

From Oral Hearing to Opinion in The U.S. Supreme Court

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Abstract. In this paper we provide a structured analysis of US Supreme Court Oral Hearings to enable identification of the relevant issues, factors and facts that can be used to construct a test to resolve a case. Our analysis involves the production of what we term ‘argument component trees’ (ACTs) in which the issues, facts and factors, and the relationship between these, are made explicit. We show how such ACTs can be constructed by identifying the speech acts that are used by the counsel and Justices within their dialogue. We illustrate the application of our analysis by applying it to the oral hearing that took place for the case of *Carney v. California*, and we relate the majority and minority opinions delivered in that case to our ACTs. The aim of the work is to provide a formal framework that addresses a particular aspect of case-based reasoning: enabling the identification and representation of the components that are used to form a test to resolve a case and guide future behaviour.

Keywords. Legal argumentation, dialogue, case-based reasoning, values, issues, speech acts

1. Introduction

Case-based reasoning has been a central topic of AI and Law since its very beginnings. Over the years a picture of the reasoning has evolved which can be seen as a series of steps. Every case begins with evidence. On the basis of this evidence, a set of facts is established. This may itself require a good deal of reasoning. Evidence may be in conflict, contain gaps or lack plausibility. Moreover, it may be unclear which inferences should properly be drawn from the evidence, and how it should be interpreted in terms of the governing legislation. The move from evidence to an accepted body of facts is the topic of [11]. Other work concerned with this stage includes Gordon’s Pleadings Game [12], which identifies which facts are agreed by the parties and which will require resolution in the trial itself.

Once the facts have been established, they must be used to determine the intermediate factors which hold in the case [4]. The intermediate factors determine which of the facts are relevant, which party to the case is favoured by the facts, and which precedents are applicable. In AI and Law, these intermediate factors are normally called *factors*, following the CATO system [2], and we will follow this usage here. Factors provide a level of abstraction which allows the particular facts of a case to be viewed in terms of

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precedent cases. The level of abstraction also enables the case to be used as a precedent for future cases. Factors are therefore very important for precedential reasoning [14,13]. Since factors can favour either party to the case, typically there will be factors favouring the plaintiff and factors favouring the defendant. Therefore once the case has been described as a set of factors, we must decide which party should win the case. It is this final step that has been the focus of most of the work done in AI and Law.

Although the preceding stages may suffice to decide a particular case, some work moves a step further and reasons about what the decisions tell us about the purposes of the law [10], or the social values promoted by the law [7]. This results in a theory of the relevant case law, intended to generalize the previous decisions, and in some especially difficult cases to justify the decision. These are the *landmark* cases which represent a shift in the law.

In particular decisions not all of these stages are represented. In Appeal cases, and Supreme Court cases, the facts are usually taken as determined by the Lower Court. In the decisions, however, we do find such questions as *what are the factors that require consideration?*, *what are the facts that determine the presence or absence of these factors?*, *how should conflict between factors be resolved?* and *what are the values served by deciding in this way?* discussed and answered. It is the analysis of decisions, such as Supreme Court decisions, that provides the basis for the representation which is embodied in factor based systems such as CATO. In this paper we will consider how these questions are raised and resolved in the context of the Supreme Court process. In particular we will investigate the role of the Oral Hearing stage. We will focus on the case of *Carney v California*, which has been the subject of several papers in AI and Law, especially those which consider the Oral Hearing stage.

In particular we will focus on the notion of a test [3]. At least with respect to *Carney* and the other Fourth Amendment cases, the decision can be seen as providing a test of reasonableness of search which can be subsequently used in practice by law enforcement officers to determine whether they need a warrant or not before making a search. This test is clearly stated (and justified) in the Syllabus of the *Carney* decision.

