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## The function of the non-deictic *that* in English<sup>☆</sup>

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### Abstract

The non-deictic *that* is known to be a non-obligatory element and thus is said to be often deleted. This does not imply it does not have any semantic value; on the contrary, the non-deictic *that* may indicate the speaker's attitude or his/her vantage point. This function is derived from the function of the demonstrative *that* and from the iconicity generated by its phonological shape. The non-deictic *that* expresses a state of knowledge, fixed belief, inference based upon evidence, conscious mental activity, remote events, public information, old information, indirectness, and formality, whereas the construction without *that* realizes yet unproven information, groundless hearsay, inference without evidence, new(ly-learned) information, near-by events, directness, immediacy, solidarity, emotion, and informality. This constructional distinction tends to correlate with the structure of mental activity in humans: slow, thought-like analytic processing being complemented by fast, sensation-like holistic processing. © 2001 Elsevier Science B.V. All rights reserved.

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### 1. Introduction

The word *that* has various functions in English: as a demonstrative, it is used as a pronoun, adjective, or adverb to point to an entity deictically or anaphorically; as a conjunction or relative pronoun, *that* functions to connect two clauses. This paper focuses on the latter function of *that* as a clause-connective word, which will be called the 'non-deictic *that*'. One of the more interesting phenomena concerning the

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non-deictic *that* is that even without it, the sentence is often well-formed. Until now, the phenomenon of so-called *that*-deletion has been given various explanations by many scholars. However, none of them provides a full account, predicting its use based upon the semantic role of the original meaning of the demonstrative *that* in deictic or anaphoric use and in the human cognitive perception. The present study elucidates the function of the non-deictic *that* by considering how the residual meaning of the demonstrative *that* is still in effect, how its phonological existence entails the ideational conceptualization, and what underpins the presence or absence of the non-deictic *that* from a cognitive perspective. It will be shown that it signifies the epistemic belief of the speaker or the vantage point of the speaker; in addition, it will be claimed in the present study that the non-deictic *that* neutralizes the deictic dimension of the speaker. In other words, it is a modality marker which expresses the non-deictic vantage point of the speaker.

In order to construct an effective argument, the semantic relation between the demonstrative *that* and the non-deictic *that*, as well as the iconicity between the two types of structures, conceptual and grammatical, will be discussed in Section 2. Here, too, psycholinguistic and psychological aspects of the human thinking will be identified. In Section 3, the complementizer *that*,<sup>1</sup> as used in NP+VP+(*that*) or NP+be+AP(or NP)+(that) structures will be discussed as to its epistemic, volitional, evaluative, or deontic mode. Section 4 will focus on the appositive *that*, the relative pronoun *that*, and the conjunctive *that* in the so+Adj(or Adv)+(that) structure, in which they are used as part of a sentence to describe an event or state. There will be a consideration of pragmatic and stylistic factors in Section 5. Concluding remarks will be found in Section 6; and finally, an Appendix details the research data from journalistic sources supporting the hypotheses proposed in the present study.

For convenience's sake, constructions using *that* and those which do not, will be called THAT constructions and ZERO constructions, respectively.

## 2. Linguistic factors

In the generative tradition, the non-deictic *that* is considered to be a 'purely grammatical' element with no semantic value. This article, however, argues against the generativist claim and proposes that the non-deictic *that* plays a significant semantic and pragmatic role in English. Since a detailed discussion will be provided in Section 3, only a few examples will be presented in this section.

### 2.1. Traces of the meaning of the demonstrative *that*

Bolinger (1972) insists, on intuitive grounds, that the function of non-deictic *that* is 'anaphoric': it is used to point back to information previously mentioned in the context.

<sup>1</sup> It does not seem to make sense to distinguish the complementizer *that* from the conjunction *that*, since the complementizer can be seen as a type of conjunction. (From a grammatical point of view, the appositive *that* is yet another type.) In this article, I will treat the complementizer, the appositive, and the conjunction *that* differently, in order to clarify and strengthen my arguments.

I wish to explicate how our knowledge is categorized, and expand these categorical parameters into a theory including a wider aspect of human cognitive activity.

I would like to propose that the non-deictic *that* still has the same kind of function as the demonstrative *that*, except that it lacks the deictic dimension, implying the existence of the speaker in the observed scene. According to Quirk et al. (1985), the two major functions of the demonstrative *that* are, one, to point deictically at a distant referent (in contrast with *this*, which is measured by spatial proximity as a matter of psychological rather than real distance); and two, to index anaphorically something appearing already in the context. Both functions are still preserved in the non-deictic *that*.<sup>2</sup>

Thus, the demonstrative *that* deictically either points to an entity which exists in the real world, or anaphorically signifies entities or information which are linguistically realized or contextually provided. In general, the use of demonstratives implicitly encodes the speaker's presupposition that the hearer can identify the entity to which the speaker refers. According to Lyons (1977: 656), "the very fact of pointing to something commits the person who is pointing to a belief in the existence of what he is pointing at; the use of a deictic pronoun carries with it the implication or presupposition of existence". By the same token, the non-deictic *that*, with a first or second person pronoun matrix subject, signals that the speaker presupposes the contents of the complement clause to be referential, in other words, to contain true or valid information, whose validity can be proven by evidence. For example, in the utterances *I think that he did it* and *I think [0] he did it*, the former, a THAT construction, indicates that the speaker has some evidence to prove the content of the complement clause (henceforth, the complement content) as true or valid, whereas the latter, a ZERO construction, does not imply that the speaker has such evidence. With a third person matrix subject, *that* signals the speaker's perception that the matrix subject rationally establishes the complement content, or that the hearer can identify it or retrieve it from the real world, because it is of a public nature or is old information. For example, the utterance *He said that he did it* indicates the speaker's perception that the complement content is true or that the hearer can identify the statement because it is already known in the real world (though it is not necessarily understood to be true), while the utterance *He said [0] he did it* does not entail the validity or shared knowledge of the information.

