ARTICLE

Importance of judicial decisions as a perceived level of relevance

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Studies employing network analysis to reveal hidden mechanisms in judicial decision making, both in common law as well as civil law countries often use rather vague concepts of ‘importance’ of judicial decisions, concepts that are not always thoroughly explained, tend towards certain relativity and are used together with other similar words [(legal) relevance, (legal) significance…], with or without attempting explanation of these concepts, or relying purely on operationalization. This paper argues that in the context of legal systems that do not recognize a doctrine of precedent this approach is either oversimplified, or even erroneous. It further shows that ‘importance’ of past case-law is essentially a matter of the judge’s choice. Approaching this concept in this manner allows me to show that this choice is explainable within the theoretical framework provided by theories of relevance. This paper focuses on two major approaches to relevance: linguistic pragmatism and information retrieval, and shows that the concept of optimal relevance, as understood by theories of relevance, may serve well as an underlying explanatory framework for answering the question of why judges tend to argue by referring to past case-law even in those legal systems that do not recognize a doctrine of binding precedent.

Keywords: precedent; normativity of judicial decision making; case-law; relevance; optimal relevance; network analysis; civil law systems

1. Introduction

Recently, we have been witnessing a splurge in analyses of judicial practice in continental legal systems, based on citations of judicial decisions in judicial decisions.

These analyses usually follow similar citation analyses coming from precedential legal systems and they often employ similar methods and are often built around the same interpretation of the meaning of a citation of a judicial decision in another judicial decision. Continental (let’s call them for the purpose of this article ‘non-precedential’) legal systems are typical of their reliance on written (enacted) laws where the judges are not bound by any doctrine of precedent that would...
make not deferring to precedents illegal. Different continental legal systems may vary in how is this non-reliance on binding precedents written into them but generally, the judges are bound by the state’s constitution, enacted laws and (depending on whether the system is monistic or dualistic) international conventions.

Within these non-precedential legal systems authors have long been trying to put a label on the role past judicial decisions play and what influence they may have and do have on subsequent judicial decision making. Of course, non-precedential legal systems are still quite varied in their approach to judicial decision-making’s influence, ranging from express prohibition in France to argumentative practice in German or Czech apex courts. Our considerations follow those studies that ask the questions such as why do judges choose to refer to past decisions in their own decision making if they do not have to; how do they choose what decisions to refer to, if strictly speaking, there are no precedential decisions; and what influences the value of a certain past decision that makes it to be referred to more likely than others as there have been attempts to explain this value, often in very theoretical terms, inferring the normative role of case-law from general principles of a given legal system, or drawing at qualitative analyses and unstructured observations of what the judges themselves actually express in their decisions. Recently, there have also been attempts to map the landscape of what decisions do judges in continental legal systems actually refer to employing quantitative methods (some of them will be discussed in detail below), building upon analyses of texts of judicial decisions, in particular of presence and frequency of overt references to past judicial decisions.

It is only natural that authors seek to copy the analyses that seem to have revealed important information about the precedential systems in the non-precedential environment.

However, the citation analyses carried out in non-precedential settings are built on the same interpretation of the meaning of a citation of past judicial decision as those carried out in precedential systems, yet often without sufficient explanation of why the same interpretation may be sustainable in a system where no explicit rule to follow precedent is present.

I do not intend to disprove these papers as a whole as I believe especially the macro results, such as those of Derlén and Lindholm regarding the use of judicial decisions in the CJEU’s decision-making practice and the similarities in resulting patterns between what Derlén and Lindholm found and what Fowler and Jeon showed for the Supreme Court of the United States are extremely important and probably point to some other shared tendencies that drive this specific judicial behaviour, than the doctrine of binding precedent. I seek to contest the use of one of the operationalizations that the studies in non-precedential systems seem to accept without much further ado: the link between the citation and the ‘importance of the cited decision for the result of the case.’

Using the framework provided by theories of relevance I seek to show that not only there is no agreement on the meaning of this ‘importance’ across various papers but also that to use this term may be misleading. To that end, this paper starts by providing an overview of various studies that seek to determine the ‘most important’ or ‘influential’ decisions in a system and explains that the use of these terms as well as related studies using these terms without the consideration of differences mainly between precedential and non-precedential systems may be misleading.

Should we want to compare the role of the judicial decisions via citation analyses across various legal systems I propose we rely on the pragmatic concept of optimal relevance.

This article shows that the choice to follow previous judicial decision in precedential as well as non-precedential legal systems as well as to cite such a decision in another judicial decision may be explained in terms of the concept of optimal relevance built on two major approaches to relevance, linguistic pragmatism and information retrieval. I provide a detailed explanation of these two approaches and set them up as a framework that explains both the choice of referring to past decision as well as the choice of the particular decision/or decisions to refer to. Furthermore, I show that the concept of optimal relevance is capable of...
covering all the variables, such as rules as well as opportunistic tendencies within both precedential as well as non-precedential systems, regardless of the level of court.

2. The choice to refer to past judicial decisions and the issue of their ‘importance’

Since we have evidence that even in systems that may not overtly require judges to refer to (follow/defer, distinguish or overrule) to past judicial decisions, unless expressly forbidden, the judges routinely do so, our considerations stem from a premise that referring to past judicial decisions in the process of judicial decision making is a matter of making an argumentative choice. Once we make this connection, we may start asking questions about the motivations of such references.

Naturally, one of the most notable motivations is obligation: Judges would refer to past judicial decisions if they have to. A precedent in precedential systems is often described as something that must be followed regardless of the judge’s personal ideas on what the right decision would be. Yet studies show that following precedent, even in a hierarchy, is no straightforward issue, as an applicability of precedent is dependent on similarity of facts and ascertaining this similarity is a notoriously vague concept that may allow for making choices between possible applicable precedents.

However, it is clear that if a legal system contains an obligation to follow precedent, such a following would be proven by a reference to the precedent.

In non-precedential legal systems, no such rule is often present and different legal systems have been developing different ideas about the correct and desirable way to use (or not to use) past judicial decisions in judicial decision making, including using or not using overt references – citations – to past judicial decisions.

We may, however, say that even in non-precedential legal systems, unless expressly forbidden, the judges do refer to past judicial decisions even if they do not have to.

The question remains what motivates such a step and an easy answer to this question tell us that it, for some reason, makes sense to the judges. This step may be broken down into two separate choices:

1. the judge chooses whether to refer to any decision at all, whereas this choice may or may not be influenced by what the system requires him or her to do;
2. the judge chooses the particular decision (or decisions) to refer to, as it is intuitively clear that not all judicial decisions have been created equal. Some would be more similar to their case, some would be made by a court upper in the hierarchy, some would be made by a full court and not just a panel, some might probably be talked about more, appear in collections of decisions, student textbooks etc. while some would not. And some (or their citations) might appear in other judicial decisions more often than the others. Depending on the legal system in question, past judicial decisions may have higher or lesser normative value; value that might be influenced by various (usually external) factors.

