

## On the Semantics of Futurate Sentences\*

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### 0. Introduction

G. Lakoff 1971:339 credits K. Burt with observing 'that the future auxiliary will can be deleted in what looks like a very strange set of environments in terms of presupposition-free syntactic structure.' Some examples he gives:

- (1) a. The Yankees will play the Red Sox tomorrow.
- b. The Yankees play the Red Sox tomorrow.
- c. The Yankees will play well tomorrow.
- d. \*The Yankees play well tomorrow.
- e. I will get my paycheck tomorrow.
- f. I get my paycheck tomorrow.
- g. I will get a cold tomorrow.
- h. \*I get a cold tomorrow.

Lakoff concludes that 'in terms of presupposition-free syntax no general principle for the deletion of the will can be stated. However, ...will can be deleted just in case it is presupposed that the event is one that the speaker can be sure of.'

Vetter 1973:105 points out that if Lakoff's formulation is correct then the sentences

- (2) a. I'm not sure that the Yankees play the Red Sox tomorrow.
- b. I can't be sure whether the Yankees play the Red Sox tomorrow.

'would deny their own presupposition.' He concludes that 'rather than presupposing the event to be one the speaker can be sure about, it seems to me that the sentences without the will immediately entail that the event is planned.'

Prince ms. 1973 uses the term futurate for present-tense sentences that can occur with future time adverbials, a piece of terminology I adopt here. She is particularly interested in progressive futurate sentences, like (3d) below:

- (3) a. The hostages will be trying to escape tomorrow until the very last minute.
- b. The hostages are trying to escape tomorrow until the very last minute.

- (3) e. Mary will be taking prelims next weekend.  
 d. Mary is taking prelims next weekend.  
 e. Mary will be taking prelims next weekend when you call.  
 f. \*Mary is taking prelims next weekend when you call.

From examples like these, she concludes that 'if one derives futurate be-ing via will-deletion, it is clear that (1) additional bizarre conditions will have to be met, and (2) in certain cases, will-deletion is blocked.'<sup>1</sup> She then proposes that no will-deletion transformation exists, but rather that 'futate be-ing is derived from an underlying structure containing PLAN as its higher predicate' and that simple futurate has 'DEFINITE or CERTAIN as a higher predicate.'

Prince, then, disagrees with both Lakoff and Vetter on the mechanics of a will-deletion transformation; however, she takes basically Lakoff's notion of 'sureness' to derive simple futurate sentences, and Vetter's notion of a 'plan' to derive progressive futurate sentences.

Jenkins 1972 takes an interpretivist view of the phenomena. He considers sentences like the following:

- (4) a. \*John knows the answer tomorrow.  
 b. I hope that the Red Sox do well tomorrow.  
 c. \*I know that the Red Sox do well tomorrow.  
 d. He will be right back.  
 e. \*He is right back.  
 f. It will do you some good.  
 g. \*It does you some good.

Commenting that 'in a theory which countenances will-deletion one would expect all cases of will...to be able to delete' (180), he maintains that 'there are no underlying modals later deleted by transformational operations. Rather we argue that in each case the specific implicit modal interpretation of futurity is due to a rule of semantic interpretation' (174). He does not, however, provide any precise account of what those interpretations are, and is, therefore, unable to account for the deviance of (4a), which problem he sets aside (178).

In this paper I consider only futurate sentences. Thus, I will not be looking at such environments as if complements, POSS-ing complements, and for-to complements, where no will<sup>2</sup> can ever appear.<sup>3</sup> I believe that these must receive a separate account from futurate sentences.

My approach is to present a series of contrasts between futurate and future sentences. In so doing, I hope to isolate the additional semantic characteristics or conditions which distinguish the futurate class. The following are those conditions as I will develop them:

- (A) The entailment that at the time of the assertion the speaker believes that a current state of affairs exists, the future result of which is described in the surface form;

- (B) the entailment from the time adverbial that there is a definite upper time bound for what is described;
- (C) the presupposition that the speaker has no control over whether or not what is described in the surface sentence will in fact result from the current state of affairs.