In contrast, the demonstrative meaning in the non-deictic *that* expresses the speaker's perspective and/or the distance between the speaker and the hearer. Just as the entity signified by the demonstrative *that* is located psychologically far from the speaker (but not necessarily from the hearer), so the entity expressed by the non-deictic *that* is presupposed to exist psychologically far from the speaker. Thereby, THAT constructions express events occurring remotely from the speaker, indirectness, and formality. For example, the difference in nuance between the two utterances *She was surprised that he said it* and *She was surprised [0] he said it* can be

<sup>2</sup> Lyons (1995: 309) claims that, comparing *that* in *Who's that* (pure deictic)? and *Who's that person* (impure deictic)?, "the non-deictic part of the meaning of impure deictics may be either descriptive (or prepositional) or socio-expressive". As will be clarified later, the non-deictic part of the demonstrative *that* is the meaning of the non-deictic *that*, which is descriptive or socio-expressive.

explained by the latter utterance being psychologically more immediate to the speaker than the former: in other words, the latter expresses the fact that the speaker has recognized the matrix subject's surprise more directly. The THAT construction also expresses formality, as noted by Bolinger (1972) and Storms (1966). The utterance *I hope that you will be well soon* is more formal than *I hope [0] you will be well soon*. The use of *that* places the speaker's psychological location further away from the linguistically manifested content. With the hearer being psychologically closer to the content than the speaker, the THAT construction expresses distance between the speaker and the hearer, in the same way that demonstrative *that* may refer to an entity far from the speaker, but not from the hearer (an example: when Speaker A asks Speaker B, pointing at a pen Speaker B is holding, *Is that your pen?*, Speaker A's distance from the pen is psychologically construed as greater than Speaker B's). This is the reason that THAT constructions predominate in academic writing. For example, Elsness (1984) has shown that in the Brown Corpus, THATs are used only at a level of 1.3% in the NP+VP+(*that*)+S construction, in contrast to 52.1% in press reports and 58.1% in fiction. In sum, *that* indicates the speaker's non-deictic position.

The functional extension from demonstrative use to connective use has theoretical import. Lakoff's (1990) Invariance Hypothesis supports the idea of the common function in both the demonstrative and non-deictic use of *that*. This hypothesis maintains that "metaphorical mappings preserve the cognitive topology (i.e. the image-schema structure) of the source domain" (Lakoff, 1990: 54). Lakoff mainly uses his hypothesis to account for various kinds of metaphorical expressions. He also suggests that it constitutes the principal component of a Langacker-style analysis of abstract concepts. For example, according to Langacker (1990, 1991), the future sense of the future marker *be going to* is derived from a metaphorical extension of the movement denoted by *go* from the spatial domain to the temporal domain. The image-schema structure of spatial movement from one place to another in the sense of *go* is preserved as the metaphorical movement from one point to another on the time axis in the temporal domain. Similarly, the image-schema structure of the demonstrative *that* is preserved in the non-demonstrative use of *that*. The function of pointing at something remote is maintained in all functions of the word *that*. The spatial indicator of the demonstrative is extended into the discursive temporal indicator<sup>3</sup> (anaphoric use); it is used abstractly, too, as the ontological indicator.

## 2.2. Iconicity

In this subsection, we will take up *iconicity*, a universally observed phenomenon in natural language, and discuss the idea that linguistic entities, by their mere existence and arrangement, may convey some meaning. In the previous subsection, we saw that the non-deictic *that* signals the speaker's location in relation to the observed scene. *That* expresses not only the distance between the speaker and the observed

<sup>3</sup> The anaphoric use of the demonstrative *that* seems to lack a deictic dimension. According to Lyons (1977), the anaphoric use of the demonstrative is connected with its use in spatial deixis and is metaphorically expanded into a temporal use.

scene (or sometimes the hearer), but also the linguistic distance between the two clauses, viz., the matrix clause and the subordinate or relative clause. The physical (spatial or temporal) distance between the two events or entities perceived by the speaker is encoded as linguistically distant by using linguistic devices such as (lexical or grammatical) morphemes or function words.

Many authors have focused on the universal tendency towards iconicity in the relation between conceptual and grammatical structure. Among them, Haiman (1983, 1985) hypothesizes on the iconicity between the conceptual and the linguistic distance. He argues that the linguistic distance between two expressions is realized by phonological elements or by the number of the non-segmental boundaries between them, even where they are physically contiguous, and that the linguistic distance expresses the conceptual distance between the two expressions perceived by the speaker. Let X, A, and Y be morphemes, then the linguistic distance between X and Y diminishes along the following scale (where # represents a word boundary, + a morpheme boundary):

X#A#Y  
X#Y  
X+Y  
Z

(Haiman, 1983: 781–782)

The shorter the distance between the two expressions (X and Y), the closer physically or psychologically they are perceived by the speaker. In the same vein, Givón (1995) has proposed a ‘proximity principle’: “[e]ntities that are closer together functionally, conceptually, or cognitively will be placed close together at the code level, i.e. temporally or spatially” (1995: 52). He gives the following examples:

(1) *Construed as separate events*

- a. She talked to Bill, then to Sally, then to Joe ...
- b. She came over; then she sat down ...

*Construed as a single event*

- c. She talked to Bill, Joe, and Sally ...
- d. She came ‘n sat down ...

(Givón, 1995: 52)

As these examples show, an event perceived by the speaker as a series of separate partial events is realized by a longer phonological stretch in the utterance, and encoded using many function words between the lexical items.

Based upon the iconic nature of natural language, I would like to propose that one of the differences between THAT constructions and ZERO constructions, though subtle and contextually-dependent, is the physical and/or psychological distance between the main clause and the subordinate clause as perceived by the speaker. As a simple and clear example, consider the contrast between *He got so moved that he bought the book* and *He got so moved [0] he bought the book*, appearing in the same text by the same author. The former utterance may connote that there is some time lag between the event *He got moved* and the event *he bought*

the book, whereas the latter utterance expresses one instantaneous event, not two separate ones.