When a vehicle is being used on the highways or is capable of such use and is found stationary in a place not regularly used for residential purposes, the two justifications for the vehicle exception come into play. First, the vehicle is readily mobile, and, second, there is a reduced expectation of privacy stemming from the pervasive regulation of vehicles capable of traveling on highways. California v. Carney 471 U.S. 386 (1985), Syllabus

The work of the Court is far too varied to be forced into a single framework. We do, however, believe that our analysis is appropriate to a significant class of cases, especially those in which the Court comes up with a test to be applied to resolve future cases. Further we believe that the reasoning used by the Court in this class of cases represents a form of reasoning with wide applicability to deliberation in non-legal contexts. In the deliberation dialogues of [6], for example, a test to resolve the question being considered is also produced and applied. We will therefore attempt to generalise this to other Supreme Court cases, to decisions in other jurisdictions, and also to deliberation dialogues in general, non-legal contexts.

The structure of the paper will be as follows. The next section will give an overview of the Supreme Court process and the dialogues in the oral hearings stage. Section 3 will

identify a normative set of speech acts which could be used by counsel and Justices to achieve their dialogue goals, and Section 4 explains how the illocutionary force of these acts can be represented in terms of a developing *Argument Component Trees* (ACT). Section 5 will illustrate this using the transcript of the oral hearing in *Carney v California*, and give the resulting ACTs. Section 6 will relate the ACTs to the majority and minority opinions in *Carney*. Section 7 will offer some concluding remarks.

2. The U.S. Supreme Court Process

Typically the Supreme Court reviews cases that have been decided in lower courts, either affirming or reversing the lower court decision. The Supreme Court receives a number of *certiorari* requests from parties who are not satisfied with lower court decisions asking for a review of their cases. Normally, when a case for consideration of *certiorari* is accepted, the petitioner and respondent write briefs setting out their positions and recommendations to prepare the Justices for the oral hearings. Briefs may also be supplied by other interested parties, such as the Solicitor General. These are the so-called *amicus curiae* (friend of the court) briefs. When the Justices have considered all the briefs, the oral hearings take place. The total time for the oral hearings is just one hour, thirty minutes for each party. Normally the petitioner will begin, reserving some of his thirty minutes for rebuttal. The respondent will follow for thirty minutes, and the petitioner will finish taking the remaining time for rebuttal. Following the oral hearing, the Justices meet in conference to discuss and vote on the case. Following this the opinions are prepared: one Justice will be chosen to write the opinion of the Court, and the other Justices may, if they wish, write their own concurring or dissenting opinions.

The Supreme Court is expected to give a decision in the case under review, but it needs also to look to the past and the future. The decision is often expressed as a rule which will be applicable to future cases, and which will, as far as possible, be consistent with previous decisions of the Court: see e.g. [13]. The rule not only binds future courts, but provides guidance for those responsible for enforcing the law. Thus *Carney*, for example, provides police officers with a definite “bright line” *test* to determine whether the automobile exception to the Fourth Amendment applies or not.

3. Speech Acts Used in Oral Hearings

There are three nested dialogues within the main oral hearing dialogue. The collective dialogue goal is to identify the components to be used by the Justices to construct tests to resolve the case and the relations between them. Speech acts will thus need to enable such components to be proposed, and a set of critical questions challenging the components, or seeking additional components to be posed (see [1] for fuller discussion). In this section we briefly describe the moves, (each illustrated with an example from *California v Carney*, the details of which are covered in Section 5).

- **Values Assertion:** The following values are relevant to decide the legal question. *Law Enforcement and Privacy are the values relevant to determining whether a case falls under the automobile exception.*

- **Issues Assertion:** The values require consideration of these issues. *The issues are whether there was sufficient exigency (so that Law Enforcement is promoted) and insufficient expectations of privacy (so that Privacy is not demoted) to permit a search without a warrant.*
- **Issues Linkage Assertion:** The issues should be considered collectively as follows. *The issues are related as Sufficient Exigency \vee Insufficient Privacy.*

We then have a number of moves to introduce factors relating to the issues.

