On the Subjectivity of the Characteristic Use of Will* Keiko Sugiyama

1. Introduction

In this paper, I will deal with three uses of will, which are illustrated by the following sentences:

- (1) a. [On hearing the doorbell ring] That'll be the postman.
 - b. Jim'll help you he's always willing to help a friend. (Leech (1987:86))
 - c. Oil will float on water. (Palmer (1990:136))

The will in (1a) expresses the speaker's prediction with respect to a present situation, while the will in (1b) expresses the subject's volition. I refer to the will in (1a) as "prediction will" and to the will in (1b) as "volition will". It is generally agreed that the various uses of English modal verbs are divided into two types: the epistemic use and the root use. The epistemic use is concerned with a speaker's judgement regarding the truth-value of the proposition and is characterized as a speaker-oriented use. On the other hand, the root use is concerned with a condition or attribute of the subject; for example, 'obligation' must expresses the subject's condition of being under obligation, and 'ability' can expresses one of the subject's attributes—that is, an ability of the subject. This use is characterized as a subject-oriented use. With respect to will, the 'prediction' use and the 'volition' use are typically regarded as epistemic and root uses, respectively.

In contrast to these two uses, the use of will in (1c) is difficult to analyze. What makes the will in (1c) different from prediction/volition will is that the sentence in which will occurs expresses a characteristic of the subject: it is a so-called generic sentence (cf. Declerck (1986) and Krifka et al. (1995)). I will use the term "characteristic will" to refer to this type of will.² The 'characteristic' use of will is

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Here, I use the term "proposition" simply to refer to the part of meaning borne by elements other than modal verbs in a sentence. A more detailed explanation is given in Section 3.

² Although I use the terms "volition will," "prediction will," and "characteristic will" in this paper, I do not mean to imply that will has such meanings in and of itself. Following Klinge (1993) and Papafragou (1998), among others, I assume that will is monosemous and that the various meanings are interpretations which each hearer puts on the whole sentence with will, as he considers three types of information: the (core) meaning of the modal verb, the proposition, and the pragmatic information available in the utterance situation. Regarding the type of interpretation given to (1c), I call this "characteristic interpretation" (see Sugiyama (1998) for a discussion of the semantic/pragmatic conditions on characteristic interpretation).

often regarded as both speaker-oriented and subject-oriented. For example, Declerck (1991b:87f.) and Leech (1987) say that the will in (1c) expresses a characteristic or predictable behavior of oil. This dual nature of characteristic will is attributable to the nature of generic sentences. Generic sentences express a characteristic of the subject, but the characteristic itself is a generalization based on a group of particular episodes or facts. Generic sentences tend to be associated with the notion of prediction because there is a close connection between the notion of generalization and that of prediction. A generalization involves not only observable individuals or events but also unobservable ones such as those which will exist or take place in the distant future. With respect to the latter individuals and events, we can only predict the validity of a generic statement—for example, that they will certainly have such and such a property or do such and such a thing.

The purpose of this paper is to examine whether the 'characteristic' use of will is similar to the 'prediction' use or the 'volition' use in subjectivity, using an established definition of modality as well as syntactic evidence. My discussion will be based on the definition of modality and the modal-propositional bistructure proposed by Nakau (1992, 1994). Nakau says that sentence meaning consists of the modal, subjective part and the propositional, objective part. He further introduces several domains which consist solely of propositional elements, such as if-clauses and that-complements in cleft sentences.³ In this paper, before examining the subjectivity of characteristic will, I will make use of such propositional domains to offer the evidence that prediction will is subjective, but volition will is objective. As for characteristic will, I will deal with the following examples, in addition to (1c) above.

- (2) a. Dogs will bark.
 - b. Basketball players will be tall.
 - c. John will smoke during busy times.

These four generic sentences differ semantically from one another. I argue that there are several semantic and syntactic differences among the will's themselves. However, I will conclude that these four types of characteristic will fall into two categories: one is subjective and akin to prediction will, and the other is objective and akin to volition will.

