Canadian Journal of Linguistics/Revue canadienne de linguistique 58(1): 13–42, 2013

Deontic contexts and the interpretation of disjunction in legal discourse

MARTIN AHER
University of Osnabrück

1. INTRODUCTION

Lawyers and judges routinely encounter difficulties in interpreting legal texts because of ambiguities, some of which may be inevitable, given that legal texts are written in natural languages and ambiguity is a pervasive feature of these languages. Judges have long been aware of these difficulties for legal interpretation, as Mellinkoff (1963) and others since him have shown. Solan's (1993) study of American court decisions appears to be the first to provide an extensive theoretical linguistic investigation of ambiguities in legal texts. One issue that both Mellinkoff and Solan investigate is the connective *or*, which poses particular difficulties for legal analysis. The present study will investigate certain occurrences of *or* in the legal domain, focussing on American court cases discussed in Solan (1993) and on decisions of World Trade Organization (WTO) adjudicative bodies. The puzzles found in the latter include some of those discussed by Solan, but go beyond the more standard examples that he treats.

What makes these puzzles relevant to linguists as well as lawyers is that linguistic methods can be fruitfully applied to the problems of legal interpretation. Yet, linguistic analysis remains rare in this domain, and lawyers and linguists rarely work together. One reason, as Shuy (2007:8) observes, is that "[t]he courts do not know what linguists do" and "may even labor under very false impressions about our field". Many judges and lawyers are simply unaware of the tools that linguists have to offer to help them analyse linguistic problems in the law — just as linguists are often unaware of the usefulness of linguistic analysis for the legal profession.

I would like to thank Carla Umbach and Jeroen Groenendijk for their tireless assistance; guest editor Benjamin Shaer for his encouragement and comments; and Maria Aloni, Stefan Hinterwimmer, Mandy Simons, Floris Roelofsen, Matthijs Westera, and the anonymous reviewers of the *Canadian Journal of Linguistics* for many insightful comments. I would also like to thank the law firms Sorainen Law Offices, Borenius, and Sirel and Partners for giving me the opportunity to discuss the legal content of this article with them. The research reported here was made possible by a Lichtenberg Scholarship from the state of Lower Saxony, for which I am grateful.

But surely another reason is that not all linguistic tools are equally suitable for solving the linguistic problems that courts face. In general, these problems do not involve questions of grammaticality/felicity or pertain to sentences in isolation. They are more likely to focus on determining the most plausible interpretation of a sentence or an expression in a particular legal text and situation. This suggests that the most likely tools to help solve problems of meaning in the law might be those drawn from the linguistic study of semantics, pragmatics, and discourse. Contentious provisions in legal texts involve modal auxiliaries such as *must* and *may*, which qualify the statements. Legal texts concern how the world ought to be, so in such deontic contexts these modals are standardly analysed as expressions of obligation and permission. These modals pose particular, and well-known, problems for standard semantic analysis and thus require new tools to solve them.

As it happens, Solan's trailblazing study offers little semantic, pragmatic, or discourse analysis, drawing its tools mostly from syntax and psycholinguistics, although appealing to classical propositional logic in its analysis of *or*. Perhaps because of this linguistic perspective, Solan's examination of *or* in legal texts does not venture very far beyond quite "well-behaved" examples. While demonstrating the utility of applying linguistic analysis to the law, it does not focus on the linguistically more puzzling aspects of *or*, nor does it introduce jurists to the larger array of tools available to handle them.

Among this larger array of tools are those of inquisitive semantics (e.g., Groenendijk 2009, Groenendijk and Roelofsen 2009), a framework that emphasizes information exchange in the analysis of discourse. Most relevant here is the treatment of natural language *or* (and its counterparts in other languages) within this framework. Inquisitive semantics formalizes the intuition that such disjunction serves to offer alternatives (see, e.g., Huddleston et al. 2002:1294) while maintaining the robust analysis that *or* expresses inclusive disjunction. Also worth highlighting is that the study of disjunction in inquisitive semantics is inseparable from the study of modal propositions.

The puzzles of *or* that I shall be turning my attention to here include not only the familiar one of how to determine whether *or* should be read inclusively ('and/or') or exclusively ('either/or') (illustrated in (1a)), but also that of "free choice" *or* (1b).

(1) a. A contracting party may require reasonable security (bond or cash deposit).
(GATT, Art. VI, Ad Note to paras. 2 and 3, para. 1)

b. You may go to the beach or go to the cinema. (based on Kamp 1973:57, ex. 1)

What makes the problem of inclusive versus exclusive *or* a difficult one is that while there is broad agreement among linguists that the meaning of *or* should be treated in terms of inclusive disjunction, there is equally broad agreement that in its actual use *or* commonly implicates that only one disjunct is true. But such an understanding of *or* is not a "one-size-fits-all" solution to determining how a statement such as (1a) should actually be interpreted in a legal context. What makes "free choice" *or* likewise a difficult problem is that while (1b) would be normally understood to give permission to go to the beach and to the cinema, any general principle like that in (2c)

that seeks to achieve this result "is at odds with fundamental assumptions about the semantics of disjunction and (deontic) modality" (Zimmermann 2000:256).

(2) a. You may go to the beach.
b. You may go to the cinema
c. X may *A* or *B* $\models$ *X* may *A* and *X* may *B* (Zimmermann 2000:256)

Interestingly, as Solan explains, many problems of *or* in legal texts are dealt with simply by brute force, in the form of an "*and*/*or*" rule, exemplified in (3).

(3) Generally, the words 'or' and 'and' in a statute may be construed as interchangeable when necessary to effectuate legislative intent.
(McKinney's Cons. Laws of N.Y., Statutes § 365, quoted in Solan 1993:45)

Such an approach has no linguistic motivation and is of no analytical help to judges or lawyers, since it offers no means to clarify the linguistic questions at issue nor any real guidance for future decisions involving similar questions.

In order to develop a more adequate approach to the interpretation of *or* in the legal domain, I begin with a review of Solan's (1993) discussion of certain cases of *or* that have caused difficulties for courts and his criticism of the "*and*/*or*" rule. What will emerge is that — aside from those cases where recourse to this rule can be justified in legal but not linguistic terms — the "*and*/*or*" rule *does* respond effectively to real problems in the interpretation of *or*, although offering little guidance about its meaning. Solan's contention that "when it comes to the interpretation of legal documents, *and* generally means *and* and *or* generally is construed disjunctively, as meaning 'either/or' " (p. 45) likewise offers little guidance on the interpretation of *or*. This is because an inclusive reading of *or* is by no means unavailable in many cases. Moreover, Solan confines his discussion of *or* to fairly standard cases and does not consider problems that continue to pose a challenge for linguistic analysis, such as the free-choice *or* puzzle.

To develop these points further, I turn to certain WTO decisions. There are a number of reasons for this choice of legal materials. First, they demonstrate that the problems that Solan describes are not confined to American laws and court decisions nor can they be plausibly attributed solely to the poorly or hastily written nature of a legislature's statutes or a court's decisions. Indeed, the meticulous recording and presentation of the parties' statements and the adjudicators' reasoning in these disputes provide another reason, which is that this careful preparation turns out to be of great value for investigative purposes. In particular, the rich context that these materials provide makes it possible to treat such WTO decisions in inquisitive semantics terms as instances of information exchange and to apply the tools of inquisitive semantics to the analysis of *or*. A final reason for this choice of materials is that — unlike the court context described by Solan, which may resort to sometimes very artificial rules of legal interpretation like the "*and*/*or*" rule — WTO adjudicators are required to hew more closely to principles of ordinary language interpretation, as they "cannot add to or diminish the rights and obligations provided in the covered agreements" (DSU, Art. 3.2). This makes it possible to use analytical tools developed for ordinary language with fewer caveats and qualifications.

My investigation of *or* in legal discourses highlights the utility of rigorous semantic analysis in determining how sentences containing *or* contribute to these discourses. Such a perspective should not, however, be taken to deny the important fact that judges and lawyers have aims and methodologies very different from those of linguists. In particular, a lawyer arguing a case has little concern for compelling or correct linguistic analyses except insofar as these can advance the interests of his or her clients. A judge deciding a case is similarly not concerned with such linguistic analysis except insofar as this serves to reach a just decision. But this does not mean that linguistic tools might not be of some assistance in these goals — or that greater attention to legal discourses by linguists could not ultimately assist judges, lawyers, and legal scholars in their consideration of linguistic problems in the law. For these reasons, I address this article to jurists as well as linguists.

The article is organized as follows. In section 2, I review some of the court cases related to the analysis of *or* that Solan (1993) discusses, showing how neither judges' nor Solan's remarks about *or* truly solve the interpretative problems that *or* creates in the legal domain. In section 3, I turn to the WTO decisions, giving a very brief introduction to this organization and the interpretative principles that it follows before embarking on a discussion of the decisions. Here I shall suggest that inquisitive semantics can offer some useful tools for the analysis of *or* in legal discourses, including the "exclusive/inclusive" and "free choice permission" problems. Finally, in section 4, I offer some conclusions about the utility of semantic analysis for the law.

2. *OR* AND LEGAL INTERPRETATION

In this section, I review Solan's (1993) discussion of *or* as it figures in various American court cases. Solan's primary purpose in this discussion is not to demonstrate how linguistic analysis can assist in the interpretation of legal texts but rather to argue that courts' treatment of *or* is at times inconsistent with the results of linguistic analysis. Nevertheless, the examples that Solan discusses and the claims that he makes about them give us a good sense of the problems that *or* creates for judges and lawyers.

2.1 The "*and/or*" rule

Solan (1993:45) observes that "[t]he difficulty in interpreting *and* and *or* is so well recognized in the law that a special hand-waving canon of construction [i.e., a legal rule of interpretation] exists in both federal law and the law of many states, neutralizing the difference between the two terms". Solan provides New York's version of this rule, given in (3) and repeated in (4):

(4) Generally, the words 'or' and 'and' in a statute may be construed as interchangeable when necessary to effectuate legislative intent.