### 1. Transformation or interpretive rule

As is obvious from my discussion of the literature, there is considerable controversy about whether there is a transformation or an interpretive rule involved; and, if it is a transformation, whether there is ever a will deleted along with the higher material. I do not know which alternative is the correct one, but I believe that I can contribute the first step in the final analysis of futurates, no matter from what school that analysis comes.

If a transformation (be it one that deletes will or one that deletes higher material) is the best explanation, then the structure which triggers that transformation must be specified in detail. If my conditions accurately characterize the class of futurates, then those conditions must be represented in the deep structure.

Alternatively, if an interpretive rule is involved, then the interpretations must be specified precisely. As Jenkins points out, if the interpretation simply consists of re-inserting the future auxiliary, then it would be expected that any sentence containing will should also appear in futurate form, since the two would have identical interpretations. It must be remembered that interpretive rules perform an important formal function, marking as deviant those sentences which have contradictory interpretations. Within this theory, then, my conditions, if correct, could be used as those interpretations.

### 2. Condition A: current state of affairs

The first semantic requirement is the entailment that at the time of the assertion the speaker believes that a current state of affairs exists, the future result of which is described in the surface form. This claim can be brought out in several ways.

Consider first the sentences below.

- (5) a. Kurt will have a date with Wanda June tomorrow.
- b. Kurt has a date with Wanda June tomorrow.
- c. ?Kurt will have a date with Wanda June tomorrow,  
          but he probably won't keep it.
- d. Kurt has a date with Wanda June tomorrow but he  
          probably won't keep it.

I chose the idiom to have a date deliberately, because it is ambiguous in English in just the right way: under one reading, it means to have an arrangement to go somewhere with someone, while under the other it means actually to go.

Sentence (5a) is ambiguous between the assertion that arrangements for a date between Kurt and Wanda June will be made tomorrow, and the assertion that arrangements have already been made for them to go somewhere together tomorrow. In my speech the first of these two readings is very much preferred. Sentence (5b), however, has only the second of these two readings. It asserts that the current state of affairs is that there is an arrangement between Kurt and Wanda June that they will be together tomorrow.

The above distinction between the readings is brought out especially well by (5c) and (5d). In my speech the preferred reading for (5c) seems to be that Kurt both will and will probably not take Wanda June out, which is contradictory. I can, however, get the other reading--clearly expressed in (5d)--in which Kurt has an arrangement with Wanda June but probably won't honor it.

As further evidence for the first condition, consider the following:

- (6) a. I don't know whether or not the Yankees will  
       {be playing}  
       play the Red Sox tomorrow.
- b. I don't know whether or not the Yankees  
       {are playing}  
       play the Red Sox tomorrow.
- c. I don't know whether or not the Yankees will  
       {be playing}  
       play the Red Sox tomorrow, because it  
       may rain.
- d. \*I don't know whether or not the Yankees  
       {are playing}  
       play the Red Sox tomorrow, because it  
       may rain.
- e. I don't know whether or not the Yankees will  
       {be playing}  
       play the Red Sox tomorrow because tomorrow  
       is Memorial Day.
- f. I don't know whether or not the Yankees  
       {are playing}  
       play the Red Sox tomorrow because  
       tomorrow is Memorial Day.
- g. The Yankees {are playing}  
       play the Red Sox tomorrow,  
       if it doesn't rain.

In (6a) and (6e) there are two possible readings, one of which is that the speaker does not know whether or not the game is scheduled and the other of which is that he does not know if the game will actually occur. The corresponding sentences (6b) and (6f) have only the first of these readings. They are perfectly acceptable because the scheduling is noncontingent--i.e. the fact that tomorrow is Memorial Day did or did not affect the scheduling of the game.

