have several important exceptions. Without violating the hearsay rule it is, for instance, possible to refer to official written statements, e.g. police reports, and to declarations from dying persons, etc. Similar exceptions exist concerning demands for written evidence and for principles of directness. See, e.g., Farnsworth *supra* note 32, at 103-05.

<sup>46</sup> See, e.g., on the principle of directness in Sweden, Ekelöf *supra* note 19, at 42-44.

<sup>47</sup> Cf. Alchourrón, Bulygin *supra* note 4, at 32. “The central position is occupied by the general principle of the *onus probandi*, according to which all those who assert the existence of a fact must prove it, for if the alleged fact has not been duly proved, it is held to be non-existent.”

<sup>48</sup> In Swedish e.g. *troligt* (e.g. SFS 1976:727, section 10), *rimligt* (e.g. SFS 1977:1160, chapter 6, section 17), *kan förmodas* (e.g. SFS 1936:81, section 13) *kan antas* (e.g. SFS 1990:1342), *kan anses* (e.g. SFS 1921:351, section 9), *kan misstänkas* (e.g. SFS 1987:672, chapter 7, section 16), *skäligen kan misstänkas* (e.g. RB 23 chapter 23, section 3), *skäligen kan befaras* (e.g. RB chapter 15, section 9), *sannolikt* (e.g. SFS 1990:932, section 21).

Discussing degrees of evidential strength it should be also mentioned that several attempts have been made to develop methods for the application of numerical values to various degrees of evidential strength.<sup>49</sup> Some researchers have also argued that in cases when many facts are involved, it may be feasible to employ mathematical formulas for the resolution of uncertainty.<sup>50</sup>

#### 2.4.2 Expert Behaviour

Despite the existence of methodological rules concerning the evaluation of evidence it is clear that when indications on how to deal with uncertainty run out, lawyers are often left on their own. This does not necessarily mean that identification must be done at random. As their experience accumulate lawyers develop, no doubt, efficient means of how to handle uncertainty also in cases when formalized indications are lacking. At least three general approaches that may be employed in order to resolve instances of uncertainty can be distinguished.

One obvious way to clarify uncertainty is to undertake a *contextual investigation*. In such an investigation the lawyer must ask himself whether a given story or situation makes sense when taken as a whole if a disputed fact is instantiated. A discussion concerning this particular method to establish uncertainty has been recently submitted by one of the most well-known Swedish theorists who also points out that the method employed for the coherence analysis of evidence can be detected in various case reports.<sup>51</sup> Noticeable is that a contextual investigation has been also suggested to be most effective when applied to problems with conflicting facts. It has been thereby argued that the best way of resolving uncertainty in such cases is to investigate which of the two conflicting stories that accounts for the largest number of elements in the disputed chain of events.<sup>52</sup> *Neil MacCormick* has illustrated this approach in the following way:

---

<sup>49</sup> Each theme of evidence may be thereby given a numerical value, e.g. between 0 (the fact does not say anything about the theme) and 1 (the fact proves the theme). Two main approaches are possible to perceive, *the theme method* and *the evidential value method*. The theme method suggests that from the submitted evidence on a certain theme it is also possible to draw conclusions about the negation of the theme. According to the evidential value method nothing can be inferred about the negation of the theme. Recent Scandinavian jurisprudence shows that the discussion between proponents of the various theories is often of a theoretical nature. See, e.g., for further elaborations, Lindell *supra* note 43, at 134-69 and *passim*, and articles in Klami, H.T. ed. *Rätt och sanning* (1990).

<sup>50</sup> One recent illustration is provided by Åqvist, L. *Towards a Logical Theory of Legal Evidence* (1989) who, inspired by the Swedish legal scientists *Bolding* and *Ekelöf*, has illustrated various categories of this kind. See also, for a number of various contributions to this discussion from the Anglo-American sphere, Cohen, L.J. *The Probable and Provable* (1977), *Jurimetrics Journal* Vol. 22 at 1-120 (1981) and *Boston University Law Review. Symposium: Probability and Inference in the Law of Evidence* 377-952 (1986).

<sup>51</sup> Ekelöf, P.O. *Om värdering av strukturala bevis* (1990).

<sup>52</sup> Lindell *supra* note 43, at 255-56.

I suggest that the only type of test which we have available to us for verifying contested assertions about the past is this test of 'coherence'; taking all that has been presented to us in the way of real or testimonial evidence we work out a story that hangs together, which makes sense as a coherent whole.<sup>53</sup>

The second method of resolving uncertainty that can be employed in legal reasoning may be labelled the *definitional approach*. The important observation underlying this approach is that normally it is not the tangible facts as such that are to be established, but more often the *evidence of facts*.

Reflections of this way of approaching the problem are sometimes exposed in the way that lawyers interrogate witnesses who are unwilling to expose their knowledge on some issue. The strategy used in these cases is to try to make the witness confirm some seemingly irrelevant evidential fact which, as an element of a sophisticated chain of evidence conceived by the lawyer in advance, may be employed later on in order to demonstrate that also the debated theme of proof can be established.

To some extent the definitional approach employs the tentative process that may be initiated during determination of relevancy. That is to say that it includes decompositions and/or generalizations of the encountered components in order to find some element at another level of abstraction that may be a reflection of some concept in the legal system. It may be assumed, however, that this process may be also employed consciously and with the focus set on more detailed aspects of the encountered situation, which may be decomposed and investigated in a piecemeal manner.

If such an analysis indicates that some subject matter may be related to the legal system (if only through several succeeding steps) it may then be possible to initiate alternative fact eliciting sequences and the established facts contained in the elaborated chain of evidence may be eventually linked to explicit prerequisites in the legal system.

The third way of pursuing the process of legal identification through instances of uncertainty is *to shift into law-search*, i.e. to actively try to find some legal proposition that is better suited to define the encountered situation or the contested fact. This is simply to say that when efforts to find legal propositions corresponding to factual elements fail, an obvious way to proceed is to try to find an alternative legal proposition which would make it possible to approach the issue in a different way.

Thus, this avenue of thought may in turn lead to the conclusion that subject matters of different nature ought to be investigated. Alternatively, if the result of the excursion into law-search indicates that the problem has to be solved with the available legal descriptions, active interpretation may have to be initiated in order to transform the existing propositions.

---

<sup>53</sup> MacCormick, N. *supra* note 2 at 90.

### 3 Law-search

#### 3.1 Introduction

If the available background knowledge does not provide sufficient material for rule application, lawyers must turn to law-search. Like many other mechanisms in legal reasoning law-search is a complex matter. It is also evident that the successful result of law-search is related to the effective management of several sub-processes.

All discussions about law-search must, for instance, consider the close relationship between form and substance in law, and the fact that text is the fundamental communication medium. In practice this means that law-search almost always depends on the effective retrieval of legal documents.

It is also noticeable that the notions conceived during the identification process must now be transformed into explicit terms in order to activate external information systems. (For instance, the employment of a subject index in a legal library requires the conscious use of one or several index terms.) A good sense of the language, an ability to transform the encountered fact descriptions into legally relevant language, as well as elaborated and rich background knowledge are, of course, of good help in this phase.

Moreover, in order to conceive relevant legal descriptions several retrieved concepts may have to be related to each other. Law-search is in this respect a process that may have to be activated repeatedly, and often with different objectives in mind. The complexity of the process and the frequently intricate nature of the material thus entail that law-search may sometimes be a very time-consuming activity. The task of finding the relevant point of law and the ability to decide when all the relevant items of legal knowledge have been established are of critical importance here, as any mistake during this phase may be fatal to the outcome of the decision. Most lawyers are well aware of this and recognize the fact that law-search is one of the most crucial aspects of legal reasoning.<sup>54</sup>

#### 3.2 *The Doctrine of Legal Sources*

Now and then it is possible to find explicit guide-lines on how to proceed in the process of law-search. Most noticeable is perhaps the existence of an established hierarchical order among different kinds of legal material. This so called *doctrine of legal sources*<sup>55</sup> provides sometimes rather firm indications on how law-search ought to be conducted.<sup>56</sup> For example, it says that elements of a

---

<sup>54</sup> A Swedish survey covering different categories of lawyers indicated that law-search was the most desirable activity to rationalize in legal work. Wahlgren, P. *ADB, telekommunikationer och juridiskt arbete*, 58 (1983).

<sup>55</sup> See, e.g., Raz, J. *The Authority of Law*, 53 (1979) "It is common ground to all legal positivists that the law has social sources, i.e. that the content and existence of the law can be determined by reference to social facts and without relying on moral considerations."

<sup>56</sup> See, e.g., Peczenik, A. *Rätten och förnuftet*, (1988), at 242-45 "rules for legal sources".



lower dignity may have to be extracted only if higher level material fails to give sufficient information.<sup>57</sup> The relations between various kinds of legal knowledge may be thereby determined by the fact that the material originates from producers of different levels of dignity, or by “their long customary practice”.<sup>58</sup>

The doctrine of legal sources is basically a theory about substantive law. In this respect the doctrine of legal sources may be looked upon as a collection of methodological rules or “managing rules”<sup>59</sup> and as such it is essential for the guidance of law-search in many ways. In continental jurisprudence, for example, the investigation of the prevailing legislation is almost always the most important. Thereafter, legislative preparatory materials may have to be inspected. In addition, case reports may supply examples on how a rule is to be applied in practice. And, if the official legal material and the previous cases fail to supply sufficient knowledge, equity and customs may provide guidance. Important legal knowledge may also be found in works of jurisprudence.<sup>60</sup>

Various legal sources may in turn be composed of material of different kinds. Legislation, for instance, may include constitutional rules, federal rules, state laws, and regulations issued by public authorities, legislative preparatory materials embrace a number of materials of different origin and status, and case law may include decisions from courts of various dignity, etc. The existence of sub-divisions within legal sources sometimes implies that even more detailed regulations defining appropriate sequences for law-search are developed.<sup>61</sup>

The doctrine of legal sources undoubtedly facilitates the processes of law-search in many cases. In spite of this, it is not possible to work out some universal code comprising an elaborated search strategy for legal material based on the hierarchical order of legal sources. The most apparent obstacles to such an approach are the facts that law is an all too complex phenomenon, and that legal sources are ascribed various degrees of importance in different jurisdictions.<sup>62</sup> In addition, the conditions vary depending on the area of the law. For example, in a stable field of the law where precedents are rare, case decisions may be considered to be of a relatively high importance as compared

---

<sup>57</sup> Cf. Hart *supra* note 16, at 92-93.

<sup>58</sup> Hart *supra* note 16, at 92.

<sup>59</sup> Cf. Hart *supra* note 16, at 92-93 (*rules of recognition*) and Strömholm *supra* note 39, at 317-21.

<sup>60</sup> It should be noticed that although the doctrine of legal sources provides often a rather firm framework of how various items of law are to be related there is an on-going debate about the relative weight which ought to be ascribed to certain detailed legal materials in various fields of the law. The conditions in this respect also vary between different jurisdictions. See, e.g., for a comparative analysis of statutes and legislative preparatory materials, MacCormick, N., Summers, R. eds. *Interpreting Statutes* (1991) and, for a discussion concerning the order between legal sources in the Scandinavian legal systems, Strömholm *supra* note 39 at 309-398 and Sundberg *supra* note 39, *passim*. See also, for a similar description of legal sources in the the English legal system, Capper, P., Susskind, R.E. *Latent Damage Law – The Expert System* (1988), at 54 and for a description of rules of priority in the legal system of the U.S.A., Farnsworth *supra* note 32.

<sup>61</sup> Cf. Farnsworth *supra* note 32, at 55-57 and Hellner, J. *Rättsteori*, (1988), at 66.

<sup>62</sup> MacCormick, Summers *supra* note 60, *passim*.

to case decisions concerning rapidly changing areas of the law where litigation is frequent. In some jurisdictions, legislative preparatory material may have a high dignity. In still other fields of the law, due to the age of the material, changing presuppositions, new precedents, legislative amendments, etc, the legislative preparatory material may provide information of a less important nature. Likewise, works of jurisprudence may be more or less updated, produced by more or less acknowledged jurists, and so forth.<sup>63</sup>

It must be also remembered that there is an on-going discussion about *the nature of knowledge* that can be extracted from legal sources. The frequently debated issues here are whether or not it is possible to extract legal rules, and/or whether additional considerations must be included. Some legal philosophers have intensively emphasised the incorrectness of perceiving the legal system as a collection of predefined rules. It has been also stressed that in addition to knowledge that may be found in legal sources, lawyers must also consider knowledge of a subjective nature.<sup>64</sup> At least two additional aspects have been named as necessary elements in a more “realistic” doctrine of legal sources: *moral considerations*<sup>65</sup> and *practical considerations*.<sup>66</sup> Some researchers have also argued that the material that can be found in legal sources is to be understood primarily as the part forming (transformable) components to be considered during legal reasoning. In line with this the label *legal source factors* is a commonly utilized phrase.<sup>67</sup> An example of a researcher who has articulated the latter view is Eckhoff who claims that what may be found in legal sources is merely *raw-material*.<sup>68</sup>

The model of legal reasoning outlined in this study is based on the admission that the doctrine of legal sources does not constitute sufficient means to explain how relevant legal knowledge may be established. Likewise, it is acknowledged that elements of a subjective nature are essential for the outcome of legal reasoning. From the decomposition of the legal reasoning process suggested here follows, nevertheless, that it is improper to distort the discussion on law-search with concepts like legal source factors. The observation that legal sources cannot

---

<sup>63</sup> Cf. Hellner *supra* note 61, at 55-57.

<sup>64</sup> Cf. Capper, Susskind *supra* note 60, at 54, “As well as the written sources of legal knowledge there are also human sources. We are referring in this respect to ... ‘private’ knowledge. Some legal knowledge, no doubt, remains inarticulated and untapped in the heads of human beings.” and Strömholm *supra* note 39, at 317-21.

<sup>65</sup> Cf. Simmonds, N.E. *The Decline of Juridical Reason* (1984), at 99-100.

<sup>66</sup> Eckhoff, T. *Rettskildelære*, 20 (1971) (*reale hensyn*). See also Capper, Susskind *supra* note 60, at 55 “Clearly, human experts solving hard cases will bring to bear far more than a body of rules. Rather, on the basis of experience, no doubt, they will exercise judgement; and the expertise relied upon will be far less formal than that contained in a body of rules.”

<sup>67</sup> Strömholm *supra* note 39, at 317-34, Eckhoff *Id.* at 19-23.

<sup>68</sup> Eckhoff *supra* note 66, at 19. Cf. also, on categorisation of legal knowledge, Susskind *supra* note 18, at 56-57, who suggests a demarcation between *academic legal knowledge* “law-formulations together with legal commentaries on these materials ... ‘the repositories of law’” and *experimental legal knowledge* “knowledge of the day-to-day practical administration of the law” and, on the relation between legal rules and legal sources, Bing *supra* note 25, at 230.

provide predefined solutions for each upcoming case is undoubtedly relevant. But the fact that the retrieved legal knowledge must be normally adjusted to a current case is looked upon in this study as an example of *interpretation*. In a similar fashion moral and practical considerations are perceived primarily as processes that are related to *evaluation*. These aspects of legal reasoning are therefore dealt with separately (sections 4 and 6).

### 3.3 *Legal Knowledge Structures*

In order to pursue the investigation of law-search further, it is nevertheless necessary to complement the doctrine of legal sources with some additional explanations. A detailed theory of law-search must also consider the nature of the material that is to be retrieved. The assumption behind this hypothesis is simple, viz. that all search activities must be adjusted to the ways in which the law is represented, organized, and stored. (Or – in somewhat more cautious words – that search activities ought to be best adjusted to how we *understand* the representation, organization, and storing of the law.)

Over the years, the issues related to the nature of law have been discussed extensively, and often with little consensus among the various contributors. The variations between the submitted theories suggest that one cannot reasonably expect to be able to find some objective and uncontroversial description of the law based on a single aspect like rules, cases, institutions, etc. The approach that is suggested here is therefore of a different kind and the description of legal knowledge that is submitted in this section is not based on one basic notion. Instead, the discussion is based on the analysis of *relations between different kinds of legal knowledge*. The law is thereby perceived as a network of component structures appearing on different levels of abstraction. The following sub-sections provide some illustrations of the above.

#### 3.3.1 Document Level

The way legal knowledge may be approached depends intimately on how the law is represented. This entails that in practice law-search is closely related to document retrieval.

Search for legal documents is a normal, but often cumbersome task in legal reasoning, showing a number of well-known characteristics and distinguished by frequently reappearing problems. The most common difficulty is perhaps that the amount of material that is related to a certain issue may turn out to be immense. Legal documents may have been accumulated for long periods, and often large volumes of material may have to be investigated. This means that lawyers are very dependent on search aids, and that law-search is to some extent related to practical skills of various kinds concerning the physical operation of retrieval facilities, familiarity with library organisation, legal subject indexes, etc.

A related complication is that legal documents appear in many shapes, and that because of this various kinds of documents must be often investigated

before a legal issue can be isolated,<sup>69</sup> e.g. case reports, law reviews, statutes, legislative preparatory materials, books of jurisprudence, court files, individualised agreements, etc. The identification of the relevant documents often imposes therefore a problem. In this respect, knowledge of legal publications series and other kinds of secondary structures, e.g. of document organisation in various kinds of in-house files and similar matters, are also important for effective law-search. Likewise, it may be a cumbersome task to extract large numbers of documents from various sources. Legal document search may therefore not only raise problems of an intellectual nature. Also physical arrangements, distance and other tangible aspects may be of relevance for the ability to complete the process in an efficient manner.

In spite of these complications, there is nevertheless, little doubt that the legal knowledge appears foremost in written form – and that lawyers in law-search must concentrate on the investigation of legal documents.

### 3.3.2 Text Level

Looking somewhat closer at legal knowledge representation it becomes obvious that the final aim of law-search can seldom be to read a document from the beginning to the end, or to find a document *per se*. For instance, in statutes it is usually one specific section that provides the relevant knowledge, in case material a lawyer may devote his initial interest towards final statements, in a legal handbook it may be sufficient to read a paragraph or a chapter, and so forth. Hence, in authentic search situations the objective of law-search is to identify various subdivisions of legal documents.

Effective text-browsing, in turn, presupposes familiarity with the ways in which the material is organised in various legal documents, e.g. the awareness that final statements in appealed court decisions are to be found after the description of the circumstances, that subject indexes in law reports may appear in the latest issue of each volume, etc. A professional search for text paragraphs is also related to the understanding of document organization at a general (i.e. non-legal) level. Knowledge of the latter kind is often used, no doubt, in an unconscious way. Nonetheless, general knowledge concerning document organization may be employed in a procedural manner and it is not far-fetched to assume that the inspection of e.g. titles, tables of contents, summaries, headlines, etc., in legal documents is often conducted in a similar way.

Also, at this level of organization, it is obvious that material from various legal sources must be combined. A certain issue may have been discussed and described in many different texts originating from various producers. In other words, lawyers must normally juxtapose and inspect several interrelated texts. From this follows in turn that lawyers must be able to utilize reference systems of various kinds (footnotes, literature- and name-indexes, and so forth).

---

<sup>69</sup> Several different categorisations of legal documents have been suggested. Bing, J. *Handbook of Legal Information Retrieval* (1984) at 74-84, for example, recognizes three basic types, *indexes, abstracts, and authentic texts*.

### 3.3.3 Concept Level

An in-depth analysis of law-search must go beyond the text-representation level. An additional, crucial observation could therefore be that law-search in authentic situations is domain-related and that any subject matter that is perceived in a given situation may eventually provide the first association to a legally relevant concept. This implies (as has been already indicated in the discussion about identification) that an essential condition for the ability to initiate search processes effectively is to have immediate access to a rich spectrum of *legal concepts*. In a discussion of law-search it must be observed, however, that each instantiated legal concept may have a decisive influence also on the succeeding sequences of the search process. This follows from the basic function of legal concepts, which is to tie elements to each other in a legally relevant way.<sup>70</sup>

Sometimes this connecting function of a legal concept may be highly technical. This is, for instance, the case when a legal concept is to provide links to explicit legal definitions appearing in legal rules of substantive nature (e.g. *robbery* is a legal concept used in order to communicate information about certain related elements, such as physical or psychological threat, felonious removal of property, intent, and so forth). The concept is of a technical nature since in an instance of rule application each prerequisite has to be established in an indisputable way. If any component is lacking, then robbery is not an adequate term in that case.

