Beyond Reasonable Doubt

Standard of Proof and Evaluation of Evidence in Criminal Cases

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The public debate concerning evaluation of evidence in criminal cases has been characterised by a couple of misconceptions. The first is linked with criticism, frequent among both laymen and jurists, directed at the courts for having relaxed the required standard of proof with regard to a certain case or a certain type of cases. The second misunderstanding, which arises for obvious reasons only among jurists, is the fact that Ekelöf's theory of evidence (and the so called evidence value method) constitutes a theoretical basis for the evaluation of evidence actually performed by the courts. In this article both of these misconceptions are discussed.

1 The Required Standard of Proof

During the past years a heated debate went on concerning evaluation of evidence in sex crimes. During the 70s and 80s a similar, but more tempered debate took place with regard to cases relating to narcotics and economic crime. A common argument in all those instances has been the claim that the courts have relaxed the required standard of proof in the relevant type of case, creating bigger risks for innocent people to be convicted.

The discussion concerning a lower standard of proof contains, however, a theoretical mistake – it is not so much the standard of proof in itself that should be discussed, but rather its satisfaction. The standard of proof is a question of law, i.e. it is an abstract norm which (similarly to the existence of certain prerequisites for a given crime) is defined by a legal rule, whereas evaluation of evidence is a question of fact, i.e. in this context it is a decision of how the evidence in a particular case relates to the norm. The standard of proof as the general norm must therefore be distinguished from its application in a particular case.

As regards the standard of proof the legislator has refrained from setting forth a clear definition - the Code of Judicial Procedure stipulates only that the matter

must be 'proved'. This means that it is up to the courts to work out a more precise definition of the standard of proof. Neither has the legislator issued provisions regarding any special method of evidence evaluation. The explanatory statements to the Code indicate, however, that the evaluation shall be based on the principle of free evaluation of evidence. The practical implications of these instructions indicate that the legislator has left it to the Supreme Court to formulate norms and guidelines for evidence evaluation in its law-making capacity.

As regards criminal cases these norms and methods have received their present shape through a number of decisions between 1980 and 1990, in which the Supreme Court ruled that for a conviction the defendant's guilt had to be proved 'beyond a reasonable doubt'. This phrase, adopted from a two-hundred-year-old American legal tradition, defines the margin of error which has to be observed by the courts. Evaluation of evidence in criminal cases can thus be regarded as determination of whether or not the already strong evidence of the defendant's guilt - expressed by the decision to prosecute - is so strong that the prosecutor's statement of the criminal act charged constitutes the only reasonable explanation of the facts of the case; or to express it in more positive terms, that the evidence is so strong that the defendant's guilt may be regarded as certain. This requirement is coupled up with conviction in such a way that the judge may be doubtful of the defendant's guilt and yet deliver the verdict of guilty: personal, subjective and emotional scepticism shall not be sufficient to upset the prosecutor's thesis. If, on the other hand, the doubt is 'reasonable', the defendant must be declared innocent. A reasonable doubt means in this context a doubt which has the following characteristics:

a) it is *rational*, i.e. it can be logically justified,
b) it is *concrete*, i.e. it is founded on the facts of the case, and,
c) it is *relative*, i.e. the determination of reasonableness has been made within the scope of the nature of the case.

The last criterion stipulating that reasonableness of doubt shall be determined on the basis of the investigation 'required by the nature of the case' (which can be called the i*nvestigation requirement*) means that the prerequisite for the performance of satisfactory evidence evaluation is the possession by the court of investigation records which are necessary in order to eliminate a non-guilty verdict. This investigation requirement varies from case to case, depending on the seriousness of the crime, the attitude of the defendant, the type of the crime in question and the factual circumstances of the case. These varied investigation requirements mean, in their turn, that the certainty of the conclusion, i.e. its *robustness*, also varies, and depends on the thoroughness of the investigation[1] In a minor case the conclusion can be drawn on the basis of much less evidence

1 'Robust' evidence means that no further facts can shake the conclusion – the greater the amount of evidence that can be considered, the bigger the margin for the court's decision being correct. See further, Ekelöf, *Rättegång IV*, 6th ed., p. 128 f.

than in the case of a serious crime with the defendant pleading not guilty.[2] In each case, however, it is required that no concrete doubts are present with regard to the correctness of the prosecutor's statement of the criminal act charged.[3] *The required standard of proof is therefore the same in all criminal cases* – what distinguishes them is not the quality criterion but the requirement of evidence necessary for the court to be satisfied beyond reasonable doubt.

