# WHEN WORLDVIEWS COLLIDE: LINGUISTIC THEORY MEETS LEGAL SEMANTICS IN *UNITED STATES V. X-CITEMENT VIDEO, INC.*

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## PRELUDE

Linguists and lawyers both study language; however, a mutual confusion about the purposes of linguistic and legal analyses inhibits what could be a productive collaboration. To linguists, analysis is science. Linguists use model sentences to test their hypotheses about a natural phenomenon (linguistic competence). To lawyers, analysis is argument. Lawyers look at actual sentences and try to determine what they mean in a legal context. Although sentences are the common medium of study, linguists and lawyers view sentences from opposite directions. Lawyers impose interpretations on sentences; linguists use sentences to test their theories about language. These divergent worldviews are represented graphically below.

LAW
(Interpretation) ———> SENTENCES ————> (Theory)
                                          LINGUISTIC COMPETENCE
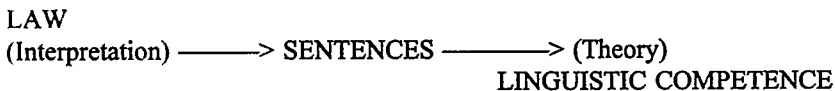
I would like to take a closer look here at how linguists and lawyers look at language (sentences) and how they build analyses in their own disciplines. I will then suggest how the more theoretical approach of linguists could be integrated with the more practical approach of lawyers. The goal is to begin to develop a framework for a principled legal semantics.[1] I will refer throughout to *United States v. X-Citement Video, Inc.*[2] I will offer both a critique of the linguists' amicus brief in *X-*

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    1. I do not envision yet another "grand theory" of statutory interpretation, such as those discussed and eschewed by Bill Eskridge and Philip Frickey in their article, *Statutory Interpretation as Practical Reasoning*, 42 STAN. L. REV. 321 (1990). My mission is a much more modest one. I intend to suggest only that legal semantics is a necessary component to any theory or method of textual interpretation in the law.
    2. 115 S. Ct. 464 (1994).

*Citement Video* and an analysis of the statute at issue in the case using the proposed legal semantics.

### PREDICTABILITY IN LINGUISTICS AND THE LAW

The difference between the theoretical worldviews of the linguist and the lawyer reveals itself most prominently in their relative conceptions about the role of "predictability" in theoretical analysis. Predictability, in the legal sense, insures that lawyers, judges, and the public will be able to rely on a statute or a precedent with as little uncertainty as possible. For example, if bankruptcy courts within a particular federal circuit vary in their application of a certain bankruptcy code provision, the appeals court must supply predictability by deciding among the competing interpretations. This process provides predictability to bankruptcy law for those who rely upon it—no science here, just practical problem solving.

To linguists, predictability is something altogether different. Consider the sentences in (1) and (2) below.

(1)    a. John gave a book to Mary.
        b. John gave Mary a book.
(2)    a. John drove a car to France.
        *b. John drove France a car.

Any valuable theory of grammar must be able to account for the variation in sentences (1)a and (1)b. A theory will be more highly valued if it provides a non-obvious and principled way to distinguish these sentences from those in (2)a and (2)b. In this sense, a highly valued theory will predict that sentences like (2)b will not occur and, concomitantly, that this non-occurrence leads to, or stems from, some generalization about linguistic competence.[3] Predictability, in this scientific sense, provides a way for linguists to evaluate competing theories of grammar.[4] As a couple of the participants in the Northwestern/Washington University Law School Law and Linguistics Conference pointed out, linguistics might get mixed grades as a science. However, the important thing for lawyers to understand

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3. It could be that a general theory of grammar which treated the "to" in "give a book to Mary" as syntactically distinct from the "to" in "drove a car to France" would capture some generalization about a speaker's knowledge of English that a grammar which treated them identically would not: perhaps the former functions as a dative marker of some kind and the latter functions as a locative preposition of direction. Using speaker's intuitions, linguists would then test to see what this grammar predicts will be the most internally consistent and empirically correct treatment of this phenomenon.

4. For a quick and thorough explanation of how linguists think about language, see DAVID LIGHTFOOT, THE LANGUAGE LOTTERY: TOWARD A BIOLOGY OF GRAMMARS (1982).

is that linguists view their inquiry as scientific.

## INTEGRATION IN LINGUISTIC AND LEGAL ANALYSIS

In building theories of grammar, linguists have always been aware of the contributions of different aspects, or components, of the general theory. The general theory will use a syntactic component to account for some phenomena, *e.g.*, the sentences in (1) and (2) above, and it will use a semantic component or a pragmatic component to account for others. Each of these components will have its own internal rules that will be both internally consistent and compatible with the general theory. In the examples below, the most scientifically elegant treatment of the syntax requires recourse to a perceptual component in the grammar to properly capture the empirical data. Consider the sentences in (3).

(3)     a. The professor was fired.
        b. The professor the students liked best was fired.
        *c. The professor the students the cops busted liked best was fired.
        **d. The professor the students the cops the chief recommended for
        promotion busted liked best was fired.