- **Factors for Issue Assertion:** The following factors are relevant to resolving the issue. *Vehicle Configuration and Location are relevant to resolving Sufficient Exigency.*
- **Factor Linkage Assertion:** The factors relevant to the issue should be considered collectively as follows. *Sufficient Exigency is resolved by considering Vehicle Configuration \wedge Location.*

We need a number of assertions to identify the facts relevant to the various factors:

- **Facts for Factor Assertion:** The following facts are relevant to determining whether a factor is present. *Wheels and Means of Propulsion are relevant to determining Vehicle Configuration.*
- **Fact linkage Assertion:** The facts relevant to the issue should be considered collectively as follows. *The presence of Vehicle Configuration is determined by considering ((Wheels \wedge Engine) \vee Self propulsion) \vee (Vessel \wedge (Motor \vee Oars)).*

The purpose of a bright line test is to promote a value. If a situation for which a test is needed arises, there will be an issue as to whether the value would, or should, be promoted in that particular situation. To resolve the issue, a number of factors can be considered. But these factors are typically not directly observable, and so they need to be operationalised in terms of observable facts. We thus have a kind of tree leading from issues, motivated by values, to facts. But the connections are not always straightforwardly logical: thus producing a test, to come to a decision, therefore requires not only the identification of values, issues, factors and facts, but also specification of how e.g. facts (respectively, factors) should be used to determine the presence of factors (respectively, the resolution of issues).

4. Argument Components Tree (ACT)

We can now organise the argument components identified in the speech acts as an Argument Component Tree (ACT). For each dialogue in the oral hearing we form one ACT for the counsel and one for the Justices (we do not distinguish individual Justices). Each ACT is constructed starting from the issues. Issues may be *conjunctive* so that all issues must be considered. Or they may be *disjunctive* so that the issues are independent, and one positive will suffice. These are shown in the ACT using “ \wedge ” and “ \vee ” respectively. Sometimes, however, the relationship is not truth functional: like factors, all must be considered, but none is necessary or sufficient (see [5] for a fuller discussion of these relationships). The non-truth functional relation is shown in the ACT using “+”.

Throughout the dialogue, the participants’ ACTs are updated by the assertion of new factors to resolve issues, or facts that indicate the presence of factors or the linkage be-

tween them in order to construct a test. These links may also be truth functional conjunction or disjunction, or reasons that must be considered, essentially the standard factor/abstract relation of [2]. These are shown in the ACT as arrows from children to parent and the factors and facts which attracted the most attention in the dialogue are indicated with an “R”.

All the facts mentioned in the oral hearing are *underlined*. Furthermore, the ACT distinguishes several types. Facts which are true of the current case are indicated using an *asterisk* (*); facts which are not true in the current case but could be used in future tests are indicated by a *question mark* (?), while an *exclamation mark* (!) is used for facts which could not be used in practice, perhaps because they are not directly observable. By the end of the dialogue, each ACT shows a *complete* representation of a perspective on the components exchanged in the course of the dialogue. The next section provides the ACTs constructed in the case study, *California v Carney*.

5. California v Carney: A Case Study

This case is concerned with whether the exception for automobiles to the protection against unreasonable search provided by the Fourth Amendment applies to mobile homes, in particular motor homes in which the living area is an integral part of the vehicle. The Fourth Amendment protects the “right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures.” A search is considered reasonable if a warrant has been obtained.

California v Carney arose when drug agent officers arrested Carney who was distributing marijuana from inside a motor home parked in a public parking lot in the downtown of San Diego for an unknown period of time. After entering the motor home, without first obtaining a warrant, the police officer observed marijuana. This motor home was an integral vehicle with wheels, engine, back portion and registered as a house car which requires a special license in California. On the other hand, it did have some interior home attributes such as refrigerator, cupboard, table and curtains covering all the windows. The question was whether warrantless search was permissible in this case, satisfying the exception to the Fourth Amendment for automobiles.

California v Carney has often been used in AI and Law to explore Supreme Court oral argument (e.g. [15], [3]), and to consider the interaction of two competing values (e.g. [9]). In *Carney*, the competing values are enforceability of the law, which makes exigency important, and citizens’ rights, which include the right to privacy [8].

5.1. Dialogue One - Petitioner Oral Hearing

In this dialogue the petitioner states that the exigency is sufficient in *Carney* regardless of any expectations of privacy. This position was based on the *inherent mobility* of the motor home, together with its location offering ready access to the highway, as the factors satisfying the automobile exception, as illustrated in the petitioner ACT of Figure 1.