Solan observes that many applications of the "*and/or*" rule appear quite defensible — and, in particular, satisfy "our everyday sense of fairness" — even if they entail "pay[ing] little attention to the statutory language as written" (Solan 1993:53). Such applications of the rule include those that serve to correct apparent drafting errors arising from "confusion in the use of *and* and *or*" (p. 46). This figured in *Beslity v.*

Manhattan Honda, which revolved around the text in (5), related to false advertising. Here the court interpreted the italicized *and* as *or* in order to allow an injunction or the recovery of damages, rather than only an action to do both (Solan 1993:47).

(5) "Any person who has been injured by reason of any violation of [a prohibition on false advertising] [. . .] may bring an action in his own name to enjoin such unlawful act [. . .] *and* to recover his actual damages [. . .]"

(*New York General Business Law* § 350–d(3), excerpted from Solan 1993:46; his italics)

Other defensible applications of the rule that Solan discusses include ones that serve to avoid absurd or unjust results. This was its use in *172–02 Liberty Avenue*, where the court interpreted the provision given in (6) as prohibiting forfeiture of property involved in criminal activity when an owner knew of but did not consent to this activity. The court reached this result even though standard analysis of the italicized phrase in terms of De Morgan's Laws[1] would indicate that forfeiture required there to be neither owner knowledge nor owner consent. This use of the rule seemed eminently reasonable in this case, where the owner of the property had been cooperating with the police in a drug trafficking matter and thus clearly knew that his property was being used in criminal activity.

(6) "no property shall be forfeited [. . .], to the extent or an interest of an owner, by reason of any act or omission established by that owner to have been committed or omitted *without the knowledge or consent of that owner*." (U.S.C. § 881(a)(7), excerpted from Solan 1993:50; his italics)

A third application of the rule that Solan describes figured in *People v. Caine*, where the court used it to tighten the statutory definition of harassment. According to this definition, a person is guilty of this offence if he or she intentionally

(7) "engages in a course of conduct *or* repeatedly commits acts which alarm or seriously annoy [another] person and which serve no legitimate purpose."

(*New York Penal Code* § 240.25(5), excerpted from Solan 1993:54; his italics)

In this case, the defendant, Mr. Caine, had twice uttered obscenities at a police officer. Solan (1993:55) notes that the court, "[a]pparently concerned that the obscenities uttered by Mr. Caine sufficed to establish a course of conduct", ruled that a particular course of conduct alone was not sufficient for an individual to be convicted of the offence — which, applying the "*and*/*or*" rule, it decided required proof of "both a course of conduct and the repetition of these acts" (Solan 1993:54–55). Worth emphasizing here is that, while none of these applications of the "*and*/*or*" rule can be plausibly explained in linguistic terms, there is no reason to believe that they should be: after all, the problems that the courts confronted in each case were legal and not linguistic; they involved not determining the most adequate linguistic analysis of *or* in particular legal texts but rather achieving reasonable and fair results consistent

[1] In propositional logic De Morgan's laws refer to the equivalences $(p \wedge q)$ with $(p) \vee (q)$ and $(p \vee q)$ with $(p) \wedge (q)$.

with principles of legal interpretation, including the "*and/or*" rule. These cases illustrate the limits of linguistic analysis in a legal setting, where such limits are reached when adherence to linguistic analysis stands in the way of achieving a reasonable or just result — even if such a result may be "incoherent from any doctrinal point of view" (Solan 1993:46).

Although we must therefore recognize that not every interpretative problem in the law, whether related to *or* or to other issues, is amenable to an elegant linguistic solution, there certainly are cases in which a real linguistic problem emerges in the interpretation of *or* and in which the "*and/or*" rule reflects a "brute force" solution to this problem. One such case, which is among those that Solan describes, is *Department of Welfare of City of New York v. Siebel*. In that case, Mrs. Siebel, the stepmother of a boy committed to a school for delinquent children, was ordered to contribute to the cost of supporting him, to supplement the contribution that his father had already made. The relevant part of the statute involved in this matter was the following:

(8) "If in the opinion of the department of welfare such parent or legal custodian is able to contribute [...] the commissioner of welfare shall thereupon institute a proceeding [...] to compel such parent *or* other person legally chargeable to contribute [...]"

(*Domestic Relations Court Act of the City of New York* § 56–a, excerpted from Solan 1993:53; italics in original)

Mrs. Siebel challenged the order to contribute on the grounds that the boy's father had already contributed to these costs. Her argument was essentially that the *or* in italics should be read exclusively; accordingly, since the boy's father had already contributed, she was not required to.

Solan notes that Mrs. Siebel won her case at the trial level but that this court's decision was overturned in the New York Court of Appeals. As it happens, the latter court's decision was not supported by any linguistic reasoning about *or* — it wrote only that "the word 'or' in the phrase quoted may be read as 'and' to carry out the legislative intent" (*Siebel*:690). This is perhaps not surprising, given the court's goal of resolving the issue and the tools that it had at its disposal, including the "*and/or*" rule.

Solan himself has little to say about the reasonableness of one or the other interpretation of *or* in this case. He offers only the following remarks about the meaning of *or* in the statute in question: "If *or* in the statute [was] interpreted to mean either one or the other but not both, then the fact that the Department had already compelled the father to contribute would be sufficient to let Mrs. Siebel off the hook. If, on the other hand, *or* [was] construed to mean either one or the other or both, then Mrs. Siebel [would have to] pay [...] In essence, the court [...] held that *or* is to be construed as *and* whenever possible, and as *or* otherwise, an interpretation somewhat different from both the logical and everyday meanings of *or*" (p. 54). These remarks by Solan are consistent with his earlier claim that "[w]hile logicians use [*or*] to mean 'and/or' " (p. 46), "when it comes to the interpretation of legal documents, *and* generally means *and* and *or* generally is construed disjunctively, as meaning 'either/or' " (p. 45).

To many linguists, this claim should seem rather surprising, given that the "inclusive" view of *or* is settled enough to have made its way into such reference works as Huddleston et al. (2002:1294), where "the 'only one' feature commonly associated with *or*" is given the status of an implicature. In law, however, the view that *or* should be read exclusively seems more widespread, at least judging from such statements as the following, which appears in Adams (2004), an authoritative contract-drafting manual:[2] "[*o*]*r* is typically used when one wishes to convey that only one of the propositions is correct — in effect, when one wants the *or* to be exclusive"; and thus that "the normal interpretation" of a sentence like that in (8) "would be that the legislature intended to convey that only one of the propositions — the fine or the jail term — was correct, and there is no basis for suggesting that this language conveys the meaning *or both*" (p. 124).[3]

(9) [The sentence is] a $500 fine or ten days in jail.

Further evidence against an "exclusive" analysis of *or* comes from previously mentioned examples discussed by Solan. These involve the occurrence of *or* under a negation operator, as in (10a) and (11a). In such cases, the most salient reading of *or* is one in which negation is distributed over the two disjuncts, so that (10a) and (11a) could be rephrased as (10b) and (11b), respectively:

(10) a. She drove the car without the knowledge or consent of the owner.
(based on Solan 1993:52, ex. 12)

b. She drove the car without the knowledge and without the consent of the owner.

(11) a. Do not break or soil the airplane seats.

b. Neither break nor soil the airplane seats.

Despite this wealth of evidence in favour of an inclusive analysis of *or*, there are nevertheless many cases in which an exclusive reading is the only one available. Consider the sentences in (12):

(12) a. He was born on Christmas Day 1950 or 1951.
(Huddleston et al. 2002:1295, ex. 15i)

b. The fugitive is wanted dead or alive.

[2] See also Adams and Kaye (2006), which closely follows Adams (2004). It is worth noting that this view of *or* is not universally shared by legal scholars; for example, Ruth Sullivan, a Canadian authority on statutory interpretation, states that "[u]sing 'or' in an inclusive sense [. . .] is grammatically correct and accords with both popular and legal usage" (2008:82).

[3] Curiously, Adams (2004:124) cites Huddleston and Pullum (2002) (chapter 15 of which is Huddleston et al. 2002) in support of these contentions, seemingly disregarding the insistence by Huddleston et al. (p. 1294) that "*or* doesn't **mean** that only one of the alternatives is true" (emphasis in original) and that a sentence analogous to Adams' example, given in (i), "is perfectly consistent with both component propositions being true — and indeed I might say it knowing that both are true".

(i) There's a copy in the office or in the library.

Yet, even if we grant that these sentences allow only one disjunct in each to be true, they still provide no reason to reject an inclusive treatment of *or*. This is because we can see the appropriate readings of the sentences in (12) as the result of "narrowing down the range of possible contexts for the whole coordination", based respectively on "our knowledge that one cannot be born on successive Christmas Days" (Huddleston et al. 2002:1296) and that "X is dead" and "X is alive" are contradictory. Accordingly, we can still preserve the insight that *or* expresses inclusive disjunction.

Note that one robust source of evidence for an "inclusive" treatment of *or* is the test for exclusive disjunction that involves following up the disjunction with linguistic material that represents the conjunction of its disjuncts. This is illustrated in (13a). If *or* were exclusive, the additional material would lead to contradiction and thus infelicity, just as the continuation in (13b) does.

(13) a. John is a liar or a fool. In fact, he is both.

b. John is neither a liar nor a fool. #In fact, he is both.

It is worth noting that the felicity of such continuations turns out to be far more complex than one would expect if natural language disjunction were reducible largely to classical logic disjunction. For example, as Groenendijk (2009) notes, a felicitous response to the disjunctive statement in (14a) (with the focus indicated) can take the form of (14b) but not (14c), suggesting that such a felicitous response cannot amount only to disjunction elimination.

(14) a. [Alf or Bea]$_{\mathrm{F}}$ will go to the party.

b. Yes. In fact, [Bea]$_{\mathrm{F}}$ will go.

c. # [Bea]$_{\mathrm{F}}$ will go. (based on Groenendijk 2009:81–82, exx. 1, 4, 5)

Granting these complications — which will be explored later in this article — we can still conclude that the weight of evidence clearly favours the treatment of *or* as inclusive, notwithstanding the claims of Solan (1993) and others such as Adams (2004).