Langacker (1991), too, sees the relation between the grammatical form and the speaker's concept as based on iconicity. He notes that *Susan found the bed uncomfortable* describes the immediate situation where Susan herself was lying on the bed and directly experienced the discomfort. By contrast, *Susan found the bed to be uncomfortable* describes a situation in which Susan conducted consumer reaction tests and came to that conclusion, whereas *Susan found that the bed is uncomfortable* is used in a situation where Susan searches her files to learn the results of previous consumer reaction tests. In all these cases, the *that*-clause denotes a mental effort.

Langacker's observation shows that when an epistemic verb such as *find* is used, the more phonological or linguistic elements are present, the more indirectly the mental or analytical relations between the main clause and the complement phrase or clause are expressed. Following on this, I would like to claim that the THAT construction expresses a more analytical effort by the matrix subject than does the ZERO construction, when both are used in the same context. When the speaker perceives that it has taken the matrix subject a long time to obtain the information expressed in the complement clause, this time-consuming effort is construed as a mental effort and encoded iconically using *that*. Bolinger (1972) provides the following examples supporting this explanation:

- (2) a. We were able to see (tell) that he was too old  
 (= We made the effort)  
 b. We could see (tell) [0] he was too old  
 (= The fact was obvious) (Bolinger, 1972: 44)

The information obtained via conscious mental activity is marked with *that*, whereas instantly recognized information is expressed in a ZERO construction. Emotion is expressed in a ZERO construction as well (Bolinger, 1972; Storms, 1966). It is produced immediately: one's emotional reaction occurs, the instant one learns some information. The matrix subject's quick, emotional reaction is construed as one instantaneous event. The ZERO construction such as *I was surprised [0] he was killed in an accident* is more emotional and subjective than the THAT construction *I was surprised that he was killed in an accident*, which is construed as an analytical description of the situation.

To sum up the discussion in 2.1 and 2.2, whilst THAT constructions are used to express a fixed belief, valid information supported by evidence, public or old information, remotely occurring events, indirectness, and formality, ZERO constructions express instantaneousness, unsupported hearsay, inferences without evidence, quickly obtained new information, momentaneous events, immediacy, directness, emotion, and informality. The several semantic and pragmatic conditions discussed above interact with one another; subsequently, one or the other construction is decided upon. For example, in a context where formality is required more than anything else, THAT constructions are used, while the conditions for ZEROs are

overridden. Conversely, there are some contexts in which no one condition has a decisive influence. In the present study, the interaction of the conditions will largely be ignored, in order that the function of *that* can be clearly presented.

### 2.3. Psychological aspects

The linguistic factors discussed in the last two subsections suggest a function of the non-deictic *that* as a marker of referentiality, speaker's aloofness, and distance or 'separability' (see below). Interestingly enough, the presence or absence of *that* tends to reflect a psychological aspect as well, in the form of a dual mental activity proposed by psycholinguists, by which the acquisition of, or reaction to, information determines the choice of construction. Thus, Jackendoff (1989) suggests the terms 'fast/sensation-like processing' and 'slow/thought-like processing'; Kohno (1990, 1992, 1993) claims that there are two types of input processing based upon the structure of the brain (the central processing unit (CPU) in the psycholinguistic model) explaining the neural functions, viz., holistic and analytic. Basing himself upon Gestalt psychology, Kohno explains *holistic* processing as instantaneous perception of an entity as a whole, in which the parts are not analyzed and cannot be separated ('inseparability'), and which takes no time at all.<sup>4</sup> *Analytic* processing, on the other hand, is done by careful thinking and therefore takes time: an entity is analyzed linearly piece by piece and all its components are considered carefully before a conclusion is reached ('separability'). Analytic processing is inductively carried out on the basis of the accumulated information obtained via holistic processing, the latter being the more fundamental mental processing reality; human perception consists of this joint hierarchical processing.

The function of the non-deictic *that* often reflects analytic processing. As to referentiality, the speaker considers the matrix subject to be engaged in a conscious mental activity. In terms of position, when the speaker steps back from the scene, he/she is more likely to observe the entity or event objectively, without sharing the observed scene's time coordinates; thus, his/her attitude will be analytical. In separability, when the speaker analyzes the scene consciously, he/she tends to decompose the whole scene into its parts in order to obtain a more objective description. The absence of *that* marks a non-analytical processing: the speaker feels that the matrix subject reaches a conclusion quickly without conscious mental activity; alternatively, an event is unanalyzable because it occurs too quickly.

A human takes in a piece of information instantly without thinking about it. He/she may continue to carefully analyze the information until he/she reaches a more valid conclusion and stores this conclusion as a state of knowledge. Akatsuka (1985) discusses the two-types of processing as follows:

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<sup>4</sup> According to Kohno (1990, 1992, 1993), a good way to demonstrate holistic processing in the human mind is to think of a face: we do not analyze in detail the shape of each facial feature such as the eyes, mouth, or nose when we memorize a face; rather, we process the face as a whole, instantaneously. Almost all people can recognize somebody's face instantly without engaging in conscious thinking.

"For computers, information and knowledge may be synonymous: for humans, they are two different things. Humans, unlike machines which lack the ability to think and feel, do not learn instantaneously; humans need time and experience before they can digest and internalize the acquired information." (Akatsuka, 1985: 638)

Although both information and knowledge are presupposed to be true by the speaker, Akatsuka distinguishes a state of knowledge from 'newly-learned information' by considering Japanese and English conditionals. Her analysis is true of the non-deictic *that*, in that its presence expresses ontological presupposition (a state of knowledge). It may indicate, by its absence, the complement content as newly-learned information.

As discussed in connection with example (2), information grasped immediately can be called newly learned information (or new information), while information obtained as a result of analytical mental effort can be called a state of knowledge. According to Akatsuka, newly-learned information is often grammaticalized in an indefinite form, whereas a state of knowledge is in a definite form. Because of the presence of a demonstrative, the *THAT* construction can be said to be grammatically more definite than the *ZERO* construction. Akatsuka also claims that emotion is encoded as a particular type of newly-learned information and grammaticalized in an indefinite form, since it denotes the meaning 'I didn't know until now!' as information that the speaker has not internalized yet. This analysis also explains why *ZERO* constructions may express emotion.