For the Justices privacy is also an issue that needs consideration. As the vehicle was not actually moving on the road, they suggest tests give a bright line (BL) for applying the automobile exception to parked vehicles. They propose certain facts to test the privacy degree including the type of the parking lot and attachment to home utilities (wa-

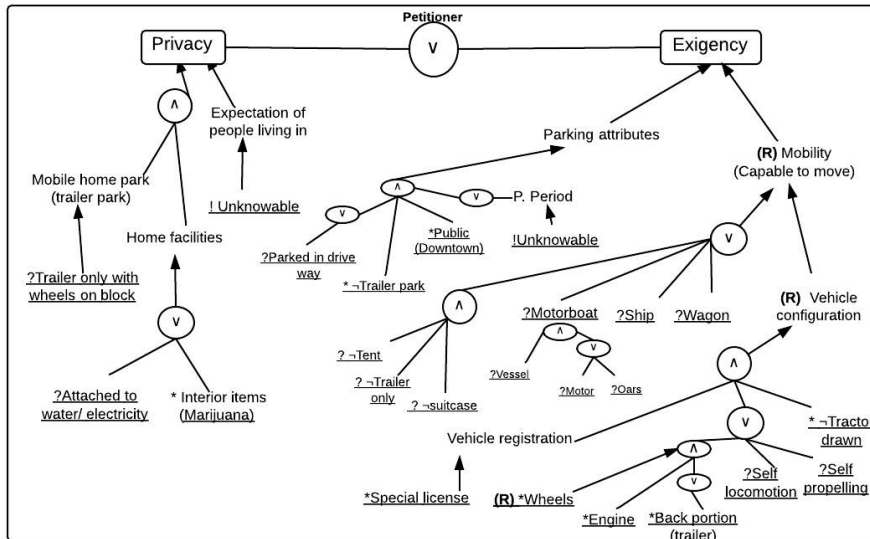


Figure 1. Petitioner Dialogue - Petitioner ACT

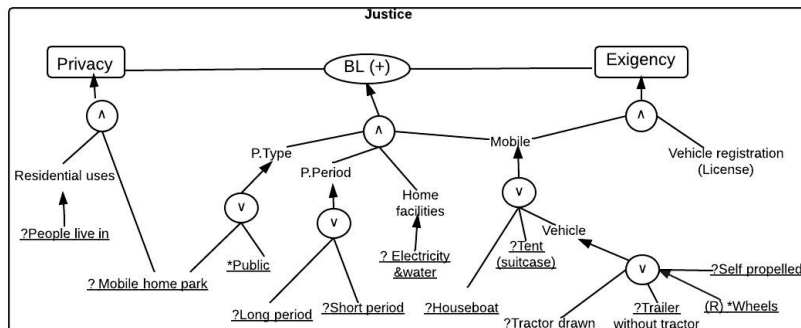


Figure 2. Petitioner Dialogue - Justice ACT

ter /electricity) relating to the expectations of people living in a mobile home, as shown in the Justices' ACT in Figure 2. Furthermore, the Justices challenge the sufficiency of the mobility factor for exigency by considering the vehicle license type (which is different for motor homes and regular cars) and discussing other mobile things such as tents, suitcases, trailers with wheels, houseboats and regular automobiles.

In response to these challenges, the petitioner maintained that exigency is the sole issue and it overrides any expectation of privacy. The petitioner indicates that mobility involves any vehicle, wagon, ship or motorboat but not a mobile item such as a tent, suitcase or trailer, stressing the importance of self-propulsion for the automobile exception. This position thus stresses the significance of the type of the vehicle's configuration and

its ability to move quickly on a public highway, which is not true of any of the other mobile objects.

The petitioner accepts the need to consider parking location claiming that if a vehicle is in a residential location (such as a mobile home park) and/or attached to home utilities such as (water/electricity) it *might* not be considered inherently mobile, whereupon issues of privacy would become relevant, but claims that a vehicle in a regular parking lot can always be considered inherently mobile. Figure 1 also presents these components and the relation between them in the petitioner ACT.