Yet, recognizing this fact about *or* alone does not give us much insight into its actual use in legal or other discourses. Nor does it offer much help in bridging the divide that Solan (p. 46) alludes to in speaking of how "logicians use the word" and how "in natural language" the word "is frequently used to mean one but not both of two items". The same divide is seen in the observation by Huddleston et al. (2002:1294) that a sentence like that in (12a) involves "offering alternative explanations" rather than "envisaging the possibility that both might apply", notwithstanding the inclusive meaning of *or*. What is necessary to bridge this divide is a recognition of the role of pragmatic reasoning about what the speaker intended to convey, which may lead to the conclusion that the speaker has used *or* to signal that only one disjunct holds. This reasoning process is discussed further in the next section.

Other occurrences of *or* in legal texts also represent a significant divergence between natural language and "logicians' *or*". One (considered in more detail in the next section) involves the occurrences of *or* under *may*, which gives rise to the "free choice permission" puzzle exemplified in (1b) and repeated in (15):

(15) You may go to the beach or go to the cinema.

As we saw earlier, Solan discusses a case, *Beslity*, that involved a related interaction between the modal operator *may* and the connective *and* in the following provision, repeated from (5):

(16) "Any person who has been injured by reason of any violation of [a prohibition on false advertising] [. . .] may bring an action in his own name to enjoin such unlawful act [. . .] *and* to recover his actual damages [. . .]"

(*New York General Business Law* § 350–d(3), excerpted from Solan 1993:46; his italics)

However, Solan (p. 47) observes plausibly that this sentence contrasts with a sentence like that in (17a), in which *may* is distributed over the two conjuncts, as indicated by the schematization in (17b). The sentence in the statute has a rather different structure, in which the conjoined phrase escapes the scope of *may*, as suggested by (17c):

(17) a. You may take depositions and request documents.

b. may (x and y) = may x and may y

c. may (bring an action (to enjoin and to recover damages))

(Solan 1993:47, exx. 8–10)

While Solan thus does not ignore the interaction between connectives and modal operators in legal texts, he does overlook the complex and intriguing puzzle of "free choice permission" — one that is hardly absent from the American legal context that he investigates, as suggested by the following provision in a Wisconsin statute:

(18) "A person may establish or use a public mausoleum in a cemetery consisting of less than 20 acres in a municipality that has enacted an ordinance under s. 157.129 (2) if the cemetery meets the minimum acreage requirement specified in that ordinance."

(Wis. Stat. § 157.12(2)(c)2)

Such legal "free choice permission" sentences thus appear to be worth investigating, particularly since they give another perspective on the idea that *or* serves to indicate alternatives.

In the rest of this article I explore the possibility of capturing this idea about *or* within the framework of inquisitive semantics. Although it would be premature to urge judges and lawyers to adopt such analytical tools in their work, this framework might ultimately provide them with a more intuitive basis for analysing *or* in legal discourses.

3. *OR* IN SOME WTO DECISIONS

In this section I investigate occurrences of *or* in a rather different legal context, that of WTO decisions on international trade disputes. Because of the meticulousness with which these decisions are recorded and the role of principles of ordinary language interpretation rather than those of legal interpretation like the "*and*/*or*" rule in resolving these disputes, WTO decisions provide an ideal forum for investigating *or* and testing the fruitfulness of linguistic tools for understanding and analysing the problems raised by *or* in legal contexts.

3.1 Some background on the WTO

The WTO is, in brief, an international body whose purpose is "to develop and coordinate international trade" (Matsushita et al. 2006:1). More specifically, it exists to "facilitate the implementation, administration, and operation, and to further the objectives of the WTO agreements" (*WTO Agreement* Art. III:1, p. 9). These agreements pertain to a wide range of trade-related matters and all members of the WTO must abide by their terms. A disagreement between member countries about the proper interpretation of one of these agreements may give rise to a dispute in which a complainant country argues that a respondent country's interpretation of the agreement and the policies based on it are inconsistent with the agreement in question, thus violating its WTO obligations.[4] The respondent country then attempts to show that no such inconsistency exists and that its policy should be permitted under the text of the agreement. The WTO requires the parties to a dispute to spend 60 days in consultations to attempt to find a mutually acceptable solution.

However, if this consultation period does not result in a resolution of the dispute, the complainant may request that the WTO establish a three-member panel to resolve the dispute. This request involves "identify[ing] the specific measures at issue and provid[ing] a brief summary of the legal basis of the complaint" (DSU, Art. 6.1). The "measures at issue" are the policies of the respondent that have given rise to the complaint; and the "legal basis" of the complaint is the aspect of a WTO agreement or agreements that the complainant takes these policies to violate. For example, a lengthy dispute between the European Communities (EC) and Ecuador, Guatemala, Honduras, Mexico, and the United States, which concerned import restrictions that the EC imposed on bananas,[5] revolved around the complainant's claim that the respondent countries' allocation of licences for the importation of bananas was inconsistent with Article III:4 of the *General Agreement on Tariffs and Trade* (GATT), which requires that one country treat the products of another country in a manner "no less favourable" than "like products" of any other country. This was because this licence allocation amounted to "a requirement or incentive" to purchase bananas from certain countries only — namely, those from 12 former European colonies. Worth noting here is the centrality of the claim of "inconsistency" between a respondent country's policy and a provision in a WTO agreement, about which I shall have more to say in the following sections.

The WTO panel hears the arguments of the two parties and prepares an interpretation of the dispute, in the form of a "Panel Report", in seeking to resolve the

[4]This is not the only reason why a dispute may arise. In particular, there are also "non-violation complaints", where a country's policy "does not conflict with any WTO agreement" (Matsushita et al. 2006:121); and "situation complaints", which arise from "the existence of 'any situation' other than those covered by the violation and non-violation complaint procedures" (p. 123).

[5]This dispute is considered in some detail in Aher (2009), from which the examples given in section 3.3 are also drawn.

dispute.[6] Once the panel produces its report, it is circulated to WTO members and must be adopted by the WTO's Dispute Resolution Body within 60 days of its circulation. Before the report is adopted, though, the parties may appeal it before the Appellate Body, the WTO's version of a court of appeal, which then issues its own report. This report "may uphold, modify or reverse the legal findings and conclusions of the panel" (WTO 2012). This report is also circulated to WTO members and then adopted by the Dispute Resolution Body (unless it decides by consensus not to, something that has never happened) (WTO 2012, Matsushita et al. 2006:115–17).

Also relevant here, as already noted, is the basis for interpreting WTO texts, which accords with "customary rules of interpretation of public international law" (DSU Art. 3.2). This is understood "to mean, in large measure, the rules contained in the *Vienna Convention on the Law of Treaties*" (Matsushita et al. 2006:27), Article 31(1) of which states that "[a] treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose". As Matsushita et al. (2006:112) note, "Article 31 is cited "[i]n almost every report of Panels and the Appellate Body", "and dictionary meanings of the relevant words in the provision in question are discussed" (p. 112).

The rule of interpretation in this article of the *Vienna Convention* does not, however, exhaust those relevant to the interpretation of WTO texts. Article 32, though rarely invoked, is also important. It states that "[r]ecourse may be had to supplementary means of interpretation, including the preparatory work of the treaty and the circumstances of its conclusion, in order to confirm the meaning resulting from the application of Article 31, or to determine the meaning when the interpretation according to article 31 leads to a result which is manifestly absurd or unreasonable". What also guides interpretation in WTO decisions is the principle that such decisions "cannot add to or diminish the rights and obligations provided in the [WTO] agreements" (DSU Art. 3.2).[7] Despite these complications, attention to "words in their context" appears to be the most important interpretative consideration (Matsushita et al. 2006:32). This suggests that linguistic analysis should still be relevant in the WTO context and I shall make use of this assumption in my analysis.

3.2 Some occurrences of *or* in the WTO context

With this background in place, I now turn to the occurrence of *or* in certain WTO decisions. These will complement the discussion of *or* in American court decisions, but also provide additional situational and textual context.

One occurrence of *or* that presents an interesting problem for both linguistic and legal interpretation is investigated in the Panel Report of *United States — Customs Bond Directive*. This problem is similar to that in the *Siebel* case discussed by Solan (1993). This WTO dispute involved the implementation by the United States of an "enhanced continuous bond requirement" (EBR) for the collection of anti-dumping

[6] In the banana dispute just described, the WTO panel agreed that the licence allocation at the heart of this dispute was indeed inconsistent with GATT Article III:4.

[7] Thanks to an anonymous reviewer for pointing out such additional constraints on interpretation in the WTO context.

duties with respect to the importation of certain frozen warm-water shrimp that were subject to these duties (*United States — Customs Bond Directive*, para. 2.2). The United States imposed the EBR together with cash deposits in order to ensure that the relevant duties were paid. It understood this combined payment system to be consistent with the provision given in (19), from an Ad Note to the *WTO Anti-Dumping Agreement*:

(19) "a contracting party may require reasonable security (bond or cash deposit)"

According to this provision, a contracting party can ask for reasonable security, which may take the form of a bond or a cash deposit. The complainant, India, argued that the *or* in this provision should be read exclusively, allowing for either a bond or a cash deposit, but not both. The WTO panellists disagreed, ruling that the language did not suggest that a combination of bonds and a cash deposit was unreasonable. Their decision provided no linguistic analysis of *or*, although the panellists did point out that they "[saw] nothing in the text of the Ad Note to suggest that the combination of both (otherwise reasonable) forms of security necessarily results in a measure that is unreasonable"; that "the text of the Ad Note does not provide that the form of security will only be reasonable if *either* (i) cash deposits *or* (ii) bonds are required" (Panel Report, *United States — Customs Bond Directive*, para. 7.112); and finally that an inclusive reading was consistent with an earlier WTO decision. This decision might thus lend itself to further, linguistic, investigation.

Another occurrence of *or* that likewise presents a significant interpretative problem — this one related to *or* under a deontic modal — is associated with the lengthy dispute mentioned earlier concerning import restrictions that the EC imposed on bananas. At the heart of this dispute is the following GATT provision:

(20) "No prohibition *or* restriction shall be applied by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation of any product destined for the territory of any other contracting party, unless the importation of the like product of all third countries or the exportation of the like product to all third countries is similarly prohibited or restricted."