Thus, *THAT* and *ZERO* distinctions tend to correlate with the two types of human mental activity, respectively, analytic or slow, thought-like processing vs. holistic or fast, sensation-like processing. It is significant that the English demonstrative *that*, not *this*, came to be the marker of analytic processing, since analysis requires the speaker to step back from the observed scene in order to draw a more accurate conclusion.

### 3. The complementizer *that*

#### 3.1. The complement clause

A complement clause is a structure of the type NP+VP+(*that*)+S or NP+*be*+AP (or NP)+(*that*)+S, whose meaning forms a continuum that is either factual or volitional. Consider Fig. 1.

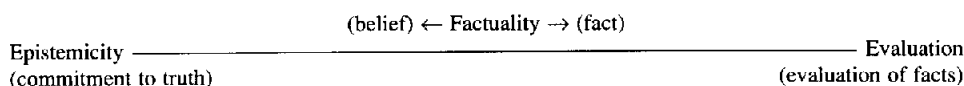


Fig. 1a. Factuality-based meaning.

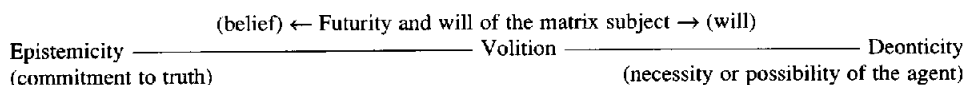


Fig. 1b. Factuality-based meaning.



On the factuality axis in Fig. 1a, human cognition forms a gradient from epistemic to evaluative. When the speaker conceives of the complement content as fact, the utterance moves toward a more evaluative mode as a reaction to the fact. Cf:

- (3) a. It is likely that he was drunk.  
b. It was obvious that he was drunk.  
c. It is unfortunate that he was drunk.
- (4) a. He believed that she killed her child.  
b. He realized that she killed her child.  
c. He regretted that she killed her child.

In (3) and (4), the (a) utterances express the matrix subject's (or in the *it* sentences, the speaker's) epistemic attitude towards the content of the complement clause. In the (c) utterances, the matrix subject (or the speaker, in the *it* cases) evaluates the factual content of the complement clause. In Fig. 1b, on the futurity axis from epistemic to deontic mode, a volitional gradient on the part of the matrix subject (or, in the *it* case, of the speaker) is formed. The more the matrix subject is seen by the speaker as volitionally involved in realizing the content of the complement clause, the more the epistemic mode will turn towards the volitional and deontic.

- (5) a. I believe that you will do it.  
b. I believe that you will do it for me.  
c. I hope that you will do it for me.  
d. I demand that you do it.
- (6) a. She believed that the government would help her out.  
b. She hoped that the government would help her out.  
c. She demanded that the government help her out.

None of the contents of the complement clauses in (5) and (6) have been realized. The (a) utterances express the matrix subject's epistemic attitude, while those marked (c) and (d) express the matrix subject's desire or will to realize the content of the complement clause.

As seen in the continuum, the NP+VP+(*that*)+S or NP+be+AP+(*that*)+S structure is used to express the matrix subject's (or in the *it* sentences, the speaker's) attitude or reaction to the content of the complement clause.

### 3.2. Epistemicity

The focus of this subsection is on the epistemic verb. As discussed in Section 2, a THAT construction is used in the following instances: when the speaker believes that the content proposition of the complement clause is true, that is, valid in, or retrievable from, the real world by the hearer; when the matrix subject is perceived by the speaker as reaching a decision or reacting to the content in an analytic, rational way; or when the speaker tries to distance him-/herself from the observed scene or the hearer. A ZERO construction is used when the speaker thinks that the content

proposition is neither factual nor showing sufficient evidence to have its validity confirmed; when the matrix subject reacts to the content proposition instantaneously; or when the speaker tries to bring about solidarity with the hearer. In order to demonstrate these two types of constructions more clearly and effectively, the current subsection, 3.2, will focus on the epistemic mode; the following subsection, 3.3, will substantiate that the other modes can be accounted for by the same principle. For convenience's sake, the epistemic verbs which are used with a complement clause will be divided into five types, grouped according to their meaning: verbs of *seeing*, *hearing*, *knowing*, *thinking* and *saying*.

### 3.2.1. Verbs of seeing (e.g. see, observe, notice)

When a verb of *seeing* is used, the speaker presupposes the content of the complement clause to be true. The basic sense of *see* in the structure NP+*see*+(*that*)+S is to know the proposition expressed by S. When humans *see* or recognize something, there are two ways to know or realize this. One is a fast, instantaneous perception (i.e. *seeing*) of the entity as a whole; the other is a slowly developed conception achieved by analyzing the parts carefully, using a mental effort, and then synthesizing them into a coherent, comprehensible piece of knowledge. With the NP+*see*+(*that*)+S structure, either of the above types of cognition is used either to categorize new information by using the actual physical visual mode, or to achieve a state of knowledge through a mental effort. Whereas the ZERO construction is used when an entity is directly seen, or a fact is intuitively or instantaneously known to the matrix subject, the THAT construction is used when an entity is observed carefully by the matrix subject but not necessarily seen directly. Often, too, over a long period of time and after various considerations, the result of the analysis may become a state of knowledge. Thus, THAT or ZERO constructions embody the process by which the speaker registers the realization of the content by the matrix subject, as explained by Bolinger (1972). For ease of reference, example (2) is repeated here from Section 2:

- (2) a. We were able to see (tell) that he was too old.  
       (We made the effort)  
       b. We could see (tell) [0] he was too old.  
       (The fact was obvious) (Bolinger, 1972: 62)

As Bolinger remarks, an utterance such as *I could see* [0] *it was raining* shows a fact grasped through physical evidence. This evidence such as the sound of rain and a wet ground can instantaneously lead the matrix subject to conclude that *it was raining*. The following examples, too, are clear pieces of evidence showing the grammaticalization of fixed beliefs and newly-learned information. Whereas (7) expresses the content of the complement clause as the result of a long analytic process of thinking, a state of knowledge, (8) shows instant recognition by the matrix subject.