5.2. Dialogue Two - Respondent Oral Hearing

The respondent in contrast insists that *both* exigency and privacy issues need to be considered. The respondent accepts that the exigency is indicated by mobility, but says that this mobility is limited to vehicles that are actually moving on the highway: thus the exigency was insufficient in *Carney* because the mobile home was inoperable (because there was no driver and the curtains were drawn). Moreover, it was parked not far from a courthouse so obtaining a warrant was possible.

Furthermore, the respondent claims that the mobile home attracts sufficient expectations of privacy. He states that such expectations can be indicated through the configuration of the mobile home which involves a living compartment that contains furniture such as bed, refrigerator and other attributes indicating a residence. Moreover a separate class of vehicle known as a *house car* is recognised and defined in the California vehicle regulation code. In addition, the respondent states that privacy interests of a mobile home arise from its use for the storage and transportation of personal effects, and so it should be respected as much as a suitcase, which had previously been held to attract Fourth Amendment protection (see *US v Chadwick*). Figure 3 shows the respondent's ACT.

The Justices defend the petitioner exigency factors, i.e. parking location and vehicle configuration to insist that the vehicle was able to move quickly and thus falls within the automobile exception, giving an example of a crashed car (*Cady v Dombrowski*). The Justices do consider the privacy of home attributes and personal effects, but argue that it is not possible to determine these factors from outside the vehicle, so that no bright line test is given. Figure 4 illustrates the components asserted by the Justices to determine a bright line (BL) considering both privacy and exigency.

5.3. Dialogue Three - Petitioner Rebuttal

Towards the end of the oral hearing, the petitioner attempts to maintain his position and rebut the elements introduced by the respondent by showing the inapplicability of the tests to prove sufficient privacy.

According to the respondent test above, the fact that the living quarters are an integral part a vehicle should attract sufficient privacy expectations. The petitioner claims, however, that it is not possible to determine the required residential facts, and anyway in *Carney* there was no evidence of food or personal items inside the motor home (except marijuana!) as shown in Figure 1. Moreover, the petitioner states that the definition of "house car" is not used to indicate a dwelling like a house, but to permit the regulation of this type of automobile, as shown by the same definition applied to burglary, aligning house cars with vehicles rather than houses. The new components are used to update the petitioner ACT.