The organization of the present paper is as follows. In Section 2, I discuss the difference between the 'characteristic' use and the 'prediction/volition' uses of will. I also discuss differences among the four generic sentences and among the four

³ I will refer to linguistic expressions that constitute the propositional part of sentence meaning as "propositional elements," and to expressions constituting the modal part as "modal elements."

characteristic will's. In Section 3, I offer an overview of Nakau's modal-propositional bistructure and outline his definition of modality. In Section 4, I introduce four domains where only propositional elements can occur and examine whether prediction/volition will can appear in these domains. Then, in Section 5, I also examine the four characteristic will's for the possibility of occurrence in the same domains, and discuss their subjectivity. Section 6 makes concluding remarks.

2. The 'Characteristic' Use of Will

2.1. Characteristics of the 'Characteristic' Use of Will.

One of the characteristics common to sentences with modal verbs, whether epistemic or root, is that the speaker does not take the situation described by the proposition as a fact, but rather as a situation possible at the time of utterance (cf. Klinge (1993:324f.)). In the case of the epistemic use in (1a), for example, the speaker does not take it that the person who has just rung the doorbell is the postman; rather, he just believes so. In the case of the root use, as in (1b), the speaker knows that the described situation is not yet actualized but the subject, Jim desires it to occur; that is, the situation is not regarded as a fact. It is in this respect that the 'characteristic' use differs from the 'prediction' volition' uses of will. As I assert in Sugiyama (1998), generic sentences are associated with two kinds of situations: one is an abstract stative situation, as when the subject has such and such a characteristic; the other is a set of individual situations, each of which is assumed to exist at some particular time from the past to the future. The speaker in question takes at least the former situation as a fact. This is indicated by the examples in (3-6). It is clear from the context that the speaker of the sentence with will takes the characteristic of the subject as a fact.

- (3) Child: I want a dog.

 Mother: We can't have one. Our house is too small and dogs *will* bark.
- (4) John: What is this floating on the water?

 Sister: It's oil. John, did you know that? [Talking proudly] Oil will float on water.
- (5) A: [Seeing a group of men, in surprise] How tall they are!B: They are members of a basketball team. It shouldn't be any surprise; basketball players will be tall.
- (6) A: Yesterday, I saw John smoking for the first time.

B: He will smoke during busy times. (Sugiyama (1998:303))
This claim is further reinforced by the fact that we can use the corresponding simple sentences, such as Oil floats on water for (4), in the same contexts. Generally, the

speaker of a simple sentence is interpreted to make straightforward statement of fact, as is pointed out by Lyons (1977:797).

2.2. Different Types of Characteristic Will

Here, I will show that there are several differences among the four characteristic will's in (1c) and (2a-c). For the sake of convenience, these examples are repeated as follows:

- (7) a. Oil will float on water.
 - b. Dogs will bark.
 - c. Basketball players will be tall.
 - d. John will smoke during busy times.

Although all of these sentences are regarded as generic sentences, we can observe several semantic differences among them. First, we can see a difference between (7d) and the others. While (7d) describes a characteristic (or habit) of an individual, the other sentences all describe characteristics of classes. Fukuzawa (1985:1) also points out this difference; He says that sentences like (7d) are not generic in that they do not make a generic statement about a class.

Secondly, we can differentiate between (7c) and the others. (7c) contains a stative predicate, expressing a generalization based on the properties of individuals; on the other hand, each of the other sentences contains a nonstative predicate, expressing a generalization over events. Krifka et al. (1995:17) classify generic sentences into two types in this respect; they call generic sentences like (7c) "lexically characterizing sentences" and those like (7a,b) and (7d) "habitual sentences."

Thirdly, there is a difference between (7a) and the others; (7a) expresses a scientific fact to which exceptions can hardly ever be evoked, while the others express a typical behavior or property of the subject, and exceptions can be more easily evoked. This difference leads to a difference in the interpretation of characteristic will, which is discussed later.

Based on the three differences noted above, we can characterize the four generic sentences in (7) as follows: one which expresses a scientific fact (=(7a)), one which expresses a nonstative characteristic of some class (=(7b)), one which expresses a stative characteristic of some class (=(7c)), and one which expresses a habit of some individual (=(7d)). In the following, I will refer to the four types of will's occurring in these sentences as "scientific-characteristic will," "nonstative-characteristic will," "stative-characteristic will," respectively.