The phenomenon demonstrated by the sentences in (3)a and (3)b has been called "center embedding." As speakers of English, we know that it is possible in a simple sentence to embed a relative clause and to delete the complementizer ("whom" or "that") between the subject and the verb phrase. In fact, we would want any grammar of English to predict that sentence (3)b is part of the grammar of English, and any grammar that predicted otherwise would be a less valuable theory.

So, what do we do with sentences (3)c and (3)d? Sentence (3)c is a double center embedding; it seems bad. Sentence (3)d is a triple center embedding; it seems even worse. The theoretical question becomes this: should the syntactic rules of the grammar predict that sentence (3)b is English, and that sentences (3)c and (3)d are not? Certainly, any grammar of English must include some explanation of how center embeddings such as sentence (3)b may occur at all. This explanation will optimally be related to other relative clause formation rules. But what sort of rule could predict that double and triple center embeddings such as sentences (3)c and (3)d may not occur?

The interesting question to the linguists is what kind of grammatical theory will best account for this difference. It could be that the most highly valued grammar would freely generate all of the sentences in (3) through a single, general relative clause formation rule. The theory would explain

the non-occurrence of sentences (3)c and (3)d as a perceptual phenomenon rather than a linguistic one. That is to say that the sentences in (3)c and (3)d are "grammatical," but they are so difficult to understand and produce that they do not occur.[5] From the linguists' worldview, this theory would have the benefit of not only retaining a simple relative clause formation rule in the syntax but also accounting for the awkwardness of the double and triple center embeddings in a principled manner.[6]

Notice that this whole theoretical question is not particularly interesting from the lawyer's worldview. To the lawyer, a legal analysis of this situation is simple: sentences (3)a and (3)b are "legal" and sentences (3)c and (3)d are not. Again, linguists are primarily focussed on what language is and what their theories predict about it. Lawyers are primarily focussed on how language is used and how their analyses can produce a sound result. In developing legal semantics, the linguists' view of theory as integrated components could be quite useful.

## BUILDING A LEGAL SEMANTICS FOR *X-CITEMENT VIDEO*

Given their differing approaches, it is not surprising that the linguists' and the lawyers' theoretical worldviews collided in discussions of the *X-Citement Video* case. Although confusion gripped the group during their discussions of the case, *X-Citement Video* does provide an excellent example of the kind of fresh perspective linguists can bring to legal problems.[7]

In discussing *X-Citement Video*, the linguists expressed a somewhat self-righteous horror that a lawyer might contend that a legal principle might "trump" an objective syntactic analysis. The context was a lawyer's suggestion that, in offering a legal interpretation of the statute in the *X-*

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5. The interaction of syntax and perceptual constraints in language comprehension is the subject of intensive study by psycholinguists. *See, e.g.,* Stephen Crain and Janet Dean Fodor, *How can Grammars Help Parsers? in* NATURAL LANGUAGE PARSING 94 (David R. Dowty et al. eds., 1985).

6. My intuitions tell me that the "badness" of sentence (2)b is qualitatively different from the "badness" of sentences (3)c and (3)d. Whereas (2)b seems wholly impossible, sentences (3)c and (3)d are just annoyingly complex. I think that it is desirable that the grammar of English capture these intuitions by predicting that sentence (2)b is syntactically ungrammatical and sentences (3)c and (3)d are not.

7. Particularly interesting was the discussion of *United States v. Cochran,* 17 F.3d 56 (3d Cir. 1994). Only a linguist could have explained so well the difference in the scope analysis of "knowingly" between a complex noun phrase and the parenthetical "if- clause." I cannot resist pointing out, however, that the phrase labeled a "gerund phrase" in the analysis of the *Cochran* case is used as an adjective and is more accurately labeled a "participial phrase." This distinction is only a technical one, and I do not think that it affects the analysis at all.

*Citement Video* case, the syntactic analysis of "knowingly" might not be as relevant to the ultimate interpretation of the statute as the special legal meaning of "knowingly" when it appears in a criminal statute. The idea was that the most "natural" syntactic parsing of the statute would be discarded in light of an overriding legal principle—*i.e.*, "knowingly" should be read to apply to those elements of the statute that define the criminal conduct. The linguists dismissed this idea as abhorrent and unscientific.

I think that the concept of "trumping" may not be wholly accurate, however. It may be more fitting to think of the majority opinion in *X-Citement Video* in terms of "integration." The syntax is not trumped by legal principles; rather, the syntax and the legal principles work together to form an integrated interpretation of the statute. Such an analysis results in the most highly valued legal interpretation of the statute because it reflects the relative weights of its various linguistic and legal components. Linguists could be immeasurably helpful in creating a legal semantics which could formalize how the semantic content of a particular term of art, such as "knowingly," could interact with the syntax of a statute to yield an integrated interpretation.

For example, in applying this sort of heuristic for interpreting statutes to the *X-Citement Video* case, we could begin with the objective syntactic analysis suggested by the authors of the amicus brief:

(4)      Any person who knowingly TRANSPORTs X, if producing X involves Y, shall be punished.