- (7) But as land becomes scarce, even uneducated villagers begin to see that having more children in an effort to grow more food can become self-defeating.  
       [Time, Sep. 26, 1993]

- (8) When he saw [0] she had a private jet at her disposal, his attitude changed abruptly. [Time, Feb. 21, 1994]

### 3.2.2. Verbs of hearing (e.g. hear, feel)

This type of verb has two meanings. One is similar to that of the verb *see*: the physical activity of *hearing* the sound (of an entity) leads to some cognition (*to know*), and the speaker presupposes the content of the complement clause as true. The other expresses evidential epistemicity (in which the physical activity of ‘*hearing*’, or acoustic perception, is metaphorically extended into the mental activity of ‘*hearing information*’). In the latter case, the content of the complement clause is not necessarily presupposed as true by the speaker.

First, then the meaning of *hear* as a physical activity leading to some cognition. For clarity of argument, we will use the utterance of the speaker’s own perception: *hearing* a physical sound is followed by instant realization, as expressed in ZERO constructions. The sound itself is the only evidence of the conceptualization, as seen in (9a). By contrast, the realization occurring upon *hearing* somebody talk, and after analyzing the content of his talk (i.e. a conscious, mental activity) is expressed in THAT constructions. The THAT constructions in (9b) and (9c) mark the speaker’s analysis of the content of the talk, not the physical sound.

- (9) a. I could hear [0] he was angry.  
(Situation: Immediately after I started to talk with him on the phone, from his tone of voice, I found him to be angry.)
- b. I could hear that he was angry.  
(Situation: I was talking with him on the phone. In spite of his soft tone of voice, from the content of his conversation, I found him to be angry.)
- c. I was able to hear that he was angry.  
(Situation: It was after a long conversation with him on the phone that I found him to be angry deep inside, despite the innocuous content and his soft tone of voice.)

Next, the epistemic meaning of *hear*, which likewise occurs in two types of situations, will be discussed. In this case, both meanings are based upon the speaker’s presupposition of truthfulness towards the content of the complement clause: the first situation happens when the speaker perceives the content as groundless information; here, ZERO constructions are used. In the second situation, the speaker thinks that the content is true, or he/she possesses cogent, informative evidence; here, a THAT construction is used. Unsupported hearsay is a type of information that the speaker takes in temporarily, but does not yet consider as true or as valid information; consequently, he/she does not mark the information with the referential marker *that*. On the other hand, if (after analyzing the information) the speaker finds it to be true or based on some kind of rationality, he/she marks the information with *that*, which indicates that he/she is responsible for the validity of his/her analysis. Examples (10) to (13) serve to show this point:

- (10) 'People in this society need to hear that adultery is wrong and that it destroys the family' he proclaims. [Time, Oct. 1, 1990]
- (11) I heard [0] there was supposed to be a bonding when you breast-feed, but I never felt it. [CDMS]
- (12) Some streets were lighted by electricity, and Jamie heard that it was possible to talk to someone on the other side of town by means of a wonderful new machine, the telephone. [Sheldon, 1983: 19]
- (13) She had heard [0] he had bought a house for one of the women so that he could visit her privately. She had no way of knowing whether it was true. [ibid: 134]

In (10), the speaker presupposes the proposition as true, while in (11) the speaker does not agree with a widely-accepted view; we have a THAT construction and a ZERO construction, respectively. (12) and (13) are extracts from a suspense story. Generally speaking, in the narrative parts of such stories, the phrases *see that* and *hear that* are frequently used to move the plot forward by letting characters *see* or *hear* facts: the complement content in (12) is a fact for both narrator, character, and reader. In (13), however, a ZERO construction is used (the only instance out of ten *hear*-constructions in the whole story): here, the complement content is not presupposed as true by either narrator, character, or hearer.

Besides formality and referentiality, other factors may influence the *hear*-construction. Consider example (14). The content of the complement clause of *heard* is presupposed as true by the writer as well as the hearer. But the complement clause of *told* describes President Clinton's quick, emotional reaction when he *heard* the news. So, a ZERO construction is used.

- (14) Clinton told a television interviewer last week that he was distressed when he heard [0] the Bosnian Serbs had refused to go along with the peace plan negotiated by Cyrus Vance and Lord Owen. [Time, May 17, 1993]

### 3.2.3. Verbs of knowing (e.g. know, find, realize)

The content of the verb *to know*'s complement clause is presupposed as true by the speaker. The speaker's perception of the matrix subject quickly grasping the import of the information is realized by this construction. In other words, the distinction between state of knowledge and newly-learned information is manifested by the presence or absence of *that*. For example, in informal conversation, the utterance *I just knew that he was killed in an accident* cannot be interpreted as the speaker *I*, to his/her surprise, suddenly learning the other person's death as new information, immediately before utterance time, since the use of *that* indicates a state of knowledge. Contrastively, the utterance *I just knew [0] he was killed in an accident* may be interpreted, in an unmarked reading, as the speaker suddenly realizing what has happened immediately before utterance time, since the verb *knew* in the ZERO construction denotes an action or change of state, not a state. Examine the following examples, (15) and (16). The complement content of *knew* in (15) expresses a state of knowledge which is stable in the speaker's mind, while *knew* in

(16) expresses an event in which the complement content is suddenly realized, rather than a state.

(15) The Founders knew *that* religion should be left to believers. They invoked God, not to instruct Americans about theology, but to remind them about the nature of liberty. [Time, Dec. 19, 1994]

(16) I cried when I knew [0] it had passed – partly from relief, partly from sadness. I knew [0] it was over. [Time, Dec. 5, 1994]

The following utterances (culled from a newspaper) were made by the same speaker, who had survived a landslide. Note the three instances of the use of *know* in (17).