Legal concepts may be however less technical. That is to say, legal concepts need not be of any immediate relevance to rule application. The main function of a concept may be to provide a convenient, general label in order to facilitate communication about a number of related legal concepts.<sup>71</sup> *Criminal law*, for instance, is a concept interrelating a great number of legal concepts dealing with different acts of crime. The basic function of a legal concept structure may be illustrated as in figure 2:

---

<sup>70</sup> This technical aspect of legal concepts has been extensively discussed by Lars Lindahl who submits that “The connecting function of a legal-technical concept is a special case of a general phenomenon ... On the whole, it is even possible to claim that the connecting function is a presupposition for a *concept*.” Lindahl, L. *Definitioner, begreppsanalys och mellanbegrepp i juridiken*, 43 (1985), (original text in Swedish).

<sup>71</sup> Cf. Frändberg, Å. *Till frågan om de juridiska begreppens systematik*, 84 (1985), who makes a division between legal concepts with a function of systematization (*systematiserande R-begrepp*) and constituting rule elements (*regelkonstituent*).

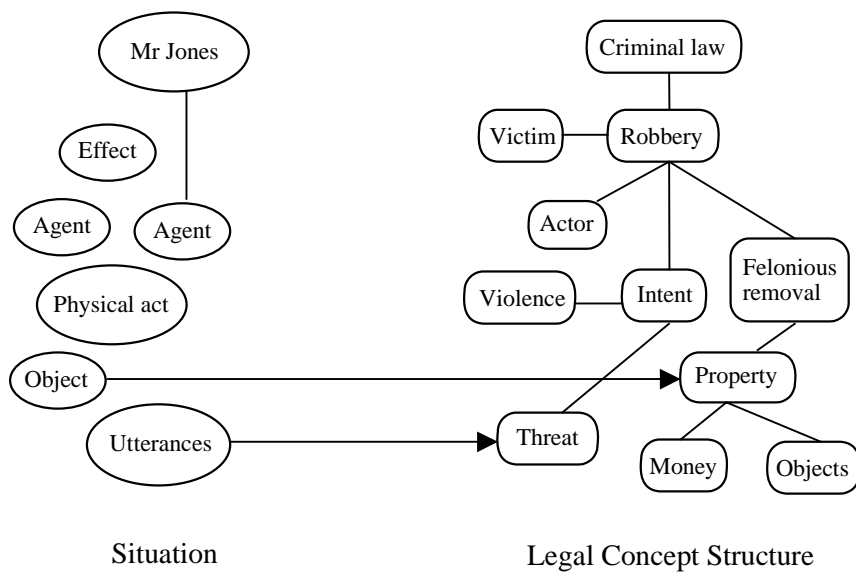


Figure 2 Law-search may be perceived as an activation of legal concept structures. Any activated concept may in turn provide associations to additional legal concepts.

The observation that concept structures play a crucial part in legal thought processes may seem trivial and obvious. It is however important to observe that conceptual structures constitute the fundamental corpus of legal knowledge, and that various kinds of legal concepts are basic building blocks in all fields of the law. Legal concepts appear in almost innumerable versions and, depending on the domain, together form more or less elaborated structures. The clarification of the meaning of legal concepts and their relations with each other are the major objectives of continental (dogmatic) jurisprudence. In consequence, in all detailed discussions on law-search it must be accepted that legal concept structures are vital for the understanding of how relevant legal knowledge may be retrieved.

### 3.3.4 Rule Level

As mentioned before, the primary objective of all processes of law-search is to find a legal description that matches the current case. Descriptions appear as antecedents or consequents and in their law-search lawyers may aim for either kind. To initially aim for descriptions in the form of antecedents is perhaps most common, but sometimes the primary objective is to scrutinize descriptions in consequents. The latter is for instance the case when hypothetical scenarios are to be evaluated during planning sessions.

It is important, however, to observe that it is often pointless to terminate the process of search when one, seemingly relevant description has been found. In order to get something out of a legal description the lawyer must be able to find the corresponding antecedent or consequent. In other words, the objective of a law-search is to find a *complete legal rule*, and not only an isolated description.

Additional complications may arise from the fact that a consequent description in one rule is also frequently an element of an antecedent description of another rule. Lawyers must therefore often sift through hierarchically ordered chains of rules.

The relations between conditional elements in legal rules are sometimes easily spotted, e.g. when the complete rule is expressed in a single text section. The process of relating the elements of legal rules to each other may pose problems, however, for several reasons. One difficulty is that the interrelated conditional elements of a rule often appear in different parts of e.g. a statute.<sup>72</sup>

The difficulty may consist not only in being able to find the interrelated conditional elements of legal rules. It may be also cumbersome to comprise complete antecedent and consequent descriptions. That is to say, that in order to perceive a complete description of a legally relevant situation it may be necessary to investigate more supplementing material. A vague definition in a statute may, for instance, have to be combined with an illustration of a prerequisite in a case-report or in an amended regulation. In jurisprudence this is commonly referred to as *legal rule fragmentation*.<sup>73</sup> Thus, inter-related rule-fragments may be dispersed in a limited field of the law but from time to time it may be necessary to investigate seemingly remote areas for guidance on some aspect.

Illustrations of rule fragmentation have been provided by several legal philosophers, e.g. by Ross, who has demonstrated that the sole function of many legal concepts is to provide systematic connections between facts (f) and consequences (c) – to work as *vehicles of inference*.<sup>74</sup> Likewise, Eckhoff has underlined that the same phenomenon can be perceived at the rule level,<sup>75</sup> i.e. each (f) and each (c) related to a legal rule may be composed of rules on a lower level (f<sub>1</sub> in figure 3 below may include, for instance, rules concerning purchase, f<sub>2</sub> rules concerning inheritance, c<sub>1</sub> rules concerning the registration of rights in property, etc.).

---

<sup>72</sup> In theoretical contributions the phenomenon of dispersed rule elements is sometimes explained by means of indicating a demarcation between rules and rule expressions. See, e.g., Peczenik, A. *Rättsnormer*, 9 (1987), (“norms” and “norm expressions”).

<sup>73</sup> See, generally on rule fragmentation, Sundby *supra* note 18, at 387. Eckhoff *supra* note 66, at 44-51.

<sup>74</sup> Ross, A. *Tû – Tû* (1951). Ross thereby illustrated that legal concepts of rights were primarily technical tools for representation. See also Eckhoff, *supra* note 66, at 48-51 (1971) *and*, for a recent contribution on this subject, Lindahl *supra* note 70.

<sup>75</sup> Eckhoff *supra* note 66, at 50.

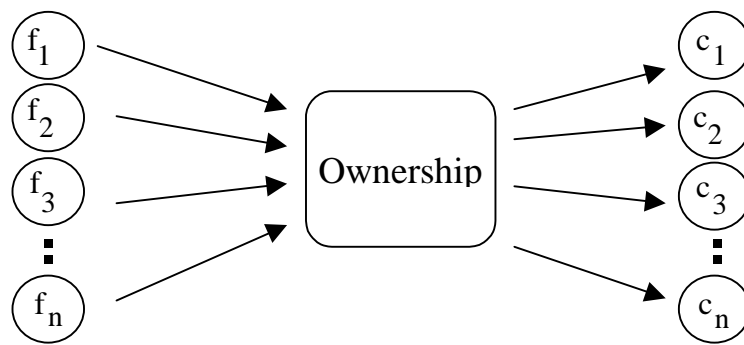


Figure 3 Rule fragmentation. Law-search may be perceived as an ability to identify and combine a number of interrelated legal rules.

### 3.3.5 Rule System Level

A further investigation of the law-search process shows that within substantive law, rule fragments are not the only structures that have to be extracted. Lawyers must also pay attention to other kinds of relations. One important legal structure that must be considered reflects legal rule systems. It means here that legal rules may be complete *per se* but in spite of this in practical work it may be necessary to handle them in combination with other kinds of legal rules.

Within analytical jurisprudence several suggestions concerning rule systems have been submitted. Perhaps the most well-known division between different kinds of rules has been introduced by Hart, who has presented a model based on the concept that rules exist on two different levels and are divided into *primary* and *secondary rules*.

Thus they [secondary rules] may all be said to be on a different level from the primary rules, for they are all *about* such rules; in the sense that while primary rules are concerned with the actions that individuals must or must not do, these secondary rules are concerned with the primary rules themselves. They specify the ways in which the primary rules may be conclusively ascertained, introduced, eliminated, varied, and the fact of their violation conclusively determined.<sup>76</sup>

Hart divided the secondary rules further into: *rules of recognition* (similar to Kelsen's basic norm, deciding criteria for the validity of other kinds of legal rules), *rules of adjudication* (defining a procedure for identifying the individuals and the procedures to be followed when primary rules have been set aside), and *rules of change* (defining procedures for the change of primary rules).<sup>77</sup>

The notion of a secondary system has been also accepted by *Carlos E. Alchourrón* and *Eugenio Bulygin* who recognize two groups of rules within the secondary system:

<sup>76</sup> Hart *supra* note 16, at 92.

<sup>77</sup> *Id.* at 92-96.



We have given the name of secondary system or judge system to the set of norms regulating the actions of judges as such. These norms may be divided into two groups: (i) those that determine in what conditions the judges may judge and what types of question they may resolve (norms of competence); and (ii) those that establish obligations and prohibitions for the judges.<sup>78</sup>

A related, but rather controversial sub-division of entities in law is the separation between rules and principles, suggested by *Ronald Dworkin*. Principles are proposed here to serve as a complement to rules denoting a set of “standards that do not function as rules” and are to be adhered to “because it is a requirement of justice or fairness or some other dimension of morality.”<sup>79</sup>

Submissions stressing various kinds of rule systems have been also submitted by a number of Scandinavian legal philosophers, e.g. by Ross who recognizes three different rules of competence (regulating *personal competence*, *procedural competence*, and *substantial competence*);<sup>80</sup> by *Tore Strömberg* who makes a distinction between *rules of conduct* (describing patterns of activities), *rules of qualification* (defining legally relevant qualities), and *rules of competence* (defining legally relevant competences);<sup>81</sup> and by *Alexander Peczenik* who, among other things, separates between *constituting norms* and *regulating norms*.<sup>82</sup> Decompositions similar to Dworkin’s sub-division into rules and principles have been proposed by Sundby, who proposes a division into *rules* and *guide-lines* (*retningslinjer*),<sup>83</sup> and by Eckhoff and Sundby.<sup>84</sup> A related demarcation is suggested by *Nils Jareborg*, who makes a distinction between *dogmatic rules* and *rules of thumb*.<sup>85</sup> Sub-divisions based on a demarcation between rules and principles (and similar concepts) have been however criticized as being inappropriate and unnecessary.<sup>86</sup> In several studies of jurisprudence various relations between legal rules have been also depicted graphically.<sup>87</sup>

The operative function of various kinds of methodological rules may be illustrated by the fact that alleged criminal acts must be examined in accordance with the rules in the penal code. The examination, in turn, is guided by rules

---

<sup>78</sup> Alchourrón, Bulygin *supra* note 4, at 151.

<sup>79</sup> Dworkin, R. *Taking Rights Seriously* (1977) at 22.

<sup>80</sup> Ross, A. *Directives and Norms*, 96 (1968).

<sup>81</sup> Competence in Scandinavian jurisprudence has been extensively commented on by Strömberg, T. *Rättsordningens byggstenar. Om normtyperna i lag och sedvanerätt*, (1988) *passim*.

<sup>82</sup> Peczenik *supra* note 72, at 15-32.

<sup>83</sup> Sundby *supra* note 18, at 190-306. (Among other things, Sundby also analyses norms of competence.)

<sup>84</sup> Eckhoff, T., Sundby, N.K. *Rettsystemer. Systemteoretisk innføring i rettsfilosofien*, (1976) at 128.

<sup>85</sup> Jareborg, N. *Värderingar*, 87-97 (1975).

<sup>86</sup> See, e.g., Frändberg, Å. *Rättsregel och rättsval*, 42 (1984) and Klami, H.T. *Föreläsningar över juridikens metodlära*, (1989) at 75.

<sup>87</sup> See, e.g., Raz, J. *The Concept of a Legal System: An Introduction to the Theory of Legal System*, (1970) at 98-100 and Eckhoff *supra* note 66, at 25.

determining the ways in which evidence is to be evaluated. Simultaneously, rules on how sentencing ought to be performed must be taken into consideration. In addition, to be able to fully understand the penal code and the criminal procedure it may be also necessary to consider the rules of formality, governing the way in which the court proceeding ought to be managed. The latter type of rules is in turn closely related to rules on how judges are appointed, how jury members are selected, etc. In other words, the rules of substantive law (dealing with the original legal problems) must be related to various kinds of methodological rules, as well as to rules of formality (regulating the way in which rules of substantive law may be applied).

Categorisations of various kinds of legal rules are not elaborated on here. Further decompositions, as well as the operative function of various kinds of methodological rules and rules of formality are however discussed in sections 4 – 8. In this context it may be sufficient to conclude that in law-search lawyers must be able to perceive and extract rule-systems. Extending the meaning of the terminology concerning rule fragments, it may be therefore appropriate to say that lawyers must pay attention to various forms of *law fragmentation*.

### **3.4 Concluding Remarks**

A list of possible ways of describing the relevant legal elements can be easily extended and all aspects of the legal knowledge that have been mentioned here may be further analysed in a much more detailed way. Documents and text units, concepts, legal rules, and rule systems are only a few examples of the components of the complex network that constitute legal knowledge. Some levels of the network (e.g. document structures with explicit references between associated documents) are clearly visible, others (e.g. rule-structures) can be only perceived after a thorough investigation of legal texts. Yet others (e.g. the insights of experts) may be individualized constituting a part of the background knowledge of lawyers.

It may be also noticed that some of the component-structures mentioned here necessarily generate secondary structures. Document categorisation, for instance, implies supplementary structures, reflecting authors, publication series, and so forth.

Although legal knowledge structures may be extremely complex and of a dynamic nature, it is clear that a structural description of legal knowledge, like the one outlined here, makes it possible to enhance the understanding of law-search. The most important observation refers therefore to the fact that legal knowledge is by necessity of a manifold nature (components of various kinds are necessary presuppositions for each other) and, in consequence, that law-search may be described as an activity with the aim to accomplish several different objectives.

To illustrate the latter point let us consider the following. In the initial phases of legal reasoning a lawyer will probably search for a legal description of a general nature, reflecting the current case as a whole. The objective would then be to determine the adequate field of law and to delimit the issue from the legal

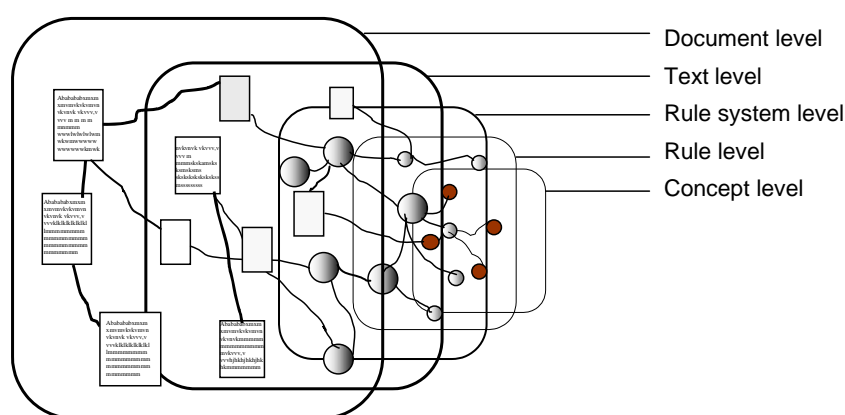
point of view. In the succeeding sequence, in order to obtain a more distinct picture of the situation, the attention may have to be shifted towards legal rules and definitions of interrelated concepts (prerequisites). Thereafter, some particular methodological rule may have to be investigated, e.g. a rule concerning the evidential value that may be ascribed to an identified fact. In the final stages of legal reasoning search activities may aim for explicit references (documents) of a formal nature, and so forth.

### **3.4.1 Individualized Structures – The True Nature of Law**

Looking closer at authentic instances of law-search it becomes obvious that in addition to a more or less accepted doctrine of legal sources, individualized legal knowledge influences the process. Accepting the fact that lawyers' understanding of the law is of a subjective nature, it may be furthermore concluded that their individualized knowledge of the law contains components derived from many different levels of abstraction, e.g. knowledge about documents, rules, central concepts, etc.

Likewise, it may be hypothesized that individualized legal knowledge often contains meta-structures encompassing general and/or secondary knowledge about a number of interrelated structures. For example, lawyers working within in a certain field may have a more or less elaborated knowledge about where to find the relevant documents and the formal rules, whether or not there exist important cases of a principal nature that have to be investigated, whether there exists a detailed specification concerning the definition of a legal concept, etc. In this respect, individualized structures may, of course, also encompass case descriptions and a number of more or less causally remembered concepts – legal or not.

In other words, a further observation following from the above is that a structural perspective may shed some more light on the sometimes confused debate about the nature of law. That is to say that a description of the law encompassing component structures at different levels of abstraction allows for the fact that one's understanding of the law may be, at least to some extent, of a subjective nature. This, despite the fact that legal knowledge of high quality presupposes, naturally, also a good knowledge of basic legal structures. The relations between various forms of legal knowledge may be illustrated as in figure 4:



*Figure 4* In law there is a close relationship between form and substance, which is why legal knowledge necessarily interweaves components derived from many different levels of abstraction, e.g. knowledge about documents, rules, central concepts, etc. Depending on the nature of the current issue and on how the legal reasoning process has been conducted, law-search entails the activation of legal structures of various kinds.

## 4 Interpretation

### 4.1 Introduction

In many cases it is obvious that it is not possible to arrive at an indisputable rule application instantly and that legal subsumption is not a straightforward process. Facts of the upcoming cases as well as fact descriptions in the legal system rarely appear in the same shape, where not only the use of the language, but also the levels of description may be different. The upcoming legal problems normally appear in the form of case descriptions without references to general principles. Modern law systems, on the other hand, rarely provide detailed case descriptions. Statutes or other forms of legal knowledge tend to provide general descriptions of abstract situations and if detailed case descriptions do appear – as e.g. in the case-based legal systems – there will always be some differences between the previously decided cases and the upcoming issues. On many occasions it is also evident that differences in the levels of description are sometimes the reason for approaching a lawyer. That is to say that if a case is initially described in a general and legally relevant way, the need for a lawyer will be much smaller in most cases.

As indicated in section 2 the differences between the upcoming cases and the legal propositions sometimes force the lawyer to utilize active transformations during identification. On such occasions the encountered facts may have to be looked upon from a different perspective, or handled as component elements at some other level of generalization. (In the discussion on legal identification this was looked upon as the establishment of relevance and the elimination of uncertainty through a tentative and/or definitional approach.)

The process of reaching the rule application stage involves, however, another activity, and to accomplish it, more or less far reaching transformations with

respect to the existing legal knowledge may have to be performed. In other words, in legal reasoning not only the situations that are to be identified, but also the available legal propositions have to be adjusted. This latter aspect is defined in this study as interpretation.

Interpretation is, just like identification, an obligatory element of legal reasoning. That is to say that all the actual instances of legal reasoning *must* include the establishment of a connection between a legal proposition (appearing in a legal text or in the background knowledge) and a conceived rule.<sup>88</sup>

In many cases the establishment of this link between a legal proposition and a conceived legal rule may provide little or no problems. When difficulties do occur, however, they are normally related to various kinds of *vagueness* with respect to the legal material. A standard jurisprudential illustration of this problem is how to understand the legal proposition “No vehicles in the park.”<sup>89</sup> How does the concept vehicle refer to various kinds of movable objects (skateboards, toy cars, electrically propelled wheelchairs, airplanes, World War II tanks for exhibition purposes, etc.)?

Complications arising in connection with interpretation may also occur when several legal propositions seem to apply simultaneously or when legal propositions can be interpreted in different ways. On such occasions the law can be described as being ambiguous. As compared to the problems connected with vagueness, which appear most frequently on the concept level, these difficulties occur more often on the rule level and are then referred to as instances of *rule collision*<sup>90</sup> or *rule conflict*.<sup>91</sup>

In works of jurisprudence it is possible to distinguish several approaches aiming to reduce difficulties connected with vagueness and ambiguity. The most obvious and uncontroversial approach is here to clarify legal propositions by means of finding explicit indicators on how to handle a certain issue within the legal system. This is hereinafter referred to as *contextual interpretation*.<sup>92</sup> As a complement, when indicators from the legal system cannot be utilized for some reason, lawyers may have to transform legal propositions by means of applying various kinds of technical approaches (hereinafter *supplementing interpretation*).<sup>93</sup>

---

<sup>88</sup> Cf. Gottlieb *supra* note 5 at 101 “The main problem of interpretation ... [is n]ot what the meaning of words in the rule is, but whether the words authorized the inference made in reliance on them.”