Next, let us turn to the differences among the four types of characteristic will. To begin with, we can identify several differences with resect to backshift in indirect speech. The term "backshift" generally refers to a change in the tense form of a verb

or modal verb in indirect speech; if the reporting clause is in the past tense in indirect speech, the tense form in the reported clause should be the past form, too (i.e. should be "backshifted"). This grammatical rule applies to prediction will and volition will, as in the following:

- (8) a. [On hearing the doorbell ring] "That'll be the postman," I said.
 - \rightarrow I said that {*it'll /it would} be the postman.
 - b. I knew he liked her. "He will help you," I said to her.
 - →I said that he {*will/would} help her.

However, as is often pointed out, present forms may be retained when the reported clause describes a situation which is true or valid at the time of reporting. Here are examples taken from Declerck (1991a:523):

- (9) a. The ancient Greeks did not know yet that the earth {is/was} round.
 - b. The teacher said that the beaver builds dams.

Declerck says that in (9a) the use of is implies that the speaker believes the reported utterance (i.e. "The earth is round"), while the use of was means that he does not commit himself on the truth of it. As for (9b), Declerck observes that the use of would in this sentence would suggest the speaker's doubt or disbelief as to the reported utterance.

Now, let us consider the four characteristic will's.

- (10) a. "Oil will float on water," I said.
 - →I said that oil {will/*would} float on water.4
 - b. "Dogs will bark," I said.
 - →I said that dogs {will/*would} bark.
 - c. "Basketball players will be tall," I said.
 - →I said that basketball players {*will/*would} be tall.
 - d. "John will smoke during busy times," I said.
 - → I said that John {will/would} smoke during busy times.

Let us first consider the difference in acceptability of the various present forms of will. Stative-characteristic will is different from the others in that it cannot occur in the reported clause in the present form. In addition, it cannot occur even in the past form. I will discuss this example further in Section 5.2.

Next, let us consider the acceptability of the past form of will. Only individual-characteristic will can be backshifted. A possible explanation for this difference is

⁴ Would in (10a) is acceptable when the will in the original utterance is regarded as prediction will, that is, the original sentence is uttered by someone who is going to demonstrate oil floating on water. In contrast, would is not acceptable even in the sense of prediction in (10b), unless the subject is changed to an NP which refers to specific dogs—for example, I said that those dogs would bark.

that knowledge of a habit of an individual is not generally shared by many people; therefore, it is relatively easy to imagine speakers who report an utterance containing characteristic *will* while they do not believe it or do not commit themselves on the truth of the original utterance.

Stative-characteristic *will* differs from the others in another respect: Only the former cannot occur in the following context:

- (11) A: Tell me something that is characteristic of {oil/dogs/basketball players/ John}.
 - B: It will float on water/They will bark/*They will be tall/He will smoke during busy times.

Needless to say, B could use all the corresponding simple sentences to reply in this context. We shall return to this example in Section 5.2.

From the above discussion, it is clear that the four characteristic will's differ from one another.

3. Nakau's (1992, 1994) Thesis

In this section, I will offer an overview of Nakau's (1992, 1994) thesis on the modal-propositional bistructure of sentence meaning and his definition of modality.

3.1. The Modal-Propositional Bistructure

Before explaining the modal-propositional bistructure in Nakau (1994), I will outline his view of the infrastructure of sentence meaning. Nakau (1994:15) argues that the meaning of a sentence has a hierarchical structure, as represented below:

- (12) [M(s)2D-modality [M(s)1S-modality [Prop4Polarity [Prop3Tense [Prop2Aspect [Prop1Pred. Arg.]]]]]]
- "M(s)," "Prop," "D-modality," "S-modality," "Pred.," and "Arg." are abbreviations for "sentence meaning," "proposition," "Discourse-modality," "Sentence-modality," "predicate," and "argument," respectively. This structure consists of the six distinct layers "M(s)²," "M(s)¹," "Prop⁴," "Prop³," "Prop²," and "Prop¹" and the five operators "D-modality," "S-modality," "Polarity," "Tense," and "Aspect". Except for the bottommost layer (Prop⁴), all layers involve an operator-operand relation. The scope of each operator is the component immediately to its right; for example, the scope of S-modality is Prop⁴. In this paper, I will not deal with the subdivision of propositions. The semantic structure in (12) can thus be simplified as follows:
 - (13) [D-modality [S-modality [proposition]]]
- (13) shows that sentence meaning has a modal-propositional bistructure. The modal component, which consists of D-modality and S-modality, is characterized as a subjective component, while the propositional component is characterized as an

objective component.