(17) “In my heart, I know *that* it was Sally’s [the survivor’s dead wife] will, her resilience of spirit, that gave me the strength I needed to hold out, to hold on, when all logic told me [0] hope had vanished. ...”

“I knew [0] I was starting to freeze to death,” he said.

“I knew [0] they were searching for people. They had to be. I could hear the machinery, the choppers. Even conversations. ...” [AEN, Aug. 29, 1997 (*The Associated Press*)]

The contrast between a quick grasp of facts through direct physical experience and a conscious mental activity is clearly marked by the presence vs. absence of *that*. In the latter two utterances of (17), the information obtained via physical evidence is expressed in a ZERO construction, while conscious mental activity in the first utterance is realized by a THAT construction.

### 3.2.4. Verbs of thinking (e.g. think, believe, guess, etc.)

The complement content of the *think* verbs is not presupposed as true. Evidence is a very important factor in epistemicity. Lyons (1977) argues that there are three kinds of epistemic modality: subjective epistemicity, objective epistemicity, and alethic epistemicity. (Since alethic epistemicity does not play a major role in connection with *that*, I will not consider it here.) Lyons argues that the difference between objective and subjective epistemic modality has to do with the way one’s thought or hypothesis is presented. When the speaker presents the basis of his/her idea after deep thought, the proposition is marked with *that*, the referential and analytic processing marker. The non-deictic *that* signals an idea which is independent of the matrix subject’s subjective attitude. When he/she does not (yet) have a factual basis, he/she does not use *that*. Consider the following example (18).

(18) Whether or not this is an accurate characterization of animal communication, I do not know. But I do not think [0] it is quite as alien to human language as Chomsky maintains. And I do not think *that* Chomsky or his students are driven to his conclusion by the data they consider. Much more likely is the possibility that they are driven to their data by the assumption that the only

interesting universals are those which seem to be arbitrary or pointless from a formal or functional point of view. [Haiman, 1985: 7]

The writer here does not present his reasons for opposing Chomsky's view of the absolute difference between animal communication and human language. But he does give a logical motivation to oppose Chomsky's methodology. The two hypotheses are realized by a ZERO and a THAT construction, respectively.

Statistical data confirm this explanation. Research on college students' conversation by Thompson and Mulac (1991a,b) has shown that the occurrence rate of THAT constructions is very different for *think* and *guess*: 9 % vs. 1%. In spite of the frequent use of *think* as compared with *guess* (683 and 150 token instances, respectively), *think* is used with *that* much more often than *guess*. Without explaining this discrepancy, Thompson and Mulac claim that phrases such as *I think, I guess* are grammaticalized.

In the framework of present study, these data suggest a quite different explanation. The basic meaning of the verb *guess* is, according to the *Longman Dictionary of Contemporary English* [LDOCE], 'to try to answer a question or make a judgment about something without having all the necessary facts, so that you are not sure whether you are correct'. Consequently, for semantic reasons, the verb *guess* is not likely to co-occur with *that*, a marker of a state of knowledge. On the other hand, the verb *think*, according to LDOCE, has various meanings, from 'to use your mind to solve something, decide something, etc.' to 'have an idea or thought, especially one that appears suddenly'. Thus, the verb *think* is not semantically restricted to co-occurrence with *that*.<sup>5</sup>

The subject is an important factor with regard to this construction. Thompson and Mulac argue that the first person singular pronoun *I* tends to be grammaticalized with an epistemic verb more easily than do other subjects. Their study reveals that *I* and *you* occur more frequently without *that* (90% and 91%, respectively) than do other subjects (64%). A study of the *TIME Almanac* for 1989–1994 also shows that in a ZERO construction, *guess* appears with the first person pronoun (the data for the second person pronoun are too scarce to be taken into account) far more often than with other subjects. As Table 1 shows, the first person pronoun is more likely to appear in the ZERO construction. This is assumed to be due to the fact that in college students' conversation or personal comments in journalistic articles, the subject provides a personal statement without evidence, rather than an assertion based upon logical arguments. Conversely, when *that* is used with a first person pronoun, it serves to express the speaker's confidence in the factual character of the complement content. This is because *that* indicates the speaker's presupposed ability to present the evidence in the real world to the hearer.

<sup>5</sup> The difference in acceptability between *think objectively* and *\*guess objectively* can account for the semantic difference between the two expressions.



walking in a sober fashion; accordingly, the journalist marks the information that the driver did not have any drinking problem, using *that*. By contrast, the rumors that he could have been quite drunk are all expressed in a ZERO construction.<sup>6</sup>

- (20) Acquaintances last week told reporters [0] he had once been a heavy drinker, though a Ritz employee claimed *that* over the past year Paul's drinking had slowed down. The Fayed family insists *that* no one on the hotel staff saw any sign *that* Paul was drunk. But French and British papers last week carried anonymous quotes from people described as Ritz employees who said [0] it was obvious [0] he arrived at the hotel intoxicated. In the French daily, *Libération*, one says [0] he arrived "overintoxicated and drunk as a pig".

[Time, Sep. 15, 1997]

Although the writer of this article professes to be neutral with regard to the driver's being drunk, he still is able to mark the contrasting insistence by the use or non-use of *that*.

Example (21) shows a fact known to the public as being expressed by a THAT construction, whereas non-true propositions are not marked by *that*. In the following extract, Seoul's first two claims proved to be false at the time of the report.

- (21) It isn't easy for a proud nation like South Korea to ask for a multi-billion-dollar bailout. As recently as mid-November, Korean officials categorically denied [0] Seoul would go that route, tartly suggesting [0] the International Monetary Fund should save its money for countries in real distress. Within days, newly installed Finance Minister Lim Chang Yuel had to concede *that* South Korea was just such a nation, and the suits from Washington were summoned.