<sup>89</sup> Cf. Hart *supra* note 16, at 123-26. Vagueness or indeterminacy of legal propositions is within jurisprudential literature often referred to as *open texture*.

<sup>90</sup> Peczenik, A. *supra* note 56 at 305.

<sup>91</sup> Strömholm *supra* note 39, at 438.

<sup>92</sup> Cf. Hellner *supra* note 61, at 65 *and*, for a somewhat different perspective, Jackson, K.T. *Definition in Legal Reasoning*, 379-84 (1985) on applying various types of legal definitions to facts.

<sup>93</sup> Hellner *supra* note 61, at 69-73.

When rule collision occurs, lawyers may employ one or several methodological rules concerning the priority of legal propositions. This is referred to in this study as *interpretation of priority*.<sup>94</sup>

#### 4.2 *Contextual Interpretation*

In order to explain how contextual legal interpretation may reduce problems connected to vagueness it is necessary to go back to the nature of legal knowledge and, especially, to recall the distinction between legal knowledge representation and legal rules of a semantic nature. As indicated in the discussion on law-search, this distinction implies sometimes that legal propositions appear in a fragmented form. As a consequence, in order to conceive a legal concept or rule a lawyer may have to identify and juxtapose a large number of fragments from different sources.

The fragmented nature of legal knowledge is obviously the cause of many problems connected with interpretation. It must be noticed, however, that law fragments often provide a solution to many problems of this kind. That is to say, when vagueness is encountered it is often possible to clarify and adjust legal propositions by means of associating any number of interrelated law-fragments with each other.<sup>95</sup> The following sub-sections provide some illustrations of the above.

---

<sup>94</sup> As compared to the model of legal reasoning that is outlined in this study numerous contributions to the theory of legal interpretation have been submitted from alternative standpoints (not all of them comparable to the decomposition of legal reasoning that is suggested in this study). This may be illustrated by the frequently mentioned *canones* of interpretation. The expression is derived from a categorisation outlined by von Savigny, F.C. *System des heutigen Römischen Rechts*, 206-330 (1840) who submitted four basic canones (guide-lines) of legal interpretation; (i) textual factors, (ii) logical, systematical factors, (iii) historical factors, and (iv) functional, teleological factors. Methods of interpretation have been thereafter addressed by many researchers and on a more detailed level 120 years later Llewellyn identified and analysed a large number of techniques (“canons on construction”), which common law lawyers had adopted in the process of handling law Llewellyn, K.N. *The Common Law Tradition* (1960), at 77-120, 521-35. A common way of categorisation is also to distinguish between interpretation in accordance with the purpose of the legislation and interpretation done by means of composing various factors (Hellner *supra* note 61, at 62-63). Cf. also, for further examples, Gottlieb *supra* note 5, at 102 (“Interpretatio extensiva”, “Interpretatio lata”, “Interpretatio declarativa”, “Interpretatio stricta” and “Interpretatio restrictiva”), Eckhoff *supra* note 66, at 117-45 (“innskrenkende”, “utvidende”, “analogisk” and “antitetisk tolkning”), Strömholm, S. *Idéer och tillämpningar, passim* (1978), MacCormick, Summers *supra* note 60, at 531-32 on the *prima facie* ordering of linguistic arguments, systemic arguments, teleological-evaluative arguments, as well as arguments from intention and other transcategorical arguments in statutory interpretation *and* section 5.6 *infra*.

<sup>95</sup> From a functional point of view it is thereby also clear that the fragmented nature of legal knowledge representation is a vital presupposition for a dynamic legal system. That is to say that the fact that law fragments may be combined in various ways implies that legal rules may be adjusted to the special features of numerous upcoming cases.

#### 4.2.1 Definitional Support – Specializations and Generalizations

Perhaps the most common way of solving legal interpretation problems is to try using various levels of descriptions within legal propositions. This is in principle the same method that was indicated in the discussions on identification and law-search at the concept level. It may be noticed also that interpretation by means of generalization and specialization is a general phenomenon, not referring typically to legal reasoning. The most apparent difference when compared to many other fields of knowledge, is, perhaps, that various levels of generalization are often relatively well reflected in various kinds of sources. This correspondence is however not always present. On many occasions explicit definitions of general propositions may be found in legal sources of similar kind, and sometimes even in the same statutes.<sup>96</sup>

The fact that situations and objects may be described at various levels is easily illustrated by the fact that each description of a situation or of an object may be decomposed into *concepts*, *sub-concepts*, *attributes* and *relations*. The concept “car” may be divided, for instance, into sub-concepts, e.g. engine, wheels, chassis. Engine may be in turn subdivided into engine-block, cylinders, carburettor, cables, bolts etc. Examples of car attributes would be, for instance, registration number, colour and size; attributes of an engine smell, sound, colour, and so fourth. It is also possible to form higher levels of descriptions, or, as they are sometimes labelled, *classes*. “Car” may be for instance seen as a sub-concept of the class vehicle.<sup>97</sup>

To understand the legal interpretation process it is crucial to observe that descriptions contained in the legal rule system may be perceived in a similar way. A statute, for example, may contain descriptions of general concepts. Related sub-concepts and attributes may be defined and exemplified in court-decisions or in legislative preparatory material and jurisprudential literature, etc. To adopt a definitional approach during interpretation may therefore imply a search for a level of description that would be more in line with how the current case has been encountered and conceived.

The particular character of the available legal sources determines the way in which the process of interpretation may be developed. For example, in the Swedish jurisdiction the obvious way to proceed when a problem connected with the interpretation of the concept “vehicle” appears would be to turn to the statutes concerning classification of vehicles. These statutes provide a very large number of various kinds of detailed definitions, listing even rare types of vehicles. For example, one special statute concerns the classification of *stone*

---

<sup>96</sup> One reason for this is then often to minimize the amount of text that is necessary to include in a certain statute. By means of collecting elements that are common to several propositions and/or paragraphs unnecessary recurrence may be avoided.

<sup>97</sup> *Sub-concepts*, *classes*, and *attributes* are terms originating from the so called structured object languages. See, for an overview of different approaches in artificial intelligence research, Brachman, R.J., Levesque, H.J. eds. *Readings in Knowledge Representation* (1985).

*removal vehicles*, another one classifies *fork-lift trucks*, and so forth.<sup>98</sup> Thus, in a large majority of cases the lawyer will be doubtless able to find explicit definitions helping him to decide whether or not the current situation involves a vehicle in a legal sense.<sup>99</sup>

In a different type of jurisdiction – lacking special statutes on the classification of vehicles – the way to approach the lack of precision in a given case may be to try to analyse the previously decided cases and consult other kinds of legal sources that may specify the general concept in a way that is more in line with the encountered object. This may finally provide more explicit descriptions, even though the information gathered from e.g. the study of previous decisions, may have to be first put together. On an aggregated level it may thereby be noticed that an initially vague concept will be continuously related to an increasing number of illustrations as decisions are accumulated. Provided that the legal decision making is consistent and that the decisions are well documented, this will eventually diminish the problems connected with vagueness.<sup>100</sup>

Problems originating from the fact that legal descriptions reflect different levels of abstraction appear, however in many shapes. When the propositions appear as general concepts (e.g. as in the vehicle prohibition) it is obvious that the lawyer must first solve the problem concerning the lack of precision by means of specifying the concept crucial to the case (e.g. “vehicle”) so that it gets a distinct meaning (interpretation by means of specification).

If, on the other hand, the legal system is based on case descriptions (or if the available legislation is of a casuistic nature) interpretation may have to include also generalizations. The latter is for instance the case when the financial losses issuing from the misbehaviour of the dog *Pluto* (e.g. an attack on the mail-man) are to be decided upon when the only available legal propositions on similar matters describe merely how e.g. financial losses issuing from the misbehaviour of the bull *Ferdinand* (e.g. an attack on the milkvan), and of the cat *Felix* (e.g. the theft of fish), as well as of an unidentified fox (e.g. the killing of eight hens) have been decided. To find an appropriate level of description in such cases it may be necessary to establish a number of associating links. In the first instance, legal propositions contained in the available cases may have to be generalized in order to find a level of abstraction that contains no contradictions (interpretation by means of generalization). In the succeeding phase these generalizations must be related to the current case (by means of specification).

In contrast, in the statute-based jurisdiction the misconduct of *Pluto* may be more easily interpreted as an instance of a general legal proposition, stating e.g.

---

<sup>98</sup> *Vägtrafikkungörelse (SFS 1972:603) sections 1-4, Kungörelse (SFS 1954:617) ang. klassificeringen av så kallade stenröjningsvagnar, and Kungörelse (SFS 1952:45) ang. klassificeringen av vissa gaffeltruckar.*

<sup>99</sup> In a jurisdiction encompassing a large corpus of knowledge about general concept of this kind it may even be presumed that the concept vehicle in the park regulation is chosen explicitly in order to *avoid* problems with interpretation.

<sup>100</sup> See, e.g., about this development of *opinio necessitatis* (necessary argument), Bing, J. *Om tolkning av enkeltord – särskilt i lovtekst*, 141-42 (1986) and Aarnio *supra* note 1, at 21.



that “owners of domestic animals are liable for all kinds of damages made by such creatures.” The rule may be arrived at in the latter case solely by the specification of the elements contained in the general rule.<sup>101</sup>

It may be noticed that interpretation by means of specification and generalization means that many different components may have to be adjusted to different levels of abstraction. This has been illustrated, for instance, by Stone discussing interpretation with illustrations from a well-known English tort-case in which a plaintiff had found a dead snail in an opaque ginger beer bottle.<sup>102</sup>

*Facts as to the Agent of Harm.* Dead snails *or* any snails, *or* any noxious physical foreign body, *or* any noxious foreign element, physical *or* not, *or* any noxious element ...

*Facts as to Vehicle of Harm.* An opaque bottle of ginger beer, *or* an opaque bottle of beverage, *or* any bottle of beverage, *or* any container of commodities for human consumption, *or* any containers *or* any chattels for human use, *or* any chattel whatsoever, *or* any thing (including land *or* buildings).

...

*Facts as to injury of plaintiff.* Physical personal injury, *or* nervous *or* physical injury, *or* any injury ...<sup>103</sup>

---

<sup>101</sup> On an aggregated level the development of legal propositions of general nature may thus be looked upon as a presupposition for an effective legal system. That is to say that without access to representation of hierarchically ordered general legal propositions lawyers must in each upcoming case try to generalize from more or less ad hoc related cases. This is not only a time-consuming enterprise, but also an undertaking that involves great risks with respect to the principles of predictability and equality (*Cf.* section 5.5. *infra*). The strive towards a well organized legal knowledge representation is also reflected in undertakings in many jurisdictions where efforts in this direction appear under many names, (legal dogmatics, restatements, reformulations, etc.). See, e.g., for further illustrations of this stand-point, Susskind *supra* note 18, at 78 who among other things submits that “[I]t is desirable for those whose concern is the administration of the law to recast these law-formulations as a body of structured, interconnected, coherent, simple (in so far as possible), and comprehensive law statements.” Aarnio *supra* note 1 at 266-67, McCormick, Summers *supra* note 60, at 18-23 and *passim*, and Berman, D.H., Hafner, C.D. *The Potential of Artificial Intelligence to Help Solve the Crisis in Our Legal System*, 928 (1989) “The American legal system is widely viewed as being in a state of crisis, plagued by excessive costs, long delays, and inconsistency leading to a growing lack of public confidence. One reason for this is the vast amount of information that must be collected and integrated in order for the legal system to function properly. In many traditional areas of law, evolving legal doctrines have led to uncertainty and increased litigation at a high cost to both individuals and society. And in discretionary areas such as sentencing, alimony awards, and welfare administration, evidence has shown a high degree of inconsistency in legal decision making, leading to public dissatisfaction and a growing demand for ‘determinate’ rules.” (Footnote omitted).

<sup>102</sup> Donoghue v. Stevenson (1932) A.C. 562.

<sup>103</sup> Stone, J. *Legal System and Lawyers’ Reasonings*, (1964) at 269-70 (footnote omitted).

#### 4.2.2 Intentional Support

Rule fragments appear in many different shapes and not only as elements that may be employed in inferences of a specifying or generalizing nature. In an analysis of contextual interpretation it is also necessary to note that a legal system can often provide also more general indications on how to proceed when legal propositions appear to be imprecise.

In other words, it is sometimes possible to find explicit statements concerning *intentions* behind legal propositions within the legal system. Intentional support may appear in the legal system in addition to definitional support, but it may also play a crucial role when one runs out of explicit definitions or when those are non-existent. The latter may, for instance, be the case when a general proposition is newly issued and when no examples and illustrations have yet been generated.

To illustrate this we may consider the problem concerning vehicle prohibition. In this case, if a lawyer is unable to obtain explicit definitions of the vague concept “vehicle”, he may still be able to make an extensive analysis of e.g. legislative preparatory material<sup>104</sup> and through it find out that the *purpose* of the legal proposition is to ensure silence in the park (e.g. because it is situated near a hospital). Such an *intentional law fragment* gives rather firm indications on how to interpret the concept “vehicle” in each and every case – namely that the quality of being noisy will be a crucial attribute when a lawyer has to decide whether or not a certain object is to be subsumed under a general concept. The construed rule may turn out to be on such occasions something like “no objects generating noise must be allowed in the park.” This may in turn impose rules that e.g. electrically propelled tram-cars may be allowed in the park, provided they are quiet, and simultaneously rule out horses pulling carriages on stone pavements.

If, on the other hand, the lawyer is convinced for some reason, e.g. by the inspection of the underlying city plan regulation, that the intention with the vehicle prohibition is to ensure that no heavy objects appear in the park generating vibrations (e.g. because of unstable ground conditions of the buildings nearby) this will instantly impose a different interpretation of the concept “vehicle”. On such an occasion electrically driven tram cars may have to be excluded because they are too heavy, while horse pulled carriages may present little or no difficulties.

---

<sup>104</sup> It may be noticed that legislative preparatory work in various jurisdictions is admitted various degrees of importance. In some jurisdictions, as in e.g. the European community legislation, legislative preparatory work is more or less omitted from the decision making process. In Sweden, on the other hand, legislative preparatory work is often referred to, although the discussion about its role in legal decision making for a long time has been intense. See, e.g., for recent comparative study and for further references, MacCormick, Summers *supra* note 60 *passim and*, especially on the Swedish situation, e.g. Bratt, P., Tibergh, H. *Domare och lagmotiv* (1989) and Lind, Johan, *Högsta domstolen och frågan om doktrin och motiv som rättskälla* (1996-97).

### 4.2.3 Methodological Support

In addition to definitional and intentional support, in legal knowledge representation it is sometimes also possible to obtain *explicit methodological support*. The latter is the case when legal propositions of a substantive nature are interconnected with methodological rules. One example of such a rule of a very distinct nature appears in the Swedish legislation concerning vehicles, where the third section in the statute on road traffic (SFS 1972:603) stipulates that if a certain vehicle or type of vehicle cannot be classified in accordance with the lists of vehicles in the statute, the issue of classification should be submitted to the *Road Traffic Security Administration*.

The most common reason behind this kind of regulation is perhaps that many aspects of modern society are of a very complicated nature and that the legislator tries in this way to ensure that legal decision making preserves a high standard. Similar rules appear e.g. as regards issues related to the development of chemical compounds, construction techniques, etc. In addition, it may be noted that besides providing methodological support a regulation of this kind also ensures that the relevant authorities are notified when new, previously undefined phenomena appear. This in turn may facilitate the process of adjusting the rule system whenever the need arises.

An approach that is similar from the methodological point of view is when issues of interpretation are delegated to a jury during court proceedings.

Methodological rules may be however also less explicit and less decisive. An example of a methodological rule of a more general kind can be found in the previous wording of the Swedish penal code which stated merely that in each upcoming case and in their interpretation of the legislation concerning sentencing lawyers must consider factors concerning both the resocialization of the criminal as well as those concerning general prevention.<sup>105</sup> In this way, methodological support may be very similar to intentional support by means of merely pointing out the relevant factors that have to be considered.

As a final remark concerning contextual interpretation one should mention that various forms of contextual interpretation may be combined and interconnected. That is to say that efficient interpretation implies that a lawyer must be able to sift through large volumes of text encompassing not only a lot of legal matter of a substantial nature, but he must also consider legal propositions of intentional and methodological nature originating from different kinds of legal sources.

## 4.3 Supplementing Interpretation

### 4.3.1 Interpretation by Analogy

Even though sufficient support for interpretation cannot be obtained from the legal system, the lawyer must still decide whether or not the current case is to be

---

<sup>105</sup> *Brottsbalken (SFS 1962:700)*, (The Swedish Penal Code).

subsumed under a legal proposition. Åke Frändberg describes this dilemma in the following way: “On the one hand, the judge is supposed to be loyal to the legislator and, on the other hand, he is bound by the *non liquet*-prohibition, i.e. he is not allowed to refuse deciding cases where the laws are obscure or missing.”<sup>106</sup>

In cases when the legal system does not provide enough support for interpretation a lawyer may have to extend the investigation beyond the available legal propositions and include also knowledge about previously described legal *solutions*. That is to say, if a lawyer is able to find a solution that seems to be appropriate for the current case, he may try to apply the antecedent proposition that is related to this solution to the case he has to decide. This may be done only by means of *replacing* one or several concepts in the extracted legal proposition with concepts in the current case with *similar* attributes. Simultaneously, the lawyer must also try to consider any possible general aspects and intentions of the legal system. If those general aspects do not violate the intended replacement, the lawyer may be able to arrive at a rule application. The inference is based in such a case on *analogy* – a method of interpretation in which legal propositions are transformed in an active way.

Interpretation by analogy can be perceived on different levels of generalization. Depending on the nature of the available legal propositions it is for instance possible to conceive analogical inferences originating not only from legal concepts but also from legal propositions describing intentions.<sup>107</sup>

Interpretation by analogy is a rather well-established method of legal interpretation and for several reasons, especially when contextual interpretation is insufficient lawyers may prefer a process of analogical reasoning to e.g. an ad hoc solution. Most apparent is, perhaps, that interpretation by analogy minimizes the efforts related to evaluation. That is to say that since all the consequences of interpretation must be evaluated, a method making use of a previously established solution usually entails a lesser risk of unforeseeable consequences. Secondly, the employment of a method of interpretation based on analogy may facilitate the preservation of conformity in legal decisions (as well as in legal systems). Moreover, in actual instances of legal reasoning it may be important from a psychological point of view to be able to relate a conclusion to the existing legal propositions.<sup>108</sup>

---

<sup>106</sup> Frändberg, Å. *Om analog användning av rättsnormer* (1973) at 176.

<sup>107</sup> An additional categorisation related to this kind of interpretation is the division between statute-analogy (*analogia legis*) and law-analogy (*analogia iuris*). Statute-analogy is described as interpretation by analogy from the more or less well-defined propositions in the legislation. Law-analogy is described as interpretation by analogy from vaguely described general principles that are valid in the legal system. However, from the perspective that is adopted in this study – that expressions of substantive law in statutes and in general principles are basically of the same kind, although they may be represented in different kinds of materials – this kind of division seems less appropriate.

<sup>108</sup> Cf. Strömholm *supra* note 39, at 457-58.

### 4.3.2 Reasoning e contrario

Interpretation by analogy is in direct opposition to the so called *reasoning e contrario*.<sup>109</sup> Reasoning e contrario results in the fact that the analyzed situation is *not* comparable to a given legal proposition. There are basically two reasons for this kind of conclusion. The most obvious one is that a situation may not be comparable to a rule-description due to contextual or semantic discrepancy – considering the necessary functional and logical standards, the expressions that are used to describe the rule and the current case cannot be regarded as similar in any way. (Conclusions of this kind may be also due to the fact, for example, that there exist disqualifying facts, or other rules, explicitly indicating that the current situation is not comparable to the rule-description and hence that it must not be subsumed.)