- 3.2. The Definition of Modality: S-modality and D-modality Nakau (1992:5) defines modality as follows:
 - (14) (i) a mental attitude (ii) on the part of the speaker (iii) only accessible at the time of utterance, where the time of utterance is further characterized as the instantaneous present (as opposed particularly to the durational present and the past).

This definition consists of three different conceptual components. Nakau states that if a linguistic expression satisfies all three conditions, then that expression qualifies as a prototypical expression of modality. The expression *I think* is one example of such expressions. However, the expressions he thinks and *I always think* fail to meet the second condition of speaker involvement and the third condition of the instantaneous present, respectively; therefore, these are not prototypical expressions of modality.

Now let us consider the two types of modality. S-modality is concerned with the speaker's commitment to the proposition. Nakau (1994:54) divides S-modality expressions into the following five types:

- (15) a. Modality of truth judgement (will, perhaps, I think, I say)
 - b. Modality of judgment withholding (I wonder, It is said)
 - c. Modality of (dis)approval (I doubt, I admit)
 - d. Modality of value judgment (I regret, to my surprise)
 - e. Modality of deontic judgment (I promise, must, I want to)

For example, in the case of modality of truth judgement, the speaker commits himself, to a greater or lesser degree, to the truth-value of the proposition. In the case of modality of deontic judgement, the speaker commits himself to the proposition in the sense that he imposes some action described by the proposition on the hearer or himself.

Next let us turn to D-modality. To put it simply, D-modality is concerned with the way the speaker conveys information to others. Nakau (1994:59) distinguishes the following types:

- (16) a. Modality of discourse (text) formation (and, but, since, therefore)
 - b. Modality of speech act manner (briefly, if I may ask, frankly)
 - c. Modality of informational salience (even, it/wh-cleft construction)
 - d. Modality of interpersonal relation (polite mas-u/des-u, please)
 - e. Modality of interjection/ritual convention (oh, yes, Merry Christmas)

3.3. Hypothesis Made in This Paper

For the present, we shall discuss which part of sentence meaning the three types of will (i.e. prediction will, volition will, and characteristic will) constitute, on the basis

of the explanation above. Nakau lists prediction will as an example of S-modality (modality of truth judgement), as we see in (15a). Prediction will satisfies the three conditions of modality and expresses a speaker's judgement about the truth-value of the proposition.

On the other hand, Nakau does not deal with volition will. Volition will only meets the condition of mental attitude—at least in the case of a third-person subject as in (1b).⁵ As for the condition of the instantaneous present, we can say that volition will does not satisfy it, given Nakau's Accessibility Hypothesis (1992:15): "the speaker cannot report on another person's mental attitude unless he/she has already had it made accessible to him/her at the time of utterance." In light of the fact that volition will satisfies only one condition, we can say that it is less subjective than prediction will. It can therefore be a propositional element.

As for characteristic will, we have seen in (3-6) that the occurrence of will in a generic sentence does not reflect the speaker's commitment to the truth-value of the proposition: the speaker is interpreted to take the proposition as true, whether he uses a simple sentence or a sentence with will in the same context. Given this fact, we can assume that characteristic will is not an S-modality expression. Furthermore, two possibilities remain: one possibility is that characteristic will is a propositional element which explicitly expresses objective meaning such as characteristic and attribute; the other possibility is that this will is a modal element of D-modality which expresses a mental attitude of the speaker associated with the utterance situation. The above assumptions can be represented as the following hypothesis:

(17) [D-modality [S-modality [proposition]]]

characteristic will prediction will volition will

characteristic will

4. The Subjectivity/Objectivity of Prediction/Volition Will

Nakau (1994) introduces several constructions containing domains in which only propositional elements can appear. These domains include *if*—clauses in conditional sentences, *that*-clauses in cleft sentences, *that*-clauses of "factive predicates," and *those* of "non-factive-predicates". In this section, I will look at these domains one by one and also examine the possibility of occurrence of prediction/volition *will* in each domain.