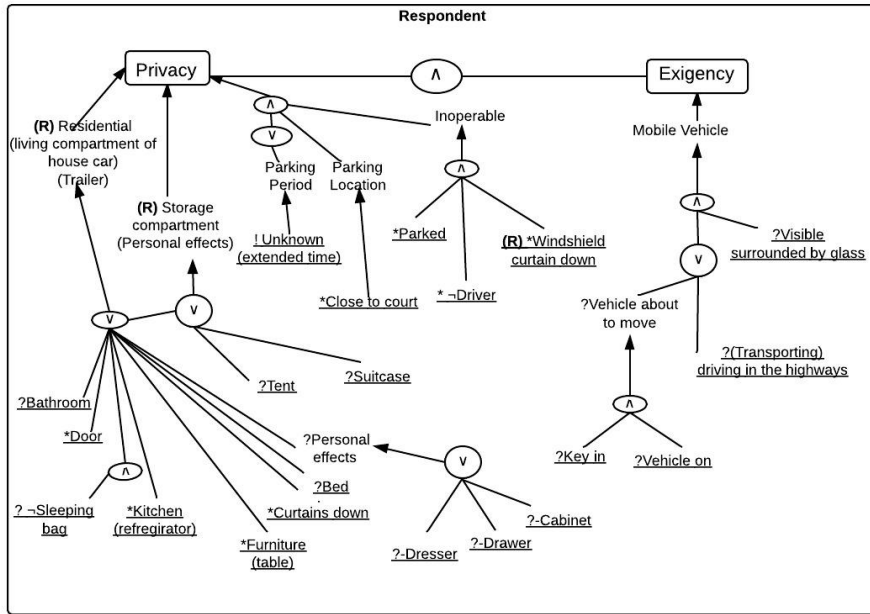


Figure 3. Respondent Dialogue - Respondent ACT

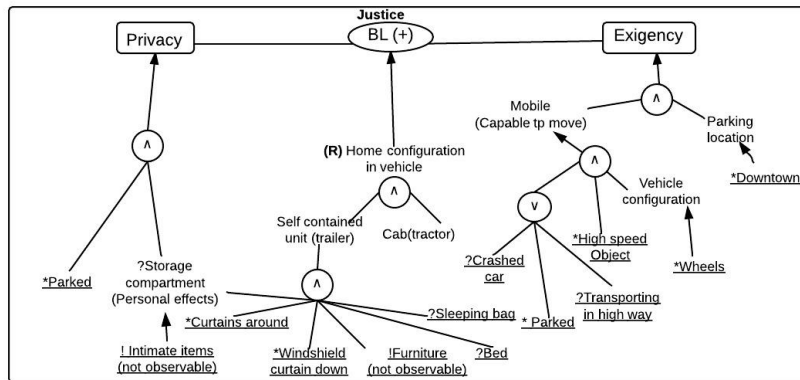


Figure 4. Respondent Dialogue - Justice ACT

6. Relating the Oral Hearing to the Opinions

After the oral hearing, there are four ACTs. These will set out the available facts, factors and issues, and possible linkages between them. The task now is to merge these alternatives to produce an answer for the current case, and a test applicable to future cases. This is the role of the Justices' conference stage, and, given the (competing) ACTs, could be done by proceeding top down, choosing the desired elements, and evaluating the re-

sulting structure using the facts of the case. Thus while all four trees identify privacy and exigency as issues, all three ways of linking them are available, and must be chosen between. Having identified *exigency* as an issue, a selection from the proposed factors must be made, and so on. Different Justices may make different choices, which may lead Justices to write individual opinions, either dissenting from the majority, or expressing a different view of the appropriate tests.

The majority opinion in *Carney* held that the warrantless search was reasonable and did not violate the Fourth Amendment rule that protects privacy. In this section we show how the arguments of the majority and dissent opinion are constructed and justified to provide a test for future cases using the components set out in the oral hearings ACTs.

The majority takes from the respondent ACT that *both* exigency and privacy expectations must be considered when searching a mobile home, but disagrees that there was insufficient exigency, given the lowered expectations of privacy attendant on a mobile home when in use as a vehicle, as in *Carney*. The majority argument takes its factors from the petitioner ACT and so was based on the capability of the vehicle to move, *the inherent mobility*, as in the original justification of the automobile exception, and its current use as a means of transport, shown by its location, whereby the expectations of privacy are also reduced.

In this argument *Carney* satisfied the automobile exception. *Carney's* mobile home was parked in the downtown of San Diego (not a residential park) and was able to move at short notice. This justification was advanced by the petitioner in contradiction to the respondent who limits the mobility factor to vehicles actually in motion. For the majority, only if the vehicle were parked in a residential location would the various considerations relating to use as a residence become relevant. Although the majority accepts (in a footnote) these facts as *potentially* relevant, it declines to propose any specific test for such cases, since such a test is not required to resolve *Carney*. It considers that inherent mobility, together with the *current* use of the vehicle as shown by its location offers a bright line, as required by both the Justices' ACTs, and a test applicable by police officers.

For the other side, the dissent believes that the factors declared by the majority extend the automobile exception by applying it to parked vehicles capable of use as dwellings. This argument stressed factors from the respondent's ACT especially those relating to privacy, i.e. whether obtaining a warrant was impossible because the vehicle was ready to move, and those relating to the potential use as a dwelling and as a container of personal items. In this dissent argument, there was insufficient exigency in *Carney* to overcome the relatively high expectations of privacy established by these factors since obtaining a warrant was possible because the mobile home was close to the courthouse and privacy expectations were significantly greater than a moving vehicle, since it was parked away from the highway and the curtains were drawn, curtailing visibility from outside. These facts support the "inoperable" factor presented in the respondent ACT and ignore the capability of movement facts used to determine exigency in the petitioner ACT. Moreover, the dissent supports the respondent in accepting that the privacy related to mobile homes should be respected as much as other means of storage of personal effects such as a suitcase as considered in precedent cases such as *Chadwick*. Further, the dissent does not accept the inapplicability of such a test and their concern with potential use means that the absence of personal effects in *Carney* is not important.