A second factor that may indicate that reasoning e contrario is appropriate in a given case is the syntactical form of the rule-expression, i.e. when a rule-description lists prerequisites and concepts in such a way that it is possible to deduce that everything that has been left out is doubtless outside the criteria stated by the rule. This may be described as the existence of syntactical indications in the respect that *the silence of the law* guides the lawyer in the interpretation process.<sup>110</sup>

In this description of supplementary interpretation it should be finally underlined that interpretation by analogy is primarily a mode of reasoning in which certain legal presuppositions and encountered facts are to be looked upon as expressions of similar phenomena. Likewise, reasoning e contrario is a mode of reasoning implying that certain legal presuppositions and encountered facts should not be looked upon as expressions of similar phenomena.

The major characteristics of the inferences resulting from these modes of reasoning, as compared to ad-hoc solutions, are that they in each case are supposed to be explicitly related to some previously known legal proposition. In this respect, what has been said about the advantages of the possibilities to preserve conformity and the ability to relate legal decisions to the legal system for psychological reasons in connection to interpretation by analogy, is therefore also valid for reasoning e contrario.

### 4.3.3 Extensive and Restrictive Interpretation

Problems concerning vagueness are not something that is unique for law. Vagueness constitutes a general limitation for effective communication and language whose effects can be reduced but not eliminated by the introduction of technical terms and legal concepts.<sup>111</sup> Legal interpretation is therefore also related to general rules of a lexical nature operating on the concept level.

---

<sup>109</sup> Hellner *supra* note 61, at 71-72.

<sup>110</sup> Cf. Strömholm *supra* note 39, at 411.

<sup>111</sup> Cf. Alchourrón, Bulygin *supra* note 4, at 32.

It is thereby obvious that the starting point for interpretation must normally be the understanding of the natural meaning of the concept (or the word in the text representation) and that the number of lexical and semantical rules that can be applied in a given case provide general limitations for how legal propositions may be transformed.<sup>112</sup>

In this respect, a crucial observation concerning interpretation is that legal prerequisites as they appear in written form may be interpreted in both *extensive* and *restrictive* ways.<sup>113</sup> Extensive interpretation may then be used as a method of widening the obvious application area of a concept, while restrictive interpretation may be used as a method of limiting the application area, e.g. by the sole means of subsuming the situations of textual coherence or conceptual identity.

Discussing this aspect of interpretation it is also noticeable that the ways in which a concept may be interpreted vary with respect to the nature of the concept. The result of this is that different kinds of issues may cause bigger or smaller problems concerning interpretation and that it is possible to see a continuum from strictly defined to vaguely defined concepts. Examples of strictly defined concepts which provide little or no problems with interpretation are numbers, weights, measures. Concepts that may be vaguely defined are e.g. the previously mentioned vehicles and domestic animals. Noticeable is also that a large number of entities that are expressed in legal propositions reflect notorious and more or less genetic elements, e.g. man, woman, which leave little room for individualised interpretations.<sup>114</sup>

#### 4.4 *Interpretation of Priority*

A special kind of interpretation may have to be employed in cases when more than one rule seems to be applicable. There are several reasons why such instances may occur. The most important reason is, no doubt, the fact that rule systems are often inconsistent, e.g. because they have been developed over a long period of time.

Problems of rule conflict may be solved by any of the techniques mentioned above, e.g. by means of interpretation by analogy and *e contrario*. In addition, however, a legal system may also include other more explicit rules in order to solve this kind of dilemma.<sup>115</sup>

Firstly, if the conflicting rules vary in status due to formal reasons, the principle of *lex superior legi inferiori derogat* may be employed. The *lex*

---

<sup>112</sup> Cf. Evans, J. *Statutory Interpretation*, 2 (1988) and, on *logical-grammatical interpretation*, Strömholm *supra* note 39, at 447-452.

<sup>113</sup> See, on extensive and restrictive interpretation, Evans *Id.* at 174-232.

<sup>114</sup> Cf. Bing *supra* note 100, at 136-39, who recognizes three main categories measurable quantities, natural states and legal states.

<sup>115</sup> The comparative analysis in MacCormick, Summers *supra* note 60, at 527-30, indicates that various legal systems have generated different kinds of methodological rules concerning conflicts of this kind, and that "no system has yet succeeded in establishing any clearly articulated picture of the law at this level ..."

superior principle gives precedence to the rules of a higher order over the rules of a lower order.<sup>116</sup> The order of dignity in the rule hierarchy is thereby an attribute that may be derived from the status of the issuing authority, or perhaps from a long time customary practice.<sup>117</sup> Secondly, if one of the conflicting rules is older than the other, the principle of *lex posterior legi priori derogat* may be used as a method of solving the problem, giving the more recent law precedence over the older law.<sup>118</sup> Thirdly, if one of the conflicting rules can be seen as a more specialized regulation of a certain issue, the principle of *lex specialis legi generali derogat* may come into use giving the more specialized law precedence over the more general one.<sup>119</sup>

#### 4.5 The Limits of Interpretation

Analogical interpretation and reasoning *e contrario* as well as extensive and restrictive interpretation are methods that may generate conclusions of a contradictory nature. The same is true to some extent as regards the principles concerning interpretation of priority.

Sometimes the choice between the various methods of interpretation may provide little or no difficulty. This is for instance the case when intentional or methodological support can be obtained. If no such support is available, however, interpretation must be tied up with the process of evaluation and with the purpose of the legal system. That is to say that in order to make a choice between the various modes of interpretation a lawyer must relate the existing alternatives to the resulting rule applications and the foreseeable effects of his final decisions.<sup>120</sup>

This necessary interdependence between interpretation and evaluation can be easily noticed in one special form of active interpretation, *viz. interpretation by means of reduction*.<sup>121</sup> In those cases the lawyer reduces the apparent application area of the rule in an effort to apply transformations that will achieve a more or less conscious goal and in which the evaluative aspects will actively influence

---

116 Sundberg *supra* note 39, at 200.

117 Hart *supra* note 16, at 92.

118 Strömholm *supra* note 39, at 506.

119 *Id.* at 414. See also, for a more comprehensive analysis of how to make choices between several possible rules, Frändberg *supra* note 106 *passim*.

120 Cf. Sundby *supra* note 18, at 202 “[T]he issue should be resolved in accordance with the result of the evaluation.”, Frändberg *supra* note 86, at 176 “The reason for analogical use of legal norms cannot be explained without examining the ideology of legal decision making, an ideology closely connected with political ideology.” and Peczenik, A., Bergholz, G. *Statutory Interpretation in Sweden*, 318 (1991) “The fact that one must make a *choice* between the use of analogy and *argumentum e contrario* shows that these concepts do not indicate the content of interpretation but are mere argument forms, each supported by a set of reasons which a judge has to weight and balance.”

121 Strömholm *supra* note 39, at 463.

the process.<sup>122</sup> One extreme form of this kind of interpretation is the *elimination of the rule*<sup>123</sup> e.g. because it is regarded as obsolete. (The relation between interpretation and evaluation, as well as additional reasons that may impose active transformations of legal propositions are addressed in more detail in section 6.)

## 5 Rule-Application

### 5.1 Introduction

The major objective of legal reasoning is to find a legal description that can be related to the current situation in order to accomplish an instance of rule application. Rule-application is performed when an individual case has been *subsumed* under a general description. Subsuming denotes thereby a process in which descriptions of factual elements and legal propositions are to serve as expressions of similar notions.

As described in the previous sections, rule application is preceded by the acts of identification, law-search and interpretation, on which processes it is highly dependent. These processes are, in other words, the necessary premises of the rule application process.

In an actual instance of legal reasoning, however, a decision cannot be the result of a rule application based on the factual elements of the case and the interpreted legal propositions only. The consequences of the intended decision must (or, at least, ought to wisely) be also taken into consideration. Thus, before the decisions are formulated, the possible consequences of the rule applications must be evaluated. In addition, since the foreseeable consequences of legal decisions may be more or less acceptable,<sup>124</sup> the intended rule applications may have to be adjusted, making that in the stages preceding formulation the character of legal reasoning must be of a *significantly tentative nature*.

A discussion about rule application should examine not only the iterating nature of the process. In order to accomplish rule application of any reasonable quality, at least two additional aspects should be considered. If they were not considered, each might put the decision in peril. The first of these two aspects

---

<sup>122</sup> Interpretations entailing that a rule is treated in a way that is different from the normal understanding of the law is sometimes motivated by the principle "*Cessante ratione cessat ipsa lex*" (the rule cannot be applied when there is no reason for the rule). See also Gottlieb *supra* note 5, at 113, who illustrates the role of purpose in the process of rule application with the obvious conclusion that an ambulance ought to be allowed in the park in order to rescue an injured child. "The consequence of ... [a prohibition] is clearly incompatible with the policy behind the whole body of law designed to promote the safety of individuals."

<sup>123</sup> Peczenik *supra* note 56, at 286.

<sup>124</sup> Cf. Gottlieb, *supra* note 5, at 74 "Every decision necessarily leads to some reasonably foreseeable consequences for the parties and for those closely associated with them. These may at times be diametrically opposed to the purposes of the rule which governs the decision, or conflict with the interests and policies normally upheld by the legal system. Harsh results may require modification of the rule applied."



concerns the formal validity of the intended decision and reflects the fact that there exists a large number of formal rules governing the process. Formal aspects do not only set out standards for decision makers. In many cases formal rules also explicitly point out and limit the rules of substantive nature that can be applied in a given situation.

The second complementing aspect of rule application discussed in this sub-section reflects some basic legal principles which in addition to formal rules are of relevance for the rule application process. Among other things such factors fulfil the function of ensuring that in each case the applied legal rule is the one that is best suited to the current situation. These aspects are referred to here as accuracy.

## 5.2 *A Recurrent Process*

The dynamic and iterating nature of the legal reasoning process has been a major predicament of legal theory for a long time and the necessity to incorporate various realistic considerations (evaluations) into legal reasoning has been often seen as an obstacle to the possibilities of making use of logical deduction. The complications following from a demand for evaluation have been however understood and explained in many different ways. Some researchers have tried, for instance, to incorporate elements of evaluation into the logical reasoning process by means of adding further premisses to the perceptible process of deduction.<sup>125</sup> Others have elaborated those models of legal reasoning which have incorporated evaluative considerations by means of utilizing, often hypothetical or assumed intentions of the law-makers.

The ways in which processes of rule application may be initiated and developed depends, naturally, on the nature of the upcoming issue in each case. The intention of this section is, however, not to discuss the ways in which the substantive aspects of law are affected by the instances of evaluation. Those aspects, as well as the nature of the factors governing the outcome of the evaluation process, will be discussed in some depth in section 6. The intention of this sub-section is of a more limited scope, viz. to discuss some general observations following from the fact that the process of rule application is of a tentative nature and that it actually incorporates several interrelated sub-processes.

Thus *the focus is set here on sequences* and characteristics of the recurrent process that can be perceived in the light of the analysis that has been undertaken in the preceding sections.

The main assumption submitted here is thereby that, whenever it is possible, lawyers seek to start with the evaluation of a rule application on a rather high level of generalization. It is furthermore assumed that through repeated instances

---

<sup>125</sup> Cf. Peczenik, *supra* note 56, at 32-33 and *passim*. See also, for a critical view on approaches based on logic and for further references to Scandinavian literature, Strömberg *supra* note 81, at 165, especially note 1.

of adjustments, the process proceeds in the direction of evaluation of increasingly better specified rule applications.

Perhaps the most important reason for these assumptions is the existence of a general current in human reasoning to eliminate as many steps as possible from each mental operation.<sup>126</sup> In legal reasoning this is reflected in the obvious fact that there is little meaning in spending a lot of time on a detailed analysis of numerous elements if the intended rule application should turn out to be inconceivable when looked at from a broader perspective. The conclusion that rule application often starts with a few general concepts in mind is also strengthened by the fact that in initial stages of legal reasoning lawyers must often depend on background knowledge<sup>127</sup> – and by the fact that it is difficult to remember many sub-elements and attributes in a limited time-sequence.

The assumption that the activation of various concepts on a rather general level makes it possible to arrive at a tentative rule application implies that this step must then be evaluated. The evaluation may give either positive or negative indications. If the indications are positive, i.e. if the tentative rule application seems reasonable, the process enters the next more detailed phase of analysis, where the selected facts are scrutinized and divided into sub-concepts, which are then related to accompanying items of legal knowledge. A well-trained lawyer, even a very experienced one, will then often make use of external knowledge representation, e.g. by reading the description of the available representation of the rule in a statute or a case, and mapping all the relevant prerequisites one by one onto the elements of the current situation. If everything fits, the lawyer will be ready to formulate a decision.

If, on the other hand, the consequences of the intended rule application do not seem to be acceptable, this usually means that some other facts ought to be held as relevant, that some other legal concepts should be extracted, or that some alternative means of interpretation should be employed.<sup>128</sup> From this it can be seen that evaluation may indicate not only that legal concepts have been instantiated at some less appropriate level of generalization. A tentative evaluation may also indicate that the rule application was substantively inadequate, and that the process should rather go along different lines of reasoning.

In such a case, additional rounds of identification, interpretation and law-search may have to be initiated. The objective of such repeated analysis is to arrive at a rule application that is different in some respect.<sup>129</sup> Here again the adjusted rule application is tested in an instance of evaluation, and is eventually subjected to yet another round of identification, law-search and interpretation.

---

<sup>126</sup> Cf. references in note 37 *supra*.

<sup>127</sup> Cf. *supra* section 2.2.

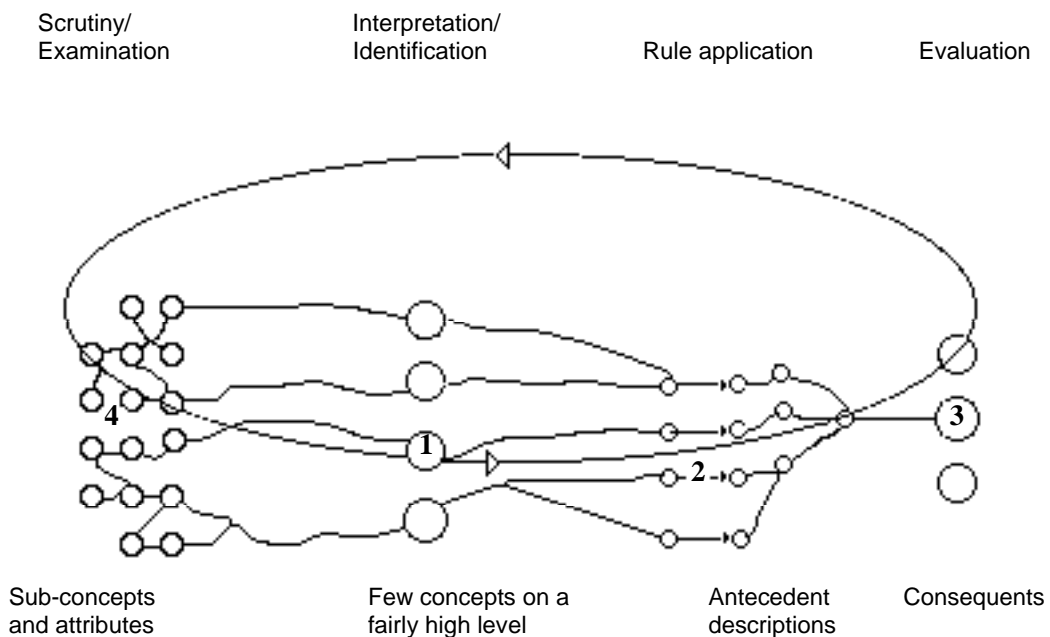
<sup>128</sup> Gottlieb *supra* note 5, at 109, “Purpose can thus be used to *preclude* the application of a rule in situations which seem to fall squarely within its language when such application would lead to results entirely alien to its purpose.’

<sup>129</sup> Strömholm *supra* note 39, at 319.

This process, depending on the complexity of the issue and the experience of the lawyer,<sup>130</sup> may have to be repeated many times.

Rule application can thus be described as a recurring process in which a lawyer is able to specify more and more adequate rule-applications through the succeeding and recurring instances of identification, law-search, interpretation, and evaluation. Rule-application described in this way stresses the fact that many phases of the legal reasoning process depend on each other and are conducted in a more or less parallel way.

Sub-processes in legal reasoning



Main types of legal knowledge influencing the sub-processes.

Figure 5 Sequences applied in legal reasoning: the process commences from a description consisting of a limited number of concepts at a fairly high level (1). The identified situation indicates a certain rule application (2) which is evaluated (3) and scrutinized (4), often in a repeated process.

<sup>130</sup> Cf. Bing *supra* note 25, at 232-33 “As the understanding of the problem changes, the basis for the first search request also changes, and it may be appropriate to formulate a new (primary) search request. This may, of course, once more teach the lawyer additional features of the legal domain he or she has entered, making a new search for facts or circumstances necessary, and so on. Indeed, this observation emphasizes that the retrieval process also is a *learning process*, in which the background knowledge of the lawyers become an in-depth understanding, which may have a lasting effect on the background knowledge itself.”

### 5.3 *Formal Aspects*

The process of rule application is affected not only by the nature of the upcoming issue and by the rules of substantive law that match that issue. Nor is it a process which is based solely on these factors in connection with the evaluation of intended decisions. In particular instances of rule application it is also necessary to consider *formal rules*.

Following Hart's terminology,<sup>131</sup> formal rules are secondary rules, which is to say that when compared with rules of substantive law they function on a different level. In this respect formal rules are similar to the previously discussed methodological rules governing the process of interpretation. There is also little doubt that the functions of formal rules are similar to those of methodological rules. That is to say, there are good grounds for assuming that the majority of formal rules have been developed with a more or less conscious intention to provide stability to the decision making process and to make possible the accomplishment of rule applications of high quality.

#### 5.3.1 *When, Where and by Whom?*

Although functional similarities exist between formal and methodological rules it should be noted that formal rules also differ in several respects from methodological rules. The most important difference lies in the fact that methodological rules regulate different things than formal rules. While methodological rules give instructions on how rules of a substantive nature may be extracted and transformed, formal rules *define when and where rules of substantive law may be applied*.

The aspects of time and place are, however, not the only segments of the legal reasoning process that are administered by formal rules. Formal rules *define also the appropriate legal forum for and the necessary competence of legal decision makers*, i.e. they decide where, by whom and by which authority a given set of substantive rules may be applied. As a consequence three major kinds of formal rules can be distinguished: *promulgation rules, rules concerning jurisdiction and rules concerning competence*.

Promulgation rules focus on time aspects and appear in different shapes. Some simply state that a certain statute is valid from a certain date. Others, in addition to the information supplied above explicitly invalidate previous statutes and also regulate the way in which issues combining events that occurred during a period of time in which different laws were valid are to be handled.

Also rules concerning jurisdiction can be divided into different groups. Some jurisdiction rules simply indicate that cases occurring within a certain territory fall within a given court's jurisdiction (*territorial jurisdiction*). Jurisdiction can also follow from the fact that a person is physically present, or has some relations to a certain territory (e.g. by means of citizenship, marriage to someone

---

<sup>131</sup> Hart *supra* note 4, at 92.

that lives there, etc.). This is often referred to as *personal jurisdiction*.<sup>132</sup> Rules concerning jurisdiction are, however, related not only to territory. At times formal rules also define the *subject matter jurisdiction* by means of explicitly describing the particular categories of cases that a certain court or a certain authority has the power to determine.<sup>133</sup>

Rules defining subject matter jurisdiction are similar to the third main category of formal rules – rules of competence which define the necessary qualities of legal decision makers and give individuals (or more precisely individuals occupying certain positions) the competence to act as legal decision makers.<sup>134</sup> In other words rules of competence give individual decision makers certain powers. These special powers are often defined in a related category of formal rules, viz. *legal rules of qualification*. Rules of qualification give the person concerned, and/or the acts of that person, a certain legal quality, from which follows, in turn, different legal abilities and consequences. A legal decision maker in, for instance, a criminal-court proceeding must be able to support his act on a rule of competence if his decision is to have any effect whatsoever. The rule of competence says here that he should be an appointed judge. Rules of qualification tie different qualities to the concept “judge”, such as among other things, the authority to lead criminal court-proceedings, to send persons to prison, to dismiss charges, etc.

It should be noticed also that in most legal systems certain factors may have the effect that a decision maker will not be able to exercise the powers following from the rules of competence. The most important of those factors are perhaps the existing personal relations between the decision maker and the issues concerned. Rules concerning such relations appear in most procedural law-systems and the facts that they refer to may be of either substantial or formal nature (i.e. the decision maker may have an interest in a certain issue due to his direct personal involvement or merely because he is related to someone who is involved in the case).