⁵ In this study I limit examples of volition will to those which contain a third-person subject, so that it is easy to compare volition will and characteristic will, whose examples all contain such a subject NP. However, there is room for further investigation regarding the difference between the subjectivity of volition will with a first-person subject and that with a third-person subject.

4.1. If-clauses

It is a well-known fact that epistemic modal verbs cannot occur in *if*-clauses, as in the following examples:

(18) a. If it {*may/ *must} rain, I'll take an umbrella.

(Asakawa & Kamata (1986:210))

- b. *If John will come, Mary will leave. (Palmer (1990:171))
 This is also true of the prediction will in (1a), as we see below:
 - (19) If that {is /*will be} the postman, you might receive a birthday card.

On the other hand, as is pointed out by Palmer (1990:178), this restriction does not apply to the subject-oriented use of will. Palmer takes the following examples:

- (20) a. If only people will vote in sufficient numbers to put the Liberal back!
 - b. I know that if medicine will save him, he'll be safe.

Palmer observes that the *will* in (20a) expresses volition and that the *will* in (20b) expresses power (of *medicine*). The volition *will* in (1b) can also occur in an *if*-clause, as the following shows:

(21) If he {helps /will help} her, she'll cut the grass.

With respect to *if*-clauses, Nakau gives the following explanation: the elements which may occur in *if*-clauses are limited to those which can become the object of our truth judgment, and thus *if*-clauses should consist of only objective elements, i.e. propositional elements. Therefore, prediction *will*, which cannot occur in an *if*-clause, is a modal element; volition *will*, which can occur in such a clause, is a propositional element.

It is worth noting, in passing, that there are cases in which modal verbs with the sense of prediction occur in *if*-clauses such as the following:

- (22) a. If it may be raining, you should take your umbrella. (Lyons (1977:805))
- b. If it will amuse you, I'll tell you a joke. (Palmer (1990:178)) Lyons observes that the modal verb in (22a) expresses objective modality. Nakau (1994:251) deals with (22b), saying that the will expresses an objective prediction like If it is {predicted/likely} that it amuses you,....

4.2. Cleft Sentences

The cleft sentence is a grammatical device that enables the speaker to select which element of the sentence will be highlighted. The *cleft* sentence in (23b) is available as an alternative to the simple sentence in (23a).

(23) a. You might be thinking of his father.

⁶ Lyons (1977:806) notes that there are few utterances such as (22a) in English because it is much more natural to use modal verbs for subjective than objective.

- b. It might be his father that you are thinking of. (Nakau (1994:140)) In (23b), the speaker highlights the element his father, presupposing the semantic content of the that-clause. Nakau (1994:139) claims that propositional elements are divided into two parts in a cleft sentence: the focal part in the main clause and the presupposed part in the that-clause. In (23b), for example, the focal element his father constitutes the single proposition You are thinking of his father. It must be noted that in cleft sentences, modal elements can only occur in the main clause, while propositional elements can appear in both the main clause and the subordinate clause. For example, the following cleft sentence, which contains the modal element might in the that-clause, is anomalous.
- (24) *It is his father that you might be thinking of. (Nakau (1994:141))
 Nakau explains this restriction on modal elements as follows: a modal element has to encompass the proposition as an operator; however, if a modal element occurs in the that-clause of cleft sentences, it cannot encompass the focal element in the main clause; hence the anomaly. That is to say, any modal element should stand to the left of the focal element in cleft sentences.

Let us consider the case of prediction/volition will. (25a,b) contain volition will and prediction will respectively, and they both contain a because-clause as well. When we highlight the because-clauses, with the will's in the that-clauses, we get (26a,b):

- (25) a. That will be the postman because the door bell has rung three times.
 - b. John will help her because he likes her.
- (26) a. *It is because the doorbell has rung three times that it will be the postman.
 - b. It is because he likes her that he will help her.

The unacceptability of (26a) indicates that prediction *will* is a modal element. In contrast, the acceptability of (26b) shows that volition *will* is a propositional element.