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2. In precedential legal systems, it is the so called vertical precedent that is formally binding and the court’s decision not deferring to an existing vertical precedent would be unlawful whereas the horizontal precedent does not have to be followed, yet may be referred to if found persuasive. See Kozel (n 9) 204–205. At the level of supreme courts, however, the horizontal precedent might be considered to be more than persuasive, if a doctrine of stare decisis is recognized. See for example generally Fowler and Jeon (n 2) for the Supreme Court of United States and Kozel (n 9) 204 for the UK Supreme Court.
4. Both Abramowicz and Tiller (n 2) and Niblett and Yoon (n 2) show that the judge’s judgment on what past decision would be the applicable precedent to defer to in their decision-making is a matter of various extraneous factors, such as judges’ political preferences.
6. For example, in France, Article 5 of Code Civil forbids judges to build their decisions on previous judicial decisions at all, in the Czech Republic, the apex courts have been expressing their ideas on how to use past judicial decisions through the rationales to their decisions. For a complex rendering on how decisions of Czech Constitutional Court should be used by the Czech Constitutional Court itself see decisions of the Czech Constitutional Court IV ÚS 301/05 (N 190/47 SbNU 465); decision I. ÚS 2866/15 (N 41/80 SbNU 501); decision III. ÚS 1687/17; resolution III. ÚS 3208/17; decision III. ÚS 950/17; decision III. ÚS 976/17 For a more complex overview in France see MacCormick and Summers (n 5) 103.
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It is not the purpose of this paper to determine or evaluate these factors but to provide a framework in which not only the choice of a decision to refer to but also the choice to refer to any decision at all may be explained.

Studies employing an analysis of citations of (references to) past judicial decisions in judicial decision making tend towards looking into the quantity of citations, sometimes to determine a relative relationship between them as some sort of importance. However, authors often fail to explain this term, or use this term together with other similar words (these terms range rather widely from importance itself, through (legal) relevance, (legal) significance, noteworthiness or (jurisprudential/legal) influence to authority/authoritativeness), sometimes differing between them, sometimes using them as synonyms.

One example of this terminological conundrum may be demonstrated in Hitt’s study on measuring precedent in judicial hierarchy. Hitt is using (or at least mentioning) most of these concepts. As a basis he uses the concept of legal significance and asks, to what extent does this legal significance relate to a decision being

- well-known and
- being referred to/deferred to regularly

and says that noteworthiness and jurisprudential influence are two distinct categories, without providing detailed explanation for either (contextually, we may come to a conclusion that for Hitt, noteworthiness means being well known while jurisprudential influence means that the decision is being referred to regularly in other judicial decisions). He also uses the term ‘general relevance’ and insists that it does not necessarily encompass a possible doctrinal significance of a judicial decision. It is not specified what exactly does ‘doctrinal significance’ refer to and to what extent does it overlap with either of the two aforementioned concepts. In addition, he further recognizes the notions of authoritativeness and importance. About the mutual relationship between ‘being well known’ and ‘being jurisprudentially influential’ Hitt concludes that ‘the fact that a precedent is well known enough to be well cited by judges who have a negligible probability of audit is insufficient evidence to classify a precedent as jurisprudentially influential across an entire legal system.’

Apart from these theoretical studies, there have been attempts to explore these concepts in a more rigorous way, often employing quantitative analysis of citations. These studies bring out new and crucial knowledge about the actual usage of past judicial decisions in judicial decision making and their understanding of the term ‘importance’ is not one of explanation but one of operationalization.

Some of the most influential (and often cited) studies aiming at measuring value of judicial decisions (precedents) are the ones by Fowler and others (2007) and Fowler and Jeon (2008). They both use the concepts of importance that they approach through ‘legal relevance’ that manifests itself in references to an important (or legally relevant) decision in other judicial decisions. They also make use of a method that allows exploring the patterns in citations within and across cases to create importance scores that identify the most important (‘legally relevant’) precedents in the network of The Supreme Court of the United States case-law at any given time. Since they employ network analysis to determine this ‘legal relevance’, they sometimes substitute the term importance with ‘legal centrality’.

They do not aim at finding one encompassing definition of importance (legal relevance) of a decision, but limit their considerations to the context of judicial decision making. They define it as ‘the degree to which

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16 In their study on depreciation of precedent over time in a common-law system Black and Spriggs recall Aldisert (R J Aldisert, ‘Precendent: What it is and what it isn’t; When do we kiss it and when do we kill it?’ [1990] 17 Pepperdine Law Rev. 605) and Schauer (n 9) who both use the terms legal relevance and authority when talking about a precedent’s value to present judicial decision-making. They seem to be using the term authority as a certain binding quality, a measure of influence the decision has on other decision-making. They hypothesize that a decision ‘that has been cited more frequently, especially in a favourable manner, is likely to have developed the authority and reach permitting it to command a more central role in defining law’. See R C Black and J F II Spriggs, ‘The Citation and Depreciation of U.S. Supreme Court Precedent’ (2013) 10 (2) Journal of Empirical Legal Studies 325, 333. While exploring the use of precedent in judicial hierarchy Whisner also differs between authority and relevance. See Whisner (n 11) 605–617.

17 Hitt (n 2) 57–81.

18 See generally Hitt (n 2).

19 Hitt (n 2) 58.

20 Hitt (n 2) 61.

21 Hitt (n 2) 62.

22 Fowler and others 2007 (n 2) 324–346 and Fowler and Jeon (n 2).

23 Fowler and others 2007 (n 2) 325.
the information in a given case remains germane for deciding contemporary legal disputes. A reference to a past judicial decision that appears in another decision is an outward indicator of legal relevance of that past decision to the case that refers to it. To Fowler and others a citation of a past decision in a judicial decision is ‘a latent judgment by a judge regarding the relevance of the case for helping to resolve a legal dispute.’ They understand importance to be a relative concept and they relate this concept to the actual use of past judicial decisions in judicial decision making. For the purpose of their study they understand importance of a judicial decision as something that is indicated by a judge by referring to the decision and they sought to indicate a degree to which a past judicial decision is thought to be important for resolving future cases.

Fowler and his collaborators basically developed a way to determine which decisions are most relevant to other courts in a given legal system by using network analysis that evaluates the number and ‘quality’ of citations between individual decisions. They have also attempted to overcome difficulties stemming from the fact that a citation of a past judicial decision may carry different meanings (calling upon authority, discussing or questioning previous rulings, distinguishing, overruling, etc.) by introducing differentiating between hubs and authorities, allowing them to differ between two types of ‘importance.’ Their findings show that there is a group of decisions that dominate the network, while most cases do not get cited at all, or rarely.

Therefore, as Hitt, whose study was mentioned above and who develops some of the notions elaborated upon by Fowler and Jeon points out, what they did was actually to measure relevance (relevance in Hitt’s understanding) of previous decisions to current disputes.

When it comes to exploring the use of case-law by means of employing certain notion of importance in the context of European law, some of the most comprehensive studies have been performed by Derlén and Lindholm in 2014 and in 2017. Even though they start by differing between a relative importance a decision might have for the parties to the case, a historical importance a decision might have for the development of certain legal concept or a theoretical thought, and an importance a decision has as a source of law, or a precedent, they continue by discussing various types of the last-named importance as results of application of certain measures in the network analysis they perform.

In other words, they shortcut the term importance to mean ‘having precedential value’ where an important judicial decision is one that establishes a legal rule or principle that is employed to resolve future cases, thereby distinguishing itself from judgments doomed to spend eternity on the ash heap of legal history. But even they at one point terminologically slip and start talking about relevance of a judgment, instead of importance.

In their understanding, importance of a judicial decision, however, is not a concept that may be solely tied to measuring references in other judicial decisions, but is a complex of various qualities. To them an important judgment may be indicated by being

- mentioned often by established textbooks;
- most cited in other judgments overall;
- cited by other important judgments overall;
- most cited by judgments in the same thematic (etc.) cluster within the total network;
- well connected to various thematic clusters;
- well-grounded (i.e. being the one that cites a lot of other important judgments).