(GATT Art. XIII, para. 1; italics added)

Significantly, this provision provides a "well-behaved" example of *or* under modality and negation. More puzzling is the following occurrence of *or* elsewhere in the same legal text, where it "misbehaves":

(21) "In cases in which quotas are not practicable, the restrictions *may* be applied by means of import licenses *or* permits without a quota."

(GATT Art. XIII, para. 2(b); italics added)

In the following section, I offer an analysis of examples such as these using the tools of inquisitive semantics — which, I shall argue, can offer some real insights into them.

4. AN "INQUISITIVE SEMANTICS" ANALYSIS

I suggested earlier that the framework of inquisitive semantics could provide some useful tools for investigating *or* in legal contexts. In this section, I try to demonstrate

this, by spelling out some basic features of this framework and applying them to sentences with *or* similar to those in the two WTO decisions just described.

4.1 Inquisitive semantics

The aim of inquisitive semantics is to develop a notion of meaning that sheds light on information exchange,[8] building on Stalnaker's (1978) idea that the meaning of a sentence can be understood in terms of the context change brought about by an utterance of it, so that the sentence serves to update the common ground.

Inquisitive semantics recasts Stalnaker's idea by taking a sentence to express a proposal to update the common ground. On this view, each participant in a conversation has an information state that embodies what this participant believes to be the case, where this information state includes only those possibilities that the participant is aware of knowing. An information state is represented (as is standard) by a set of possible worlds — in other words, ways in which the participant can imagine the world to be. If the set is empty, the information state is "inconsistent". A sentence is "informative" if updating with it eliminates some possible worlds and "inquisitive" if it represents at least two possibilities for updating the common ground. An "assertion" is a sentence that is informative but not inquisitive, and a "question" is a sentence that is inquisitive but not informative. When a sentence is both informative and inquisitive, it is known as a "hybrid".

Recall that WTO disputes generally involve the question of whether a country has acted in a manner inconsistent with a WTO agreement and that a dispute typically begins with a complainant's claim that a respondent has implemented some policy that is inconsistent with a specific WTO article. We can think of such disputes as introducing an intermediate step between the determination that a state of affairs (in the form of some policy) holds and the establishment of the legal consequences of this state of affairs. This intermediate step is the determination by authorized adjudicators whether this state of affairs is inconsistent with — that is, violates — some rule. If the adjudicators find a violation, they will likely also determine an appropriate penalty for this violation, such as a fine. If they find no violation, there will be no need to consider penalties.

This intermediate step of determining an inconsistency between a policy and a rule plays a crucial role in the analysis of dispute settlement, providing a straightforward way to capture cases in which both a policy and a rule exist but contradict each other. To capture such cases, we add a new entity to the inquisitive semantics framework: inconsistency between facts and deontic information. This allows us to ask whether such an inconsistency follows from the policies and rules in effect.[9]

[8] See the inquisitive semantics mission statement: sites.google.com/site/inquisitivesemantics/Home

[9] This idea is not new to semantics. Anderson (1967) suggested a deontic logic that explicitly adds violations as a consequence of a prohibited act; my proposal builds on Anderson's insight.

4.2 Deontic inquisitive semantics

To explore the interpretation of *or* as it figures in the WTO decisions just described as well as in the court decisions reported by Solan (1993), I shall make use of the framework of radical inquisitive semantics, developed by Groenendijk and Roelofsen (2010) and Sano (2010), which extends the information exchange perspective of meaning by specifying not only the conditions under which a sentence is supported but also the conditions when it is rejected. Aher (2012) adds a modified Andersonian treatment of deontic permission, thus creating a "modified Andersonian deontic radical inquisitive semantics" (MADRIS).[10]

I consider a propositional language with atomic sentences p, q, r and negation $\neg$, conjunction $\wedge$, and implication $\rightarrow$ as its basic connectives, to which I add a class of designated atoms v_1, v_2, ...; these state that a specific rule has been violated. I introduce deontic sentential operators $\langle v_1\rangle\varphi$, $\langle v_2\rangle\varphi$, ... read as 'it is permitted that φ'. Depending on the rule, modals can refer to different violations. For the purposes of this article, which does not deal with cases of several violations, $\langle v\rangle\varphi$ can be abbreviated as $\Diamond\varphi$.

Disjunction is defined in terms of conjunction and negation in the usual way: $\varphi \vee \psi := \neg(\neg\varphi \wedge \neg\psi)$. A second deontic operator, "obligation", is introduced in a similarly standard fashion: $\Box\varphi := \neg\Diamond\neg\varphi$. As in basic inquisitive semantics (e.g., Groenendijk and Roelofsen 2009), an interrogative sentential operator $?\varphi$ is also introduced into the language by definition: $?\varphi := \varphi \vee \neg\varphi$. (I will not, however, be making much use of this operator in this article.)

In the present framework, the basic semantic notion is that of an information state, which is a set of worlds; a world is a binary valuation of the atomic sentences in the language, including the designated atoms that state that a specific rule has been violated. Let A be the set of all atomic sentences. A world w is a set which for each $\alpha \in A$ contains either α or $\bar{\alpha}$, meaning that α holds in w and that $\bar{\alpha}$ does not hold in w, respectively. For ease of notation, a world w is represented as a sequence of the elements of the set that corresponds to it; for example, instead of $\{p, \bar{q}, v\}$, I shall write $p\bar{q}v$. I use σ and τ as variables that range over states, and ω denotes the set of all worlds, which corresponds to the state of ignorance.

In the recursive semantics, when a state σ supports a sentence φ, $\sigma \models^+ \varphi$, and when σ rejects φ, $\sigma \models^- \varphi$. The set of all states that support a sentence φ is denoted by $[\varphi]^+ = \{\sigma \subseteq \omega \mid \sigma \models^+ \varphi\}$ and similarly for $[\varphi]^-$. The recursive semantics provided below guarantees that $[\varphi]^+$ and $[\varphi]^-$ are downward closed sets of states: if $\sigma \in [\varphi]^+$ and $\tau \subseteq \sigma$, then $\tau \in [\varphi]^+$, and likewise for $[\varphi]^-$. The meaning of a sentence φ is a pair $[\varphi] = \langle[\varphi]^+, [\varphi]^-\rangle$.

For the propositional case under consideration there is always at least one maximal supporting state and one maximal rejecting state for a sentence.[11] The set of

[10] The following account is essentially an extended version of the semantics given in Aher (2012).

[11] This does not necessarily hold for the first order case; see Ciardelli (2010) and Ciardelli et al. (to appear).

all maximal supporting states for φ is denoted by $\textsc{max}[\varphi]^+ := \{\sigma \in [\varphi]^+ | \neg\exists\tau \in [\varphi]^+ : \sigma \subset \tau\}$ and similarly for $\textsc{max}[\varphi]^-$.

The key notion of "inquisitiveness" is defined here along the lines of standard inquisitive semantics (see, e.g., Ciardelli et al. 2012:9).

Definition 1: Inquisitiveness

a. *support-inquisitiveness*: φ is support-inquisitive iff there are at least two maximal states that support φ.

b. *rejection-inquisitiveness*: φ is rejection-inquisitive iff there are at least two maximal states that reject φ.

c. *inquisitiveness*: φ is inquisitive iff φ is support-inquisitive or rejection-inquisitive.

These maximal states represent alternative ways in which a sentence can be supported or rejected, and they play a crucial role in the explanation of "free choice" phenomena.

The fact that meanings are determined by the pair of supporting and rejecting states is reflected in the notion of entailment as defined here, which combines support-entailment and rejection-entailment:

Definition 2: Entailment

a. *support-entailment*: $\varphi \models_+ \psi$ iff $[\varphi]^+ \subseteq [\psi]^+$

b. *rejection-entailment*: $\varphi \models_- \psi$ iff $[\psi]^- \subseteq [\varphi]^-$

c. *entailment*: $\varphi \models \psi$ iff φ support-entails ψ and φ rejection-entails ψ

According to definition 2, a sentence φ support-entails the sentence ψ if every state that supports φ also supports ψ, and likewise for rejection. Classically, the support and reject perspectives on entailment coincide. In MADRIS, considering both support-entailment and rejection-entailment is not redundant and the dual nature of entailment plays an important role in explaining various deontic puzzles. Crucially for the following discussion, it is sufficient for demonstrating entailment failure to show the failure of either support-entailment or rejection-entailment.

As usual, equivalence is defined as mutual entailment, where I distinguish the notions of support-equivalence and rejection-equivalence and their combination.

Definition 3: Equivalence

a. *support-equivalence*: $\varphi \equiv_+ \psi$ iff $\varphi \models_+ \psi$ and $\psi \models_+ \varphi$

b. *rejection-equivalence*: $\varphi \equiv_- \psi$ iff $\varphi \models_- \psi$ and $\psi \models_- \varphi$

c. *equivalence*: $\varphi \equiv \psi$ iff $\varphi \equiv^+ \psi$ and $\varphi \equiv_- \psi$

According to the semantics given below, a sentence φ can be support-equivalent but not rejection-equivalent with a sentence ψ, or the other way around.

Mutual entailment of two sentences guarantees identity of the meanings of the propositions they express.

Fact 1: $\varphi \equiv \psi$ iff $[\varphi] = [\psi]$

As in basic inquisitive semantics, support of a sentence by a state requires not only that the state already contains the information the sentence provides — that is, that the sentence is not informative in that state — but also that the sentence not be inquisitive in that state. If the sentence embodies an issue, that issue should already be resolved in the state. For example, disjunction is treated as support-inquisitive. The semantics dictates that for a state to support a disjunction, it should support one of its disjuncts.

One distinctive feature of radical inquisitive semantics is that its clauses recursively specify rejection conditions as well as support conditions for the sentences of the language. Rejection conditions also pertain to both informative and inquisitive aspects. The rejection of a sentence may also embody a "rejection issue", where the rejection of the sentence by a state requires that this issue already be resolved in the state. Conjunction, for example, is treated as rejection-inquisitive; the semantics dictates that for a state to reject a conjunction, it should reject one of its conjuncts.