### 5.3.2 Authority

Formal rules do not only differ from methodological rules by the fact that they focus on different aspects of the reasoning process. Formal rules also appear on a higher level in the hierarchy of rules, that is to say that *formal rules are authoritative rules*. This means not only that lawyers are obliged to follow them,

---

<sup>132</sup> See, e.g., on territorial and personal jurisdiction Eek, H. *Folkrätten*, 405-06 (1980) and, on the relations between various principles of jurisdictional competence, Brownlie, I. *Principles of Public International Law*, 298-320 (1979).

<sup>133</sup> See, e.g., for an illustration of various kinds of subject matter jurisdiction in the International Court of Justice, Shabtai, R. *The World Court*, 81-111 (1989). Principles of subject matter jurisdiction also determine the competence of various kinds of courts (e.g. criminal courts and administrative courts) that may be found within a certain country or a certain territory.

<sup>134</sup> Strömberg *supra* note 81, at 42-62.

but also that a violation of a formal rule is likely to invalidate the whole decision.<sup>135</sup>

In comparison, the results of the violation of a methodological rule, e.g. a failure to make an adequate interpretation, may lead to a decision of low quality that can be easily criticised. A mistake of this kind may also indicate that there are good grounds for an appeal. It is, however, extremely rare that mistakes concerning the employment of methodological rules as such will actually make the decision invalid – anyone who wants to criticise that decision on the grounds that some methodological rule has been violated must be prepared to incorporate into his argumentation references to issues of substantive nature in order to support his point.

It must be mentioned that formal rules do not only have the authority to exclude the use of certain rules of substantive nature but that they may also explicitly indicate the collection of rules that is relevant to a certain issue. In this respect, the fact that formal rules operate at a different level of the rule hierarchy may sometimes entail that the employment of rules that have been indicated by the rules of formality may seem totally inconsistent from a substantive point of view. On other occasions, the intended rule-application may be completely in agreement with the rules of substantive law, but still impossible to be performed due to formal reasons, e.g. because of the lack of rules of competence and/or qualification.<sup>136</sup>

Returning for a moment to the discussion about sequences, the conclusive nature of formal rules clearly indicates that in authentic instances of legal reasoning a close inspection of these high-level rules may save a lot of time. That is to say that in many cases it would seem wise to investigate formal rules before any, more detailed aspects of substantive law are inspected and before methodological rules are employed. In other words, it is possible here to look upon formal rules as rules possessing the capacity to disqualify (disqualifying facts),<sup>137</sup> or else to perceive them as indicators of authority since their function is sometimes to actively determine the adequate set of substantive rules.

In practice, however, it is seldom possible to start the examination of a legal issue by going over sets of formal rules. The obvious reason for this is that many kinds of formal rules are highly domain-dependent and that it is impossible to identify the relevant formal rules without first building some opinion about the issue from the point of view of substantive law.

---

135 Cf. Summers *supra* note 44, at 703 “Once the legal rule of ineffectiveness for lack of a writing or the like is clearly established, the application of that rule usually shuts out from consideration particular substantive arguments in favour of validity or enforcement, however weighty.”

136 Cf. *Id.* at 705 “[S]tatutes of limitation, jurisdictional rules and so on, often require decisions to be made without examination of substantive reasons which would favour a different decision.”

137 Cf. *supra* section 2.2.2. It should be noticed that not all kinds of formal rules are of an absolute nature in the sense that a violation always rules out the decision. A violation may be without effect, e.g. because nobody challenge the decision.

The fact that formal rules are highly domain-dependent entails in turn the fact that in various fields of the law in actual instances of legal argumentation it is more or less feasible to consider arguments based on those. In other words, in areas with well established statutes that are in daily use it is often pointless to submit arguments claiming that a given law is invalid for some reason. In many cases it may thereby also be assumed that the scrutinizing of formal rules has a rather low priority and on some occasions it may be even assumed that formal rules are inspected only as a last resort when substantive law has failed to provide material for conclusive arguments.

Simultaneously, in other fields of the law arguments based on formal rules may be a crucial part of everyday legal reasoning. This is the case, for instance, in the rapidly changing fields of law or in areas where rules concerning jurisdiction are often in conflict with each other, as is the case e.g. in international law, where it is not always clear which country's laws should apply.

As a final remark concerning formal rules it should be stressed that all that has been said about rule and law fragmentation in section 3 is also valid as regards formal rules. In practice lawyers must therefore remember that formal rules appear in many different legal sources. Some rules of formal nature may appear, for instance, in a country's constitution, while others are found in statutes or in authoritative court decisions.<sup>138</sup> In this context it is therefore also worthwhile noting that the occasionally fragmented nature of formal rules makes it sometimes difficult to detect and adjust to this kind of rules. This is also, no doubt, the reason why legal decisions in some fields are frequently attacked on formal grounds.

On the other hand, from the fact that formal rules are often valid for a number of rules of substantive nature at times follows that they are expressed in special statutes or that they appear in certain, easily identifiable parts of the law. Such is the case in the Swedish legislation in which rules concerning jurisdiction are often to be found in a certain chapter or a text paragraph and where promulgation rules normally appear at the end of statutes.

#### **5.4 Accuracy**

The third aspect which is relevant for the discussion of legal rule-application concerns accuracy, i.e. the necessity to be exact and correct.

The obligation to be accurate is, of course, present in most work situations and is not something that applies to legal work only. It may be, however, argued that accuracy is of special importance in legal reasoning. One reason for this is that the results of the reasoning process will be often closely examined by the opposing party with the object to find errors and level criticism at any badly conducted rule application procedure. An inability to use legal concepts and

---

<sup>138</sup> It is also noticeable that formal rules may be derived from matters of status, e.g. martial or citizenship status.

legal rules in a way that is acceptable with respect to the standards previously set out by the legal community may cause that a decision may be easily overruled. In legal decision making the necessity of accuracy follows also from a couple of fundamental principles which by no doubt function as meta-rules governing legal rule application – *the principle of legality*<sup>139</sup> (also known as the *the doctrine of the precedent*<sup>140</sup>) and *the principle of equality before the law*.<sup>141</sup> These principles seriously delimit the free choice of lawyers and also entail that rule application must be preceded by close investigations of both legal presuppositions and current situations.

The principle of legality is a reflection of one of the most important aspects of a legal system – the previously mentioned social demand for predictability. The principle of legality has been perhaps most explicitly discussed within criminal law,<sup>142</sup> where the famous sentence *nulla poena sine lege, nulla poena sine crimine, nullum crimen sine poena legali* (no punishment without law, no punishment without crime, no crimes without criminal law) was formulated by *Paul Johann Anselm von Feuerbach* at the beginning of the nineteenth century.<sup>143</sup> Striving for predictability in the legal system entails also, however, that the principle of legality is important in all fields of the law.<sup>144</sup>

Also the principle of equality before the law (imposing that cases which are similar from the legal point of view should be decided alike) is of fundamental importance, not only for the legal reasoning process but also for the legitimacy of the legal system.<sup>145</sup> Anyone who comes in contact with the legal system (e.g. when facing a trial or simply submitting an application to a legal authority) has the right to equal treatment, disregarding when and where within a certain jurisdiction the issue is to be decided. A legal order that does not meet these requirements would soon lose its authority and trustworthiness. This in turn entails the fact that legal decision making must not be affected by the individual preferences of the lawyer and that legal decision makers must be able to adjust the process to legal and historical traditions.<sup>146</sup>

---

139 See, e.g., Alchourrón, Bulygin *supra* note 4, at 176.

140 Coval, S.C., Smith, J.C. *Law and its Presuppositions* (1986) at 36-37.

141 *Id.* and Strömholm *supra* note 39, at 299-300.

142 The principle of legality in criminal law is explicitly mentioned in the Swedish constitution (RF chapter 2, section 10).

143 See, e.g., on the principle of legality in criminal law, Jareborg, N. *Kriminalisering*, 38-41 (1980) and Frankel, M.E. *Criminal Sentences: Law Without Order*, 3-5 and *passim* (1973).

144 See, e.g., RF chapter 8, section 3, Strömberg, H. *Allmän förvaltningsrätt*, at 73-74 (1984) and Coval, Smith *supra* note 140, at 37 “[The doctrine of the precedent] follows from the principle of reason that unless we employ predicates and other terms in a consistent manner we have neither consistency in, nor predictability from, our arguments.”

145 See also, on the importance of the principle of equality, Schmidt, F. *Domaren som lagtolkare*, 296 (1955) “... perhaps the proposition of value that is most deeply rooted in our western social order.” (original text in Swedish).

146 The necessity to adjust legal decisions to historical factors has been addressed by many authors. See, e.g. Cardozo *supra* note 17, at 104-05, Sundberg *supra* note 39, *passim* and McCormick, Summers *supra* note 60, at 44, 221, 469, 514, and *passim*.



It may be noted that the principle of justice is especially important to uphold in certain kinds of legal decisions. Foremost, in decisions in which the outcome can be described in exact measures and in which irregularities are easily perceived and of great importance to the persons involved. This is for instance the case in criminal law and the law of damages, where sentencing and damages are to be decided in terms of time and money. In some judicial systems this aspect of legal reasoning is reflected in the development of very detailed rules, for example, in the so called sentencing guide-lines in the U.S.A.<sup>147</sup>

In practice, the principles of legality and equality (as well as the doctrine of precedent) imply that sanctions or other restrictions imposed by legal decisions must be done in accordance with the law. From the principle of legality it thereby follows that lawyers must never go beyond the legal propositions that are explicitly stated in the law.<sup>148</sup> It must be noticed, however, that acting in accordance with the law in this respect does not only mean that every prerequisite in the rule-antecedent must have a corresponding fact in the current situation. The principles related to accuracy in legal decision making also entail that a situation that is subsumed under a legal rule must not include any additional facts that make the situation different from the previous situations that have been subsumed under a certain rule. Thus the principles of legality and equality not only compel lawyers to carefully examine all the prerequisites and the factual elements that are involved in a certain rule application, but also make that in instances of rule application lawyers must be certain that no disqualifying element is contained in the current situation, or in another rule-fragment.<sup>149</sup> In this way the legal system is insured against a development into which unprecedented and perhaps irrelevant circumstances are incorporated.

The general demand for predictability also means that interpretation by analogy and other forms of supplementary interpretation cannot be employed in all situations. For example, interpretation by analogy must not be used in order to extend criminal prohibitions, explicit statutory exceptions or tax

---

<sup>147</sup> See, e.g. Jareborg, N., von Hirsch, A., Hanrahan, K.J. *Påföljdsbestämning i U.S.A.* (1984).

<sup>148</sup> Alchourrón, Bulygin *supra* note 4, at 176 “Judicial decisions must be grounded on legal norms... it is held that every decision requires not merely grounds, but grounds of a special kind: they must be legal. The judge must not go beyond the sphere of law, by appealing to non-legal (e.g. moral) norms, except in cases where the law itself authorizes him to do so. And even in these cases the ultimate ground for the decision will be a legal norm.”

<sup>149</sup> Disqualifying factors may appear in many different shapes. Factors indicating that some other rule application may be appropriate may be found for instance in the form of explicit exemptions on every detailed level in the legal system (e.g. as a last remark in a promulgation rule). Legal rules that make an intended rule application inappropriate may also appear in different places in the legal system, e.g. on a higher level of generalization. This is for instance the case where the social security officer suddenly finds out that the widow Smith is not entitled to a widow’s pension in spite of the fact that she fulfils all the requirements in the social security act (her husband is dead, no formal rules concerning jurisdiction are violated, she is unsupported and needing, and so forth). The reason for the exception may then be that the officer finds out that the widow has actually murdered her husband and that there exists a general rule imposing that no one should benefit from his or her own wrongdoing.

regulations.<sup>150</sup> Works of jurisprudence also stress that reasoning *e contrario* must not be used as a general method, and that it is normally excluded from interpretations of case decisions.<sup>151</sup>

In individualized instances of the legal reasoning process the necessity to be careful in this respect means that lawyers must be exhaustive in their activities concerning the processes of law-search and identification and that it is not wise to terminate these activities if any other, seemingly relevant element has been found. A thorough investigation of the legal material and/or of the current situation may indicate in many cases that some additional prerequisite or circumstances must be considered as it may be of great relevance for the outcome of the decision.

## 6 Evaluation

### 6.1 Introduction

Every rule application indicates certain possible effects. Some of these effects may be desirable and easily recognized, whereas others may not be so obvious. Certain effects may be also for some reason dubious or inappropriate. This is for instance the case when a legal decision is in conflict with the obvious purpose of the legal system. A conceived legal decision may be also unacceptable with respect to the political and moral standards prevailing in the society. On such occasions the intended legal decision may have to be abandoned and a different avenue of thought approached. To be able to make such decisions a lawyer must always evaluate the intended rule application.<sup>152</sup>

As mentioned before, evaluation is a process that is interconnected with interpretation, so much so that in some cases it may be even difficult to distinguish between the two. Some distinctions can be nevertheless perceived. The most obvious difference is perhaps the fact that the processes of interpretation and evaluation operate on different kinds of material. During interpretation the objective is to relate a *legal proposition* to a legal rule. During evaluation, on the other hand, it is the (intended) *legal decision* itself that is investigated. From this in turn follows that there exist a sequential order between interpretation and evaluation – a contemplated decision can be only evaluated when the legal proposition has been interpreted and the intended rule application conceived.<sup>153</sup>

---

<sup>150</sup> MacCormick, Summers *supra* note 60, at 472.

<sup>151</sup> Hellner *supra* note 61, at 71-72, 82.

<sup>152</sup> *Cf. supra* section 4.5. and *e.g.* Cardozo *supra* note 17, at 102, “[T]he goal, is the main thing. There can be no wisdom in the choice of a path unless we know where it will lead. The teleological conception of his function must be ever in the judge’s mind.” and Jackson *supra* note 92, at 386 “Even transparently simple applications of settled law to facts entail teleological (means-end) reasoning.”

<sup>153</sup> *Cf.* on sequences in legal reasoning, Strömholm *supra* note 39, at 478 *in fine*, and MacCormick, Summers *supra* note 60, at 531.

The fact that evaluation affects the legal reasoning process in this sequence, i.e. that it is applied after interpretation, means that from the functional point of view it may be appropriate to look upon the principles of evaluation as *methodological meta-rules*. In line with this, the process of evaluation may be also perceived as the process of interpretation of hypothetical rule application.<sup>154</sup>

A close investigation of the reasoning process indicates thus that interpretation and evaluation are guided by two different kinds of methodological rules. The methodological rules concerning interpretation focus on the ways in which legal propositions may be established and transformed. The rules concerning evaluation, on the other hand, indicate and describe the factors that may be used in the assessment of decisions. In practice this entails that evaluation is very much a process during which legal decisions are related to the *goal and purpose* of the legal system.

## 6.2 *The Relative Importance of Evaluation*

### 6.2.1 Goal Rationality and Rule Rationality

There is a great variety of opinions concerning the degree to which the process of evaluation may actually affect the outcome of legal reasoning. It is sometimes suggested that evaluation is the most influential part of the process and that the active use of legal rules merely fulfils the function of providing a façade legitimization of the decision that has been arrived at with the help of an informal use of juridical discretion of a subjective nature.<sup>155</sup>

Others have argued that legal reasoning is a process guided by *goal-rationality* which means that the final goal is perceived as a decisive factor indicating the ways in which the legal reasoning process will develop. From the perspective founded on goal rationality it is assumed that the methodological rules that come into use are the ones that will let the lawyer arrive at the goal in the most effective way.

The critics of this approach, on the other hand, argue that the goal-oriented process of legal reasoning would run the a risk of being determined by subjective considerations or political assumptions and would thus be of a very unpredictable nature. In line with this it has been suggested that law's purpose should be allowed to influence only the final phase of legal reasoning and, furthermore, that the goal oriented approach may be employed only as a method for evaluating rule applications which are indicated by supplementary interpretation (e.g. analogical interpretation or interpretation by means of

---

<sup>154</sup> Cf. Gottlieb *supra* note 5, at 76 “The contemplated applications of the rule advocated play a considerable role in shaping it.”

<sup>155</sup> In this discussion it is easy to see the reflections of the previously mentioned debate between legal positivists and legal realists. See e.g. Ross, A. *Om ret og retfærdighed* 10-11 (1953) at 179, Frank, J. *Law and the Modern Mind*, 148-59 (1930) “[M]uch effort is devoted ‘keeping the record straight’; that is, to making it appear that decisions and opinions have more of the logical and less of the psychological than is possible” (citation from p 156). Compare MacCormick, Summers *supra* note 60, at 16-18.

reduction). The latter form of reasoning is sometimes referred to as legal reasoning guided by *rule-rationality*.<sup>156</sup>

### 6.2.2 Teleology – Subjective and Objective Evaluation

The process of determining the purpose of the law is discussed not only in terms of goal and rule rationality. A somewhat more moderate approach that may help to explain in what way evaluation may affect the reasoning process is often referred to as the teleological method.<sup>157</sup> The approach has been extensively discussed in legal theory. Two major forms of teleological method may be perceived: the *objective teleological method* and the *subjective teleological method*.<sup>158</sup>

The objective teleological interpretation may be roughly described as a process in which the lawyer has to determine the objective purpose of the law. Objectivity means here that the inquiry does not need to be restricted to the discovery of the intention of the lawmaker. Besides that it is possible to adjust the hypothesized original purpose to the succeeding social changes, etc.<sup>159</sup> This approach gives the lawyer a considerable freedom to form legal decisions in line with his personal views, but it does not give the decision maker unrestricted liberty since it is assumed that inferences must be drawn from the propositions contained in substantive law and that accepted methodological rules as well as rules of formality will be considered.

The subjective teleological interpretation means, in contrast, that the lawyer must try to find out about (and rely on) the intentions of the lawmaker such as they were when the law was formulated. The advocates of the latter doctrine also indicate several, more or less controversial ways of establishing the true intentions of the legislator.<sup>160</sup> In this respect the subjective teleological method is similar to intentional interpretation. That is to say that in order to reveal the true meaning of the law a lawyer may have to turn to legislative preparatory material of various kinds.

In jurisprudence, a vivid debate goes on among the supporters of different approaches to the teleological method. The objective teleological interpretation is not, for instance, an undisputed method for the adjustment of rule applications. A variety of approaches ranging from ideological conceptions to sociological

---

<sup>156</sup> See, e.g., on goal and rule oriented legal reasoning, Bruun, N., Wilhelmsson, T. *Rätten, moralen och det juridiska paradigmet*, 708 (1983).

<sup>157</sup> See, e.g., Strömholm *supra* note 39, at 363-64, 392-94, 453-56, 475-76, 480-89 and McCormick, Summers *supra* note 60, at 26, 43, 44, 514, 518-21. 523-24.

<sup>158</sup> Cf., e.g., Strömholm *supra* note 39, at 453-56, McCormick, Summers *supra* note 60, at 93, 316, 518-21. A variant of teleological interpretation similar to legal reasoning guided by goal rationality that sometimes appears in works of jurisprudence is the *radical teleological method*, stating that the purpose of the law should guide the lawyer during the whole process of legal reasoning, and not only in the final evaluation phase. See e.g. McCormick, Summers *supra* note 60, at 317.

<sup>159</sup> Cf. Strömholm *supra* note 39, at 454.

<sup>160</sup> *Id.*

and statistical evaluations of rules in action have been suggested as a means of determining the goals of the legislator in a more or less objective way in cases when formal reasons and other legal indications are difficult to find. It is also clear that various solutions to legal issues are often suggested by lawyers with different preferences. Likewise, different lawyers become spokesmen for various ideas. In consequence, critics argue sometimes that objective teleological interpretation puts the principles of legality and equality in peril.

The subjective teleological method is not, however, completely uncontroversial either. To arrive at a clear and indisputable solution of a legal issue by means of determining the intended purpose of the legislator may be quite a difficult task for several reasons. An obvious complication here is that occasionally more than one purpose is embedded in a statute, e.g. that a given rule should give a solution to a certain issue but also that the consequences of that rule application should be in harmony with the rule-system as a whole. On many occasions it may be also very difficult to establish the true purpose of the legislator because of the length of time that passed since the law was issued. Additional problems, concerning e.g. vagueness may appear in the process of interpreting the intentions that may have to be identified.<sup>161</sup>

In this context it is worth noticing that texts containing final statutes often reflect the fact of political compromise and that a certain amount of vagueness remaining in legal propositions may have been intended by the lawmaker, e.g. for political reasons. Similar instances of vagueness may be reflected in legislative preparatory material as well as in legal decisions. The reasons behind this may be in the latter case not only that the decisions are based on compromise, but also that in some cases it is very difficult to establish the underlying reasons for a certain decision in an explicit and uncontroversial manner.