4.3. That-Clauses of Non-Factive Predicates

As we discussed in Section 3.1, Nakau (1994) argues that S-modality encompasses proposition. His hierarchical structure of sentence meaning entails that an S-modality expression cannot occur in a proposition, which is objective. Consider the following:

- (27) a. * Max realizes that {I hereby warn you not to be late again/I take it that you were sick}.
 - b. * Bill's claim that {I hereby promise (you)/I take it} that we will file early is ridiculous. (Nakau (1994:93))

Nakau argues that the complements embedded under the expressions realize (that) in

(27a) and *claim (that)* in (27b) consist of propositional elements. Thus the anomaly of these sentences is reduced to the occurrence in the complements of the prototypical modality expressions *I hereby promise* (S-modality of deontic judgement (cf. (15e)) and *I take it* (S-modality of truth judgement (cf. (15a))).

Let us now examine the behavior of occurrence of prediction/volition will in the propositional complement. Here, I will use the expression my claim that, as in the following:

- (28) a. My claim that {*it'll be/it's} the postman is based on past experience.
- b. My claim that Jim will help her is based on the fact that he likes her. These examples show that prediction *will* cannot occur in a propositional complement, while volition *will* can. It follows from this that prediction *will* is a modal element and volition *will* is a propositional element.

Predicates such as *claim* and *realize* are the type of predicate which Kiparsky & Kiparsky (hereafter, K&K) (1970) call "non-factive predicates". The counterpart to this category is that of "factive predicates". (29) and (30) exemplify these two types of predicate.

(29) a. It is likely that it is raining. (non-factive predicate)

b. I suppose that it is raining.

(30) a. It is odd that it is raining. (factive predicate)

b. I regret that it is raining.

(K&K (1970:147))

One of the essential properties of non-factive predicates is that the speaker asserts the content of the *that*-clause to be true. In the case of factive predicates, the speaker presupposes its truth.

According to Nakau's (1994) definition of modality, the fact that the speaker has already supposed an expression to be true at the time of utterance means that the expression in question cannot be a modality expression. Thus I assume that the complement of a factive predicate consists solely of propositional elements. In the next section, I will examine the possibility of occurrence of prediction/volition will in the complement of a factive predicate.

4.4. That-Complements of Factive Predicates

K&K (1970) give many examples which show that the two types of predicates in question are different. (31b) is one such example.

- (31) a. It is {significant/likely} that the dog barked during the night.
 - b. The fact {that the dog barked/of the dog's barking} during the night is {significant/*likely}. (K&K (1970:144))

From the difference in acceptability in (31b), they argue that only factive predicates

can take the noun fact with a complement (a that-clause or a gerund) as in (31a).

Now let us look at the case of prediction/volition will. Here I use the same predicate as the one in (31), significant.

- (32) a. The fact that {it is/*it'll be} the postman is significant.⁷
 - b. The fact that he'll help her is significant.

These results suggest that prediction will is a modal element, while volition will is a propositional element.

To sum up, in this section I have outlined the four propositional domains and presented evidence which shows that prediction will is a modal element, while volition will is a propositional element: the former is subjective, while the latter is objective.

5. The Subjectivity of Characteristic Will

5.1. Two Types of Characteristic Will

Let us investigate the behavior of the four types of characteristic will (scientific-characteristic will, nonstative-characteristic will, stative-characteristic will, and individual-characteristic will) in the four propositional domains discussed above.

- (33) a. If oil {floats/will float} on water, we can then make the following statement.
 - b. If this kind of animal {barks/will bark} like a dog, most people won't want to have one as a pet.
 - c. If cricket players {are/*will be} tall like basketball players, we'll need to order more fabric than usual.8
 - d. If John {smokes/will smoke} during busy times, we may see him smoking at work.
- (34) a. It is because oil is lighter than water that it {floats/will float} on water.
 - b. It is because dogs have DNA B that they {bark/will bark}.9
 - c. It is because basketball teams set up a height restriction that basketball players {are/*will be} tall.
 - d. It is because smoking increases his concentration that he {smokes/will smoke} during busy times.
- (35) a. My claim that oil {floats/will float} on water is based on the following fact.

⁷ If the complement is interpreted as expressing some future situation, the 'it'll be' sentence becomes acceptable.

⁸ This utterance could be made, for example, by a tailor who has received an order for uniforms for a cricket team

⁹ The assumption here is that "DNA B" is a gene that makes an animal bark.