It is important for our considerations to note that they (although rather implicitly as they do not elaborate on this point) are aware that their approach to importance is one of perception of the person who chooses to refer to a decision, and of the premise that by doing so they express this perception. Similarly, an author of a textbook that chooses to refer to a judicial decision chooses one that they believe to be important for the explanatory or teaching goals of that textbook (in White’s terms, whose work will be discussed later,

24 Fowler and others 2007 (n 2) 325.
25 Fowler and others 2007 (n 2) 326, 328.
26 Or, in the context of network analysis, ‘central’, see below.
27 Paraphrasing Black and Spriggs (n 16) 340.
28 Compare also Whalen (n 2) 549.
29 Fowler and others 2007 (n 2) 343.
30 Hitt (n 2) 76.
31 Derlén and Lindholm 2014 (n 1) 667–668.
32 Derlén and Lindholm 2014 (n 1) 668.
the intended effect): the frequency of the citations to a decision is then indicative of their opinion on that judgment’s importance. But this means that different authors might disagree on what the important decision is.

In their later study where they conclude that the decision making of the Court of Justice of the European Union (CJEU) is in fact as precedential as that of the Supreme Court of the United States, Derlén and Lindholm again build on a concept of importance that is not defined but used in different contexts. They seem to be trying to differ between important and unimportant cases and between importance in a traditional sense and, supposedly, importance in a non-traditional sense. They admit that in the context of the network analysis of citations of judicial decisions, centrality of a node (a decision) does not equal importance of that decision, but they do not say what does. They only basically follow Fowler and Jeon’s approach outlined above and claim that since there are a rather high percentage of CJEU decisions that contain at least one citation to a previous case, their method of measuring centrality is a ‘good measurement of the importance of case-law as a source of law’.

It is also worth noting that as new judicial decisions appear over time, the notion of importance of any decision will definitely not be a temporally static one. References to individual judicial decisions may come in and out of fashion as the laws change, precedents get overruled, new decisions are being made by higher courts etc. Any notion of importance is therefore a dynamic one, not only dependent on the more or less static variables mentioned above, but also in time.

It is not only Derlén and Lindholm who rely on the idea of importance of judicial decisions in continental legal systems. Kuppevelt and Dijck used network analysis to shed light on the nature of use of judicial decisions in the Netherlands to ‘determin[e] relevant precedents’ by employing a mix of various algorithms. Similarly, the concept of influence of higher court decisions over lower courts’ decision making has been explored in the context of a legal system that does not adhere to precedent by Haegen. He, too, does not provide explanation of this concept, but operationalizes it through citations. For him, ‘[a] mere citation does not necessarily mean that the holding of the cited case was followed [...] it does tell us something that for one reason or another, the citing judge used it to justify his or her decision.’ Most recently, the term ‘importance’ has also been used by Panagis, Šadl and Tarissan, who also use network analysis to assess ‘actual legal importance of judgment in the citation network.’

What truly seems to be common for all those employing network analysis to study the citation network of judicial decisions is the understanding that the citations themselves are not only capable of revealing various mechanisms in using case-law, but also capable of providing information on what decisions are cited the most, the least and, possibly, with what strength. In this sense, more often cited decisions with stronger links leading to them are considered to be ‘more important’ or ‘more relevant’ than others. Many scholars, therefore, seem to understand importance of a judicial decision as something that is manifested by the presence of an overt citation to that decision in another judicial decision.

While operationalizing a judicial decision’s importance through citations to such a decision in a system that recognizes a doctrine of binding precedent is a rational decision grounded in the rules the system is based on, we have to take into account the fact that this link is not as straightforward in civil-law systems that do not recognize such an overt rule.

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34 Compare Derlén and Lindholm 2014 (n 1) 668.
35 Derlén and Lindholm 2017 (n 1) 657.
36 Derlén and Lindholm 2017 (n 1) 669.
37 Compare also Kuppevelt and Dijck (n 1) 98.
38 See generally Kuppevelt and Dijck (n 1).
39 Kuppevelt and Dijck (n 1) 95. They analysed only those decisions made publicly available through a government-run website. However, this database contains only ‘the most important case-law.’ It is not clear what criteria is used to select these ‘important’ cases, nor what ‘importance’ means (As pointed out by T Novotná, ‘Network Analysis in Law: A Literature Overview and Research Agenda’ [2019] Jusletter IT. Die Zeitschrift für IT und Recht, 420), nor if there are any objectified criteria set for choosing these important cases.
40 See generally Haegen (n 1) 65–76.
41 Haegen (n 1) 67.
42 Panagis and others (n 1) 59ff.
43 For considerations on strength of links between nodes/judicial decisions see Whalen (n 2), partially also Fowler and others (n 2) 328.
It may be argued that the basic interpretation of a citation as the court’s expression of importance of cited decision for the particular dispute comes from Fowler et al., where it was made in respect of the use of its own past judicial decisions by the Supreme Court of the United States (SCOTUS), a court which is not bound by any vertical precedent. Indeed, Fowler and Jeon later found out that the SCOTUS’s idea that it should feel to be bound by its own past decisions is something that developed over time and even in past decades was contested by the so called Warren Court.\footnote{Fowler and Jeon 2008 (n 2) 19.}

I believe, however, that despite notable similarities between systems of horizontal precedent (precedents may be used and deferred to, but it is not a binding rule to do so and the judge is more free to consider the persuasiveness and other qualities of such a decision) and systems where no rule of precedent is present (judges are not overtly expected to defer to any precedent and any ideas about the correct practice regarding the use of past judicial decision in future judicial decision making are formed by practice and custom of a kind) the very fact whether in other circumstances the legal system does or does not recognize the binding vertical precedent is of significance when judging the nature of a system – and the meaning of a citation of past judicial decision for the purposes of citation analysis.

3. Theories of relevance: Information retrieval and concept of optimal relevance

It has been mentioned above that to understand a meaning of citation of judicial decision in another judicial decision we need to recognize the two choices that the judge must make:

1. the choice to cite or not to cite, and
2. the choice of decisions to cite.

It has also been shown above that the choice of decisions to cite will be context dependent and that recent research has been building upon a link whereas a cited decision is considered important, or relevant (significant, authoritative etc), to the decision where the citation appears. Following the various attempts to name, explain or operationalize importance, or relevance, of judicial decisions, we have come across some of its aspects that may be seen as providing a general framework: importance, or relevance, is not a static quality but changes over time, it may be related to the development of law as explained in textbooks and it may be very much context-dependent.

Let us converge on the term relevance at this point because not only there have already been various theories of relevance, but also these theories offer frameworks rather similar to what has just been described.

The term relevance may in very general terms be understood as a potential property of any input to any perceptual or cognitive process.\footnote{R Carston, ‘Legal Texts and Canons of Construction: A View from Current Pragmatic Theory’ in Michael Freeman and Fiona Smith (ed) Law and Language. Current Legal Issues (15) (OUP 2013) 27–28.} As such, relevance is naturally a complex and vague research concept. For our purposes, the conceptual understanding of relevance may be approached

(i) either in the broad setting of human interaction and communication, which leads to linguistic pragmatism and consideration of psychological processes of the individual, or
(ii) more narrowly in the context of information retrieval systems (IRS) and performance in providing the individual with exactly the information he seeks.

As the second approach tries to understand how to determine what is relevant at a point in time and what is not by creating a complex matrix of various objectifiable criteria as well as the person’s who is trying to do this determining, let us start our consideration with the information retrieval’s understanding of relevance.