In practice, the conflict between the two kinds of teleological interpretation is sometimes apparent. That is to say that a given view on how to evaluate a certain issue may be crucial to the outcome of a decision in a difficult case, e.g. a complicated issue in a field of law where there are few statutes and precedents. Simultaneously, however, in areas with well established rules, as for instance in fields where a large number of consistent decisions can be found and where common problems are well identified and easily predictable, the possibilities of choosing between the various teleological methods may be very restricted.<sup>162</sup>

---

<sup>161</sup> Noticeable is thereby also that in some jurisdictions the utilization of legislative preparatory material may be restricted due to formal reasons or the doctrine of legal sources. *Cf. e.g.*, on “the U.K. prohibitions against the use of committee reports and records of parliamentary debates.”, MacCormick, Summers *supra* note 60, at 472.

<sup>162</sup> *Cf.* Gottlieb *supra* note 5, at 114. See also, for further elaborations on the role of evaluation in legal reasoning, e.g. MacCormick *supra* note 2 at 100-29, (second order justification) and Wasserstrom *supra* note 3, at 138-71 (two-level procedure of justification).

### 6.3 *General Standards for Evaluation*

#### 6.3.1 *Canons of Interpretation*

Despite the existence of various assumptions about the role of evaluation in legal reasoning some rather obvious factors can be found that may facilitate the evaluation process and indicate whether a legal decision is of acceptable quality.

Several attempts have been made to describe such factors and their influence on the legal reasoning process. Moreover, many considerations of evaluative nature have been submitted in a rule-like form. These are often referred to as *canons of interpretation* or *canons of construction*. One rather elaborate example was provided by Llewellyn in 1960 who listed a large number of maxims in a tabulated form such as: “To effect its purpose a statute may be implemented beyond its text.”<sup>163</sup> and “[I]f extreme hardship will result from a literal application of the words, this may be taken as evidence that the legislature did not use them literally.”<sup>164</sup>

On many occasions guide-lines of this kind will no doubt give explicit answers to difficult questions. The principles of evaluation are, nevertheless, seldom unbiased and uncontroversial. An important observation that may be made here is therefore that the existence of a large number of legal evaluation principles does not necessarily facilitate the process. After analysing the contributions from several legal philosophers *Gidon Gottlieb* observes that “there is scarcely a rule of statute interpretation, however orthodox, which is not qualified by large exceptions ‘some of which so nearly approach flat contradiction that the rule itself seems to totter on its base’.”<sup>165</sup> Gottlieb also reminds us about the comments provided by Llewellyn who concludes that “there are two opposing canons on almost every point.”<sup>166</sup>

It is therefore obvious that although the canons of interpretation, may have a decisive influence on the choice between various methods of interpretation in some cases, they cannot be a sufficient means of describing the way in which the evaluation of legal decisions must be completed. The existence of contradictory principles as regards interpretation indicates that the rational principles of evaluation must be sought after at an even higher level of abstraction. In this way, canons of interpretation constitute a middle level in the hierarchy of methodological rules related to interpretation and evaluation.

The following subsections discusses various factors that may facilitate the evaluation process. To some extent, factors and/or general principles that may be of relevance for the evaluation of legal decisions are reflected in the legal system as well as in works of jurisprudence. This is, however, not always the case. It is

---

<sup>163</sup> Llewellyn *supra* note 94, at 522.

<sup>164</sup> *Id.* at 529 (citing *Ballou v. Kemp*, 92 F.2d 556, 558 (D.C. Cir. 1937).

<sup>165</sup> Gottlieb *supra* note 5, at 102, with reference to Wurzel, *Methods of Juridical Thinking*, 311 (1917).

<sup>166</sup> Llewellyn, K.N. *Remarks on the Theory of Appellate Decision and on the Rules or Canons About how Statues are to be Construed*, 401 (1950).

obvious that legal decisions must be also related to the elements of a general, i.e. non-legal nature.<sup>167</sup> In consequence, two general approaches can be perceived in the process of evaluation: the utilization of a) factors and indicators that (in addition to canons of interpretation) may be found within the legal system (*legal evaluation*), and b) general standards for decision making (*supplementary evaluation*).

### 6.3.2 Legal Evaluation

As a starting point for a discussion of the general principles of evaluation it is important to point out that evaluations of actual cases include a study of the consequences following from *individual* legal decisions. Since it is obvious that legal decisions will produce different kinds of consequences in different fields of the law it should be kept in mind that *evaluation is a highly domain-dependent process* and that legal principles employed for evaluation purposes that would be of a truly general and substantive nature are rather difficult to find.

Some guide-lines that may help to evaluate legal decisions are reflected, nevertheless, in legislation and other kinds of legal sources. One example is provided by the Swedish constitution which sets forth general rules for the evaluation of intended legislation. The rules are thereby restricted to a very special kind of legal decision making. As suggested in the introductory section of this article, however, from the functional point of view there would be little reason to make a distinction between the process of legislation and the process of legal reasoning – the process of legislation necessarily involves the activation of all the mechanisms that appear in individual legal decisions, and the existing similarities between the two processes become most apparent in the evaluation phase.<sup>168</sup>

The rules that appear in the Swedish constitution are addressed to *The legislation council* – a board of senior judges whose function it is to comment on proposed legislation from the legal point of view. According to this regulation the council is obliged to investigate a proposed statute with respect to

- “1 how the bill is related to the constitution and to the rest of the legal order,
- 2 how the rules within the bill are related to each other,
- 3 how the bill is related to the demands concerning the rule of law (*rechtssicherheit*),
- 4 whether the bill is designed so that the intentions may be accomplished.”

---

<sup>167</sup> Cf. e.g. Gottlieb *supra* note 5, at 120 on “legal rules as a sub-species of rules” and Summers *supra* note 44, at 713.

<sup>168</sup> See, for similar standpoints, Cardozo *supra* note 17, at 103 “the final principle of selection for judges, as for legislators, is one of fitness to an end.” and Hellner *Lagstifning inom förmögenhetsrätten* (1990) at 19-20, 158.

The council must also

“5 make an inventory of the problems that may appear in the employment [of the intended legislation].”<sup>169</sup>

The use of a legislation council is an example of a method by which evaluation issues can be submitted to a special group of persons. In this respect there are similarities to the previously discussed process of submitting issues of interpretation to public authorities and/or juries.

It should be mentioned that a procedure by which a certain issue is delegated to a special group of persons (or to a certain authority) does not necessarily change the nature of the factors that may be important for the outcome of the evaluation process. On the other hand, delegation may be a way to ensure that the existing expert knowledge is actually being used. To submit issues of evaluation to a council of senior judges is thus a way to ensure that legal aspects are considered in a professional manner. Likewise, submitting a certain issue to a jury will ensure that common moral and ethical standards will become incorporated into legal reasoning.

#### 6.3.2.1 Consistency

The analysis of the substance of the above mentioned rules concerning the evaluation of the intended legislation shows that the aspects of consistency play an important role in any particular instance of evaluation.

The desire for consistency is well recognized in the legal domain and it is also something that often appears in discussions concerning legal reasoning.<sup>170</sup> Issues related to consistency has been previously discussed in this study also in section 2. concerning the utilization of background knowledge in the identification phase and in section 5.4. in relation to accuracy in rule applications.

The only noticeable difference when comparing the considerations of consistency during the processes of identification and rule application with similar considerations in the evaluation of legal decisions is that in the latter, evaluation may have to examine a composed decision or a set of rules on an aggregated level. Many of the underlying guide-lines that are discussed in the above mentioned sections (e.g. predictability, equality, etc.) are therefore of direct relevance to evaluation as well. In the process of evaluation consistency means that legal decisions (bills) must be in line with previous decisions (statutes), not contradicting them. In practice, this means that if there is a statute or a legal precedent concerning similar matters, it must be possible to relate the intended decision to the previous proposition. Alternatively, it must be shown in

---

<sup>169</sup> RF chapter 8, section 18, paragraph 3, (original text in Swedish).

<sup>170</sup> See, e.g. *The Statute of the International Court of Justice*, Article 38, Alchourrón, Bulygin *supra* note 4, at 172, Peczenik, A. *The Basis of Legal Justification*, 91 (1983) and MacCormick, Summers *supra* note 60, *passim*.



a convincing way that the current situation differs from the matters in question in some vital part.

### 6.3.2.2 Generality

Evaluation is guided not only by the aspects of consistency. When previous decisions or authoritative rules cannot be extracted, other factors must be considered. This means, of course, that when rules of a substantive nature cannot be used lawyers will feel in most cases obliged to search for solutions that can be described in general terms, the ultimate objective being to be able to refer to a rule. If this is not possible, however, it may be assumed that lawyers will more or less consciously try to arrive at a decision that will be valid for a group of (eventually hypothesized) decisions. In practice it means that legal decision making should try avoiding too detailed specifications of legal concepts.<sup>171</sup>

This makes it easy to see that the general desire for consistency in legal reasoning is closely related to the basic need of procuring solutions of, at least to some extent, general nature.

This general wish for generality in legal decision making is well documented in works of jurisprudence<sup>172</sup> and it is doubtless a reflection of the awareness of the fact that ad hoc solutions may be often easily ruled out. Decisions based on generalizations force the lawyer to contemplate the implications and the consequences of his conclusions in a more extensive manner. A desire to attain general solutions may thus also help a lawyer to arrive at legal decisions that are more sound.

### 6.3.2.3 Relevance

In the process of assessing the intended legal decisions it must be also noticed that there exists an upper limit as to the extent to which a legal decision may be generalized. That is to say that a decision or an argument must not be so general that it may be used to motivate any conclusions whatsoever. In other words, a legal decision must stand out as relevant and be related in some way to the elements that appear in the situation.

Relevancy may in turn concern several different things. A legal decision may not only appear to be irrelevant due to the fact that the conclusions have been based on too high levels of generalization. A legal decision may also be irrelevant due to the fact that the relations between the facts and the implied consequences are to some extent inappropriate. In other words, the relations

---

<sup>171</sup> Cf. on the advantages and disadvantages of various degrees of *schematising* in legislation, Hellner *supra* note 168, at 207.

<sup>172</sup> See, e.g. Cardozo *supra* note 17, at 102-03, "The rule that functions well produces a title deed to recognition. Only in determining how it functions we must not view it too narrowly. We must not sacrifice the general to the particular."

between the purported concepts and the alleged consequences must not be too far fetched or illogical.<sup>173</sup>

In actual instances of legal reasoning this latter aspect may create many difficulties as, e.g., in deciding the extent to which various chains of events may be considered as relevant from the legal point of view. As a result, a vast jurisprudential literature has accumulated on such matters as *adequate causality* and examples of what a (hypothesized) *bonus pater familias* (reasonable man of ordinary prudence) ought to have done or foreseen in various situations.<sup>174</sup>

#### 6.3.2.4 Explicitness

When discussing evaluation one must not forget that a legal decision must be acceptable not only from the formal and the legal points of view, but also that it must be comprehensible to the persons involved. In other words, a legal decision must not only be in accordance with the professional standards as regards the use of technical legal concepts but it must also conform to the common understanding of the words and concepts that are employed.<sup>175</sup> Legal decisions are quite often addressed to persons without legal training and from this follows that lawyers must always remember that in legal reasoning it is not possible to use words or concepts in an unlimited way. In other words, expressions that have a distinct meaning in ordinary language cannot be transformed so that they contradict that meaning.

The fact that decisions must be understandable from the layman's perspective also sets up standards concerning the necessity to motivate decisions in a comprehensible and logical way. Explicitness is therefore an aspect that to a large extent depends on the nature of the concepts and notions involved. That is to say that a decision based on highly technical legal concepts makes relatively higher demands on the standards of the explicitness of the accompanying explanations.

### 6.3.3 Supplementing Evaluation – The Limits of Law

Despite many attempts to formalize evaluation, i.e. to formulate general principles governing it, it is clear that discussions about the objectives of any legal system at a certain level of abstraction will encounter problems and show differences of opinions. It is, for example, easy to see that certain aspects of legal consistency and those of explicitness may occasionally clash. This can be noticed, e.g. in the use of technical legal concepts as opposed to ordinary,

---

<sup>173</sup> See, e.g., Peczenik *supra* note 56, at 120-29, Hellner, *supra* note 61, at 39-49, who makes a difference between logical rationality, reasonable rationality and intellectual rationality (intellectual honesty) and Strömholm *supra* note 39, at 475-76.

<sup>174</sup> The concepts of adequate causality and bonus pater familias are examples from the field of the law of damages. See, e.g., for the elaboration of corresponding notions (remoteness of damage and standard of care) in Anglo-American law, Fleming, J.G. *The Law of Torts*, 102-08, 170-227 (1983).

<sup>175</sup> Cf. Strömholm *supra* note 39, at 493-95.

everyday language understandable to people that are not trained in law. The reason for this is simply that people possess different kinds of background knowledge and understand legal propositions in different ways.

A similar conflict can be perceived between the evaluative aspects based on the principles of generality and the demand for relevance.<sup>176</sup> An attempt to provide general solutions may easily conflict with the need to adjust the decisions to some specific factors of the current case. (Is the ultimate objective of the legal system to solve actual cases so that balance between the interests of the parties involved is preserved, or is it to furnish a structure that will provide predictability and stability on a general level?) An example from Wasserstrom may illustrate this dilemma:

Imagine the plight of Widow Jones, who lives with her six children on an old and heavily mortgaged farm. It is winter and perhaps a light snow has begun to fall. The date upon which the mortgage payment was due has come and gone. Bachelor Smith, already the richest man in town, holds the mortgage on the land. He goes into court seeking an order which would foreclose the mortgage and evict the widow. What decision would a court be justified in giving?<sup>177</sup>

After a discussion of various solutions Wasserstrom remarks that a decision in favour of Smith “considering merely the respective positions of the parties before the court ... would be heartless and inhuman...” He concludes nevertheless that

The practice of adjudicating mortgage cases on this basis might have the effect ... of destroying the utility of those security devices upon which mortgage transactions depend. Potential creditors might quite understandably be reluctant to lend money to those persons who probably would be hurt most by forfeiture of the mortgaged property in case of default. Thus, those who were most in need of some device by which they could borrow money would probably be unable to find willing lenders.<sup>178</sup>

From this example it is clear that the underlying reasons for the standards giving preference to solutions that impose consistency are quite strong. In some situations, however, the facts that they appear in the current case may be of such a special nature that they outweigh the arguments that can be derived from consistency aspects. Such a stand-point has, for example, been expressed by *Robert S. Summers*:

It is important to be clear that formal reasoning is nearly always subject to limitations. At some point in the application of even the most formal reason, it

---

<sup>176</sup> Cf. Peczenik *supra* note 170, at 90.

<sup>177</sup> Wasserstrom *supra* note 3, at 141. A distinction between different kinds of goals in legal reasoning appears in works of jurisprudence under various names. See e.g. Hellner *supra* note 168 at 178 (primary goals and end goals).

<sup>178</sup> *Id.* at 142.

may become appropriate to examine substantive reasons and even to allow substantive reasons to outweigh formal reasoning.

... if the statute seems to lead to absurd or outrageous results, substantive reasons may outweigh the formal reasoning involved in literal application.<sup>179</sup>

In situations of the above kind, implied by Summers it is clear that when the legal system cannot provide sufficient support other forms of arguments will have to take over. It may be therefore concluded that in addition to easy access to a more or less comprehensible corpus of legal knowledge, a good understanding of what may be acceptable in the social environment of the intended legal decision as well as experience and knowledge of previous completed rule applications including their effects are doubtless other important aspects of legal expertise in this phase. The distinctive and domain-bound nature of legal reasoning makes it in turn possible to assume that lawyers have to a large extent rely on their own practical experiences derived from legal decision making. This may be tentatively expressed as the knowledge of consequence structures. In this respect we are back at the point where it is possible to claim that law is experience and a legal system cannot provide much assistance.<sup>180</sup>

As this investigation of legal reasoning has shown, however, there is little need to resort to this kind of rule scepticism. The decomposition of the legal reasoning process shows that in the course of the process the law provides the decision maker with a rather elaborated methodological support, minimizing the influence of irrationality and chance. Thus, although it must be admitted that under certain conditions legal rules will lose their effectiveness and other kinds of considerations will take over, it must be emphasised that factors of a non-legal nature have normally a rather restricted influence. This is at least the case in well-developed legal systems.

It is beyond the scope of this study to incorporate any extensive discussion concerning factors of a non legal nature and their ultimate effects on the process of evaluation. As a final observation to keep in mind it may be, however, remembered that the types of arguments that may be employed for the justification of a legal decision are domain-bound and that the factors which are relevant in this aspect of legal reasoning are to a large extent the reflections of the moral and the ethical standards of the social environment surrounding the legal system.<sup>181</sup> In addition it would be reasonable to assume that e.g. economic

---

<sup>179</sup> Summers *supra* note 44, at 705.

<sup>180</sup> See, e.g., Cardozo *supra* note 17, at 102 “This means, of course, that the juristic philosophy of the common law is at bottom the philosophy of pragmatism.” and Wasserstrom *supra* note 3, at 138 “[The] procedure has as its rule of decision the rule which prescribes that a decision is justifiable if and only if is deductible from the legal rule whose introduction and employment can be shown to be *more desirable* than any other possible rule.” (Italics added.)

<sup>181</sup> Gottlieb *supra* note 5, at 61 “facts and cows have this in common: they may be sacred in India but not in the U.S. The importance of cows and the relevance of what happens to them depends on their place and function in the community”.

factors and efficiency aspects might also influence the process.<sup>182</sup> Likewise, it has been convincingly demonstrated that in many cases also irrational aspects (e.g. the personality of the judge) may affect the outcome of a legal decision.<sup>183</sup>

## 7 Formulation

The process of legal reasoning terminates with the formulation of the decision. Formulation may be performed in speech or in writing, or even by means of combining the two. Like many other sub-processes of legal reasoning the formulation activities are also governed by formal rules setting up explicit standards. That is to say that in some cases formal rules along with established traditions provide rather firm frameworks as regards the form and the content of legal decisions. This is perhaps most apparent in the case of written decisions.

Methodological rules concerning formulation are often of an authoritative nature which means that a violation of a rule, concerning e.g. the requirement to present a given decision in the written form may easily obliterate the effects of the reasoning process.<sup>184</sup> It is also noticeable that in many cases rules concerning formulation require that not only the final decision but also the reasons behind a certain conclusion must be made explicit.<sup>185</sup> On some occasions several rules governing formulation are interconnected, which makes that a rather formalized procedure is required for the formulation of a legal decision. This is for instance the case when the rules stipulate that certain documents must be a) in a written form, b) signed by the persons involved in the act, c) signed by witnesses and d) marked with a stamp or similar token indicating that e.g. a given act has been registered by a public authority, and e) accompanied by instructions concerning the submission of appeals.

It is also necessary to note that a large number of facts of a non-substantive nature may sometimes have to be included in (or added to) a legal decision. Examples of such facts are the names and addresses of the parties involved, the identification code of a decision, the name of the presiding judge, the name of the deciding court, instructions for appeals, and so forth.<sup>186</sup> In this respect it should be remembered that the process of formulation is not only extremely domain-bound, but that it also depends on the kind of decision which is to be formulated. For example, a decision that is communicated in an in-house memorandum may be in most cases formulated in a different manner than a court decision.

---

<sup>182</sup> MacCormick, Summers *supra* note 60, at 469.

<sup>183</sup> See, e.g., Schubert, G. ed. *Judicial Behavior: A Reader in Theory and Research* (1964) *passim* and SARI. *Straffmätning*, 13 (1980).

<sup>184</sup> Compare Summers *supra* note 44.

<sup>185</sup> This is for instance the case in Sweden where courts and authorities are obliged to explicitly state the reasons for their decisions. See RB chapter 17 (concerning decisions based on civil law), section 7, chapter 30, section 5 (criminal law) and (SFS 1971:291) section 30 (administrative law).

<sup>186</sup> See, e.g., for further examples the *Rules of the International Court of Justice*, Article 95.