[Time, Dec. 15, 1997]

### 3.2.6. Bolinger's 'anaphoric' hypothesis

Elsness (1984) has investigated the NP+VP+(*that*)+S structure in press report and fiction from the Brown Corpus. One of his findings is that when the complement subject is definite, a ZERO construction is more likely to be used.<sup>7</sup> This seems to be at variance with Bolinger's claim that the complementizer *that* indicates an anaphoric force of pointing back to information previously mentioned in the context. To resolve this contradiction, Elsness argues that the connective *that* converts a non-anaphoric *that*-clause into an anaphoric one; thus, Bolinger's argument that the THAT construction points directly to the preceding discourse should be broadened as to its 'anaphoricity'. If the THAT construction is anaphoric in Bolinger's sense,

<sup>6</sup> This *Time* article was published immediately after the first of three blood tests was conducted. The world was astonished at the possibility of the driver's being drunk and nobody was very sure about the credibility of the blood test.

<sup>7</sup> For example, when the complement subject is *the*+N, 64.7% of press reports and 41.2% of fiction extracts are ZEROs; while in the case of *a(n)*+N, 37.5% and 0% are ZEROs, respectively. (For further discussion, see Elsness, 1984.)



then the complement subject in a THAT clause would tend to be definite. The fact that a definite complement subject is more likely to appear in the ZERO construction and an indefinite subject in the THAT construction indicates that *that* is more likely to be used as a referential marker in relation to the hearer's knowledge than as a discourse-bound anaphoric marker. As a marker of the validity or public status of information, the THAT construction implies an ontological property that the hearer can refer to.

### 3.3. Factuality and futurity, and the matrix subject's will

In this subsection, it will be shown that the principle presented above applies to other modes than the epistemic mode.

Recall that, on the factuality axis in Fig. 1a, slow, thought-like processing in the evaluative mode is realized by a THAT construction, as is the factual evaluation. This is an objective evaluation: the speaker distances him-/herself from the observed scene. Conversely, quick, sensation-like processing is realized by a ZERO construction. An emotional evaluation (such as *I'm glad you came!*) is interpreted as originating in a speaker location that is close to the observed scene or to the hearer.

Further, on the futurity axis in Fig. 1b, the same principle works in determining the choice of construction. The volitional or deontic mode entails an interaction between the matrix subject and the agent. Whereas an objective or public statement uses a THAT construction (such as *The court ordered that he should be compensated*), a more personal or emotional utterance is realized in a ZERO construction. In addition, the formality parameter determines the choice of construction, as we have seen. When the speaker is required by the social norm to distance him-/herself from the hearer, a THAT construction is used; contrariwise, when a speaker wants to align him-/herself emotionally with the hearer, a ZERO construction is preferred.<sup>8</sup> Thus, among friends and family members, THAT constructions are rarely used; all of which shows the importance of the social context.

## 4. Appositive *that*, relative pronoun *that*, conjunctive *that*

In this section, I will suggest that the appositive *that*, the relative pronoun *that*, and the conjunction *that* all signal the speaker's location in relation to the observed scene. The syntactic functions of these three *thats* are different from the function of the complementizer *that* in that they refer to an entity or to part of the utterances describing an event or state; in contrast, the complementizer *that* is used in sentences

<sup>8</sup> A verb expressing a volitional mode (such as *wish*) is more likely to be associated with emotion than a verb expressing assertion (such as *assert*). The results from *Time Almanac* show that only 13% of the occurrences of *wish* are used in a THAT construction, while in the case of *assert*, only 3%, one instance, appears in a ZERO construction in which the content of this single instance is not thought to be true by the writer as in "Humor is often in short supply in books by writers who assert [0] they are funny". [*Time*, Apr.16, 1990]

expressing the matrix subject's or the speaker's own attitude towards the proposition of the complement clause. Since the truth-value of utterances describing events or states is presupposed as true by the speaker, *that* functions as a distance marker, signaling indirectness and objectivity, referring to slowly-occurring events, in contrast, ZERO constructions express directness and involuntary, immediate perception of the whole scene by the speaker.

#### 4.1. Appositive *that*

In informal conversation, appositive *that* is infrequent, while in formal contexts, THAT constructions predominate. The following example (22) uses a ZERO construction, although this particular writer prefers THAT constructions to ZERO constructions in his narration.

- (22) [While Robert was driving with his sister Wendy, a car suddenly jumped the median from the other side of the highway. When Wendy opened her eyes, she found her brother to be dying.]  
 Almost without thinking what she was doing, Wendy reached inside her brother's mouth to pull his tongue out ; if there was any chance [0] he was still alive, she wanted to make sure [0] he could breathe. [Greene, 1983: 120]

The essay from which this extract was taken is based on an interview that the author had with Wendy several months after Robert's death. Greene's use of the ZERO construction makes the scene felt vividly and directly by the reader. In other words, in the process of interpretation, a ZERO construction makes the reader/hearer as well as the writer observe the scene from an immediate vantage point. In order to show the viewing relationship between the speaker and the observed entity more clearly, I will use a modified version of Langacker's (1985, 1990, 1991) observation model. Observe what happens in Fig. 2.

Fig. 2a indicates a situation where the speaker is far from the scene for the description of which the THAT construction is used. That is, the speaker is physically or psychologically monitoring an entity from a distant place. Fig. 2b shows a situation in which the speaker appears in the observed scene: the speaker is psychologically close to the observed entity which does not include him/her in the linguistic manifestation; the latter is realized in a ZERO construction.

Fig. 2c shows a situation in which the speaker enters the scene and becomes part of the linguistic manifestation. According to Langacker, (c1) illustrates the situation in which the speaker observes himself/herself objectively and explicitly expresses himself/herself, while (c2) diagrams the situation in which the speaker's physical presence is subjectively and implicitly coded in the utterance. Compare the following contrast: *He was sitting across the table from me* (c1) vs. *He was sitting across the table* (c2). In (c1), the speaker observes himself/herself as an observed entity, while in (c2) the speaker is in the immediate scene, but is not linguistically manifested; this implicit role of the speaker is indicated by the dotted circle in (c2).

