Abstract. In this paper we provide a structured analysis of US Supreme Court Oral Hearings to enable identification of the issues, factors and facts that are of concern when constructing 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 these ACTs can be constructed given various speech acts that are used by the counsel and justices within their dialogue. We demonstrate the application of such an analysis by showing how it can be applied to the oral hearing that took place for the case of Carney v. California, and we relate the Majority and minority opinions delivered in the 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 important aspects 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

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 involved which can be seen as a series of steps.

Any 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 [REF]. Other work concerned with this stage includes Gordon’s Pleadings Game [7], 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 [REF]. 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 [1], and we will follow this usage here. Factors provide a level of abstraction which allows us to view the very particular facts of a particular case in terms of precedent cases. The level of abstraction also enables us to use the case as a precedent for future cases. Factors are therefore very important for precedential reasoning [9,8] 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 reason about what the decisions tell us about the purposes of the law [REF BH], or the social values promoted by the law [4], 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 my 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 systems such as CATO and other factor based systems. 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 [2]. In one way, 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 structure of the paper will be as follows. Section 1 will give an overview of the Supreme Court process and characterize the dialogues in the oral hearings stage. Section 2,3 will define the role of the individual (counsel and justices) and collective goals, which is to identify the various issues, factors, and facts which could be used to construct a test to resolve the case and to guide future behaviour. In this section, we will identify a normative set of speech acts which could be used by counsel and justices to achieve these goals, and explain how the illocutionary force of these acts could be represented in terms of a developing an Arguments Component Tree (ACT). Section 4 will discuss a detailed analysis of the transcript of the oral hearing in Carney v California, and the
resulting ACTs. Section 5 will relate this ACT to the majority and minority opinions in Carney. Section 6 will offer some concluding remarks and shows how the constructed ACT would be related to previous and subsequent cases relating the Fourth Amendment and the automobile exception.

1. 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 argumentation. 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 argumentation 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 a rebuttal. Following the oral hearing, the justices meet in a justice 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 to look to the past and the future as well. The decision needs to be 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. [8]. 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 particular test to determine whether the automobile exception to the fourth amendment applies or not.

2. Speech Acts Used in Oral Hearings

There are three nested dialogues under the main oral argumentation dialogue. The goals of the dialogues involve identifying the components which can be used by the justices to construct tests that will provide arguments to resolve the case, and the relationships between these components. Speech acts will thus enable the proposal of these components, and a set of critical questions challenging the components, or seeking additional components [?]. In this section we describe the moves, (each illustrated with an example from California v Carney). Formal definition of these moves will form part of our future work.

- **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 are considered as 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 ∨ Insufficient Privacy.*

We then have a number 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 ∧ Location.*

Finally we need a number 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 ∧ Engine) ∨ (Boat ∧ (Engine ∨ Oars ∨ Sail)).*

Note that we do not need to consider the evidence level: the facts to be used have already been determined by the lower court. The structure as a whole is meant to provide a test. The test is challenged at all the three levels to evaluate the relevance between the components, as well as the completeness of the asserted components and the relation between the components. Moreover, further challenges are required to test whether the fact is observable in practice? In the course of the hearing the various components of the proposed tests emerge. The dialogue is often not well structured: the challenges are not posed in any particular order, and may be interleaved with the presentation of the proposal, so that the proposal is modified as it is presented. None the less, the aim of each counsel is to present and defend the components required for a test which will decide the case for their client, and the justices aim to get a clear statement of the various components which they can use to build the arguments in their opinions.