One could object here to the fact that the distinction between the required standard of proof and investigation requirements – the relationship between constant quality within the framework of varied quantity – is only a theoretical construction, and claim that the practical result would be the same if different standards of proof were applied in different criminal cases, since the level of certainty is lower in minor offences than in more serious ones. I claim, however, that the distinction is a central one. In the first place it underlines the concern that no innocent person should be punished, not even for a trivial offence. This is an important principle not least due to the fact that a person unjustly sentenced for a minor offence can perceive his conviction as an equally grave violation as another person unjustly sentenced for a much more serious crime. In the second place the courts avoid in this way the difficulty in drawing border lines between cases in which the standard of proof has been fixed and those in which it can be relaxed, which increases consistency in the application of the law. Most importantly, in the third place, a constant standard of proof provides *a method* for the evaluation of evidence: the prerequisite for a guilty verdict is always the requirement that there should be no concrete evidence provided by the investigation, indicating that what happened could have happened in a different way than that stated by the prosecutor.

It is my opinion that the Supreme Court took up a definite position on this very issue in its NJA 1985, p. 496, judgement. By using the expression 'beyond all reasonable doubt' with reference to the required standard of proof in the case of drunken driving, the Court emphasised the fact that the application of this evidential requirement should not be limited to serious crimes only. The question of the consistency of the required standard of proof can still not be regarded as having been made completely clear, however. It is possible, according to the Supreme Court, that there may be criminal cases in which a certain degree of relaxation of the required standard of proof can be tolerated.[4]

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2 If the court wishes to emphasise that the evaluation of evidence has taken place on the basis of a 'complete' investigation, e.g. when the defendant pleads 'not guilty' to a murder charge, this can be indicated by the phrase 'beyond *all* reasonable doubt'.

3 The requirement of concreteness implies that one or several pieces of factual evidence in the case may be easier combined with a freeing alternative than with the prosecutor's statement of the criminal act. If the court should find, on the other hand, that a reasonable freeing alternative has not even been looked into, the court may dismiss the charges on the ground of 'deficient investigation'.

4 See *NJA 1982, p. 164 and NJA 1992, p. 446,* in which the Supreme Court has ruled that the standard of proof may not be relaxed in cases concerning narcotics or sex crimes, which is not to say that it could not be relaxed in other cases, even if the Supreme Court emphasised in the last case "that there can be no question of renouncing the required standard of proof which is generally considered to apply in criminal cases." Cf. *Gregow* in SvJT 1996, *Några synpunkter på frågan om bevisprövning och bevisvärdering i sexualbrottsmål*, p. 510: "The

If we disregard some exceptional situations, it can be noticed that the required standard of proof in criminal cases has been set very high. This means that there is hardly any reason to criticise the standard of proof as such – unless one considers it to be *too high*. When the critics complain that it seems too easy to convict an innocent person in certain types of cases, something else is actually meant. When the inferior courts convict a person on evidence which appears to be too weak, this does not have to do with the fact that the required standard of proof is too low, but that it *has been allowed to be supported by evidence which cannot be regarded as sufficiently strong in order to satisfy the stipulated norm, i.e. the standard of proof itself.* This can obviously be described as the *actual* relaxation of the standard of proof or indirect weakening of the prosecutor's burden of proof, but from the point of view of the theory of evidence it has to do with a faulty assessment of the *matter at issue*, i.e. the fact that the evidence for the prosecutor's case has been overestimated, and/or that the evidence against it has been underestimated. The distinction may appear to be a sophistic one, but it does show where the problem lies: the difficulties of the courts can be traced back to the very process of evidence evaluation. The criticism really means that one does not accept the evaluation methods used by the courts and constituting the grounds for their decisions.