The sentences (6c) and (6d), on the other hand, can only be said to express a contingency about whether or not the game will actually occur, and not about whether or not the game is scheduled. Thus, (6c) has the second reading of (6a) and (6e), while (6d) is deviant because that reading is not in accord with condition A. Notice that in (6g) the outcome of the schedule is itself asserted to be contingent upon whether or not it is raining; (6g) is therefore acceptable.

The principle being invoked here is that a current state of affairs cannot be contingent upon a future state of affairs (although the current state of affairs can be such that its outcome is contingent upon some future state). This relationship can be brought out in another way by examining sentences like

- (7) a. The Yankees will ( <sup>be defeating</sup> / <sub>defeat</sub> ) the Red Sox tomorrow.
- b. \*The Yankees ( <sup>are defeating</sup> / <sub>defeat</sub> ) the Red Sox tomorrow.
- c. The Yankees will ( <sup>be playing</sup> / <sub>play</sub> ) well tomorrow.
- d. \*The Yankees ( <sup>are playing</sup> / <sub>play</sub> ) well tomorrow.
- e. It is prearranged that the Yankees ( <sup>are defeating</sup> / <sub>?defeat</sub> ) the Red Sox tomorrow.

In (7a) a prediction is being made about the outcome of the game. The outcome of the game is a future event contingent upon the way in which the game is played, which is future with regard to the assertion; consequently (7b) is out, since it cannot pertain to a current state of affairs. Similarly, (7c) is contingent upon the state of the Yankees during the game and cannot, therefore, be expressing a current state of affairs. (7d) is thus deviant, and I can think of no context to make it acceptable.

The sentence pair represented in (7e) is particularly interesting and important. The simple futurate form is possibly acceptable, though in my speech it is questionable. If it is acceptable, it seems to be saying that the outcome of the game, the event being described, has somehow been prearranged. It is hard for me to imagine how a future event as such can be prearranged; as a result, I find the simple futurate form to be very doubtful. The futurate progressive form, on the other hand, sounds perfectly good to me. It seems to be describing the prearrangement itself, rather than the event which is yet to occur. As such, then, the futurate progressive form is describing a currently extant state of affairs and is, therefore, in accord with condition A. In contrast, the simple futurate is not fully in accord with condition A because it doesn't describe (in a direct way, at any rate) a current state of affairs.

### 2.1. The notion of a plan

It is basically the above data, with the possible exception of (7e), which led Vetter to conclude that futurate sentences must describe planned events. Additional data of the type in (7e) caused

Prince to say that only futurate progressive sentences had a higher predicate PLAN. As I will now show, the notion of a plan is far too narrow to account for all the instances of English futurate sentences, be they simple or progressive.

Taking the claim quite literally, the predicate PLAN requires a subject, though this subject is apparently always deleted or lost in the interpretation of the surface sentence. Now consider:

- (8) a. The sun will {<sup>be setting</sup><sub>set</sub>} at 8:39 tomorrow.  
 b. The sun {<sup>is setting</sup><sub>sets</sub>} at 8:39 tomorrow.  
 c. An eclipse will {<sup>be occurring</sup><sub>occur</sub>} tomorrow morning.  
 d. An eclipse {<sup>is occurring</sup><sub>occurs</sub>} tomorrow morning.  
 e. It will {<sup>be raining</sup><sub>rain</sub>} tomorrow.  
 f. \*It {<sup>is raining</sup><sub>rains</sub>} tomorrow.

To retain the predicate PLAN for (8b) and (8d), an appeal to the notion of a divine planner would have to be made. It makes no sense to say that physical laws plan the movement of the heavens. Thus, it might be said that these futurate sentences are acceptable because there is a divine plan controlling the movement of the heavens. The same divine plan, however, could also be said to control the changes in climate, if I remember my religion correctly. The issue would not then seem to be the existence of a plan, but rather whether or not the speaker has knowledge of the workings of that plan. I showed in sentence set (6), however, that speaker knowledge of the details of a plan is not required to allow futurate forms to appear. The notion of a plan then, when combined with the fact that (8b) and (8d) are acceptable while (8f) is deviant, would seem to yield a contradiction.