From the discussion above, we find that the opinions offer different navigations through the components that have been presented in the oral hearing ACTs: *all* the com-

ponents used in the opinions can be found in the ACTs. Some elements form the basis of the court opinion tests. Some of the remaining facts, although not true of *Carney*, are mentioned as potentially pertinent, and so may still provide tests in future cases.

7. Concluding Remarks

We have provided an analysis of US Supreme Court Oral Hearings whereby we can identify the issues, factors and facts of concern to a case and then use these to construct trees that can be navigated to reflect the reasoning of the various legal parties. Moving from the oral hearing transcripts to our trees, through the use of a set of defined speech acts, allows a thorough analysis. This is a significant undertaking: now that we have established a framework for conducting this analysis task, the next step will be to move towards automation. We will begin to tackle this by defining a precise grammar setting out the rules for how the components of the ACTs can be combined to construct the trees. Such a grammar can then be used to develop software to automatically support the process of constructing and traversing the ACTs when applied to new cases.

References

- [1] L. Al-Abdulkarim, K. Atkinson, and T. J. M. Bench-Capon. Dialogues in US supreme court oral hearings. In *Proceedings of CMNA 2013*, 2013. In press, see: <http://www.cmna.info/CMNA13>.
- [2] V. Alevan. *Teaching case-based argumentation through a model and examples*. PhD thesis, University of Pittsburgh, 1997.
- [3] K. D. Ashley. Teaching a process model of legal argument with hypotheticals. *Artif. Intell. Law*, 17(4):321–370, 2009.
- [4] K. D. Ashley and S. Brüninghaus. A predictive role for intermediate legal concepts. In *Proceedings of JURIX 2003*, pages 1–10, 2003.
- [5] K. Atkinson and T. J. M. Bench-Capon. Legal case-based reasoning as practical reasoning. *Artif. Intell. Law*, 13(1):93–131, 2005.
- [6] K. Atkinson, T. J. M. Bench-Capon, and D. Walton. Distinctive features of persuasion and deliberation dialogues. *Argument & Computation*, 4(2):105–127, 2013.
- [7] T. Bench-Capon and G. Sartor. A model of legal reasoning with cases incorporating theories and values. *Artificial Intelligence*, 150(1-2):97–143, 2003.
- [8] T. J. M. Bench-Capon. Relating values in a series of supreme court decisions. In *Proceedings of JURIX 2011*, pages 13–22. IOS Press, 2011.
- [9] T. J. M. Bench-Capon and H. Prakken. Using argument schemes for hypothetical reasoning in law. *Artif. Intell. Law*, 18(2):153–174, 2010.
- [10] D. H. Berman and C. D. Hafner. Representing teleological structure in case-based legal reasoning: The missing link. In *Proceedings of the Fourth ICAIL*, pages 50–59, 1993.
- [11] F. Bex, H. Prakken, C. Reed, and D. Walton. Towards a formal account of reasoning about evidence: argumentation schemes and generalisations. *Artif. Intell. Law*, 11(2):125–165, 2003.
- [12] T. F. Gordon. The pleadings game: Formalizing procedural justice. In *Proceedings of the Fourth ICAIL*, pages 10–19, 1993.
- [13] J. F. Horty and T. J. M. Bench-Capon. A factor-based definition of precedential constraint. *Artif. Intell. Law*, 20(2):181–214, 2012.
- [14] H. Prakken and G. Sartor. Modelling reasoning with precedents in a formal dialogue game. *Artif. Intell. Law*, 6(2-4):231–287, 1998.
- [15] E. L. Rissland. Dimension-based analysis of hypotheticals from supreme court oral argument. In *Proceedings of the Second ICAIL*, pages 111–120, 1989.