2 Evaluation of Evidence

The Swedish doctrine of evidence law has been characterised during the whole of the post-war period by Ekelöf's theory of evidence as well as the opposition against it, represented by, among others, Bolding and Lindell. The battle has been between the proponents of the value method (Ekelöf) and supporters of the thematic method (Bolding), which has been going on for decades, and which has even spread to other Scandinavian countries, especially Norway. When trying to familiarise oneself with these two theories, one should remember the following:

1 There is more that unites the value method and the thematic method than there is that separates them. Both of them are founded on the probability concept of theoretical frequency (the 'statistical' probability concept), entailing that an individual case is related to a 'typical' case, with the assessor trying to determine the limit value of the relative frequency on infinite population. The difference between the two methods is that Ekelöf's value method uses a one-sided probability concept, where the complete certainty of 100% is based on that which has really taken place, whereas the thematic method applies a two-sided concept, where 100% represents the evidence in the case, and where the total

standard of proof required for the indictment to succeed is stringent, and this applies especially in the case of serious crimes."

For my part I consider that, theoretically, one can require the same standard of proof in all criminal cases, even in minor ones (where no imprisonment is involved), or in cases in which the defendant has pleaded guilty to the charges against him, under the condition that one is willing to accept the presumption that the defendant's confession is correct as the basis for the evaluation of evidence. See further in this regard my presentation in *Bevisprövning i brottmål*, Stockholm 1993, pp. 47-50.

evidence value of each case (100% of 'case-merit') is divided between the parties like on a beam balance.

2 Neither the value method nor the thematic method has succeeded in establishing itself in court practice in its pure, theoretical form. The reason for this is that methodology which is based on the probability calculus and numerical evidence evaluation requires statistical evidence, which is, in fact, missing.[5] The courts do not possess the knowledge of the frequency of different causal relationships that really apply, and in order to use the formulae they would have to rely in their calculations on estimates and guesses. Placing numerical evidence values on different pieces of factual evidence, e.g. the probability that a certain witness's observation is in conformance with what has actually happened, becomes just a play with numbers, an illusory measure of what is really a subjective value judgement. An equally serious disadvantage is the fact that there are no possibilities of correlation. The court cannot be sure that guilty verdicts are correct, and if 'equal evidence situations' advocated by Ekelöf are used as reference, the evaluation of evidence becomes self-directing: the earlier guilty verdicts become automatically the correct verdicts.

The value method has been useful for the courts in their evaluation of evidence mainly as a rule of thumb when it has been necessary to show caution when assessing chains of evidence, when collateral evidence could increase the total evidential value, provided the various pieces of evidence are really independent from one another, and when counter evidence could result in the weakening of the value of evidence.

The thematic method can be considered, on the other hand, at least in its basic form, i.e. where the balancing of probabilities is concerned, to have more solid anchorage in the adjudicative practice of the courts. Perceiving a trial as a battle between two parties' versions of the truth is a classical way of looking at things (the adversary principle). Ekelöf's propagation of the value method has contributed valuable criticism regarding the thematic method's limitation to the evidence presented at the trial and the parties' versions. In criminal cases the balancing of probabilities entails a danger for the defendant to be convicted on too weak evidence, either because he has failed to gather sufficient support for the evidence value of his version (which is why the prosecutor's scales of justice hit the bottom already when weak evidence is present), or because in 'my-word-against-your-word situations' the court contents itself with deciding which of the parties (the defendant or the plaintiff) is more trustworthy.

> In many of the sex crime cases in which the Supreme Court has reversed the guilty verdicts delivered by the inferior courts in recent years the wrong decision had been made due to the application by the inferior courts of the 'balancing method'. In other cases the faulty evaluation of evidence resulted from the fact that the court itself failed to formulate and examine alternative hypotheses (of

5 Certain exceptions are constituted in statistical evidence coming from such areas as finger prints, blood samples, DNA, etc. The causal connection expressed statistically in these cases applies, however, only to the relationship between the sample and a certain person. The probability of whether that person is the perpetrator must be assessed with regard taken to where, when and how the sample was taken.