Under my formulation no notion of plan is required. I must merely appeal to the fact that the position of the sun and the moon are believed to be predictable by current technology, while the state of the weather is not believed to be predictable. Thus, given any current state of the heavens, any future state is believed to be completely determined. This belief on the part of speakers is sufficient to allow futurate forms of type (8b) and (8d) under my formulation. But people have no such belief about the predictability of the weather, so that statements like (8f) about future weather conditions are prohibited. Notice that (8f) could be made perfectly acceptable if we imagine that it is offered in a different world--say on the moon, where the weather man, rather than predicting the weather, pulls levers that control the climate in the dome.

## 2.2. The notion of an event

According to the formulations given by both Vetter and Lakoff, futurate sentences describe events, though the notion of event is

undefined. From an intuitive standpoint, however, it appears that my contention, that what is described must merely be something which the speaker believes can result from a previous state of affairs, is broader than the contention that these sentences must describe events.

Consider the following futurate sentences:

- (9) a. I am busy tomorrow.  
 b. I can't see you tomorrow.  
 c. The computer is down tomorrow.

Each of these sentences is clearly stative. To test this, consider that each could be the subject of seems and none could be the object of force. I see no way in which they could be said to describe events, even in the broadest interpretation of that term. Rather, each describes a state which will result from some state of affairs currently obtaining: hence, each is perfectly acceptable.

### 2.3. The notion of certainty or sureness

I now examine the contention that the occurrence of futurate sentences is in some way dependent on speaker sureness or certainty. Lakoff says that this notion must be presupposed, and Prince says that it appears as a higher predicate in simple futurate sentences. I will now show that no such notion is necessary.

Considering first the claim that this sureness is presupposed, it would follow that those environments in which the sentence is presupposed to be true would be ideal for futurate sentences. Factive verbs are known to supply such environments in their complements. But compare

- (10) a. It's too bad that the Yankees will { <sup>be playing</sup> play }  
           well tomorrow.  
 b. \*It's too bad that the Yankees { <sup>are playing</sup> play }  
           well tomorrow.

For sentence (10b) the speaker presupposes that the complement sentence is true; therefore, it should follow that the futurate form is acceptable. But it is deviant. In fact, the distribution of futurates within complements of factives is practically identical to their distribution in nonfactive environments. I will leave it to the reader to verify this fact for himself. This fact argues against the claim that sureness is presupposed.

That no higher predicate of the form CERTAIN or DEFINITE, as proposed by Prince, need be present can be seen by examining again sentence sets (2) and (6). In those sets there are futurate simple sentences as complements of negated be sure and know. The claim that these futurate simple sentences have a higher predicate CERTAIN would entail that CERTAIN could be dominated by its own negation, which would be a contradiction. This difficulty argues against the higher predicate analysis.

### 3. Condition B: a definite upper time bound

The second semantic condition in my formulation is that a time adverbial must specify a definite upper time bound for what is described. As a first demonstration of this principle consider the contrast between until, before, and by in the following sentences.

- (11) a. The computer will be down until 10:00 tomorrow.  
 b. The computer is down until 10:00 tomorrow.  
 c. The computer will be down before 10:00 tomorrow.  
 d. ?The computer is down before 10:00 tomorrow.  
 e. The computer will be down by 10:00 tomorrow.  
 f. \*The computer is down by 10:00 tomorrow.

To describe the differences between the above three time adverbials in general let T be some fixed point in future time and P(t) be some proposition whose truth is predicated over time. Then

- P(t) until T means that P(t) is true if and only if t is not later than T;  
 P(t) before T means that if t is earlier than T, then P(t) is true;  
 P(t) by T means that if P(t) is false then t is earlier than T.