### 3. Argument Components Tree-ACT

We can now construct a representation for the arguments components defined in the speech acts in an Argument Components Tree (ACT). For each dialogue in the oral hearing we form an ACT for the counsel and Justices (identified as one Justice). Each ACT is constructed starting from the assertions of the conflict issues and the relation between the issues for each participant, so that the conjunction between the issues states that the two issues must be considered, however, one issue is insufficient. On the other side, the disjunction indicates that there is only one sufficient issue and its independent. The (+)
relation considers that two issues but in a smaller degree than the conjunction. After that, throughout the dialogue, the participants’ ACTs are updated by the assertions of new factors to issues, or facts that indicate the presence of factors or the linkage between them in order to provide a test. The *conjunction* between these components indicate that the two components (factors or facts) are present, the *disjunction* states that one component only is present at a time. Moreover, the ACT considers the special attributes to the components, i.e. the components that have been emphasised throughout the dialogue is represented by *(R)* and indicates strongly to the parents components. Furthermore, the ACT distinguish between the fact types exchanged in the oral hearing. I.e. the facts which are true to the running case is indicated using an asterisk symbol (*), the facts which are not true to the running case but could be applied for future tests is indicated by a question mark (?) and question mark (!) for the inapplicable facts. By the end of the dialogue, each ACT shows a complete representation of the components exchanged throughout the dialogue. The next section illustrates the ACTs constructed in the case study: *California v Carney*.

4. *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 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 driving license in California. On the other hand, it has some interior home attributes such as refrigerator, cupboard, table, scale, bag 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. The California Superior Court affirmed the warrantless search because of the automobile exception. However, The California Supreme Court reversed the lower court decision indicating that the search violated the fourth amendment rule. After granting a certiori, The U.S. Supreme Court held that the search was reasonable and did not violate the fourth amendment rule and so reversed the California Supreme Court decision. *California v Carney* has often been used in AI and Law to explore Supreme Court oral argument (e.g. [10], [3]), and to consider the interaction of two competing values (e.g. [6]). In *Carney*, the competing values are enforceability of the law, which makes exigency important, and citizens’ rights, which include the right to privacy [5].

4.1. Dialogue One - Petitioner Oral Hearing

In this dialogue the petitioner asserts certain facts which are true to Carney’s case in order to support the inherent mobility factor as the key factor for the automobile exception, i.e.
by considering the configuration of the mobile home vehicle and its capability of moving quickly as illustrated in petitioner ACT in figure 1.

Figure 1. Petitioner Dialogue-Petitioner ACT

Figure 2. Petitioner Dialogue-Justice ACT

On the other side, the Justices challenge the asserted facts by proposing new test components to consider a certain degree of privacy interests using factors of parking length, parking characteristics, the attachment to home utilities (water/electricity) and the expectation of people living in mobile home as in the justices ACT in Figure 2. In addition, the justices challenge the mobility factor by testing the vehicle license type and
discuss the differences between mobile things such as camper tent, suitcase, a trailer with wheels, houseboat and other automobile vehicle.

The petitioner defends his position in response to these challenges and maintains that exigency is the sole issue and it overrides any expectation of privacy interest. The petitioner asserts that parking period is not an applicable test because it is not possible to determine how long the vehicle was parked. Furthermore, the automobile configuration and license arise its capability of moving quickly in a public highway which is not true in any other mobile object. However, the petitioner accepts the notion of parking location claiming that if a vehicle in a residential location (such as a mobile home park) might not be considered inherently mobile, whereupon issues of privacy would become relevant, while a vehicle in a regular parking lot can always be considered inherently mobile. Figure 1 presents these components and the relation between the components in the petitioner ACT.

4.2. Dialogue Two - Respondent Oral Hearing

The respondent on the other side insists that both exigency and privacy issue need to be considered but the exigency was insufficient. Thus, the respondent rebuts the case facts proposed by the petitioner in asserting facts to indicate that the vehicle was inoperable. The respondents aims to present sufficient privacy, so that he asserts certain facts about the mobile home to consider the furniture such as bed, refrigerator and other attributes that indicates residency such as a store for personal effects. He also adds that transportation is not the sole function of the mobile home as in regular vehicle, but it is also designed and used for residential purposes. The relation between respondents components are illustrated in the respondent ACT in figure 3. The justices in this dialogue defend the petitioner exigency factors, i.e. the parking location and vehicle configuration to insist that the vehicle configuration indicates that it is capable to move quickly and thus raise the vehicle exception giving example of crashed car. The justices privacy of home attributes and personal effects, however it is not possible to determine these factors from outside. Thus, the justices challenge the respondent to provide a test for residency by comparing between a mobile home v. a regular car when both are used for residency, a moving v. parked mobile home and mobile home parts tractor v. trailer as illustrated in the Justice ACT in figure 4.