> possible acquittal). The Supreme Court has been forced to call attention to such errors time and again by granting leave of appeal. Normally, the Supreme Court is not supposed to take up cases which have to do with evidence evaluation, and yet, during the last 20 years the Court has dealt with approximately 30 cases concerning evaluation of evidence in criminal cases, two-thirds of which had to do with sex crimes. This high number of cases – and especially the high frequency of sex crimes – indicates that the inferior courts have not succeeded in properly assimilating the methodology and criteria established by the Supreme Court in this area. In these circumstances many critics have drawn the conclusion that the Swedish courts' (at least the inferior court's) evaluation of evidence in sex crimes is deficient. It is, however, possible that these deficiencies can be restricted to the cases in which the Supreme Court has changed the guilty verdict of the Appeal Court, and that despite the methodological shortcomings of and badly formulated reasons for the decisions a correct result has been attained in the remaining cases.

3 In the international literature on evidence law frequency theories concerning evaluationof evidence are rare and are usually considered somewhat suspect. Outside Scandinavia they tend to appear sporadically in evidence law research, mainly in the USA and Australia, and to some extent also in Germany. In Anglo-American law, where theoretical work has often been done within the framework of the discipline called Jurimetrics, frequency theories have not either become popular among the practitioners of law for obvious reasons. This is first of all due to the fact that evaluation of evidence in criminal cases is performed by laymen (the jury), but also that statistical probability calculations concerning certain types of evidence (e.g. as regards a witness's trustworthiness) are not permitted by the court. In Germany a certain amount of statistical analysis concerning evidence evaluation found in court judgements[6] can be identified in jurisprudential literature, whose secondary purpose is to be able to provide support for future evidence evaluation, but it is doubtful whether any judges apply these findings in practice.

> The fact that practising lawyers consider 'formulae application' with a dose of scepticism does not naturally need to mean that this is the only reason for a definite rejection of such methods. The reason why mathematics and logic, as well as the behavioural sciences, are regarded by law practitioners as academic disciplines divorced from reality and therefore not very useful in the evaluation of evidence can be that they often feel rather uncertain in the field in question, or that they want to protect their own freedom of evidence evaluation. It is not the theoretical weaknesses but insularity, conservatism, ignorance, and impassivity, as well as the fact that laymen make up the jury, that might be seen as reasons for the failure of the probability calculus in gaining a firm foothold in the courts.

Generally speaking, it can be stated that the approach to the evaluation of evidence supplied by Ekelöf in 'Rättegång IV', and disseminated through teaching to generations of law students in Sweden is unknown – or at least peripheral – to the rest of the world. There it is the question of something else

6 An example of this is Bender-Nack, *Tatsachenfeststellung vor Gericht*, Volume I, München 1995.

than to try to establish how the case in question relates to a population of 'equal evidentiary situations'.[7]

4 The fundamental theoretical defect of frequency theories is that they are based on a probability concept which cannot be applied to a situation in which the evaluation of evidence takes place: one starts from the premise that a high probability figure describing the relationship between existing evidence and a typical case means that the value of the evidence is high. It is thus a measure of conformance between the actual evidence and that which has really happened. But the necessary condition to guarantee this relationship is the existence of a representative population and a compliant result. Neither of these premises can be satisfied, which means that one must joggle with fictitious populations and therefore also fictitious frequencies, which is the same as letting unscientific subjectivism take over. What is more, probability calculation provides only an idea of how probable a certain relationship is, and does not show what is true in any individual case. On the contrary, situations tried in court proceedings often reflect the very exceptions from the ordinary that are obscured by the statistics. For this reason evaluation of evidence does not have to do with the determination of probability, or with how common something is, but concerns that which has taken place in the unique, individual case which has to be decided by the court. The probability calculus can therefore never function as anything else but a rather blunt instrument.[8]

5 Methodology applied in the evaluation of evidence is a result of the definition of the standard of proof. When searching for a suitable model for improving the certainty of the court's evaluation of evidence one must define a criterion to which the result of the evaluation shall be related in order to achieve the desired legal consequence. This also means choosing between different concepts of probability. If a probability concept of theoretical frequency is selected, the standard of proof will be defined as a percentage of the 'complete certainty' of the existence of a certain legal fact, which means that one has to decide whether this complete certainty shall be determined on the grounds of the information available in the case or whether one should also consider the

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7 Since Ekelöf was a giant in procedure law in Scandinavia, and since he was perceived abroad as a pragmatic follower of Hägerström and Lundstedt, his theory of evidence became the object of much attention of internationally. His papers published in English met, however, with devastating criticism meted out by the English researcher Jonathan Cohen in *The Probable and the Provable*, Oxford, 1977, p. 99 ff. Also Bengt Lindell's thesis *Sakfrågor och rättsfrågor*, Uppsala 1987, constitutes, in my opinion, a deathblow to Ekelöf's theory. In addition, during his last years Ekelöf himself started questioning his model and its general applicability (among other things, through his arguments concerning 'structural evidence'); see *Rättegång IV*, p. 160.