Another distinctive feature of radical inquisitive semantics is its treatment of implication. Its support conditions are similar to those in ordinary inquisitive semantics, where a state supports a conditional sentence if any of its substates supporting the antecedent also supports the consequent. To this, radical inquisitive semantics adds the rejection condition for a state to reject an implication that says (provided that the antecedent is consistent with the state) that some maximal substate of the state supporting the antecedent also rejects the consequent.

MADRIS adds a "radical" treatment of deontic statements. In the descriptions to follow, we will refer to the sentences that are embedded under deontic modals as prejacents. The semantics requires that for a state to support a permission statement, any substate of it that supports the prejacent supports the deontic fact that no violation results.

Most distinctively, the semantics requires for a state to reject a permission statement that any substate of it that supports the prejacent supports the deontic fact that a violation results. The recursive semantics to which the notions defined above apply is stated below.[12]

Definition 4: MADRIS

a. Clause 1: Atomic sentences

$$\sigma \models^{+} p \text{ iff } \forall w \in \sigma : p \in w$$
$$\sigma \models^{-} p \text{ iff } \forall w \in \sigma : \bar{p} \in w$$

b. Clause 2: Negation

$$\sigma \models^{+} \neg\varphi \text{ iff } \sigma \models^{-} \varphi$$
$$\sigma \models^{-} \neg\varphi \text{ iff } \sigma \models^{+} \varphi$$

c. Clause 3: Conjunction

$$\sigma \models^{+} \varphi \wedge \psi \text{ iff } \sigma \models^{+} \varphi \text{ and } \sigma \models^{+} \psi$$
$$\sigma \models^{-} \varphi \wedge \psi \text{ iff } \sigma \models^{-} \varphi \text{ or } \sigma \models^{-} \psi$$

[12] The clauses are the same as those in Aher (2012); here, however, I have made use of a different notation for expositional purposes.

d. Clause 4: Disjunction

$$\sigma \models^{+} \varphi \rightarrow \psi \text{ iff } \forall \tau \in \textsc{max}[\varphi]^{+} : \tau \cap \sigma \models^{+} \psi$$
$$\sigma \models^{-} \varphi \rightarrow \psi \text{ iff } \exists \tau \in \textsc{max}[\varphi]^{+} : \tau \cap \sigma \models^{-} \psi$$

e. Clause 5: Implication

$$\sigma \models^{+} \langle v \rangle \varphi \text{ iff } \forall \tau \in \textsc{max}[\varphi]^{+} : \tau \cap \sigma \models^{-} v$$
$$\sigma \models^{-} \langle v \rangle \varphi \text{ iff } \forall \tau \in \textsc{max}[\varphi]^{+} : \tau \cap \sigma \models^{+} v$$

Below, I explain the clauses one by one, illustrating them with examples and pictorial representations.

4.2.1 Atomic sentences

According to Clause 1, an atomic sentence p is supported by a state σ if p holds in every world w in σ; and p is rejected in σ if p holds in no world w in σ. This means that there is a unique maximal state σ that supports p, a unique element of $\textsc{max}[p]^{+}$, which consists of all worlds where p holds; and a unique maximal state σ that rejects p, a unique element of $\textsc{max}[p]^{-}$, which consists of all worlds where p does not hold. This means that atoms are neither support-inquisitive nor rejection-inquisitive.

The meaning of p and of q is depicted in Figure 1, where the circles correspond to worlds that concern only the value of these two atomic sentences. Maximal states that support a sentence are indicated by solid lines; maximal states that reject a sentence are indicated by dashed lines.

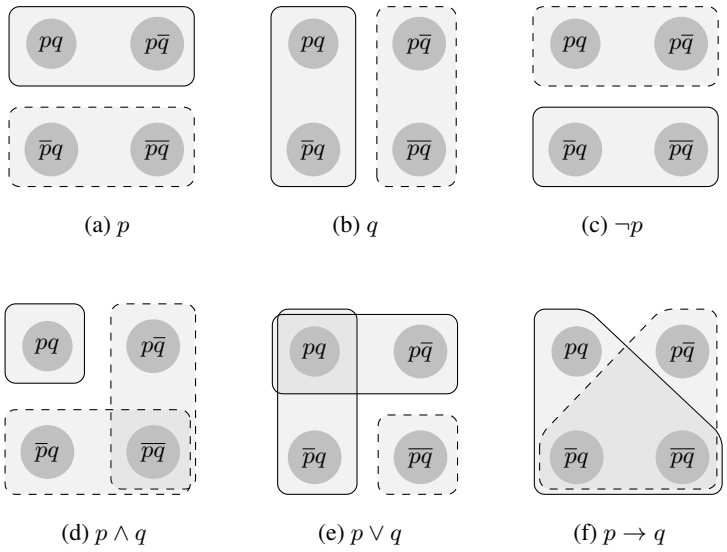
4.2.2 Negation

According to Clause 2, negation flips between support and rejection, so that a sentence $\neg\varphi$ is supported by a state σ if σ rejects φ and conversely for the rejection of $\neg\varphi$. This means that $\neg\varphi$ is support-inquisitive when φ is rejection-inquisitive, and vice versa.[13] Consider the simple example $\neg p$, whose meaning is depicted in Figure 1(c).

4.2.3 Conjunction

According to Clause 3, a state σ supports a conjunction $\varphi \wedge \psi$ if σ supports both φ and ψ; and σ rejects this conjunction if σ rejects φ or σ rejects ψ. Consider the simple example $p \wedge q$. A state σ supports $p \wedge q$ if it supports both p and q. This means that $\textsc{max}[p \wedge q]^{+}$ consists of a single element, the state that consists of all worlds where both p and q hold. A state σ rejects $p \wedge q$ if it rejects either p or q. This means that $\textsc{max}[p \wedge q]^{-}$ consists of two elements, a state consisting of all worlds where p does not hold and a state consisting of all worlds where q does not hold. Hence, $p \wedge q$ is rejection-inquisitive. The meaning of $p \wedge q$ is shown in Figure 1(d).

[13] This is different from basic inquisitive semantics, where negation always blocks inquisitiveness.



(a) p (b) q (c) $\neg p$

(d) $p \wedge q$ (e) $p \vee q$ (f) $p \to q$

Figure 1: Some sentences in MADRIS

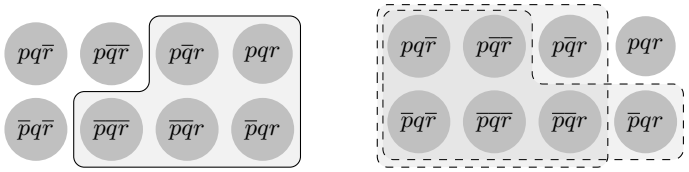
4.2.4 Disjunction

Disjunction $\varphi \vee \psi$ is defined as $\neg(\neg\varphi \wedge \neg\psi)$. Consider the simple example $p \vee q$. According to this definition, the disjunction $p \vee q$ is supported by a state σ when σ rejects $\neg p \wedge \neg q$, so σ supports $p \vee q$ if σ supports either p or q, and rejects it if σ rejects both. The meaning of $p \vee q$ is depicted in Figure 1(e). As the diagram shows, there are two elements in $\textsc{max}[p \vee q]^+$: the set of worlds where p is the case and the set of worlds where q is the case; by contrast, there is only a single element in $\textsc{max}[p \vee q]^-$. This means that $p \vee q$ is support-inquisitive but not rejection-inquisitive.

4.2.5 Implication

According to Clause 4, a state σ supports $\varphi \to \psi$ if every maximal supporting state for the antecedent φ, restricted to the information contained in σ, supports the consequent ψ. A state σ rejects $\varphi \to \psi$ as soon as a maximal supporting state for φ, restricted to the information contained in σ, rejects ψ. Consider the simple example $p \to q$. As explained above, there is only one maximal supporting state for an atomic sentence p, consisting of all worlds where p is the case. The universal quantification in the support clause and the existential quantification in the reject clause both concern only this state. A state σ supports $p \to q$ if the maximal substate of σ where p is the case supports q. So, in all worlds in σ where p is the case, q should be the case as well. A state σ rejects $p \to q$ if the maximal substate of σ where p is the case rejects q. So, in all the worlds in σ where p is the case, q should not be the case. Figure 1(f) shows the meaning of $p \to q$.

As in basic inquisitive semantics, Facts 2(a) and 2(b) hold generally.



(a) $[p \vee q \rightarrow r]^{+}$ (b) $[(p \vee q) \rightarrow r]^{-}$

Figure 2: $(p \vee q) \rightarrow r$

Fact 2:

a. If ψ is not support-inquisitive, then $\varphi \rightarrow \psi$ is not support-inquisitive.

b. If ψ is not rejection-inquisitive, then $\varphi \rightarrow \psi$ is not rejection-inquisitive.

The clauses for implication account for a number of intuitions, including Ramsey's (1990:155) intuition that $p \rightarrow q?$ has the contrary answers: $p \rightarrow q$ and $p \rightarrow \neg q$. As Figure 1(f) illustrates, a straightforward result in MADRIS is that Ramsey's question, *if* $p, q?$, represented in the framework by $p \rightarrow ?q$, has the possible answers $p \rightarrow q$ and $p \rightarrow \neg q$.[14]

In the previous (simple) example, quantification over the maximal supporting states for the antecedent played no significant role. This, however, is not the case for (23), where the antecedent is a support-inquisitive disjunction for which there are two maximal supporting states: the set of all worlds where p is the case and the set of all worlds where q is the case (see Figure 1(d)).

(22) $(p \vee q) \rightarrow r$

For a state σ to support (22), what should hold is that for each of the two maximal supporting states for $p \vee q$, when σ is restricted to it, the resulting substate of σ supports r. So, in each world in σ where p is the case, r should also be the case; and in each world in σ where q is the case, r should also be the case. For a state σ to reject (23), what should hold is that for one (or both) of the two maximal supporting states for $p \vee q$, when σ is restricted to it, the resulting substate of σ rejects r. This means that (23) is supported and rejected in the same states as $(p \rightarrow r) \wedge (q \rightarrow r)$ and hence that the two sentences are equivalent. Classically this is also the case, but MADRIS also produces the result that both sentences are reject-inquisitive.