Despite the general understanding of the term relevance as ‘a potential property of any input to any perceptual or cognitive process’ as mentioned above, Mizzaro shows that just within information theories, relevance as a concept is far from being unified. In his attempt to summarize and categorize the approach to understanding relevance in information retrieval systems and related works between 1950s and 1990s Mizzaro identified a number of components that constitute the specific form of relevance perceived or researched.\footnote{See S Mizzaro, ‘Relevance: The Whole History’ (1997) 48 Journal of the American Society for Information Science 810. It is worth noting that in his work Mizzaro omits large part of the communication relevance theory (partially due to the timeframe of this approach).} Throughout his paper, he highlights the relative nature of this term and its dependence on
the context, as well as the perspective of the user. For him, relevance is a complex matter of a relationship between two entities of two following groups. The first group is a matter of the information itself and the medium that contains this information and consists of document (the physical entity, the goal of search that the judge will obtain as a successful result of their search for information), surrogate (a representation of this document that provides its description – and metadata – such as its author, title, keywords, bibliographic data, abstract etc.), and information (the content of the document, or what the judge receives when – or after – reading the document). In this framework, a judge in search for a past decision to use in their argumentation would consider not only the goal of their search, but also the document’s metadata (such as the court that made the decision, presence of an annotation etc.). It is interesting to note in the judicial decision-making context that sometimes, the actual content – the information – of the past decision will not play any significant role.

The second group is a matter of external factors influencing the search and consists of problem, information need, request, and query, where problem refers to the situation that the judge tries to solve and that requires certain information. As the understanding of the problem will differ depending on the pre-understanding of the judge, information need is ‘a representation of the problem in the mind of the [judge].’ It entails the fact that the judge may not perceive the problem correctly. A request is then the information need put into words by the judge and, finally, a representation in the ‘system’ language is a query. These entities may further be decomposed in three following components:

(i) Topic (the area in which is the user interested, such as civil remedies, criminal law, theft etc...);
(ii) Task (the activity that the user will perform with the retrieved documents, such as deliver a court judgment);
(iii) Context (everything not being classified as topic or task, but still affecting the search and the evaluation of its results, such as documents and information already known by the user, time and/or money available for the search, retrieval system used etc...).

By explaining how is the relevance based on interplay of the abovementioned entities Mizzaro shows that the relevance of the information acquired as a result of a query is dependent on the individual circumstances of the individual search. In a more recent work, White attempts to provide a more simplified core concept of relevance, based on the above-mentioned linguistic relevance theory. He understands ‘relevant’ as ‘having consequence.’ White says that a document is consequential if something true follows from it that alters an individual’s cognitive context and thereby improves his or her representation of the world.

Most simply said, a relevant judicial decision would be the one that has consequence in future judicial decision making: in this sense any decision a judge chooses to refer to has some sort of consequence, may it be just its presence in the rationale of a decision.

It follows from this simplified explanation as well as from Mizzaro’s complex relative view of the concept that whichever approach to understanding relevance we choose, its dynamic aspect will always be present. The dynamic of the concept does not change only from user to user, information need, topic, task and context, but also by passage of time. Mizzaro points out that any information retrieval always takes place in a specific time:
The user has a problem, perceives it, interacts with an [information retrieval system] (and maybe a human intermediary), expresses his information need in a request, formalizes it into a query, examines the retrieved documents, reformulates the query, re-expresses his information need, perceives the problem in a different way, and so on. [...] A surrogate (a document, some information) may be not relevant to a query (request, information need, problem) at a certain point of time, and be relevant later, or vice versa.\(^{55}\)

This means that relevance is always a point in a four-dimensional space: first dimension being the first group described above, the second dimension corresponds to the second group, the third dimension is a matter of topic, task or context, and the fourth dimension being time.\(^{56}\) This clearly shows that relevance in each instance is a complex of certain elements having its basis in objectifiable criteria, such as document, information, topic or time (in the sense of these terms as used by Mizzaro above), as well as user-perceived relevance.

This extreme version of context-dependence in acquiring information is not that far from context-dependence of understanding information. Linguistic pragmatism, starting from Grice, is built on the idea that meanings are constructed in individual contexts. He focused on the speaker’s meaning and the reconstructions of this meaning within pragmatic communicative contexts.\(^{57}\) Relevance theories then take his assumptions about verbal communication and try to explore and develop Grice’s insights further.\(^{58}\)

For Grice, understanding in communication develops around the so-called cooperative principle and conversational maxims; if the speaker adheres to all these maxims, they made the most they can to make their conversational contribution successful. These maxims – especially the one of relation (‘Be relevant’)\(^{59}\) show that Grice seems to assume that ‘human cognition is oriented towards maximising relevance’:\(^{60}\) the core of cooperation in effective communication is a fact that while speakers observe the cooperative principle the listeners assume that the speakers are observing it.

In this sense and in the context of Grice’s theory we may talk about maximal relevance. However, further research has criticized Grice by pointing out that maximal relevance is not always the goal of communication\(^{61}\) and that in actual communicative situation, utterances come with a presumption of ‘implicit guarantee that the utterance is the most relevant one the speaker could have produced, given her abilities and her preferences, and that it is at least relevant enough to be worth processing.’\(^{62}\) This presumption is one of optimal rather than maximal relevance.

The core notion of linguistic relevance theories\(^{63}\) as developed mainly by Wilson and Sperber\(^{64}\) is, therefore, a presumption of optimal relevance.\(^{65}\) This relevance is still a matter of individual setting and context,
shaped by factors such as purpose, topic, time (point in space and time as well as time available) etc. An input is relevant to an individual when it 'interacts with the contextual information he has available to yield worthwhile cognitive effects' such as conclusions, strengthening of arguments etc.

It needs to be stressed that Wilson and Sperber's understanding of relevance deviates slightly from the common-sense meaning of the word and needs to be understood in terms of two basic principles of relevance: cognitive and communicative principle.

The cognitive principle of relevance assumes that as we are constantly pressed for increasing cognitive efficiency, human cognitive systems have developed a variety of mental mechanisms or biases (some innate, others acquired) which tend to allocate attention to inputs with the greatest expected relevance, and process them in the most relevance-enhancing way. This assumption was tested by Van der Henst, Sperber and Politzer who showed that people tend to spontaneously derive relevant conclusions while ignoring others, potentially valid but not yielding as many expected effects.

The communicative principle maintains that an optimally relevant communication encompasses the presumption that it is: (a) relevant enough to be worth processing, and (b) the most relevant one compatible with the communicator's abilities and preferences. At the core of optimal relevance is the intersection of adequate effects of communication and unjustifiable effort required to achieve these effects. The concept of optimal relevance may, therefore, be best explained as 'the greater the cognitive effect achieved, and the smaller the mental effort required, the more relevant this input will be to [the user] at the time.'

Relevance as a property is then a matter of degree, 'involving a trade-off between cognitive effects and processing effort.'

The present study tackles the references to past judicial decisions as a choice the individual judge (or judges) makes, especially in the context of a legal system that does not (fully and overtly) make them bound by any doctrine of binding precedent.

While asking the normative question on how the given legal system requires the past judicial decisions to be used, it may seem that we may be able to employ Grice's concept of maximal relevance. Ideally, our choice of past decisions to cite should fulfil any criteria the system might have (if the system in question has any) to their maximum: we should prefer decisions made by higher courts (Constitutional Court's before regional courts'), full court's before a panel's, etc. However, in a system that does not recognize a doctrine of binding precedent this is not always the case, essentially because it doesn't have to be.