8 According to the philosopher Max Black the basic idea behind the frequency theory is 'the denial of a logical gap between frequency and common sense", and mathematical dogmatism "an excuse in order not to have to perform the difficult task of defining the relationship between theory and practical application".

remaining lack of certainty.[9] This is where the difference is noticeable between civil cases and criminal cases; the latter must have a wider scope than cases in which the judicial evidence is limited by the parties' allegations. This means that the thematic method should be suitable, in principle, to civil disputes and value method to criminal cases.[10]

The discussion shows that when choosing a method for the evaluation of evidence one must always start from what the standard of proof has been meant to express, so that the criterion against which the facts must be tried provides the method for the trial. If one chooses the prevailing form in order to express the value of evidence, i.e. the value of words, the standard of 'beyond reasonable doubt' implies that the method shall consist in disproving alternative hypotheses, i.e. attempting to eliminate any reasonable doubt.

> If one searches in a similar way for a suitable method in civil cases, it is easy to end up in a quandary, however, since the common expression used with regard to the satisfaction of the standard of proof in civil cases is 'proved'. This word does not describe any standard of proof, but is merely used as a synonym of 'showed' , which expresses the conclusion that the evidence in the relevant case has been sufficient to meet the burden of proof with regard to the desired legal consequence.[11] 'Proved' indicates therefore only the fact *that* the evidence was sufficient, not *how strong* that necessary evidence was. This means in its turn that when 'proved' is used as a conclusion in a criminal case, it should not be interpreted in any other way than that the crime has been 'proved beyond a reasonable doubt' (since this is the established standard of proof in these cases).[12] When the phrase 'proven' is used in civil cases, it should be understood as that the court has applied 'the standard proof requirement' in these cases, i.e. that it has formulated the requirement of 'clear and convincing evidence.[13]

Seen from the international perspective the prevailing method of evidence evaluation in criminal cases is to examine the prosecutor's case by disproving alternative hypotheses. As far as I understand there is conformity of opinion among different theorists in the field, irrespective of whether these jurists work

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9 This difference in the point of departure is one of the most hotly debated issues in the debate between the proponents of the thematic method and the proponents of the value method. Regarding different standpoints in this debate, see, for example, the anthology *Rätt och sanning*, Uppsala, 1990.

10 See, Fitger in *RB Komm* III 35: 6. As the following argument shows, in my opinion the value method should not be used in criminal cases either - in any case not in its 'calculus form'.

11 Ekelöf tried to propagate the concept of 'corroborated' as a 'standard requirement' of proof, creating in this way conceptual confusion surviving to this very day; see *Rättegång IV*, p. 56-62.

12 If a court uses today the term 'corroborated by the evidence' in a criminal case, this can be misconstrued by laymen to mean that the court, contrary to the Supreme Court's precedents in the area, has relaxed the required standard of proof. The courts should therefore, at least in cases when the defendant has submitted a not-guilty plea, always use the expression 'proved beyond reasonable doubt'.

13 In American practice the phrase 'clear and convincing evidence' is used for the standard normally required by a Swedish court and 'a preponderance of evidence' when it is enough that the evidence outweighs the opposite assumption.

within the continental law systems or the common law systems.[14] From the point of view of philosophy one starts from the premise that evaluation of evidence in criminal cases has to do with truth values, and not probability relationships,[15] and that it is based on induction (i.e. inferences based on empirical knowledge), and not on deduction. This theoretical basis, as well as the normative systems of the law itself, entail considerable limitations on the search for the truth.

In the first place the court seeks to find a relative, not an absolute, truth. This relativity depends not only on the shortcomings in our collective experiences and limited resources, but also on the fact that we now allow humanistic values to play an important role. This can be seen in the procedural expressions such as *favor defensionis:* the suspect's rights must not be violated in any way, the suspect shall be considered innocent until the reverse has been proved, he has the right to a defence, he also has the right to remain silent, he does not need to examine, explain or prove anything, etc. These human rights of the defendant constitute the atmosphere in which the allegation of a crime shall be tried.