The meaning of (23) is depicted in Figure 2. As the examples concern three atoms, we have to consider eight worlds. For the sake of the readability of this and subsequent figures, the worlds in the top and bottom rows are respectively p and $\neg p$ worlds; those on the left and right edges of the diagram are all q worlds; the four in the centre are $\neg q$ worlds; and the four on the right-hand and left-hand sides of the diagram are respectively r worlds and $\neg r$ worlds. The maximal supporting state for $(p \vee q) \rightarrow r$ is shown in Figure 2(a). The two maximal states that reject $(p \vee q) \rightarrow r$ are shown in Figure 2(b).

[14] See Groenendijk and Roelofsen (2010) for more extensive motivation of this clause.

4.3 "Violation semantics"

Within this framework, I will now describe the properties of the deontic modal operator that figures in my analysis. A key component of my analysis of the behaviour of *or* is a "violation-based" deontic logic, which offers a way to address the question of whether some state of affairs violates a specific rule. This mirrors the procedures involved in WTO dispute resolution, as described earlier, since permission statements in WTO agreements and other legal texts provide information on what does not count as a violation of some rule.

According to Clause 5, a state σ supports a permission statement $\Diamond\varphi$ if every maximal supporting state for the prejacent φ, restricted to the information contained in σ, rejects v. A state σ rejects $\Diamond\varphi$ if every maximal supporting state for φ, restricted to the information contained in σ, supports v. Consider the simple example $\Diamond p$. As we have seen above, there is only one maximal supporting state for an atomic sentence p, consisting of all worlds where p is the case. The universal quantification in the support and rejection clause concerns only this state. A state σ supports $\Diamond p$ if the maximal substate of σ where p is the case supports $\neg v$. So, in all worlds in σ where p is the case, $\neg v$ should be the case as well. A state σ rejects $\Diamond p$ if the maximal substate of σ where p is the case supports v. So, in all worlds in σ where p is the case, v should be the case as well. Of course, the simple example is structurally similar to implication, and the equivalence facts given below can indeed be shown to hold.

Fact 3:

a. $\Diamond\varphi \equiv_+ \varphi \rightarrow \neg v$

b. If φ is not support-inquisitive, then $\Diamond\varphi \equiv \varphi \rightarrow \neg v$

These facts capture Anderson's (1967) insight that the meaning of deontic operators is somehow related to implication. Fact 3(b) is that $\Diamond p$ is equivalent to $p \rightarrow \neg v$. However, as this fact reflects, it is the non-inquisitiveness of p that guarantees the equivalence of $\Diamond p$ and $p \rightarrow \neg v$. In the next subsection, I shall consider examples with support-inquisitive prejacents. For now, though, I confine my discussion to simple examples.

Figure 3 shows the meaning of $\Diamond p$ and $p \rightarrow \neg v$. This figure, in which non-violation worlds are indicated in grey and violation worlds in black, also displays other key aspects of deontic sentences. A state where "p is permitted" contains no violation worlds in which p is the case; a state where "p is prohibited" contains no non-violation worlds in which p is the case; and a state that is "deontically neutral towards p" is one with at least one non-violation world and one violation world when p is the case, as is the case here with $\neg p$.

A permission statement does not predetermine whether p is in fact the case. The set of worlds that supports $\Diamond p$ includes, for example, the world $\overline{pv}$ in which p is not the case. The inclusion of this world in a state where $\Diamond p$ is the case accounts for the intuition that permission statements do not require performance of the permitted act.

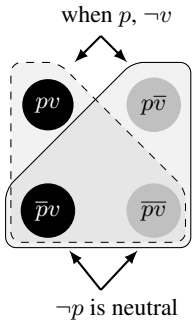


Figure 3: Permission sentences and conditionals

4.4 *Or* in deontic contexts and the "free choice" puzzle

Anderson's intuition that deontic modals can be reduced to implication leads to problems when permission statements with support-inquisitive prejacents are negated. Recall that $(p \vee q) \rightarrow r$ is rejection-inquisitive, so the same would hold for $(p \vee q) \rightarrow \neg v$ and hence for $\Diamond(p \vee q)$ if permission statements were reduced to implications. The negation of the permission statement $\Diamond\varphi$ is the prohibition $\neg\Diamond\varphi$ or, equivalently, the obligation $\Box\neg\varphi$. Intuitively, prohibitions and obligations are not support-inquisitive. As will be illustrated below, the standard examples of free choice require that $\Diamond(p \vee q)$ and $\neg\Diamond(p \vee q)$ not be support-inquisitive: the authors of a rule establish what is permitted, what is prohibited, and what is obligatory, and this leaves no room for inquisitiveness. It is, by contrast, only in everyday discussions of obligation or permission that ignorance of these could play a role. In other words, if a person does not know precisely what is permitted and what is required, he or she could, for example, utter a disjunction believing that some prohibition holds but not having enough information to specify which one. Thus, to capture the non-inquisitive nature of modal statements, modal operators are defined as basic operators such that for no φ: $\Diamond\varphi$ is support-inquisitive or rejection-inquisitive.

To obtain an analysis of deontic modals whereby deontic statements are never inquisitive — unlike implication with universal quantification in the support clause and existential quantification in the rejection clause — permission has universal quantification scoping over the maximal supporting states for the prejacent in both support and rejection clauses. Consider the simplest case, $\Diamond(p \vee q)$. Here, universal quantification in the support clause scopes over $\textsc{max}[p \vee q]^+$, which consists of two elements: the set of all worlds where p is the case and the set of all worlds where q is the case (see Figure 1(d)). For a state σ to support $\Diamond(p \vee q)$, it should hold for each of the two maximal supporting states for $p \vee q$ that when σ is restricted to it, the resulting substate of σ rejects v. Similarly, for a state σ to reject $\Diamond(p \vee q)$, it should hold for each of the two maximal supporting states for $p \vee q$ that when σ is restricted to it, the resulting substate of σ supports v. Crucially, quantification occurs over multiple

maximal supporting states for $p \vee q$, which are part of an inquisitive semantics analysis of $p \vee q$.[15] The only cases in which deontic modal sentences can be inquisitive are those in which an inquisitive connective scopes over a modal.

Let us now return to the "free choice" permission puzzle, which was illustrated in (19) by a provision in a Wisconsin statute. This is given in abbreviated form in (24a) with a corresponding logical representation given in (24b):

(23) a. "A person may establish or use a public mausoleum . . . "

b. $\Diamond(p \vee q)$

The salient reading of (23a) is that a person breaks no laws by establishing a public mausoleum and a person breaks no laws by using a public mausoleum. In principle, however, a separate legal provision could exist that prohibits the establishment along with the use of a public mausoleum even though one or the other action is legal. In this sense, (23a) as such does not guarantee that performance of both the action described in one disjunct and the action described in the other is necessarily still legal. The provision in (23a) merely guarantees that when a person chooses to perform the action described in either disjunct, the law is not broken. Standard accounts of modals (e.g., von Wright 1951, Kratzer 2012) treat permission in terms of existential quantification over deontically accessible worlds. As long as there is at least one accessible world where φ holds, permission for φ also holds. But $\exists x(\mathrm{A}x \vee \mathrm{B}x)$ does not guarantee that $\exists x\mathrm{A}x$ and $\exists x\mathrm{B}x$, as required for "free choice".[16]

As already noted, the MADRIS framework offers a straightforward analysis of the free choice puzzle, which predicts that no violation occurs when, for example, a person decides to establish a mausoleum (p) or when a person decides to use a public mausoleum (q). This gives us the plausible result that the legal provision in (23a) permits a person to perform an action corresponding to either disjunct, the choice between them thus being "free".[17]

MADRIS is also able to account for counterparts of (23a) in which permission is in the scope of negation, as in (24a), which have been an additional challenge for previous accounts of free choice permission. The salient reading of (24a) is that performing an action corresponding to either disjunct is prohibited:

(24) a. A person may not establish or use a public mausoleum.

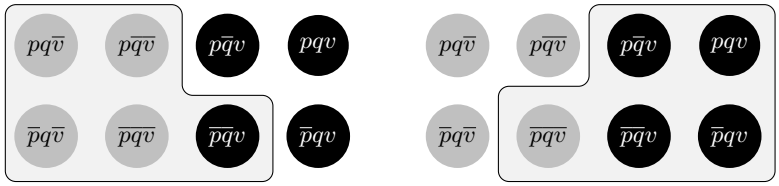
b. $\neg\Diamond(p \vee q)$

This reading of (24a) accords with the idea behind the rejection clause for permission modals that permission and obligation are not inquisitive. Thus, when the rule

[15] This is not to say, however, that other semantic accounts that obtain multiple maximal supporting states for $p \vee q$ would not suffice for quantification over the prejacent to obtain the intuitive result. Inquisitiveness, in the standard sense of asking to resolve an issue, does not play a role in the examples given in the text.

[16] Many solutions to this puzzle have been proposed in the literature; however, for reasons of space, these will not discussed here.

[17] It is worth noting that this account avoids the problems of implicature-based solutions, as the solution to the free choice reading follows from semantic properties without any appeal to additional pragmatic reasoning. See Aher (2012) for additional discussion.



(a) $[\Diamond(p \vee q)]^{+}$ (b) $[\Diamond(p \vee q)]^{-}$

Figure 4: "Free choice" permission and prohibition

in (24a) holds, any person who establishes or uses a public mausoleum will be in violation of this rule. This means that a MADRIS analysis correctly predicts that performing an action corresponding to either disjunct is prohibited.

The maximal state supporting (23b) is shown in Figure (4a) and that supporting (24b) is shown in Figure 4(b).