Applying this formalism to the sentences in (11), we see that in (11a) the assertion is made that the state will last no later than 10:00 tomorrow. There is a clear upper time bound asserted, and consequently (11b) is acceptable. In (11c) the assertion is made that the state will obtain at a time earlier than 10:00 and no assertion is made about any time after that. (11d) is, therefore, marginally acceptable, and does seem to imply that the computer will no longer be down after 10:00. (11e), however, clearly asserts that the state will come into being prior to or at 10:00. The implication that the state will continue beyond 10:00 is present, so that (11f) is deviant.

#### 3.1. Retentive predicates

To extend the analysis slightly, notice that there is a class of predicates in English whose properties, once ascribed to an individual, are assumed to be retained by that individual for an indefinite period into the future--for instance, knowing the answer and being dead. Once someone knows an answer he is assumed to know it for an indefinite period into the future, and once someone is dead he is assumed to be permanently dead. I do not mean that the property cannot be lost, only that the normal assumption is that it is retained indefinitely into the future. I will term these predicates retentive. It is the existence of retentive predicates, among other things, that caused Jenkins to conclude that no transformation could be specified to account for futurate sentences.

The behavior of retentive predicates with regard to until, before, and by is the precise inverse of that of futurate sentences, as can be seen in the following sentences.



- (12) a. \*John knew the answer until 10:00.  
 b. \*John was dead until 10:00.  
 c. John knew the answer before 10:00.  
 d. John was dead before 10:00.  
 e. John knew the answer by 10:00.  
 f. John was dead by 10:00.

Thus, the until sentences are deviant and the by sentences are acceptable. The before sentences are acceptable but cannot have the reading that the state described no longer pertained after 10:00.

In conclusion, since the retentive predicates cannot be upward time bounded, their futurate forms should be deviant, which is correct:

- (13) a. John will know the answer tomorrow.  
 b. \*John knows the answer tomorrow.  
 c. John will be dead tomorrow.  
 d. \*John is dead tomorrow.

Neither the notion of certainty nor the notion of plan can account for the facts in (13), since the attainment of these predicates can be both planned and certain--as in the case of studying all night to learn the answer, or of having terminal cancer.

### 3.2. Present perfect forms as retentive predicates

Vetter points out that will never deletes in the future perfect. This is just what we would expect, given the observations in the preceding section. Sentences like

- (14) a. It seems that the Yankees have played the  
           Red Sox.  
 b. \*I forced the Yankees to have played the Red Sox.  
 c. It seems that the computer has been down.  
 d. \*I caused the computer to have been down.

show that the present perfect sentences are stative. In addition, these states are retentive, since once the Yankees have played the Red Sox it will always be the case that they played them, and once the computer has been down it is always the case that it was down then. It follows then that since present perfect verb forms are retentive predicates, they cannot have futurate surface realizations:

- (15) a. The Yankees will have played the Red Sox  
           tomorrow.  
 b. \*The Yankees have played the Red Sox tomorrow.  
 c. The computer will have been down tomorrow.  
 d. \*The computer has been down tomorrow.

### 3.3. The adverbial in a moment

Another important datum that lends strong support to the formulation of condition B has to do with the relationship of achievement versus nonachievement verbs to the future time adverbial

in a moment. This adverbial describes an extremely narrow time bound, but is nonetheless still clearly a future time adverbial under one reading. Given condition B, then, we would expect that in a moment would be very restricted in its appearance in futurate sentences. This is in fact the case.

Dowty 1973b presents four classes of verbs--describing states, activities, accomplishments, and achievements. Under his analysis, only achievement verbs have a COME ABOUT as the highest verb in their remote structure representation. That is, only achievement verbs represent a change of state at the moment of their realization. Thus, only achievement verbs would seem to guarantee an upper time bound, and we would then expect only achievement verbs to occur in futurate sentences with the adverbial in a moment. Note the following contrasts:

## STATE

- (16) a. The computer is down tomorrow.  
b. \*The computer is down in a moment.