In the second place the situation in which decisions are made when evaluation of evidence is performed must be carefully considered (e.g. an obligation to come to a decision, the focus on an individual case), making that the so called decision theories, as well as the probability calculus, are not directly applicable. One must also take account of the scientific structure peculiar to law: to pass judgements in a legal system characterised by positive law does not mean, from the structural point of view, finding the best solution to a problem, but finding the solution which best conforms with the applicable law. The duality contained in the proving of someone's guilt, the search for 'the historical truth' (the issue of fact) and its classification (the issue of law) give law such a distinctive character that what may be derived from logic, mathematics, sociology, psychology, etc., in order to aid the jurists in their evaluation of evidence, is derived from *auxiliary* sciences – the evaluation has basically a typically legal character specific to law.

In the third place the evaluation of evidence is performed within the framework of a formal system – a contradictory (accusatory) oral process – which provides a certain definite form for the collection of facts, and which often forces the judge to base his evaluation on the analysis of the oral statements delivered in court.

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14 Prominent representatives of modern legal scientific theory in the field are, among others, Karl Peters (Germany), Luigi Ferrajoli (Italy) and Jonathan Cohen (England). An introduction to the philosophical grounds of these theories can be found, *inter alia*, in P. Atchinson (ed.), *The Concept of Evidence*, London, 1983, including texts of Carnap, Hempel and Braithwaite among others.

15 The difference between these two concepts has been discussed by Rudolf Carnap who is generally considered to be the 20th century's most prominent figure in this area of philosophy. The concept of 'truth values' refers to a conclusion concerning the logical relationship between a prediction and an observation – a generalisation – which entails a likely distribution of different outcomes, entailing in its turn the fact that the conclusion will not be influenced by the outcome in any concrete case. As regards the 'truth values' on the other hand, one has to decide here in each individual case whether the statement under review is true or false – evidence evaluation is precisely about this very matter. See further *Bevisprövning i brottmål*, p. 24-30.

In the fourth place the burden of proof rests with one party only – the prosecutor. No positive criteria are posited for a non-guilty verdict; instead the principle *in dubio pro reo* applies when there are doubts as to the tenability of the prosecutor's statement of the criminal act charged.

In the fifth place (this does not apply to the jury systems) decisions must be justified, and the evaluation of evidence performed must be reported on. In this way the rationality of the assessment, or at least the quoted reasons for the decision, can be examined by those involved as well as by outsiders.

These fundamental principles of criminal proceedings limit the scope of the judge's discretionary powers and subjective convictions, providing at the same time a 'natural' method for the evaluation of evidence. The free evaluation of evidence is a freedom under responsibility and within the framework of a clearly defined structure. If one considers the evaluation instead as a totally free assessment, each court decision can be legitimised - in reality only those court decisions can be defended which are based on the observance of the fundamental principles of judicial proceedings. These principles include not only the rules applicable during the trial proceedings but also those decision criteria which have been established in order to reach a guilty verdict and which are based on the definition of the required standard of proof. When the standard of proof has been formulated as 'proved beyond reasonable doubt', the prosecutor's statement of the criminal act charged is tried against alternative hypotheses. If any of these 'working hypotheses' which have been formulated on the basis of facts relevant to the case cannot be disproved, the prosecutor's statement cannot be accepted and the defendant shall go free. Even though the conclusion is relative and the level of certainty commensurate with the strength of the general empirical postulates, it is *with the help of a specific methodology – the inductive logic within the framework of a strict decision form – that the evaluation is made.*[16]

> What is being examined when the evaluation of evidence is performed is the inductive relationship between the subject-matter to be proved and the evidence. A positive answer to this relationship does not guarantee the subject's correctness (proof), i.e. that the statement of the criminal act charged is true, but constitutes only a conclusion where competitive hypotheses can be eliminated on the basis of empirical grounds. The model used for the elimination of alternative hypotheses (H) can be set forth according to the following (in which B constitutes the fact in issue whose connection with the hypothesis is to be tried):
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> I Each time H is true, B is also true
> II B is false
> III H is false
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> The above formula is used as a link in an attempt to disprove alternative hypotheses; if a hypothesis is disproved, the prosecutor's statement of the

16 The connection between the method and the 'climate' in which the evaluation of evidence is made has been extensively analysed by Ferrajoli in *Diritto e ragione*, Rome, 1990. A shorter presentation of Ferrajoli's analysis can be found in my monograph *Lekmän som domare*, Stockholm 1996, from which the following passage has been taken.