It would seem that Wilson and Sperber's concept of optimal relevance may fulfill our needs better: given the fact that there is no binding doctrine of precedent guiding judges in a more formalistic way, save exceptions, nothing really bars them from referring to a decision of a lower court before a higher court, if supported by sufficient justification. As there is no binding doctrine of precedent, a judge is in general not overtly bound to choose one past decision over another, neither is the judge under any express obligation to refer to any decision at all. We may theorize that in line with this concept, a judge would refer to a past judicial decision only if the effort is worth the effect; similarly a judge would tend to choose such a past judicial decision that delivers the greater effect while employing smaller mental effort to retrieve this information.

In this context, we understand the first dimension of the explanation of optimal relevance (‘the greater the cognitive effect’) as a matter of extent in which does the reference to past judicial decision helps in justifying the decision the judge makes. This dimension would be linked to the general ideas the legal system in question has regarding the ways past judicial decisions should be used in judicial decision making. This is a

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66 Compare Wilson 2016 (n 58) 5.
67 Wilson 2016 (n 58) 5.
68 Wilson 2016 (n 58) 5 and Sperber and Wilson 1986/1995 (n 64) 260–266.
70 See also Wilson 2016 (n 58) 6.
71 See White (n 33) 1085.
73 Wilson 2016 (n 58) 5, referring to her former work with Sperber. See Sperber and Wilson 1986/1995 (n 64) 260–266.
74 Shaer (n 63) 275.
75 See Z Kühn and others (eds), Judikatura a právní argumentace (Auditorium 2006) 43–47, who partially draw on MacCormick and Summers (n 5).
76 The exception being the case of bindingness of legal opinion on cassation, see below.
Let us consider an example of a situation that in a specific legal system may motivate the judges towards a precedential-like behaviour. The inner rules of procedure in the Czech legal system are set in such a way that they motivate the lower courts to follow the legal opinions of higher courts. When a higher court makes a decision on an appeal against a lower court decision, one of the possibilities it has is governed by the principle of cassation: it may repeal the lower court’s decision and send it back to it for a new decision. If it does so, the legal opinion included in its repealing decision is binding for the lower court in its subsequent decision making in the case at hand.77 Although this binding effect may be circumvented should additional facts be revealed in the proceedings we may say that it is a type of formal bindingness that means that should the lower court choose to disregard it, it may serve as yet another reason for an appeal.78

In general, aligning a lower court’s decision with opinions of the courts higher in the hierarchy makes sense because it makes those decisions less likely to be repealed or reversed by a higher court in case of an appeal. Deferring to a higher court’s decision would, thus, seem practical (and, pun intended, very pragmatic) and may serve as a motivation of this alignment. Therefore, in this dimension, the decisions of higher courts might be considered bearing more argumentative value than decisions of lower courts and, possibly, the decisions of a full court would bear more argumentative value than decisions of a single panel of that court.79

The second dimension of the concept of optimal relevance (‘the smaller the mental effort required’) is a matter of effort required to retrieve the decision/make the reference. This dimension encompasses questions such as: How difficult it is to access the text of the decision? Does the judge have enough time to search for it? Is it listed in a commonly used database? Does the judge have already any kind of pre-knowledge about a relevant decision? (e.g. Is it their own past decision? Was the decision covered by media? etc.) Has the decision been chosen to be included in a statute commentary?80

Nearly all these questions seem to entail a subjective element: the person making the choice. If relevance is such a complex concept, relative to an individual user in a moment in time and their information needs, as discussed above, it remains to be seen whether we may somehow study the user’s relevance judgment itself.

4. Relevance judgment
I. Subjective nature of relevance judgment

The relative and dynamic nature of relevance is closely linked with the variation in the perception of relevance by the individual judge – their relevance judgment happening as a result of individual cognitive process of deriving meaning from utterance, thereby assigning it relevance based on its explicit or implicit ‘understandability.’ Wilson points out that

‘[i]t is not a matter of first identifying the explicit content, then supplying contextual assumptions and then deriving contextual implications (and other cognitive effects), but of mutually adjusting tentative hypotheses about explicit content, context and cognitive effects, with each other and with

78 See e.g. § 221/2 99/1963 Sb. Czech Civil Procedure Code. Apart from that the Czech legal system contains mechanisms for unifying the legal opinions within apex courts and across the judiciary. One of them is a special institute of ‘unifying opinions’, a mechanism surviving from the socialist past of the legal system, allowing the apex courts to unify their legal opinions independently of any actual decision-making in a real case. For more details and a critique of this mechanism see generally T Smejkalová, ‘The Nature of Unifying Opinions of Czech Supreme Courts’ in The Role and Place of Law in a Society Based on Knowledge (University of Targu-Jiu 2009) and in passing also Kühn and others (n 75) 51. In addition, the Czech legal system seems to recognize a specialized role of the Constitutional Court based on a provision of Article 89/2 of the Czech Constitution specifying that ‘Vykonatelná rozhodnutí Ústavního soudu jsou závazná pro všechny orgány i osoby’ [Enforceable decisions of the Constitutional Court are binding for all state bodies and persons], see above.
79 Kühn and others (n 75) 43–44.
80 Commentaries tend to tackle individual provisions of a chosen statute by explaining basic concepts contained therein, often briefly referring to relevant judicial decisions. This dimension also covers the problem of the use of the so-called ‘legal sentences’. ‘Legal sentences’ are essentially informative annotations of judicial decisions, sometimes taken out from the decision itself word-by-word, sometimes formulated by a judge or an editor of a given case-law report. Although meant to be purely informative, the legal practice often (when referring to case-law) refers only to information that may be found in the ‘legal sentence’). For more information on the risks of using past judicial decisions this way in the Czech legal system see T Smejkalová, ‘Právní věta a ratio decidendi’ (2012) 5 Jurisprudence 3; or I Králík, ‘Právní věty’ (2017) 25 (12) Právní rozhledy 437.
the presumption of relevance, and stopping at the first overall interpretation that makes the utterance relevant in the expected way.

White further elaborates on the cognitive processes of deriving meaning, whereas he stresses the unavoidable differences in perception of meaning and its relevance due to differences in cognitive context of each individual. He then transfers these conclusions into the context of information retrieval in order to explain the obstacles in achieving high relevance of query results formed by different perception of relevance of any given piece of information by each individual. Drawing on Allott and Clark, he points out that hearers infer meanings by constantly interpreting speakers’ intentions in the course of a conversation, which ‘involves instantly deriving the implicit premises and conclusions that make a speaker’s utterance relevant in the hearer’s present context.’ Naturally, individual hearers will differ in the inferences they draw – or are capable of drawing – from all the available contextual information, because their ‘accessible cognitive contexts’ differ.

In this sense it is clear that not only will differ an accessible cognitive context of a court judge and a party to a case, but even the accessible cognitive contexts of two judges of the same court. Saracevic or Scholer and others show that individuals routinely infer different things about the same document or communication.

It follows from all that has been previously mentioned about the qualities and aspects of relevance and its judgment, that, as White points out, relevance is in essence subjective ‘in the eye of beholder’ and cannot be objectivized. Any attempts on objectification would inevitably end at the point of categorization of entities that may somehow influence this relevance, as Mizzaro attempted. White concludes that even though there have been attempts at formulating some sort of gold standard of relevance none such thing exists and given the above is likely that it will never will.

II. Perceived (Level of) relevance

However, such an open-ended relativity is hardly acceptable in law, as law puts at its core the principle of legal certainty.