## ACTIVITY

- c. The Yankees play the Red Sox tomorrow.  
d. \*The Yankees play the Red Sox in a moment.

## ACCOMPLISHMENT

- e. Nixon delivers a Watergate speech tomorrow.  
f. \*Nixon delivers a Watergate speech in a moment.

## ACHIEVEMENT

- g. Dean begins his testimony tomorrow.  
h. Dean begins his testimony in a moment.

Only with achievement verbs is the described state completed at the point in time to which it is ascribed. Thus, the moment that Dean actually begins to testify, the state of beginning his testimony is completed. Thus, only achievement verbs can occur in futurate sentences with in a moment. As additional evidence, notice that sentence (16d) has a nonactivity reading (in which the game will begin in a moment), and that this reading is acceptable.

3.4. Indefinite future time adverbials

As a result of the progressive forms of the following sentences

- (17) a. Mary will { be taking } prelims next weekend  
          take  
          when you call.  
b. \*Mary { is taking } prelims next week when you  
          takes  
          call.  
c. Joe will { be cooking } dinner tomorrow when  
          cook  
          he's unexpectedly shot.  
d. \*Joe { is cooking } dinner tomorrow when he's  
          cooks  
          unexpectedly shot.

- (17) e. Sue will { <sup>be mowing</sup> / <sub>now</sub> } the lawn tomorrow when she discovers the body.
- f. \*Sue { <sup>is mowing</sup> / <sub>mows</sub> } the lawn tomorrow when she discovers the body.

and the apparent problems associated with predicting their occurrence, Prince decides that the futurate be-ing must be derived from a higher PLAN predicate. But she completely fails to notice that the same restriction applies to simple futurate sentences as to progressive futurate sentences. As a result, her contention that the two must have separate sources no longer seems correct.

The significant characteristic of (17), and of most of Prince's other examples, is that they contain an indefinite future time adverbial. The times when the call will be made or when the body will be found are not known and are therefore indefinite. The unacceptability of (17b), (17d), and (17f) then follows directly from my condition B, which says that there must be a definite upper time bound. Notice that each sentence also contains a specific binding time phrase, such as next week or tomorrow, and that these combined with after (rather than when) would make (17b), (17d), and (17f) all acceptable.

### 3.5. Some special idioms

Jenkins observes that there are some special idioms in English which can never appear as futurates:

- (18) a. He will be right back.  
 b. \*He is right back.  
 c. It will do you some good.  
 d. \*It does you some good.  
 e. It (the sweater) will do.  
 f. \*It (the sweater) does.

He concludes that anyone advocating a transformational approach to futurates would have to mark these idioms as not undergoing the rule. Such marking would not be necessary with an interpretive rule.

As (18h) shows, the problem with (18b) derives

- (18) g. He will be back in a moment.  
 h. \*He is back in a moment.

from the fact that right back is the same type of adverbial as in a moment--i.e. it requires that a change of state occur at the moment of its realization; therefore, (18b) is completely predictable from condition B.

In the case of (18c) and (18e), both the do predicates are retentive. Therefore, (18d) and (18f) are regular. The fact that these idioms cannot appear in futurate form does not require marking.

4. Condition C: No speaker control

The third and last condition is that futurate sentences have the presupposition that the speaker has no control over whether or not what is described in the surface sentence will in fact result from the current state of affairs. That an additional restriction of the above type is needed can be seen from the sentence pairs in (19).<sup>4</sup>

- (19) a. Kurt has a date with Wanda June tomorrow.  
 b. I have a date with Wanda June tomorrow.  
 c. Kurt dates Wanda June tomorrow.  
 d. \*I date Wanda June tomorrow.

The problem is that (19d) is odd, whereas (19c), where the speaker is not the subject, and (19b), where a slightly different assertion is being made by the speaker about himself, are perfectly acceptable. As it turns out, there are analogous phenomena. In (20), (20a) is acceptable while (20b) is deviant.