Authoritative rules concerning the formulation of legal decisions do not, however, determine only the outer form of the final statement. In addition, formal rules may limit the possibilities of an individual formulation of the reasons for a given decision. In some cases a lawyer may be forced to use predefined forms, and, as in Swedish courts, he may have to adhere to administrative rules as regards the systematic aspects of decisions.<sup>187</sup>

In practice it can be also noticed that standard-texts often guide the formulation of legal decisions. This is especially common in situations where a lawyer has to handle mass-cases or make legal decisions under time constraints, as is often the case in courts and in public service. Under such conditions a lawyer often works with forms or with previously defined decision-alternatives. Former decisions may also direct influence the outcome of a given decision in extreme cases – the task of formulating a more precise and comprehensive decision may be so exhausting that it may be wise to employ a formulation that has been elaborated and refined in a previous decision. Naturally, such a method of formulation may endanger the quality of the decision, since a more subtle formulation would express certain aspects in a more precise manner perhaps. Nevertheless, lawyers may use this kind of formulation-technique in a conscious way, especially in work-situations where they are pressed for time. In a similar way, quotations and legally adopted phrases serve the same purpose, although in various degrees, e.g. when frequently appearing forms of evidence are to be discussed or when standard motivations are to be used.

In complicated cases the situation is different. Here the skilful use of written language is an obvious and necessary aid to legal expertise. Thus, the demand for expert performance usually increases with the complexity of the case and with the ambiguity of the legal propositions that are to be applied. It may nevertheless be presumed that an even more important aspect concerning the need for expert skill in formulation is probably the frequency at which a legal issue appears. This is simply to say that also issues of a difficult and complicated nature may have been decided on previous occasions. Provided that the relevant features of the decisions in questions are similar and that the previous decisions are of high quality it may be possible (and time saving) to consult the files in order to extract the previously elaborated formulations. In many kinds of legal work this is probably a very common way of solving difficult issues related to formulation.<sup>188</sup>

Generally speaking, formulation becomes a more complicated task when decisions are based on analogical inferences or other forms of supplementing interpretation. That is to say that interpretation by analogy and similar approaches may have to include an extension of legal propositions and may

---

<sup>187</sup> See e.g. Domstolsverket, *Bestämmelser om avfattning av dom och slutligt beslut i brottmål m.m.* (1986).

<sup>188</sup> We are here basically relying on observations and personal experiences from Swedish district courts. This aspect of formulation is however also reflected in “semi-authoritative” publications on legal writing which include also lists of common legal phrases as well as recommendations concerning the use of such phrases. See e.g. Svea hovrätt. *Språket i domar och beslut* (1987).

therefore also require more cautious formulation activities incorporating, perhaps, extensive motivations and discussions of pros and cons of various solutions.

The fact that legal decisions often become a part of a larger corpus of legal knowledge means that also an extensive and skilful use of various kinds of reference techniques is an important element of legal writing.<sup>189</sup> By referring to the previously published and well-established legal material (e.g. statutes, precedents, etc.), lengthy motivations and repetitions may be avoided.

It is also noticeable that the writing process may be rather time-consuming. This, in addition to the fact that writing forces the lawyer to formulate his decision in an, at least seemingly, logical, and convincing manner, makes it possible to infer that the analysis conducted during the writing process is often one of the most significant phases in legal reasoning. In cases where the formal rules concerning formulation stipulate that also the reasons behind a certain decision must be submitted in a written form, it may be even assumed that the process of formulating a legal decision will have a strong influence on the outcome of the decision. The process of writing makes it easier not only to systematize one's arguments and reasons but it also enables one to detect any logical lapses. Formulation activities may therefore often indicate that another round of legal reasoning is necessary.

In addition, several technical aspects which are related to writing skills may be mentioned. These include the ability to systemize (a large-scale organization of issues and arguments as well as a small-scale organization of paragraphs and sentences), a cautious use of undefined concepts (i.e. a frequent use of explicit explanations), the ability to sustain logical rigidity, and so forth.<sup>190</sup>

It should be also kept in mind at all times that legal decisions are intended not only for the use of individuals trained in law. A legal decision must be therefore formulated and phrased in such a way that it is understandable to all the parties involved in the issue – also the laymen. The formulation of legal decisions in writing requires therefore not only skilful handling of the technical and semantic aspects of conformity with respect to the legal material, but also a pedagogic skill concerning the ability to describe these concepts and notions in a non-technical way, “digestible” and comprehensible to the average reader without legal training.<sup>191</sup>

When it comes to the formulation of legal decisions in spoken language, other kinds of abilities come into focus. In addition to a talent for expressing arguments and descriptions of various kinds verbally, rhetorical and

---

<sup>189</sup> Hellner *supra* note 168, at 244-48.

<sup>190</sup> See e.g. for general standards for legal writing and for further references, *Id.* at 217-251, Svea hovrätt *supra* note 188, Squires, L.B., Rombauer, M.D. *Legal Writing* (1982) and Wahlgren, P., Warnling-Nerep, W., Wrangle, P., *Juridisk Skrivguide* (1999).

<sup>191</sup> *Cf.*, on the rational evaluation of legal decisions, *supra* section 6.3 and see, on the formulation of court decisions in Sweden, e.g. Heuman, L. *Rättspraxis*, 122-126 (1988) who discusses two major alternatives in the formulation of legal principles – casuistic and general formulation. Heuman also recognizes that the courts often prefer precise expressions of a legal nature as compared to formulations understandable to laymen.

psychological elements play an important role. It is, for instance, obvious that arguments may be submitted in a more or less persuasive way and that the ability to express one's authority, inspire confidence, as well as overall personal appearances of the presenter can greatly influence the way in which an orally submitted decision will be received.

Finally, it should be mentioned that the effects of legal reasoning naturally are also closely related to the kinds of distribution and communication facilities that are available.<sup>192</sup>

## 8 Learning

Any realistic model of legal reasoning must consider that fact that since law has dynamic nature, profound, high quality legal knowledge cannot be static either. In consequence, legal reasoning must be also related to the learning ability – all lawyers must be able to cope with changes and to incorporate new elements into the ever-growing corpus of legal knowledge.

Changes, in turn, may be of very different kinds. They may not only concern details (a new case, for example, may provide a new interpretation on some particular concept) but may also affect basic rule-structures (as in the case of the launching of a new statute or a group of statutes, e.g. a new tax-system).

As to the nature of legal systems taken as a whole, it may be postulated that in the majority of cases the occurring changes concern details. This is a reflection of the ordinary activities in the legal domain. In other words, amendments, refinements and minor elaborations normally appear as consequences of day-to-day legal work, as it is conducted in courts, by public authorities, etc. Changes of a fundamental nature, on the other hand, are preceded by the introduction of legislative acts, lengthy processes of preparatory work, etc. and occur more seldom.

The changing nature of the legal system may give rise to complications affecting legal reasoning. The fragmented nature of legal knowledge and the fact that changes often concern details cause that it may be difficult to know when the law has been modified in some aspect. From this in turn follows that effective legal reasoning is to some extent related to the existence of a control system that may help the lawyer to detect and draw consequences from changes in a large number of legal sources. In practice this means that lawyers are dependent on communication facilities and legal information systems of various kinds (e.g. libraries, periodical publications, etc.)

When discussing the learning process one must also keep in mind the fact that legal knowledge appears in many shapes and that learning cannot only concern the external changes occurring in the legal system on an aggregated level. As indicated in the previous subsections of this article, legal knowledge is based to a large extent on the lawyer's personal experience and his background knowledge. From the fact that one's own experience plays an important role in

---

<sup>192</sup> These aspects are not addressed in this study. See, for a comprehensive analysis and for further references, Bing, J. *Rettslige kommunikasjonsprosesser* (1982).



the learning process follows also that the elements and facts memorised by a lawyer will be of a highly individual nature (e.g. the recollection of clients, situations in court, etc.). As a consequence, legal knowledge structures of a secondary nature may play a vital role in the learning process, by providing a structure for the organisation of legal knowledge.<sup>193</sup>

The fact that background structures are rather significant components affecting the way in which the learning process will develop emphasises again the characteristic and subjective nature of legal reasoning. It is also clear that the occurring changes affect not only legal knowledge of a substantive nature. Modifications may also be related to various forms of methodological and/or formal rules. In this way one can easily see that learning is a continuous, subjective process advancing on many levels and developing together with the growing experience of the lawyer.

## 9 Summary and Conclusions

The decomposition of legal reasoning into phases makes it possible to identify and categorize the factors influencing the ways in which each phase is operated. Or – in a less pretentious perspective – to identify the factors that – according to the legal theory – ought to determine how each phase should be operated.

Hence, an obvious conclusion that can be drawn from the analysis presented in this article is that a considerable number of factors governing the legal reasoning process can be found within the legal system. Legal propositions that have a decisive influence on the process appear both in the form of substantive law and as various kinds of secondary knowledge structures.

In terms of generality, extensiveness, etc. the nature of the relevant legal propositions varies, not only as regards the different fields of law, but also by the nature of the issues that are approached. Another conclusion that may be drawn here is therefore that legal reasoning is to a large extent a domain-dependent activity. That is to say that the legal reasoning process and its components are directed by the structure of the relevant substantive law and by the methodological rules applying to the particular issue. In consequence, it may be claimed that there are no indications concerning the existence of any general legal problem solving mechanism.

It must be also acknowledged that legal factors and their role in legal reasoning are limited and that sometimes factors of a non-legal nature may have to be taken into consideration. This is especially obvious when it comes to the evaluation of decisions.

With these background considerations in mind, the investigation of the legal reasoning process and the analysis of various kinds of sub-processes, significant factors, and methodological rules may be summarized in the following way:

*Identification* is a process that may be decomposed into three sub-processes, the *establishment of relevancy*, the *identification of supplementing facts*, and the *resolution of uncertainty*. It may be furthermore assumed that these sub-

---

<sup>193</sup> Bing *supra* note 25, at 233.

processes are activated one after the other and that they are of a *recurrent* nature. The success of the identification process – and especially the establishment of relevancy – depends on the lawyer's access to a legal scheme of interpretation, i.e. a *background knowledge reflecting basic legal concepts and notions* of a substantive nature. In the process of identification of supplementary facts, the lawyer relies also on his ability to utilize *legal conceptual structures* in a more or less check-list fashion.

The process of the resolution of uncertainty is facilitated by – in addition to the access to legal background knowledge – the access to *elaborated domain knowledge* of a non legal nature. It may be furthermore assumed that the efficiency of identification is inseparably related to the extensiveness and the quality of the available background knowledge.

*Law search* is a process interacting with identification and it is also therefore a process of a recurrent nature. The process is activated by the factors that have been instantiated during the successive phases of the identification process and depends on the activation of different kinds of *legal structures*, i.e. relations between legal components at various levels of abstraction. Legal structures are thereby activated by association, the objective being to find legal propositions that will be similar to the current fact or situation. Usable structures to activate may be either of an external nature (e.g. consisting of documents and texts in legal publications) or of an internal and/or individual nature (e.g. consisting of legal concepts, rules and issues reflected in the background knowledge of lawyers). Many legal structures are necessarily interrelated with each other and may come to use in the successive phases of the process. In relation to the external structures of legal knowledge, various *search tools* have been developed (e.g. computer based legal information retrieval systems, indexes, library classification systems, etc.) The activation of such external tools presupposes often in turn the ability to transform the conceived legal concepts into explicit terms.

In most legal systems it is also possible to gain support from a *doctrine of legal sources*, which guides the establishment of the *hierarchical order* of various forms of legal knowledge. The existence of a hierarchical order between various forms of legal knowledge may require that material on a lower level is extracted only if a higher level fails to provide sufficient knowledge. The hierarchical order reflects in turn the origins and/or the established customary use of different kinds of legal material. Rules governing the sequencing of the search process may be frequently immanent in the latter case in the physical organization of the process of legal work.

During *interpretation* a legal proposition of a substantive nature must be related to a legal rule. Two general kinds of problems may arise – problems concerning *vagueness* and problems concerning *rule conflicts*.

From the legal system it is possible to obtain at least three types of support when problems with vagueness appear: *definitional support* (explicit representations of legal conceptual structures), *intentional support* (descriptions of goals and purposes of legal concepts and legal rules), and *methodological*

*support* (descriptions of appropriate facts and procedures that are to be considered in the process).

Interpretation may have to be complemented with *supplementary approaches* where legal propositions are construed in an active way. The most common of those is the use of *analogy* – a process in which some element of an available antecedent rule-description is replaced by a fact in the current case so that the lawyer may arrive at the desirable, previously described solution. In another approach – *reasoning e contrario* – logical inferences are established on the basis of differences between the current situation and some legal proposition.

Interpretation may be also approached from the *lexical and the grammatical* point of view. In this mode of reasoning, the meaning of legal propositions may be *extended or restricted* by means of transforming or elaborating the meaning of the words in the legal knowledge representation. Supplementary interpretation as well as various forms of lexical and grammatical interpretation are reasoning methods of a general nature. They stand in contrast with contextual interpretation which is domain-bound.

As to the problems concerning rule conflict, in many legal systems one can find a number of relatively well-established rules of priority (originating e.g. from the date of origin, the hierarchical order, or levels of specification).

Legal propositions that have been interpreted are then applied in a tentative and recurrent manner in the process of *rule application*. In this phase the process must be adjusted to a number of *formal rules of competence* which determine when, where, and by whom legal decisions may be made. During rule application a lawyer must also consider the *formal principles of legality and equality* which impose certain standards as regards accuracy.

In order to know whether or not the identified facts and legal propositions are relevant, and to understand in which situations different methods of interpretation are suitable, legal decisions must be *evaluated*. For evaluation certain maxims – canons of interpretation have been developed. These may be described as *methodological meta-rules*. Canons of interpretation are however often of a conflicting nature and evaluation implies also that the intended legal decision must be related to the *purpose and the objectives of the legal system*. When the objective has been established, it is possible to adjust the various sub-processes to that objective. Opinions about the relative importance of evaluation vary, but there is a general consensus in jurisprudence as regards the necessity to adjust legal decisions to the principles of *consistency, generality, relevance, and explicitness*. This may be described as the process of handling the *rules of evaluation*. In individual instances of evaluation it must be admitted, nevertheless, that even *political and moral aspects*, as well as other forms of personal, subjective judgements, may have to be included.

Depending on the domain and the kind of decision that is to be made, in the *formulation* of his decision the lawyer must be also prepared to adjust to *formal rules*. Formal rules concerning formulation may determine not only the *form and content* of the final decision but they may also become a framework for the motivation of the decision. In many instances of legal reasoning it may be assumed that formulation is a very significant process.

The law changes and develops all the time, making that legal reasoning of high quality is always related to the continuous process of learning. In this respect, the lawyer must be prepared not only to accept changes concerning legal phenomena of substantive nature, but he must also be able to change and adjust his understanding of the methodological and the formal aspects of legal knowledge.

An important conclusion from the analytical approach that is outlined here is thus that an adequate (functional) decomposition of legal reasoning makes it possible to identify and categorize factors influencing the ways in which each sub-process is operated. This assumption follows from the fact that a considerable number of factors governing the legal reasoning process can be found within the legal system. It is thereby obvious that legal propositions exerting crucial influence on the process appear both in the form of substantive law and as various kinds of methodological and formal rule structures. An illustration of how various legal components are related to the modules of the outlined model of legal reasoning is given in figure 6.

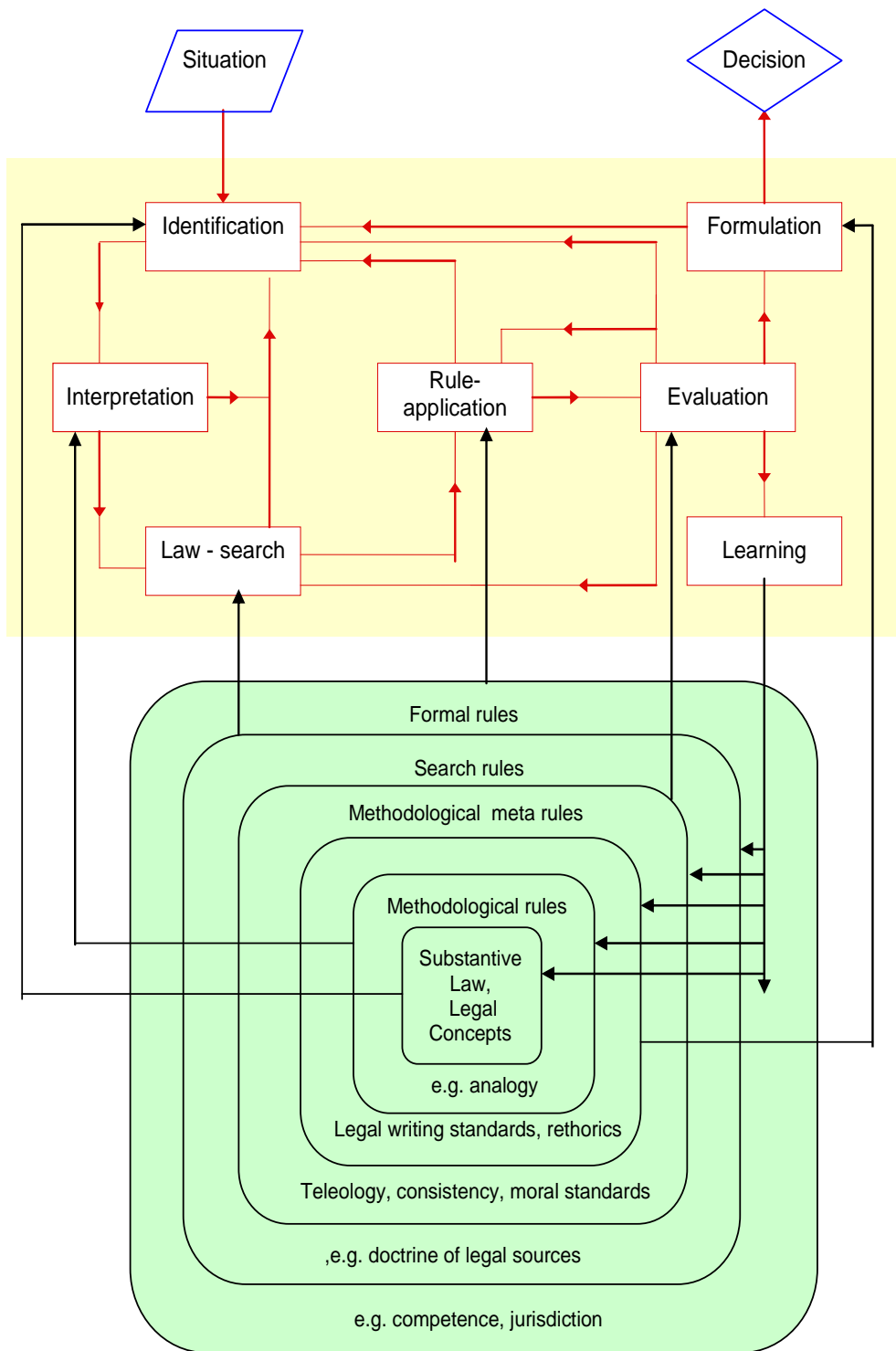


Figure 6 The operation of various mechanisms in legal reasoning is determined to a large extent by different types of legal knowledge structures and various established methods of inference making.

A likewise important assumption for the development of the theory outlined here is that in terms of generality, extensiveness, etc. the nature of the relevant legal propositions varies not only with respect to the different fields of law and the nature of the issues that are approached, but also in relation to their various functions vis-à-vis the legal reasoning process. To illustrate this, it should be noticed that some of the knowledge components in figure 6 (e.g. the concept and rule structures supporting search for legal propositions) will be strictly domain- and situation-dependent at any actual instance of legal reasoning, whereas others (formal rules and methodological rules) are of an extended generality and will thus be valid for several kinds of legal decisions (determining e.g. the jurisdiction of a court or how to complete sentencing in criminal cases). Yet other components (e.g. the generality and consistency rules operating on evaluation), as well as the general inference methods making the navigation within and between different knowledge structures possible (e.g. backward and forward chaining), are *prima facie* generally valid for all types of legal decisions.

The varying degree of domain dependence of crucial legal components naturally limits the possibilities of developing general representations based on some fundamental concepts, common to all fields of the law. It is equally important, however, that the functional decomposition of law and legal reasoning indicates that it is possible to make extensive generalizations as regards different types of legal rules and components.

A further elaboration of the functional perspective justifies the assumption that it appears to be feasible to extract legal knowledge structures from the corpus of legal knowledge with a more or less decisive influence on each vital part of the legal reasoning process. For instance, the analysis of legal reasoning undertaken in this article, reflected in figure 6, show that legal concepts and rules of a substantial nature function as classification schemes in initial instances of identification, and that formal rule structures affect the rule application process, and so forth.