> criminal act charged (H) receives an indirect support as the only explanation of the facts of the case. If, for example, the defendant produces an alibi (H = another perpetrator), but it is shown that the 'alibi witness' has made a mistake, the explanation that would vindicate the defendant falls (if no other support for the statement can be mustered). If it should be shown, on the other hand, that the witness provides a real alibi for the defendant, the prosecutor's statement of the criminal act falls (H):
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> I Each time H is true, B is false
> II B is true
> III H is false

Unambiguous expressions of the above-presented methodology, which owes a lot to Karl Popper[17] as regards the underlying theory, can also be found in modern court practice in Sweden. A closer study of the Supreme Court's assessment of issues concerning the evaluation of evidence in criminal cases during the last 15 years shows, in my opinion, a consistent methodological application of the above-mentioned model.[18] Just as illustrated above, the method emanates from the standard of 'beyond reasonable doubt' and attempts to substantiate the remaining doubts in the form of alternative hypotheses in relation to the prosecutor's statement of the criminal act charged, trying to rule them out in the next step.[19] If all the reasonable alternative explanations can be ruled out, the crime must be seen as proved, but if some explanation which can be concretised cannot be disproved, then reasonable doubt remains and the defendant shall be acquitted.[20]

When looking at the matter from the international perspective it seems that Ekelöf might have managed to get the Swedish evidence law doctrine into a side-track: his theory of evidence dominated the Swedish debate for 50 years, without leaving any lasting impression on the judicial practice. Despite this, the evaluation of evidence in criminal cases in Sweden has managed eventually to pursue the same theoretical course of development as abroad, thanks to the Supreme Court's remarkable activity in the area (from 1980 and forward).

This is not to say that Ekelöf obstructed or impeded the development. On the contrary, Ekelöf showed that evaluation of evidence performed without a clear method increases the risk of wrong decisions, and that by structuring the

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17 An Austrian philosopher (1902-1994) who worked out the hypothetical-deductive scientific method, in which the ability to prove a certain thesis is based on the possibility of disproving it.

18 *Bevisprövning i brottmål*, p. 120.

19 It should be mentioned in this context that the alternative hypotheses do not need to have been propounded by the defence; they can also be formulated *ex officio*. What is significant regarding many of the decisions in which the Supreme Court has changed the decision of the Court of Appeal in criminal cases during the last 15 years, is just the fact that the Supreme Court has formulated its own explanation exculpating the defendant.

20 A basic prerequisite for the trial is of course the fact that the court could establish on the basis of a fully satisfactory investigation strong evidential support for the prosecutor's thesis, i.e. that the prosecutor has satisfied his investigative obligation and the burden of proof requirement. See, *Bevisprövning i brottmål*, p. 129 – 148 for more detailed presentation of the method.

evidence and constant attention to possible sources of error the level of certainty is improved. Even though the probability calculus based on a one-sided probability concept (the value method) was not a practicable mode of approach, either in theory or in practice, Ekelöf made clear that more objective scholarship was necessary for the evaluation of evidence, showing a way away from the amateurish subjectivism of the layman.

> In this context it should be pointed out that correct methodology does not necessarily guarantee correct conclusions. The certainty of a conclusion depends always on applying the method to relevant facts accompanied by adequate references. Having a norm – in the case of evidence evaluation the definition of the required standard of proof being ‘ proved beyond reasonable doubt’ – and a certain methodology, cannot do more than what the substantive content of the evaluation permits. Individual facts in issue in a given case have to be evaluated and – just as one has to decide what is ‘reasonable’ regarding a doubt that can be overcome – the certainty of the evaluation depends on the extent to which the empirical postulates which have been used by the court for the evaluation of evidence have an acceptable, scientific basis. What is ‘reasonable’ is still dependent on our frame of reference. Even an incorrect assumption or a prejudice can appear rational at the time if it is generally accepted.