Wilson provides an explanation, as to our cognitive preference of optimal relevance over maximal relevance. The basis of this approach is the economic balancing of effort (attempt to understand) and benefit (positive information derived from the understood meaning). However (as Wilson explains in the context of communication but as can be re-stated in the context of choosing a decision to refer to in judicial decision making), the fact that the meaning understood was found relevant does not guarantee that the meaning was correctly understood, only that it satisfied certain standard of cognitive context that seems beneficial.

As we may differ between maximal and optimal relevance, it seems that hearers (or users in terms of information retrieval, or any kind of receivers/addressees of communication), at least in terms of Grice’s communicative principle, seem to prefer maximal relevance to optimal. Wilson points out that ‘[a]though addressees might want speakers to aim at maximal relevance [...] what addressees are entitled to expect within this framework is something rather less.’ Perceived relevance seems to be inversely dependent on effort required in interpretation. Friendliness in accessibility adds to the degree of plausibility, as Wilson

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81 Wilson 2016 (n 58) 11.
82 See generally Allott (n 63).
83 B Clark, ‘Relevance Theory’ (CUP 2013) 159–199.
84 White (n 33) 1084. White further refers to Allott (n 63) and Clark (n 83) 159–199.
85 White (n 33) 1084. White is clearly following a classical pragmatic notion of a context carrying meaning.
86 See e.g. T Saracevic, ‘Evaluation of evaluation in information retrieval interaction: Extension and applications’ in Proceedings of the 18th annual international ACM SIGIR conference on Research and development in information retrieval (1995) 138–146; or White (n 34) 1084.
87 F Scholer and others, ‘Quantifying test collection quality based on the consistency of relevance judgments’ in Proceedings of the 34th international ACM SIGIR conference on Research and development in Information Retrieval (SIGIR ’11) (2011) as cited by White (n 34) 1084.
88 White (n 33) 1085.
91 See generally Wilson 2016 (n 58).
92 Compare Wilson 2016 (n 58) 8.
concludes, and unless the hearer finds any evidence to the contrary, it provides for the best (or in our terms ‘optimal’) interpretation.\textsuperscript{91}

For Wilson, hearer (user), however, is not expected to search and find the most relevant result, but to construct an overall interpretation on which the utterance satisfies the presumption of optimal relevance.\textsuperscript{94} But, as further implied by Wilson, the optimal relevance approach does explain cognitive biases, which take advantage of known context (stereotype) for plausible interpretation with less cognitive effort, rather than attempts for understanding of the ‘true meaning.’\textsuperscript{95}

Relevance theory’s approach thus shows that hearers seem to be automatically constructing certain stereotypical interpretation and accepting it if there are no contextual counter-indications.\textsuperscript{96} It also predicts that in most circumstances these stereotypical interpretations are easier – less costly – to construct.\textsuperscript{97}

The tendency towards stereotypy and established patterns may be observed in the judges’ handling of past judicial decisions. In line with Wilson’s explanations above, it is less costly – takes less effort – to do what has already been done before, both in terms of the choice to refer to past judicial decisions at all as well as in terms of the actual choice of decision(s) to refer to. This two-tier dimension of choice-making that must happen in non-precedentiual systems leads the judge to do the less costly choice that still allows them to make a due and lawful decision: on the one hand, the choice would depend on the availability and accessibility of the information on past decisions; on the other hand, the choice would depend on the fact whether doing as has been done before and referring to that instance of what has been done before would help them reach their goal. Thus, given the practice of the judges, who do tend to refer to past decisions even if they, formally speaking, do not have to, their choice to cite past decisions seems to fulfil the criteria of an optimal choice. It further shows, that even in judicial decision making in situations where the judge is not bound by precedent, it may still be easier to do what has been done before, both in terms of the core of the decision as well as in terms of referring to individual decisions. Moreover, such established practice may show that what seems to be done creates expectations of what should be happening.

Within this line of thinking it might not be surprising that judges might prefer to refer to decisions that others have referred to before. Their choice is, of course, based on the criteria outlined above in Mizzaro’s relevance framework and, an optimally relevant decision will be that which will allow achieving the intended purpose (supporting and argument, disproving an argument, showing coherence with past practice etc.) and will be most easy to access.

White elaborates in detail on the process of relevance judgment in a similar fashion as the one described above by Wilson. He focuses on the preference that people judging relevance give to simpler cognitive assessments over those requiring more effort (his statistical assessment of numerous empirical studies supports the general claim that decisions, which require less effort, i.e. not relevant or highly relevant, are mostly preferred over more nuanced options, such as marginally relevant, partially relevant etc.). White claims that ‘judges tend to assign documents less frequently to scale points that cost them greater effort to process. That is, the more demanding the label, definition, or requirements of a point, the less judges choose it, resulting in highly non-uniform distributions of grades.’\textsuperscript{98} Furthermore, ‘[t]he greater the effects of an input, the greater its relevance. The more effort required to process the input, the less its relevance. […] Both factors operate simultaneously. Relevance thus varies directly with effects and inversely with effort.’\textsuperscript{99}

\begin{flushleft}\footnotesize\textsuperscript{91} Wilson 2016 (n 58) 8. But Wilson also points out that ‘since comprehension is a non-demonstrative inference process, this hypothesis may well be false.’\textsuperscript{92}

\textsuperscript{94} Wilson 2016 (n 58) 8–9. Current advances in neuroscience show that this is how our perception and consciousness function: our consciousness shapes our perception of reality from pieces of perceived reality and creates – with minimum effort such an image that makes sense in a given context. Theory of optimal relevance is fully in line with these findings and fully natural for human thinking. See e.g. J Hohwy, The Predictive Mind (Springer 2013).

\textsuperscript{95} Recent studies also show that ‘human cognitive system comprises a large array of domain-specific procedures with distinct developmental trajectories and breakdown patterns, which may be more or less highly activated in different circumstances, and are likely to alter their level of activation in response to different cues. […] One consequence of this […] is that we might expect to find clusters of procedural items linked to different domain-specific capacities, with different developmental trajectories and breakdown patterns, and this seems to be just what we find. […] Finally, most languages also have a cluster of procedural items (e.g. punctuation, prosody and various types of discourse particle) whose function is to guide the inferential comprehension process in one direction or another.’ See Wilson 2016 (n 58) 19, she further refers to D Sperber, ‘Modularity and relevance: How can a massively modular mind be flexible and context dependent?’ in P Carruthers and others (eds), The Innate Mind: Structure and Content (OUP 2005) and P Carruthers, The Architecture of the Mind (OUP 2006).

\textsuperscript{96} Wilson 2016 (n 58) 14.

\textsuperscript{97} Wilson 2016 (n 58) 15.

\textsuperscript{98} White (n 33) 1080–1081.

\textsuperscript{99} White (n 33) 1083.
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The process of how users judge relevance was summed up by White as follows:

“Follow a path of least effort in looking for cognitive effects: Test interpretive hypotheses (dis-ambiguations, contextual assumptions, implications, etc.) in order of accessibility. Stop when you have enough cognitive effects to satisfy your expectations of relevance.” The procedure may also be stopped if expectations are not met. Least effort means that hearers expend no unnecessary effort in deriving effects, which leads to the split-second interpretations characteristic of talk.\textsuperscript{100}

The optimal relevance (‘the greatest possible effects for the smallest possible effort’)\textsuperscript{100} may therefore be the most suitable model for interpretation of relevance judgment by an individual, including a court judge while searching for relevant case-law in order to argue their current decision.