The reason for the perhaps more far-reaching hypothesis that all crucial aspects of legal reasoning to some extent must be reflected in the law is simply that if some *vital* sub-process was totally neglected by the legal order, the whole process of legal reasoning could turn out to be of an arbitrary and non-legal nature. The crucial influence of various types of legal knowledge in this respect is among other things illustrated by the fact that many factors that affect the legal reasoning process are of a mandatory nature, i.e. a failure to observe them may cause that the effects of legal decisions will be invalidated. An additional assumption following from this perspective is thereby that it would be possible to construct more advanced representations of the law by means of elaborating a flexible representation reflecting various functionally decomposed portions of legal knowledge.

At this point it should be underlined, however, that the conclusion stating that all vital aspects of the legal reasoning process are reflected in the corpus of legal knowledge is not the same thing as the claim that the outcome of legal reasoning is predictable from the substantial point of view. What is assumed is merely that

all kinds of significant, legal *requirements* that the lawyer is faced with in the legal reasoning processes must be reflected, at least to some extent, in the *functions* of various types of legal knowledge.

## Literature References

- Aarnio, Aulis. *On Legal Reasoning*. Turun Yliopisto, Turku, (1977), (Turun Yliopiston Julkaisuja Annales Universitatis Turkuensis. SARJA-SER. B OSA-TOM. 144).
- Aarnio, Aulis, Alexy, Robert, Peczenik, Aleksander. *The Foundation of Legal Reasoning*. (Parts 1, 2, and 3), *Rechtstheorie*, 12 Band, (1981) 133-58, 257-79, 423-48.
- Alchourrón, Carlos E., Bulygin, Eugenio. *Normative Systems*. Springer-Verlag, Wien, . . . (1971), (Library of Exact Philosophy 5).
- Berman, Donald H., Hafner, Carole D. *The Potential of Artificial Intelligence to Help Solve the Crisis in Our Legal System*. *Communications of the ACM*, Vol. 32, (1989) 928-38.
- Bing, Jon. *Rettslige kommunikasjonsprosesser: Bidrag til en generell teori*. Universitetsforlaget, Oslo, . . . (1982), (Noris 30).
- Bing, Jon. *Legal Decisions and Computerized Systems*. In Seipel, P. ed. *From Data Protection to Knowledge Machines: The Study of Law and Informatics*. Kluwer Law and Taxation Publishers, Deventer, . . . (1990) 223-50, (Computer/Law Series 5).
- Bing, Jon. *Om tolkning av enkeltord – særlig i lovtekst*. In Bratholm, A., Opsahl, T., Aarbakke, M. eds. *Samfunn, Rett, Rettferdighet: Festskrift till Torstein Eckhoffs 70-årsdag*. Tano, Norway, (1986) 131-43.
- Bing, Jon. *Fra problem til resultat: Modell av den juridiske beslutningsprosess*. Jussens venner, bind X, (1975) 1-32. (Reprinted in Thrap-Meyer, R. ed. *Utvalgte emner i rettsinformatikk*. Norwegian Research Center for Computers and Law /Tano, Oslo (1988) 3-34, (Complex 1/88)).
- Bing, Jon ed. *Handbook of Legal Information Retrieval*. North-Holland Publishing Company, Amsterdam, . . . (1984).
- Bing, Jon, Harvold, Trygve. *Legal Decisions and Information Systems*. Universitetsforlaget, Oslo, (1977), (Publications of the Norwegian Research Center for Computers and Law No. 5).
- Boston University Law Review. *Symposium: Probability and Inference in the Law of Evidence*. Vol. 66, (1986) 377-952.
- Brachman, Ronald J., Levesque, Hector J. eds. *Readings in Knowledge Representation*. Morgan Kaufmann Publishers, Inc., Los Altos, (1985).
- Bratt, Percy, Tiberg, Hugo. *Domare och lagmotiv*. Svensk Juristtidning, (1989) 407-25.
- Brownlie, Ian. *Principles of Public International Law*. Clarendon Press, Oxford, (3:rd ed. 1979).

- Bruun, Niklas, Wilhelmsson, Thomas. *Rätten, moralen och det juridiska paradigmet*. Svensk Juristtidning, (1983) 701-13.
- Buchanan, Bruce G., Headrick, Thomas E. *Some Speculation About Artificial Intelligence and Legal Reasoning*. Stanford Law Review. Vol. 23, (1970) 40-62.
- Capper, Phillip, Susskind, Richard E. *Latent Damage Law – The Expert System*. Butterworths, London, (1988).
- Cardozo, Benjamin N. *The Nature of the Judicial Process*. Yale University Press, New Haven, . . . (1921).
- Cohen, L. Jonathan. *The Probable and the Provabel*. Clarendon Press, Oxford, (1977).
- Coval, Samuel Charles, Smith, Joseph C. *Law and its Presuppositions: Actions, Agents and Rules*. Routledge & Kegan Paul, London, . . . (1986), (International Library of Philosophy).
- Dickinson, John. *Legal Rules: Their Function in the Process of Decision*. University of Pennsylvania Law Review, Vol. 79, (1931) 833-68.
- Domstolsverket. *Rättsväsendets informationssystem: Bestämmelser om avfattning av dom och slutligt beslut i brottmål m.m.*, (Tingsrätt). DV, Jönköping, (1986), continuously updated loose leaf file).
- Dworkin, Ronald M. *Is Law a System of Rules?* In Summers, Robert S. ed. *Essays in Legal Philosophy*. University of Carlifornia Press, Berkely, . . . (1968) 25-60.
- Dyer, Michael G., Flowers, Margot. *Toward Automating Legal Expertise*. In Walter, C. ed. *Computing Power and Legal Reasoning*. West Publishing Company, St. Paul, . . . (1985) 49-68.
- Eckhoff, Torstein. *Rettskildelære*. Johan Grundt Tanum Forlag, Oslo, (1971).
- Eckhoff, Torstein, Sundby, Nils Kristian. *Rettsystemer: Systemteoretisk innføring i rettsfilosofien*. Tanum-Norli, Oslo, (1976).
- Eek, Hilding. *Folkrätten*. Norstedts förlag, Stockholm, (3:rd ed. 1980), (Institutet för rättsvetenskaplig forskning LI).
- Ekelöf Per Olof. *Om värdering av strukturala bevis*. In Klami, H. T. ed. *Rätt och Sanning: Ett bevisteoretiskt symposium i Uppsala 26-27 maj 1989*. (1990) 22-30.
- Ekelöf, Per Olof. *Rättegång. Fjärde häftet*. Norstedts förlag, Stockholm, (4:th revised ed. 1977), (Institutet för rättsvetenskaplig forskning XXXVIII).
- Ekelöf, Per Olof. *Teleological Construction of Statutes*. SISL/Almqvist & Wiksell, Stockholm, (1958) 75-117 (Scandinavian Studies in Law, Vol. 2).
- Ekelöf, Per Olof. *My Thoughts on Evidentiary Value*. In Gärdenfors, P., Hansson, B., Sahlin, N-E., eds. *Evidentiary Value: Philosophical, Judicial and Psychological Aspects of a Theory*. C. W. K. Gleerups, Lund, (1983) 9-26, (Library of Theoria No. 15).
- Evans, Jim. *Statutory Interpretation: Problems of Communication*. Oxford University Press, Oxford, . . . (1988).
- Farnsworth, E. Allan. *An Introduction to the Legal System of the United States*. Oceana Publications, Inc., London, . . . (2:nd ed. 1983).



- Fleming, John G. *The Law of Torts*. The Law Book Company Limited, Sydney, (6:th ed. 1983).
- Frank, Jerome. *Law and the Modern Mind*. Coward-McCann, Inc., New York, (1930, 6:th printing 1949).
- Frankel, Marvin E. *Criminal Sentences: Law Without Order*. Hill and Wang, New York, (1973).
- Frändberg, Åke. *Om analog användning av rättsnormer: En analys av analogibegreppet inom ramen för en allmän juridisk metodologi*. Norstedts förlag, Stockholm, (1973).
- Frändberg, Åke. *Rättsregel och rättsval: Om rättsliga regel- och systemkonflikter i tid och rum*. Norstedts förlag, Stockholm, (1984).
- Frändberg, Åke. *Till frågan om de juridiska begreppens systematik: En studie i juridisk begreppsbyggnad*. Tidskrift för rettsvetenskap, (1985) 79-116.
- Goldberg, Steven P. *On Legal and Mathematical Reasoning*. Jurimetrics Journal, Vol. 22, (1981) 83-91.
- Golding, Martin P. *Legal Reasoning*. Alfred A Knopf Inc., New York, (1984), (Borzoj Books in Law and American Society).
- Gottlieb, Gidon. *The Logic of Choice: An Investigation of the Concepts of Rule and Rationality*. Georg Allen and Unwin Ltd., London, (1968).
- Hamfelt, Andreas. *The Multilevel Structure of Legal Knowledge and its Representation*. The Swedish Law and Informatics Research Institute, (1990), (IRI-rapport 1990:2).
- Hamfelt, Andreas, Wahlgren, Peter. *Datorstödda beslut: Artificiell intelligens och juridik*. The Swedish Law and Informatics Research Institute, (1988), (IRI-rapport 1988:4).
- Hansen, Johannes. *Simulation and Automation of Legal Decisions*. Norwegian Research Center for Computers and Law, Norwegian University Press A/S, Oslo, (1986), (Complex 6/86).
- Hart, H.L.A. *The Concept of Law*. Oxford University Press, Oxford, . . . (1961), (Clarendon Law Series).
- Hart, H.L.A. *Positivism and the Separation of Law and Morals*. Harvard Law Review, Vol. 71, (1958) 593-629.
- Hayes-Roth, Frederick., Waterman, Donald A., Lenat, Douglas B. eds. *Building Expert Systems*. Addison-Wesley Publishing Company, Inc., Reading, . . . (1983), (Teknowledge Series in Knowledge Engineering. Vol. 1).
- Hellner, Jan. *Lagstiftning inom förmögenhetsrätten*. Juristförlaget, Stockholm, (1990).
- Hellner, Jan. *Rättsteori: En introduktion*. Juristförlaget, Stockholm, (1988).
- Heuman, Lars. *Rättspraxis*. In Bernitz, U., Heuman, L., Löfmark, M., Roos, C. M., Seipel, P., Victorin, A. *Finna rätt – Juristens källmaterial och arbetsmetoder*. Juristförlaget, Stockholm, (2:nd ed. 1988) 109-38.
- Jackson, Kevin T. *Definition in Legal Reasoning*. Jurimetrics Journal, Vol. 25, (1985) 377-86.
- Jareborg, Nils. *Värderingar*. Norstedts förlag, Stockholm, (1975).

- Jareborg, Nils. *Kriminalisering*. In Heckscher, S., Snare, A., Takala, H., Vestergaard, J. eds. *Straff och rättfärdighet*. Norstedts förlag, Stockholm, (1980) 33-46.
- Jareborg, Nils, von Hirsch, Andrew, Hanrahan, Kathleen J. *Påföljdsbestämning i USA*. BRÅ, Stockholm, (1984), (BRÅ Forskning 1984:4).
- Kelsen, Hans. *Reine Rechtslehre*. Verlag Franz Deuticke, Vienna (2:nd ed. 1960), (English ed: *Pure Theory of Law*. University of California Press, Berkley, . . . 1970).
- Klami, Hannu Tapani. *Föreläsningar över juridikens metodlära*. Iustus förlag AB, Uppsala, (2:nd ed. 1989).
- Klami, Hannu Tapani. ed. *Rätt och sanning: Ett bevisteoretiskt symposium i Uppsala 26-27 maj 1989*. Iustus förlag AB, Uppsala, (1990).
- Levi, Edward, H. *An Introduction to Legal Reasoning*. The University of Chicago Press, Chicago, (1949).
- Lind, Johan, *Högsta domstolen och frågan om doktrin och motiv som rättskälla*, *Juridisk tidskrift* 1996-97, 352-70.
- Lindahl, Lars. *Definitioner, begreppsanalys och mellanbegrepp i juridiken*. In *Rationalitet och emperi i rättsvetenskapen*. Stockholms universitet, Stockholm, (1985) 37-49 (Juridiska fakulteten i Stockholm, skriftserien nr. 6).
- Lindell, Bengt. *Sakfrågor och rättsfrågor*. Iustus förlag, Uppsala, (1987), (Skrifter från juridiska fakulteten i Uppsala 11).
- Llewellyn, Karl N. *The Common Law Tradition: Deciding Appeals*. Little, Brown and Company, Boston, . . . (1960).
- Llewellyn, Karl N. *Remarks on The Theory of Appellate Decisions and the Rules or Canons About how Statutes are to be Constructed*. *Vandebilt Law Journal*, Vol. 3, (1950), 395-406.
- MacCormick, Neil. *Legal Reasoning and Legal Theory*. Oxford University Press, Oxford, . . . (1978), (Clarendon Law Series).
- MacCormick, Neil D., Summers, Robert S. eds. *Interpreting Statutes: A Comparative Study*. Dartmouth Publishing Company Limited, Aldershot, . . . (1991).
- MacCormick, Neil, Weinberger, Ota. *An Institutional Theory of Law: New Approaches to Legal Positivism*. D Reidel Publishing Company, Dordrecht, . . . (1986), (Law and Philosophy Library).
- O'Neil, D. Peter. *A Process Specification of Expert Lawyer Reasoning*. Proceedings, The First International Conference on Artificial Intelligence and Law, ACM Press, New York, (1987) 52-59.
- Patterson, Edwin W. *Logic in the Law*. *University of Pennsylvania Law Review*, Vol. 90, (1942) 875-909.
- Peczenik, Aleksander. *The Basis of Legal Justification*. Author, Lund, (1983).
- Peczenik, Aleksander. *Rätten och förnuftet*. Norstedts förlag, Stockholm, (1986, 2:nd ed. 1988).
- Peczenik, Aleksander. *Rättsnormer*. Norstedts förlag, Stockholm, (1987).

- Peczenik, Aleksander, Bergholz, Gunnar. *Statutory Interpretation in Sweden*. In MacCormick, Neil D., Summers, Robert S. eds. *Statutory Interpretation*. Dartmouth Publishing Company Limited, Aldershot, . . . (1991) 311-58.
- Raz, Joseph. *The Authority of Law: Essays on Law and Morality*. Clarendon Press, Oxford, (1979).
- Raz, Joseph. *The Concept of a Legal System: An Introduction to the Theory of Legal System*. Clarendon Press, Oxford, (1970).
- Rissland, Edwina L., Ashley, Kevin D. *A Case-Based System for Trade Secrets Law*. Proceedings, The First International Conference on Artificial Intelligence and Law, ACM Press, New York, (1987) 60-66.
- Ross, Alf. *Tû-Tû*. In Borum, O. A., Illum, Knud, eds. *Festschrift till Henry Ussing*. Juristforbundet/Nyt Nordisk Forlag Arnold Busck, København, (1951) 468-84, (English version: *Harvard Law Review*, Vol. 70 (1956/57) 812-25, Also reprinted in *Sc.St.L.* Vol. 1 (1957)).
- Ross, Alf. *Om ret og retfærdighed: En indførelse i den analytiske retsfilosofi*. Nyt nordisk forlag, Arnold Busck, København, (1953).
- Ross, Alf. *Directives and Norms*. Routledge & Keagan, Paul, London, (1968).
- Schmidt, Folke. *Domaren som lagtolkare*. In *Festschrift tillägnad Nils Herlitz*. Norstedts, Stockholm, (1955) 263-98.
- Schubert, Glendon ed. *Judicial Behavior: A Reader in Theory and Research*. Rand McNally & Company, Chicago, (1964).
- Shabtai, Rosenne. *The World Court: What It Is and How It Works*. Martinus Nijhoff Publishers, Dordrecht, . . . (1962, 4:th ed. 1989).
- Simmonds, Nigel E. *The Decline of Juridical Reason: Doctrine and Theory in the Legal Order*. Manchester University Press, Manchester, . . . (1984).
- Simon Eric, Gaes, Gerry. *ASSYST – Computer Support for Guideline Sentencing*. Proceedings, The Second International Conference on Artificial Intelligence and Law, ACM, New York, (1989) 195-200.
- Squires, Lynn B., Rombauer, Majorie Dick. *Legal Writing in a Nutshell*. West Publishing Co., St. Paul, (1982).
- Stone, Julius. *Legal System and Lawyers' Reasonings*. Maitland Publications PTY. LTD., Sydney, (1964).
- Strömberg, Håkan. *Allmän förvaltningsrätt*. Liber förlag, Malmö (12:th ed. 1984).
- Strömberg, Tore. *Rättsordningens byggstenar: Om normtyperna i lag och sedvanerätt*. Studentlitteratur, Lund, (1988).
- Strömholm, Stig. *Ideer och tillämpningar*. Norstedts förlag, Stockholm, (1978), (Institutet för rättsvetenskaplig forskning XCVI).
- Strömholm, Stig. *Den juridiska argumentationens relevanskriterier*. Svensk Juristtidning, (1974) 641-68.
- Strömholm, Stig. *Rätt, rättskällor och rättstillämpning: En lärobok i allmän rättslära*. Norstedts juridik, Stockholm, (1981, 5:th ed. 1996), (Institutet för rättsvetenskaplig forskning CIX).
- Summers, Robert S. *Form and Substance in Legal Reasoning*. In Bratholm, A., Opsahl, T., Aarbakke, M. eds. *Samfunn, Rett, Rettferdighet: Festschrift till Torstein Eckhoffs 70-årsdag*. Tano, Norway, (1986) 700-15.

- Sundberg, Jacob W.F. fr. *Eddan t. Ekelöf: Repetitorium om rättskällor i Norden*. Studentlitteratur/Akademisk forlag/Institutet för offentlig och internationell rätt, (1978).
- Sundby, Nils Kristian. *Om normer*. Universitetsforlaget, Oslo, (1974), (Filosofiske problemer XLIII, Scandinavian Studies in Philosophy, Næss, A. ed.).
- Susskind, Richard E. *Expert Systems in Law: Out of the Research Laboratory and Into the Marketplace*. Proceedings, The First International Conference on Artificial Intelligence and Law, ACM Press, New York, (1987) 1-8.
- Svea hovrätt. ed. *Språket i domar och beslut*. Allmänna förlaget, Stockholm, (2:nd ed. 1987).
- Tammelo, Ilmar. *Modern Logic in the Service of Law*. Springer-Verlag, Wien,... (1978).
- Tapper, Colin. *British Experience in Legal Information Retrieval*. Modern Uses of Logic in Law Vol. 64D, (1964) 127-34.
- von Savigny, Friedrich Carl. *System des heutigen Römischen Rechts*. 1 Band, Berlin, (1840).
- Wahlgren, Peter. *ADB, telekommunikationer och juridiskt arbete*. The Swedish Law and Informatics Research Institute (1983), (IRI-rapport 1983:3 and Teldok Information nr 3).
- Wahlgren, P., Warnling-Nerep, W., Wränge, P., *Juridisk Skrivguide*, 2:nd ed. Norstedts Juridik AB, Stockholm (1999).
- Walter, Charles ed. *Computer Power and Legal Language: The Use of Computational Linguistics, Artificial Intelligence and Expert Systems in the Law*. Quorum Books, New York, . . . (1988).
- Walter, Charles, Parks, Michael. *Natural Models of Intelligence*. In Walter, C. ed. *Computing Power and Legal Reasoning*. West Publishing Company, St. Paul, . . . (1985) 5-27.
- Warner, David R. *The Role of Neural Networks in the Law Machine Development*. Rutgers Computer & Technology Law Journal, Vol. 16, (1990) 129-44.
- Wasserstrom, Richard A. *The Judicial Decision: Toward a Theory of Legal Justification*. Stanford University Press, Stanford, . . . (1961).
- Wilson, Alida. *The Nature of Legal Reasoning: A Commentary with Special Reference to Professor MacCormick's Theory*. Legal Studies, Vol. 2, (1982) 269-85.
- Wittgenstein, Ludwig, *Philosophical Investigations*, Basil Blackwell, Oxford (1953).
- Wurzel, *Methods of Juridical Thinking* (1917).
- Åqvist, Lennart. *Towards a Logical Theory of Legal Evidence: Semantic Analysis of the Bolding-Ekelöf Degrees of Evidential Strength*. Preproceedings ICLID-89, Vol. 1, IDG, Florence, (1989) 21-47.