- (20) a. John believes it's raining out even though  
           it's not.  
 b. \*I believe it's raining out even though it's  
           not.

The contrast derives from the fact that simple assertions presuppose that the speaker believes them to be true. Consequently, (20a) has among its entailments:

- (21) a. John believes it's raining out.  
 b. The speaker believes it's not raining out.

These entailments are in no way incompatible. They simply involve a disagreement between two individuals. (20b), however, has (22),

- (22) The speaker believes it's raining out.

instead of (21a), as one of its entailments. (20b) then involves the contradiction that the speaker both does and doesn't believe that it's raining. Hence the deviance of (20b).

It is my contention that a similar type of contradiction causes the deviance in (19d). Notice first of all that having a date for some future time differs from dating at some future time in that in the first, all arrangements have already been made, while in the second, action on the part of the participants is required for the action to be realized. (19d) is then different from the other three sentences in that only (19d) requires that the speaker perform some action after the time of the assertion and before the time of the achievement of the state described. Only (19d) is contingent upon future speaker action.

My hypothesis, then, is that for a futurate sentence to be acceptable, what is described by that sentence must be presupposed not to be contingent upon future speaker actions. If this

presupposition is present, then an argument similar to the one about (20b) could be made to show that of the sentences in (19), (19d) and only (19d) denies its own presuppositions and is, therefore, deviant.

As further evidence for condition C, consider (23).

- (23) a. Dean testifies before the Senate Watergate committee tomorrow.  
 b. [...as asserted by Senator Ervin, the chairman of the committee]  
 c. [...as asserted by Dan Rather, a CBS reporter]

(23c) seems to be merely reporting the facts, while (23b) seems to be insisting that the testimony will be given.

Again, the contrast can be explained by reference to analogous phenomena. Consider the contrast in the following two sentences:

- (24) a. It's too bad that John hates you.  
 b. It's too bad that I hate you.

The that-clause in these two sentences is presumed by the speaker to be true. In (24a) the speaker is assuming something to be true over which he has no control; consequently, the sentence seems perfectly natural. In (24b), however, the speaker is asserting that something about himself which he assumes is true and over which he presumably has control, is too bad, so that (24b) has a funny flavor.

Similarly, in (23b) by Condition C, Ervin presumes that he can do nothing about the fact that Dean must testify. Since Ervin could in fact cancel Dean's testimony, (23b) amounts to an insistence on Ervin's part that he refuses to do so.

## 5. Conclusion

Without couching my analysis within any specific school, I have presented three semantic conditions which must be present for a sentence to appear in futurate form. To the best of my knowledge, the conditions account for all the distributional characteristics of these sentences.

## Footnotes

\*This paper was originally written for a syntax course in the spring of 1972 taught by Michael Geis, who spent many hours with me on this paper and provided many of the insights--especially condition C. I would also like to thank David Dowty and Jerrold Sadock for their help and comments on the first version, and Arnold Zwicky for his help and comments on this version.

1. Prince also notices that examples like

- (i) The plane was exploding at 2 p.m. until the money was delivered at noon.
- (ii) \*The plane would be exploding at 2 p.m. until the money was delivered at noon.

show that in some environments the will can never be present. A great deal of her analysis pertains to past forms of will, and it may be that her notion of PLAN for this class of sentences is correct.

2. It should be pointed out that there are two wills in English--the volitional will and the future will. My discussion concerns only the future will. Volitional will may appear in if-complements.

3. One other set of constructions which I will not examine is in the complements of hope and the imperatives of such verbs as assume, suppose, imagine. It is my belief that even a third process is going on here, having to do with the fact that with these complements no assertion whatsoever is being made about the actual state of the world. That is, one can hope for, or command someone to imagine, anything whatsoever, including round squares.

4. These facts were first pointed out to me by Michael Geis.

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