As lawyers, we have legal intuitions about different parts of the statute. First, we know that "knowingly" is semantically loaded because it embodies the criminal intent (or scienter) element of the statute. Further, we know it is only because "X" moves through interstate commerce that it is the province of Congress to regulate it. The "TRANSPORTs" construct, then, embodies what can be loosely termed a jurisdictional element of the statute. TRANSPORTS really has nothing to do with what is being regulated but rather how it is being regulated. "TRANSPORTs" is roughly analogous then to the "in the special maritime and territorial jurisdiction of the United States . . ." language in sections (3)(A) and (4)(A) of the statute.

We might want to say that these scienter and jurisdictional elements in the legal semantics of the *X-Citement Video* statute represent one type of legal semantic operator; this concept is similar to the "regulatory variables" suggested by the participants. The "if producing X involves Y" language may represent another type of semantic element. A principled legal

semantics could represent the operators and elements of the statute as set forth below:

> [WITH CRIMINAL INTENT] [ACT WITHIN THE JURISDICTION OF CONGRESS] Any person, if ACT involves X...

Assigning an interpretation to the statute would involve abstracting out the legally significant semantic operators and deciding on the content of the semantic elements. The legal semantics would, in effect, abstract the legally significant semantic operators that would then have scope over the criminal elements of the statute. The legislative history of the statute could be helpful in determining the content of the semantic elements.

A theory of legal semantics could begin by defining the set of essential legally significant semantic operators. Semantic theory would be helpful in this process. Analyzing the text in this way, we can characterize the process by which the Supreme Court majority decided on its interpretation of the statute in *X-Citement Video*: the semantic scope of the operator, "knowingly," extends into the "if" clause, even though its strict syntactic scope does not, because the legal semantics abstracts such operators in constructing interpretations as shown in (4) above. While clearly explicating the syntactic structure of the statute is an essential first step, the further step of rigorously investigating the legal semantics of the statute is more appropriate to legal interpretation. This relates to the participants' distinction between meaning and interpretation, the latter perhaps being the more appropriate inquiry for lawyers. Meaning, in this use, reflects the syntactic structure whereas interpretation integrates contextual information with the syntax. This sort of analysis that integrates contextual information into semantic analysis should be quite familiar to the linguists. The following example illustrates how extra-syntactic information can shape meaning in a non-legal context: ·

> (5) The horse raced past the barn fell.

At first blush, sentence (5) seems ungrammatical. We understand the sentence to mean that a horse ran quickly past a barn; however, we are confused when we reach the final word "fell," and we cannot successfully assign a meaning to this sentence. Imagine, however, that we are watching two horses compete in a harness race. Imagine further that two horses are being raced on parallel tracks, and one of the tracks passes a barn at some point along the way. All of the sudden, one of the horses falls down on the track, and someone exclaims "The horse raced past the barn fell." With this context, we are more likely to be able to assign a meaning to the sentence

in (5) where we could not before.

To account for this phenomenon, psycholinguists hypothesize that speakers employ "online parsing strategies" which aid in assigning meaning to incoming sentences.[8] That is, speakers assign syntactic structures to speech as they hear it. Because of the time pressures involved in parsing incoming speech, psycholinguists predict that speakers will first assign the simplest structure possible. The simplest structure of sentence (5), however, leads to a "garden path."[9] Although sentence (5) is perfectly grammatical, as we can see given the added context, this grammatical reading is not the first parse preference. Given the proper context, the interpretation of sentence (5) becomes much easier.

Similarly, perhaps the simplest syntactic structure we could assign to the statute in the *X-Citement Video* case is the one suggested by the linguists in their amicus brief. The majority opinion decided, however, that this first parse of the statute would lead to a "garden path" legal interpretation. An integrated theory of legal semantics would provide a heuristic to appeal both to the syntax and to relevant legal principles in assigning an interpretation to a statute.

## EPILOGUE

It should be emphasized that linguistic science and legal analysis do have a commonality of approach. When a linguist postulates a grammatical rule for a language, he intends to account for a particular linguistic phenomenon within the context of a complete theory of grammar. When a lawyer proposes a legal analysis for a set of facts, he intends to account for those facts within the context of a general body of law. Just as linguists are constantly vigilant about predicting all and only the grammatical sentences of the language under study, lawyers are constantly vigilant about limiting the scope of their legal analyses to avoid "opening the floodgates" or going down "the slippery slope." These shared instincts provide a solid basis for joint scholarship. With a deeper understanding of each other's theoretical worldview, future dialogues among scholars of law and linguistics could focus on developing a methodology and vocabulary for a legal semantics and the type of contextual interpretation process which I have briefly sketched out here. It is through this sort of informed interdisciplinary effort

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8. Psycholinguists study the influences of perception and cognition to an integrated model of linguistic theory and language use.

9. For an extensive discussion of these sentences and their interpretation see Lyn Frazier and Janet Dean Fodor, *The Sausage Machine: a New Two-Stage Parsing Model*, 6 *Cognition* 291 (1978).

that we can effectively explore the question of meaning (and interpretation) in a legal text.