In response, the respondent consider the exigency in moving mobile home but limit the search to the tractor (cab) side to protect the privacy of the of the residential side because of the personal effects using the definition of house car provided by California regulation code.

4.3. Dialogue Three - Petitioner Rebuttal

Prior the end of the oral hearing, the petitioner maintains his position and rebut the tests introduced by the respondent by adding new facts and/or factors or showing the inapplicability of the tests to prove sufficient privacy.

According to the respondent test above, that the living quarters are an integral part a vehicle should attract sufficient privacy expectations. However, it is not possible to determine these residential facts, and in this particular case there was no evidence of food or personal items inside the motor home except marijuana as shown in Figure1. The peti-
tioner also rebuts the justice the example in the residency of mobile home v. a regular car due to fact of the high cost of the mobile home. Moreover, the petitioner states that the definition of the "house car" is not used to indicate privacy but the regulation of this type of automobile, because the same definition is used to show that the privacy degree of a house car is less than home in case of a burglary. Thus, the respondent maintains his position using these facts.
5. Relating the Oral Hearing to Opinions

The court opinion in Carney states that the warrantless search was reasonable and did not violate the fourth amendment rule that protects the people privacy according to the justifications presented by majority of justices. The following sections analyse how the arguments of the majority and dissent opinion are constructed and justified to provide a test for future cases using the components of the oral hearings ACTs.

5.1. Majority Opinion

The Majority convinced that there are both exigency and privacy expectations in searching a mobile home vehicle. However, the privacy issue is insufficient in Carney’s case. The majority argument was based on the capability of the vehicle to move, the inherent mobility, i.e. whether the vehicle was on drive way or parked in a non residential parking lot, as the original justification for the automobile exception which in turn reduce the expectation of privacy. on the other hand, the majority considers the privacy interests related to the home attributes in the mobile home configuration i.e. the protected visibility and the home furniture. However, they states that the automobile privacy is significantly less than home privacy because of the regular inspection and licensing but not home configurations. Thus, the privacy factors are not necessary conditions even if they are sufficient.

\[ \text{Vehicle moving on highway} \lor (\text{capable to move on highway} \land \neg \text{on residential parking}) \]

According to this argument Carney satisfied the automobile exception justifications. Carney’s mobile home was parked in the downtown of San Diego (not a residential park) and was capable to move according to the vehicle configuration in the mobile home and the licensing type it holds. These justification have been presented in the petitioner ACT as emphasised factors in support of the exigency issue.

\[ \text{capable to move on highway} \land \text{parking location} \land \text{vehicle licensing} \]

On the other side, the majority considered the privacy factors of home attributes and the protected visibility by having the curtains down in support of the privacy interest in respondents ACT. However, these home configuration was not enough to consider necessary privacy conditions. Furthermore, beyond Carneys, the majority considered other facts that are important in determining the presence of capability to mobile factor such as whether the vehicle is on blocks, licensed, connected to utilities and accessible to public road or in residential location these facts have been presented

5.2. Dissenting Opinion

On the opposite side, the dissent believe that the factors declared by the majority extends the automobile exception (by adding more exigency factors) and do not give the priority to the fourth amendment rule using true factors supporting the privacy issues. The dissent argument was about considering the factors that determine whether there was a sufficient exigency, i.e. whether obtaining a warrant was impossible due to the fact of having a vehicle moving on the drive way in comparison to a parked vehicle and the
vehicle mobility speed In addition to the factors that determine the sufficiency in privacy by testing the home attributes and the attachment to location. According to this dissent argument, there was insufficient exigency in Carney because obtaining a warrant was possible due to the location fact that the mobile home was close the courthouse and a sufficient privacy in parking away from the highway and closing the outside visibility by having the curtains down. These facts support the inoperable factor presented in the respondent ACT. and attack the exigency factors presented in the capability of movement in petitioner ACT. Moreover, the dissent argued that the privacy related to mobile homes should be respected as in any storage compartment of personal effects such as a mobile suitcase as presented in precedent cases.

From the court opinion we found that all the components that have been used in providing the majority and dissent tests have been presented in the ACT dialogues. Some of these components are related directly to the case, while other have been mentioned to provide tests for future cases.

6. Concluding Remarks

References