It is worth noting that the "free choice" effect does not correspond to an entailment relation. Even though the performance of p or q produces no violation, $\Diamond(p \vee q) \nvDash \Diamond p$ and $\Diamond(p \vee q) \nvDash \Diamond q$; (24b) only support-entails its disjuncts: $\Diamond(p \vee q) \models_{+} \Diamond p$ and $\Diamond(p \vee q) \models_{+} \Diamond q$. However, consistent with classical entailment, MADRIS entailment looks both at support-entailment and rejection-entailment; and $\Diamond(p \vee q) \nvDash_{-} \Diamond p$ because there are states rejecting $\Diamond p$ that do not reject $\Diamond(p \vee q)$. A characteristic example of this is the state $\{pqv, \bar{p}q\bar{v}\}$ where q is the case and adding p would result in a violation. Such a state rejects $\Diamond p$ but not $\Diamond(p \vee q)$. This is exactly what is required to avoid this version of Ross's (1941) paradox, illustrated in (25): $\neg\Diamond p$ should not entail $\neg\Diamond(p \vee q)$.

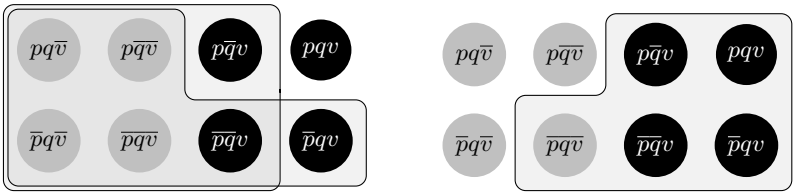
(25) a. You may not burn a letter. $\neg\Diamond p$

b. You may not burn a letter or mail it. $\neg\Diamond(p \vee q)$

For reasons of space, neither a fuller account of rejection-entailment and its implications, nor a discussion of multiple violations can be given here. I can point out, though, that rejection-entailment is relevant to a MADRIS analysis of well-known puzzles in deontic logic and implication and that it invalidates the counter-intuitive "strengthening the antecedent" puzzle, as $\Diamond p$ does not rejection-entail $\Diamond(p \wedge q)$.

Reasons of space also preclude a detailed discussion of free choice permission statements in any detail. However, given the assumption that the prejacent $p \vee q$ is pragmatically strengthened to $(p \wedge \neg q) \vee (\neg p \wedge q)$, MADRIS predicts that choosing only p or only q will still not lead to a violation. Yet, in contrast to the standard free choice example, the case in which both p and q hold is predicted to be neutral; and a separate rule could specify that $\neg\Diamond(p \wedge q)$ holds. This accounts for the intuition that in "free choice" examples performing the action associated with each disjunct is not necessarily permitted.

A final fact about free choice permission statements that an analysis of them needs to account for is their incompatibility with an "ignorance" reading. That is, when one continues (23a), for example, with "but I do not know which", the sentence no longer receives a free choice reading.



(a) $[\Diamond p \vee \Diamond q]^{+}$ (b) $[\Diamond p \vee \Diamond q]^{-}$

Figure 5: The ignorance reading

(26) a. A person may establish or use a public mausoleum, but I do not know which.

b. $\Diamond p \vee \Diamond q$

On the salient reading of (26a), the speaker is certain that one of the two disjuncts is permitted but is unable to specify which of them is permitted in the current situation. As just noted about the rule in (24), the authors of a rule cannot share this ignorance about what it permits and requires. Instead, such ignorance is associated with everyday discussions of such a deontic context. The maximal supporting states for the ignorance reading are shown in Figure 5.

MADRIS accounts for the ignorance reading of sentences like (26a) by assuming that modals generally take the "strongest" scope and that something additional is required for modals to take "weaker" scope. Scope "strength" can be determined by an inspection of entailment relations like that in (27).

(27) $\Diamond(p \vee q) \models \Diamond p \vee \Diamond q$

As one can see, (23b) is stronger than (26b). The salient reading of disjunctive permission statements such as (23a) is, as already noted, represented by (23b), in which the modal scopes over disjunction. However, with the addition of "but I do not know which", strongest scope becomes unavailable and the modal scopes into the disjunction, as shown in (26b). Thus, a MADRIS analysis captures the observation that the speaker does not know which of the two disjuncts is permitted while excluding the possibility that neither is permitted.

4.5 Some remaining problems

In the previous subsection, I showed that a MADRIS analysis can account for the basic facts of the free choice puzzle. However, the following problem calls for some further elaboration of such an analysis. This problem involves the observation that a sentence like that in (28) can also receive a free choice reading, even if this seems less salient than the ignorance reading:

(28) A person may establish a mausoleum or a person may use a public mausoleum.

In current MADRIS research, this free choice reading would also be accounted for by scope movement, where some additional information forces both modals to take scope over the disjunction. As they would have exactly the same effect, they would merge into a single modal, represented again as in (23b). Admittedly, however,

this solution is not as neat as those that MADRIS provides for the other pieces of the free choice puzzle and may need to be revisited in future research. An avenue for doing so is offered in Simons (2005), where the free choice reading is accounted for in terms of across-the-board LF movement. However, such interaction between syntactic scope and semantics still remains unexplored in the MADRIS framework.

4.6 Revisiting the "inclusive/exclusive" *or* puzzle in the legal domain

With these tools from MADRIS at our disposal, we can return to the inclusive/exclusive *or* problem described in section 2. The goal here is the rather modest one of showing that the MADRIS analysis is consistent with the consensus view among semanticists, as described in section 2, that *or* is inclusive, highlighting the centrality of such a view in any account of *or* in legal or ordinary language. It is worth noting, however, that the following analysis is concerned with the meaning of *or* itself and its interaction with modal operators, and does not consider the role of pragmatic inferences stemming from the context of the utterance. Such inferences would necessarily figure in a fuller treatment of *or* and are, in fact, an important part of inquisitive semantics. However, for reasons of space, an exploration of them must be left for another occasion.

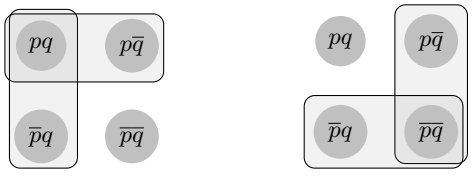
4.6.1 Inclusive or

Let us proceed, then, by paraphrasing the question of whether *or* is exclusive as follows: if $p \vee q$ is the case, is it valid to infer that $\neg(p \wedge q)$ also has to be the case? To answer this question, consider the ordinary-language sentences and their representations in (29a) and (29b).

(29) a. There is a cup or a plate on the table. $p \vee q$

b. There isn't both a cup and a plate on the table. $\neg(p \wedge q)$

If *or* in (29a) were indeed semantically exclusive, then whenever (29a) held, (29b) would necessarily also hold — in other words, it would have to be the case that $p \vee q$ entails $\neg(p \wedge q)$. In MADRIS, just as in classical logic, it can be easily shown that $p \vee q$ does not entail $\neg(p \wedge q)$ because $p \vee q$ does not support-entail $\neg(p \wedge q)$.



(a) $[p \vee q]^+$ (b) $[\neg(p \wedge q])^+$

Figure 6: $p \vee q$ does not support-entail $\neg(p \wedge q)$ in MADRIS

This failure of support-entailment can be seen from the two diagrams in Figure 6. Figure 6(a) shows the maximal supporting elements for $p \vee q$, while Figure 6(b) shows them for $\neg(p \wedge q)$. For an inference to be valid, every state that supports $p \vee q$

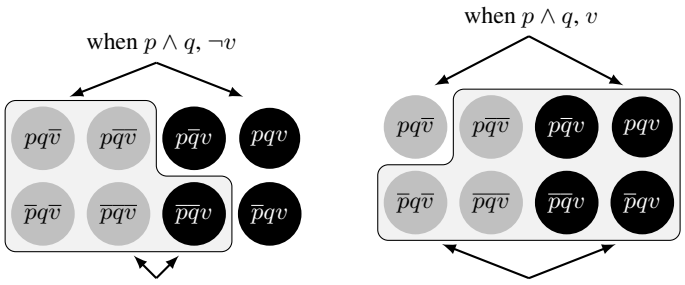
should support $\neg(p \wedge q)$. However, the maximal supporting state for $p \vee q$ includes the world where both p and q hold but this world is not included in the maximal supporting state for $\neg(p \wedge q)$. Thus, support-entailment does not hold and in turn MADRIS entailment does not hold either.

4.6.2 Inclusive readings under permission

As already noted, the MADRIS framework provides a plausible account of disjunction under permission modals. Here I shall show that it can also capture inclusive readings under permission, as in (23a), repeated in (30).

(30) "A person may establish or use a public mausoleum …"

If the *or* in (30) were exclusive, each situation in which $\Diamond(p \vee q)$ held would be one in which the prohibition $\neg\Diamond(p \wedge q)$ also held. Yet, this is not the case: $\Diamond(p \vee q)$ does not support-entail $\neg\Diamond(p \wedge q)$. To see this, consider the two diagrams in Figure 7. The maximal supporting state for $\Diamond(p \vee q)$ contains the world where both p and q are the case and there is no violation, and this world is not included in the maximal supporting state for $\neg\Diamond(p \wedge q)$. This captures the standard intuition that embedding disjunction under permission does not result in an exclusive reading.



(a) $[\Diamond p \vee q]^+$ (b) $[\neg\Diamond p \wedge q]^+$

Figure 7: Comparing $[\Diamond p \vee q]^+$ and $[\neg\Diamond p \wedge q]^+$

4.6.3 Obligation sentences

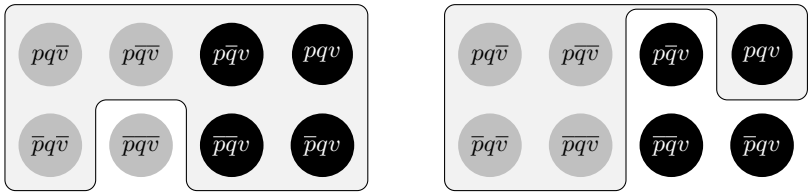
As a final test of the proposed MADRIS analysis of *or*, we can see how it accounts for obligation sentences like that in (31a), based on (8), which can be represented as in (31b).