### III. Choosing the optimally relevant judicial decision

Relevance has been shown as a property involving a trade-off between the processing effort and cognitive effects. What it means in terms of judicial decision making and the argumentative choice a judge makes when referring to a past judicial decisions to support their own decision?

The judge’s objective is to provide rationale for their decision and to do so in a persuasive manner and within the limits of law. Taking into account a typical caseload of a first or second level court judge, they strive to achieve the best result while optimizing, or rather minimalizing, the effort exerted to achieve this best result. The best result in this case is the due, lawful, and correct decision, that is a well argued case\textsuperscript{102} a case coherent with the rest of the legal system,\textsuperscript{103} showing that their decision is foreseeable in the given system because it follows an already established line of thinking\textsuperscript{104} or making sure that their decision is in line with the opinions of the courts higher in the hierarchy, which may make it less prone to being overturned or repealed.\textsuperscript{105} Should the judge choose to support their well-argued and correct decision by references to past judicial decisions, they should follow all the possible rules that the legal system might bind with such references; it should not be a random decision that they come across that seems to fit the case but, as some of the studies seem to suggest, one that was made by an apex court, possibly first to deal with a particular matter, a decision made by a full court, published in an official court report, etc. However, to identify such a decision – especially in the context of a legal system that does not recognize ‘precedent’ as such and does not require a judge to defer to this precedent – takes a lot of processing effort, such that the judge with their caseload might not have available. They might therefore be satisfied with supporting their decision with another that fits but does not fulfil all the possible criteria.

Referring to past decisions may at the same time be considered as exerting minimal effort in formulating the rationales. Referring to past judicial decisions may be seen as saving judges some time in thoroughly arguing their case. Since no one would punish a judge for ‘plagiarizing’ past decisions, judges often copy or paraphrase whole passages from past decisions (sometimes even without providing citations to them). Furthermore, intuitively, and from what has been explained above regarding the mechanisms of overturning or repealing of judicial decision in Czech legal system, already accepted lines of argumentations make a decision less likely to be overturned later (regardless of the place of the court making the previous decision in the hierarchy of courts).

However, from another point of view, minimal effort might actually also influence the choice of decision to refer to: arguments by apex courts may be viewed as more acceptable than arguments by first level courts; those published in official court record than those in decisions that were not chosen to be included in the court record.

\textsuperscript{100} White (n 33) 1083.
\textsuperscript{101} White (n 33) 1085, quoting Higashimori and Wilson (n 72) 2.
\textsuperscript{104} Foreseeability of judicial decision making is also closely connected to coherence of a whole system – coherence (stability) over time. Smejkalová 2012 (n 103) 37–41.
\textsuperscript{105} This is essentially related to a principle of cassation, see above.
It may also be a matter of user friendliness to access to this decision (that’s why it may make sense to explore the correlations between decisions cited in commentaries and the decisions deemed important by the network). The minimal effort in choice of decision may therefore be conditioned by whether or not the case was covered by media (arguments in known cases, or cases covered by media, might be more likely to be used than lesser known ones), whether it was delivered at the top of a legal information system’s return to a query, whether it has a so called legal sentence (annotation), the time available to search for a decision, et cetera.

5. Referring to past decisions as a choice of optimal relevance

It has been shown above that in part, optimal relevance as a concept guiding the judges’ choices of past judicial decisions to refer to is a matter of acquiring information and that the easier it is to acquire the information, the more likely it would be that the information would later be referred to in judicial decision.

From what has been said in respect to the pragmatic relevance in communication it follows that relevance as such is an important concept also in information retrieval, both in general terms as well as in information sciences. White shows how these two approaches might be interconnected and how the relevance theory outlined above might be adapted to document retrieval. Users putting in queries into document retrieval systems are in positions of speakers. The set of documents returned to the query is then based on predictions of the users’ intention. Even though the retrieval system itself makes certain kind of judgment on what will be the most relevant answer to the user’s query, it is still the user who in the end makes the judgment on what is relevant to them. White claims that even in this situation, the system users employ the same cognitive mechanisms by which they seek relevance in conversations or a book. When they interpret retrieved documents in light of queries, they want positive cognitive effects at an acceptable cost in effort.

In this respect we may need to ask what influences the relevance (and a perception of relevance) of a given answer to a query. We have mentioned above that relevance theories are built upon the assumption that ‘human minds are evolutionarily adapted to prioritize what they heed on the basis of its present relevance in context.’ Sperber and Wilson use ‘context’ as a psychological term, as something internal to minds, and dynamic assumptions interacting with newly received information to give rise to ‘cognitive’ or ‘contextual’ effects. These cognitive effects are a matter of influencing the user’s judgment on relevance of an answer to a query. Building on Wilson and Sperber and Clark White names three types of these effects:

1) to strengthen an assumption,
2) to contradict and eliminate an assumption,
3) to combine with the assumption and subsequently yield a new conclusion.

In our context of referring to past judicial decisions in judicial decision making these ‘effects’ may very well be understood as purposes for which may judges seek a past decision to refer to in their own argumentation and choose to refer to it: the judge either searches for past judicial decision to strengthen their own assumption about the case at hand, seeks to contradict and eliminate an assumption they need to address to make her own argumentation wholesome, and/or to elaborate on a past decision further to come to a new conclusion.

Regardless of the content of the notions of importance/normative value/authority/jurisprudential influence etc., the situation where a judge chooses to cite a past judicial decision to support their own decision is essentially a situation of information retrieval. The judge seeks arguments to support their application of law, their interpretation of the law they find applicable, and among these the applications and interpretations of law already made by their predecessors seem to be valuable.

In addition to a choice of a particular decision that would suite their goals, they also make the choice that to use such a decision and to cite it would be relevant to their decision making.

As already indicated above, the choice any judge makes is, therefore, two fold:

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106 White (n 33) 1080–1102.
107 White (n 33) 1084.
108 See Sperber and Wilson (n 64) and Allott (n 63) 60–64; cited in White (n 34) 1083.
109 See White (n 33) 1083 referring to A Goatsly, The Language of Metaphors (Routledge 1997) 137 and R Carston, Thoughts and Utterances: The pragmatics of explicit communication (Wiley 2002) 376.
110 D Wilson and D Sperber, Meaning and Relevance (CUP 2012) 176.
111 Clark (n 83), p. 102.
112 White (n 33) 1083.
1. the choice whether or not to refer to any judicial decision at all, and
2. the choice of the individual decision (or decisions) to refer to.

These choices are both relevance judgments. This is why this study links the notion of importance and many similar ones mentioned above to relevance and why the theoretical framework it proposes for further citation analyses is grounded in relevance theories as introduced above.

While it may seem obvious, bordering on banal, that the relevance introduced above is a relative category, doubting such an a priori conclusion is reasonable within the context of law. Law as a basic regulatory system in a society strives to achieve certain level of legal certainty,113 a state of predictability in which it is clear whether certain behaviour is or is not *intra* or *contra* *legem*. It has been repeatedly shown, even in the context of some of the continental legal systems that past judicial decisions – case-law – are far from insignificant as arguments in judicial decision making.114 Judicial decisions influence and shape the law itself and the questions of what judicial decisions are *supposed* to and what actually do shape the law, is crucial. Should we accept the notion that some judicial decisions should for some reasons matter more than others, it hints at a possibility that there needs to be a degree of objectivity in telling as to what judicial decisions are (and should be) relevant in a given legal system. The question is whether the relevance of a past judicial decision may be ascertained objectively (or at least to a certain extent) by fulfilling certain recognizable criteria, or whether the relevance would be dependent on contextual specifics of the citation.