- b. My claim that this kind of animal {barks/will bark} is based on the following fact.
- c. My claim that cricket players {are/*will be} tall is based on statistical evidence.
- d. My claim that John {smokes/will smoke} during busy times is based on the following evidence.
- (36) a. The fact that oil {floats/will float} on water is significant.
 - b. The fact that dogs {bark/will bark} is significant.
 - c. The fact that basketball players {are/*will be} tall is significant.
- d. The fact that he {smokes/will smoke} during busy times is significant. It should be noted that in (33b,c) and (35b,c), I use generic sentences which differ from the original sentences, for pragmatic reasons. However, since the modified sentences contain the same types of subject and predicate as the original sentences, this modification does not affect the present analysis.

Now let us consider the native-speaker judgments in (33-36). The results are clear: all the (c) sentences are unacceptable, which shows that stative-characteristic will cannot occur in any of the four propositional domains. This leads us to the conclusion that stative-characteristic will is a modal element and thus subjective, while the others—scientific-characteristic will, nonstative-characteristic will, and individual-characteristic will—are all propositional elements and thus objective. We stated in Section 3.2 that characteristic will might be either a propositional element or D-modality expression. Now that it has been made clear that stative-characteristic will is not a propositional element, the only possibility left is that it is a D-modality expression. On the basis of the preceding observations, the representation given in (17) can be modified as follows:

(37) [D-modality [S-modality [proposition]]] stative-ch. will prediction will volition will/scientific-ch. will nonstative-ch.will/individual-ch.will

In the next section, I will explore certain syntactic phenomena associated with stative-characteristic will, which were discussed briefly in Section 2.2.

5.2. The Subjectivity of Stative-Characteristic Will

We have seen above that stative-characteristic will differs from the other types of characteristic will in that the former cannot be used in the context of (11), repeated here as (38):

(38) A: Tell me something that is characteristic of {oil/dogs/basketball players/ John}.

B: It will float on water/They will bark/*They will be tall/He will smoke

during busy times. (=(11))

Let us dialogue this context with the one in (5), where the use of stative-characteristic will is acceptable:

- (39) A: [Seeing a group of men, in surprise] How tall they are!
 - B: They are members of a basketball team. It shouldn't be any surprise; basketball players {will be/are} tall. (=(5))

In both of these cases B regards the proposition as a fact; however, in (39) B seems to be emphasizing a characteristic of basketball players. In fact, this speaker does not utter the sentence in question just to inform the hearer of a generic fact, but to make the hearer evoke a piece of knowledge he already possesses, implying "you must be aware of such a fact which is so self-evident." The fact that the occurrence of stative-characteristic will is restricted to contexts that involve emphasis lends credence to the claim that this type of will is a D-modality expression. This claim is also supported by (10c), repeated below as (40), which shows that we cannot use stative-characteristic will in the reported clause, either in the present form or in the past.

- (40) "Basketball players will be tall," I said.
 - →I said that basketball players {*will/*would} be tall. (=(10c))

The unacceptability of these forms suggests that stative-characteristic will is actually speaker-oriented or discourse-oriented, in so far as it does not make sense when extracted from the original context and embedded in a reported clause. As we saw in (8a), prediction will, which is an S-modality expression, can occur in the reported clause. It thus follows that stative-characteristic will is more subjective than prediction will.

6. Concluding Remarks

In this paper, I have discussed the subjectivity of the 'characteristic' use of will in comparison with the 'prediction'/'volition' uses of will. Referring to Nakau's (1992, 1994) modal-propositional bistructure of sentence meaning, I gave syntactic evidence for the assumption that prediction will is a subjective, modal element, while volition will is an objective, propositional element: I introduced the four types of propositional domains proposed by Nakau (1994) (if-clauses in conditional sentences, that-clauses in cleft sentences, that-clauses of factive predicates, and those of non-factive predicates) and examined whether or not prediction/volition will can occur in these domains. Further, I considered the four types of characteristic will (scientific-characteristic will, nonstative-characteristic will, stative-characteristic will, and individual-characteristic will) and concluded that stative-characteristic will is a modal element associated with D-modality and thus akin to prediction will, and that the

others are propositional elements and thus akin to volition will. I also argued that stative-characteristic will is discourse-oriented and that it is more subjective than prediction will, which is an S-modality expression.

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