(31) a. It is obligatory for such parent or other person legally chargeable to contribute …

b. $\Box(p \vee q)$

If the *or* in (31a) were exclusive, it would follow that it is not obligatory for both a parent and another person to contribute, as (32) indicates:

(32) $\neg\Box(p \wedge q)$



(a) $[\Box p \vee q]^+$ (b) $[\neg\Box p \wedge q]^+$

Figure 8: Comparing $[\Box p \vee q]^+$ and $[\neg\Box p \wedge q]^+$

Yet, a comparison of the maximal supporting states for (31b) and those for (32) indicated in figure 8 shows that the inference does not hold, since the situations that license each sentence are very different:

Recall Mrs. Siebel's argument, assuming an exclusive reading of *or*, that since one parent was already contributing, no other person needed to contribute. What was not recognized there, however, was how obligation interacts with *or* in sentences like (31a).

When (31a) is the case, one knows that the relevant obligation is being violated when neither a parent nor another person contributes. As can be seen in Figure 8, the maximal supporting state for $\Box(p \vee q)$ includes a world where neither p nor q is the case and a violation occurs. As the maximal supporting state for $\neg\Box(p \wedge q)$ excludes this world where neither p nor q is the case and a violation occurs, $\Box(p \vee q)$ does not support-entail $\neg\Box(p \wedge q)$ This captures the intuition that disjunction also does not become exclusive under obligation.

5. CONCLUSION

In this study, I have considered how certain formal approaches to natural language interpretation might be applied to legal interpretation, focussing on problems that arise in the interpretation of *or* in legal texts and on the framework of deontic inquisitive semantics. I first examined occurrences of *or* described by Solan (1993) that played a significant role in various American court cases, considering both his analysis of them and their treatment by the courts in terms of the "*and/or*" rule. I showed that, notwithstanding Solan's claim (affirmed by others) that "*or* generally is construed disjunctively, as meaning 'either/or' " (p. 45), occurrences of *or* in the legal domain provided no reason to abandon the well-established linguistic analysis of *or* as inclusive. In other words, sentences of the kind that Solan examines, whether or not they involve permission and obligation, do not entail that performance of the actions corresponding to both disjuncts is prohibited. This means that in any case where *or* receives an exclusive interpretation, this interpretation must follow from additional information in the sentence or the context but not from *or* itself.

After considering Solan's examples of *or*, I analysed occurrences of *or* in WTO decisions — in particular, the inclusive/exclusive *or* and free choice permission puzzles that they exemplified — in terms of deontic inquisitive semantics. This framework, I argued, offers a plausible account of these and other puzzles in the interpretation of *or*, some of which have posed a real challenge in the legal domain. One notable aspect of my solution to the free choice puzzle was its introduction of inconsistency as an entity through a violation-based semantics for modals. This offered a plausible means of describing the inconsistency between a country's policy and WTO agreements that may give rise to a WTO dispute.

This article admittedly represents only a tentative first step toward a more active collaboration between linguists and lawyers. As a framework that can serve to underwrite such co-operation, it still lacks certain crucial components — in particular, a sentential syntax and a syntax-semantics interface. And, of course, much work would need to be done to make MADRIS analysis more accessible to jurists. Notwithstanding these significant hurdles, I believe that MADRIS holds considerable promise as a tool for clarifying the meaning of legal texts and thus assisting legal interpretation.

REFERENCES

Adams, Kenneth A. 2004. *A manual of style for contract drafting*. Chicago: American Bar Association.

Adams, Kenneth A. and Alan S. Kaye. 2006. Revisiting the ambiguity of "and" and "or" in legal drafting. *St. John's Law Review* 80:1167–1195.

Aher, Martin. 2009. A feasibility case study about interpreting disjunction in legal discourse with semantic and pragmatic models. M.A. thesis, University of Amsterdam.

Aher, Martin. 2012. Free choice in deontic inquisitive semantics. In *Logic, language, and meaning: Selected papers from the 18th Amsterdam Colloquium*, ed. Maria Aloni, Vadim Kimmelman, Floris Roelofsen, Galit Weidman Sassoon, Katrin Schulz, and Matthijs Westera, 22–31. Berlin: Springer Verlag.

Anderson, Alan R. 1967. Some nasty problems in the formal logic of ethics. *Nous* 1:345–360.

Ciardelli, Ivano. 2010. A first-order inquisitive semantics. In *Logic, language, and meaning: Selected papers from the 17th Amsterdam Colloquium*, ed. Maria Aloni, Harald Bastiaanse, Tikitu de Jager, and Katrin Schulz, 234–243. Berlin: Springer Verlag.

Ciardelli, Ivano, Jeroen A.G. Groenendijk, and Floris Roelofsen. 2012. Inquisitive Semantics: NASSLLI 2012 lecture notes, University of Amsterdam. Available at: bit.ly/V6uWy6.

Ciardelli, Ivano, Jeroen A.G. Groenendijk, and Floris Roelofsen. To appear. Towards a logic of information exchange: An inquisitive witness semantics. In *Proceedings of the 9th Tbilisi Symposium on Language, Logic and Computation*, ed. G. Bezhanishvili, S. Löbner, V. Marra, and F. Richter, pp. 51–72. Berlin: Springer Verlag.

Groenendijk, Jeroen A.G. 2009. Inquisitive semantics: Two possibilities for disjunction. In *Proceedings of the 7th International Tbilisi Symposium on Language, Logic, and Computation*, ed. Peter Bosch, David Gabelaia, and Jérôme Lang, pp. 80–94, Berlin: Springer Verlag.

Groenendijk, Jeroen A.G. and Floris Roelofsen. 2009. Inquisitive semantics and pragmatics. Paper presented at the Stanford Workshop on Language, Communication, and Rational Agency, Stanford, CA.

Groenendijk, Jeroen and Floris Roelofsen. 2010. Radical inquisitive semantics. Paper presented at the University of Osnabrück Institute of Cognitive Science Colloquium. Available at: bit.ly/NFO9zn.

Huddleston, Rodney, John Payne, and Peter Peterson. 2002. Coordination and supplementation. In *Cambridge grammar of the English language*, ed. Rodney Huddleston and Geoffrey Pullum, 1273–1362. Cambridge: Cambridge University Press.

Huddleston, Rodney and Geoffrey Pullum. 2002. *Cambridge grammar of the English language*. Cambridge: Cambridge University Press.

Kamp, Hans. 1973. Free choice permission. *Proceedings of the Aristotelian Society* 74:57–74.

Kratzer, Angelika. 2012. *Modals and conditionals: New and revised perspectives*. Oxford: Oxford University Press.

Matsushita, Mitsuo, Thomas J. Schoenbaum, and Petros C. Mavroidis. 2006. *The World Trade Organization: Law, practice, and policy*. Oxford: Oxford University Press.

Mellinkoff, David. 1963. *The language of the law*. New York: Little, Brown.

Ramsey, Frank P. 1990. General propositions and causality. Reprinted in *Philosophical Papers*, ed. D.H. Mellor, 145–163. Cambridge: Cambridge University Press [1929].

Ross, Alf. 1941. Imperatives and logic. *Theoria* 7:53–71.

Sano, Katsuhiko. 2010. A note on support and rejection for radical inquisitive semantics. Ms., Japan Advanced Institute of Science and Technology, Nomi.

Shuy, Roger. 2007. A dozen reasons why linguistic expertise is rejected in court. Ms., Georgetown University, Washington, DC.

Simons, Mandy. 2005. Dividing things up: The semantics of *or* and the modal/or interaction. *Natural Language Semantics* 13:271–316.

Solan, Lawrence M. 1993. *The language of judges*. Chicago: University of Chicago Press.

Stalnaker, Robert. 1978. Assertion. *Syntax and Semantics* 9:315-332. New York: Academic Press.

Sullivan, Ruth. 2008. *Sullivan on the construction of statutes*. 5th ed. Markham, ON: LexisNexis Canada.

World Trade Organization. 2012. Dispute settlement: Procedures. Appellate Procedures. Available at: www.wto.org/english/tratop_e/dispu_e/ab_procedures_e.htm.

Von Wright and Georg Henrik. 1951. Deontic Logic. *Mind*, new series 60(237):1–15.

Zimmermann, Thomas Ede. 2000. Free choice disjunction and epistemic possibility. *Natural Language Semantics* 8:255–290.

Legal materials cited

Statutes, treaties, and WTO *documents*

Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994 (Anti-Dumping Agreement), 15 April 1994, 1868 U.N.T.S. 201.

Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994 (Anti-Dumping Agreement), 15 April 1994, 1868 U.N.T.S. 201.

Domestic Relations Court Act of the City of New York § 56–a.

Marrakesh Agreement Establishing the World Trade Organization (WTO Agreement), 15 April 1994, 1867 U.N.T.S. 154, 33 I.L.M. 1144 (1994).

New York General Business Law § 350–d(3).

New York Penal Code § 240.25(5).

Understanding on Rules and Procedures Governing the Settlement of Disputes, Marrakesh Agreement Establishing the World Trade Organization, Annex 2 (DSU), 15 April 1994, 1869 U.N.T.S. 401, 33 I.L.M. 1226 (1994).

U.S.C. (United States Code) § 881(a)(7).
Vienna Convention on the Law of Treaties, 23 May 1969, 1155 U.N.T.S. 331; 8 I.L.M. 679 (1969); 63 A.J.I.L. 875 (1969).
Wisconsin State Legislature § 157.12(2)(c)2.

Court cases and other decisions

Beslity v. Manhattan Honda, 120 Misc. 2d 848, 467 N.Y.S. 2d 471 (1st Dept. 1983).
Department of Welfare of City of New York v. Siebel, 6 N.Y.2d 536; 161 N.E.2d 1; 190 N.Y.S.2d 683 (1959).
European Communities — Regime for the Importation, Sale and Distribution of Bananas (1997), WTO Doc. WT/DS27/R/ECU (Panel Report). Available at: docsonline.wto.org/gen_search/asp.
People v. Caine, 70 Misc. 2d 178, 333 N.Y.S. 2d 208 (Dist. Ct. Suf. Cy. 1972).
United States — Customs Bond Directive for Merchandise Subject to Anti-Dumping/Countervailing Duties (2008), WTO Doc. WT/DS345/R (Panel Report). Available at: docsonline.wto.org/gen_search/asp.
United States v. Certain Real Property and Premises Known as 172-02 Liberty Avenue (1989), 710 F. Supp. 46 (E.D.N.Y. 1989).