When it comes to application of legal norms, legal systems often rely on the concept of ‘legal strength’,115 which places the given norm into a certain kind of hierarchy depending the source of law in which it is encoded. This concept of legal strength is a matter of actual systemically-recognized relevance that has been put into place to not only ensure coherence of the system but also to help resolve possible collisions between individual norms. The concept of legal strength has, however, practically no place in assessing the role judicial decisions play in a non-precedential legal system. This is not to say that the system itself might not contain any more or less explicit rules on how should these decisions be used and to what extent are they expected to influence future judicial decision making.

The doctrine of binding precedent seems to have an answer to that: if there is a precedent decision made by a court higher in the hierarchy of courts, the judge must follow it (defer to it) even if they do not agree with it. What exactly is a precedent that must be followed is yet another and complex question and, as previously mentioned, even common law systems offer various answers and mechanisms of how to recognize an applicable precedent. Within such a line of thinking it might make sense to equal (or at least approximate) an ‘important’ judicial decision to a precedent.

It is not possible to make this shortcut in a legal system that does not recognize the doctrine of binding precedent. We need to first determine what rules on using past judicial decisions in judicial decision making does the legal system have (both overt and implied) – *what the legal system believes that should be done* – and only subsequently look into the actual practice of those making those decisions and *map their actual doing*.

In a legal system – because it is a normative system that aims to regulate human behaviour – the judgment on what decision is relevant from the point of view of the legal system – has essentially two dimensions:

1. normative one – since law is a regulative system, containing prescriptive rules on what should and what should not be done and what kind of behaviour are expected and what behaviour will be punished, the law provides a level of ‘should’ (*Sollen*) that prescribes (or might prescribe) situations and ways the decisions should be used, and
2. practical/empirical one – this dimension is a matter of practical circumstances that might somehow provide the context (in the widest possible meaning) for the search.

It is quite clear from what has been said above that relevance may not be an absolute notion – it will always be relative to chosen set of variables, the status and competence of persons using the decision, the purpose

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113 Legal certainty may be understood as one of the basic building blocks of law. See generally e.g. Radbruch (n 90).

114 From a theoretical-comparative perspective see generally e.g. MacCormick and Summers (n 5). From practical perspective see the various studies employing network analysis to reveal new information about the role of case-law in continental legal system, such as Kuppevelt and Dijck (n 1); Haegen (n 1); or Derlën and Lindholm’s studies. In the Czech legal system see generally Kühn and others (n 75); or T Smejkalová, ‘K otázce normativity judikatury v České republice’ in *Dny práva – 2008 – Days of Law* (Masaryk University 2008) 1302–1311.

115 See e.g. Harvánek and others, *Právní teorie* (Ales Čeněk 2013) 391ff.
of such a use, time of search/reception of information etc. A decision that will be deemed relevant by one
does not have to be deemed relevant by another.

Moreover, judges are not the only ones who make individual choices; judicial decisions may be and are
of importance to persons beyond those parties to the case only if those decisions are somehow capable of
influencing the legal system, or consequential as White puts it in the context of general considerations of
relevance judgment.

The capability of a decision to influence subsequent decision making in a normative system is essentially
system-determined: the usability may be limited by the content of the decision (e.g. whether a present deci-
sion recalls a past decision interpreting the same legal provision or a legal concept), or a matter of rules (and
regularities) stemming from the system legal system in question (e.g. the past decision was made by a court
high in the court hierarchy).

Yet the actual influence of past judicial decisions on present judicial decisions will – in this sense – truly
practically demonstrate itself by those past decisions being referred to in the present decisions.\textsuperscript{116}

As shown above Sperber and Wilson claim that human cognition tends towards the maximization of rel-
evance while minimizing effort required to reach this relevance,\textsuperscript{117} which could in turn mean that by study-
ing the choices as final outputs of human mind’s search for relevance provide some kind of result of what
has been judged as relevant in a particular moment/context/instance/time.

We know that with a few exceptions, in continental legal systems judges on various level of the judiciary
do tend to resort to references to past judicial decisions in their own judicial decision making to varying
degrees. We may thus build on an assumption that they choose to refer to past judicial decisions because
dey deem such a step relevant and that they choose to refer to those past decisions that they deem relevant
for their present purposes, therefore something they chose employing mental mechanisms and biases, both
innate or acquired.\textsuperscript{118} All that most of the studies using network analysis to explore the system of use of past
judicial decisions in judicial decision making assess is dependent on what does a presence of citation of past
decision mean. We need to recognize that while this line of operationalization may be capable of indirectly
revealing rules about the system in question (inferring \textit{Sollen} from \textit{Sein}) when we will take into considera-
tion the judges choices to choose to refer to any judicial decisions at all, what they \textit{prima facie} show is what
decisions are deemed to contain considerations that need to be for some reason referred to in other judicial
decision by the judges – authors of the examined decisions.

While the choice may be conditioned by the normative settings of the legal system, it is further influenced
by other factors. Even though we may in general build upon the four-dimensional concept of relevance as
outlined by Mizzaro, the problem is that to study or try to name all the factors that influence the actual
perceived level of relevance might be beyond the scope of any research.

6. Conclusion
It has been shown that choosing a past judicial decision to argue with in a situation where a judge is not
bound by any express doctrine of binding precedent is a situation of information retrieval. This situation is
context-dependent and dynamic one. While in general, the choice the judge makes is influenced by norma-
tive factors inherent to the legal system, the actual choice that the judge makes may be explained by means
of relevance theory: the judge would tend to support their decisions by past judicial decisions only if they
know it serves the purpose they seek to accomplish and by those past judicial decisions that they retrieve by
using minimal effort while achieving the best result, and if such a retrieval adds to minimizing their effort
in justifying their decision while increasing the justification’s quality.

Optimal relevance as a concept is capable to cover all the rules as well as opportunistic tendencies within
any system. Optimal relevance is the guiding principle in any choice-making situation, regardless of whether
we are talking about apex courts choosing which decisions to refer to, or whether to refer to any decision
at all, or lower courts referring to past judicial decisions to signal their coherence with higher courts’ line of
argumentation, or even any court referring to past decisions only because the parties to the case referred to
it in the first place to deal with the parties’ argumentation in a transparent manner.

\textsuperscript{116} Of course, should judicial decisions influence the legal system in such a way it is only reasonable to ask whether are all judicial
decisions capable of influencing the legal system in the same manner, or whether there are any factors determining the manner,
or degree in which is a decision capable of influencing the legal system. But addressing these questions is not the purpose of this
paper.

\textsuperscript{117} Wilson 2016 (n 58) 5, referring to Sperber and Wilson 1986/1995 (n 64) 260–266.

\textsuperscript{118} Compare Wilson (n 58) 5.
The judicial decision (or decisions) that the judge will eventually refer to will be those they personally deem/perceive as relevant. A reference to a decision in judicial decisions may, therefore, not be automatically operationalized as providing information on the role of that individual decision in a legal system as some sort of objective importance, but it may, to a certain extent, be used to analyse the system’s ideas about the overall role of judicial decisions in legal argumentation. While we are fully capable to infer some new and valuable information about the legal system in question from the network created by these references/citations, we still need to take into account that in a system without a doctrine of binding precedent any reference to past case-law is essentially the individual judge’s judgment on the relevance of that case-law, not of any objective value of such cited decisions.

**Competing Interests**
The author has no competing interests to declare.