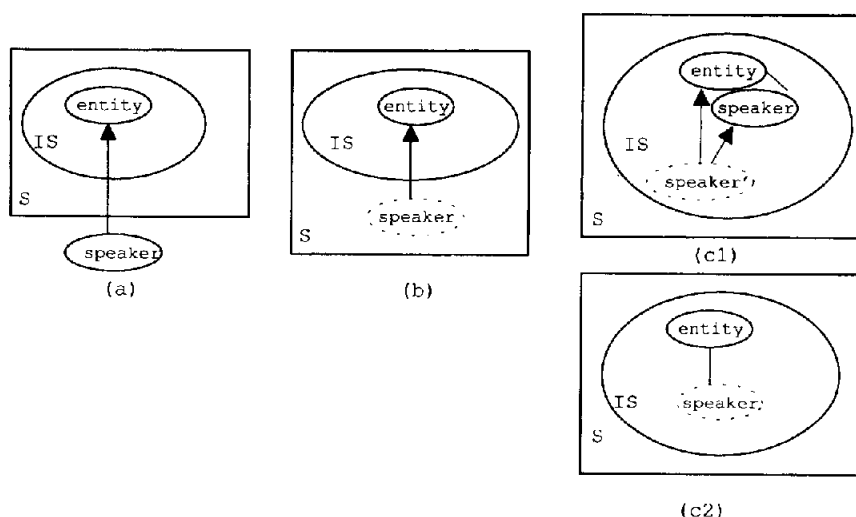


Fig. 2. Observation Model. S: scope (or scene); IS: immediate scope (immediate scene).

In Fig. 2, (c1) shows that although the speaker is linguistically manifested in the observed entity, he is psychologically distant, analyzing him-/herself and his/her own relation to the entity or scene. Thus, the whole event may be perceived analytically and marked with *that* in (c1). A ZERO construction is diagramed in (c2); here the speaker is physically or psychologically too close to the entity to observe it analytically, component by component. Rather, he/she grasps the whole scene instantaneously, without any attempt at analyzing it. In this case, too, the speaker's implicit presence will help the hearer feel the immediacy of the scene as construed linguistically.

Returning to the extract from Greene's essay, the ZERO construction makes us feel that the writer was psychologically close to Wendy; alternatively, that he empathized with her in the accident scene, and reported her quick action as simultaneously occurring with the report. All this is expressed schematically in Fig. 2 in (b) and (c2), respectively.

Next, observe the following contrastive examples from an article, in which the role of fame is discussed with regard to Princess Diana's death.

- (23) ... fame tends to draw their spirits away from them in the way that some tribal people fear that being photographed will steal their souls. ... It is a strange transaction. People projected all sorts of fantasies upon Princess Diana in somewhat the way [0] girls project little play scenarios upon Barbie dolls.

[Time, Sep. 15, 1997]

The first part of this extract is a general comment on fame, while in the second part, the article's main thesis, viz., the relation between Princess Diana and fame, is

discussed against the background of her death. The temporal and psychological distances from the speaker and hearer are clearly different in the two parts. Again, *that* signals indirectness and objectiveness, while the ZERO constructions express directness and closeness.

#### 4.2. The relative pronoun *that*

The same principle that we saw at work in the preceding subsection determines the use of the relative pronoun *that*. Consider the following extracts from one and the same article in *Time*, in which the paparazzi problem is discussed, in connection with the death of Princess Diana:

- (24) The Kennedy encounters are among the worst. Surely one reason Jacqueline Kennedy married Aristotle Onassis was the privacy that his immense wealth could offer her. ... Ironically, like Jackie Kennedy Onassis, Princess Di may have chosen Al Fayed for the cocoon of protection [0] he could offer.  
[*Time*, Sep. 8, 1997]

In this extract, the writer uses the verb *offer* twice in this article. To explain Princess Diana's want of privacy, her situation is compared with that of Jacqueline Kennedy Onassis. Given the timing of this article (it was written immediately after Princess Diana's death), the case of Diana is temporally and psychologically closer to both speaker and hearer than that of Jackie Kennedy. Thus, Mrs. Kennedy Onassis's case is marked with *that*.

Whenever the relative pronoun *that* is used, the speaker's observation point is far removed from the observed entity, both spatially, temporally, and psychologically, as shown in Langacker's model. The speaker's attitude is objective, which makes it easier for him/her to carefully analyze the events from a distant place. Conversely, when the speaker's location is close to the observed entity spatially, temporally, or psychologically, he/she will grasp the entity as a whole. Thus, separability and inseparability as conceived by the speaker are closely related to the speaker's observation site. This is also the reason why I have named the connector *that* the 'non-deictic' *that*: the speaker is not psychologically present in the observed scene; as for the complementizer, the information is based upon evidence or public knowledge, not on the speaker's subjective knowledge. Thus, the presence or absence of the non-deictic *that* functions in much the same way as the zoom-in and zoom-out function of a movie camera.

The next example, (25), is an article criticizing the Republicans, whose fund-raising letters were revealed recently against the background of the fund-raising scandals connected with President Clinton and Vice President Gore. Up to the fourth paragraph, the writer critically examines the new information about Republican fund-raising practices; he does this using ZERO constructions so as to give an impression of on-scene reporting; in the last paragraph, he separates himself from this immediacy by using THAT constructions by comparing the Republican behavior with that of the White House in a scandal that happened two months earlier. I

believe that using *that* twice in one sentence significantly contributes to the change in the writer's perspective.

#### (25) A Hypocritical Approach

The Senate majority leader, Trent Lott, and his Republican colleagues are not able to offer their biggest donors coffee with the president or Lincoln Bedroom sleepovers. But they are hardly slouches when it comes to selling access to key lawmakers in exchange for fat contributions.

Consider Lott's recent letter inviting some of the Republican Party's largest financial backers to a "star-studded" November event to benefit the Republican Senate Campaign Committee. Lott stresses the chance [0] the benefit will afford donors to attend "in-depth issue briefings" with "Republican policymakers," such as the two Budget Committee chairmen, Senator Pete Domenici of New Mexico and Representative John Kasich of Ohio.

Senator Mitch McConnell, the campaign committee's chairman, who is Lott's chief partner in efforts to thwart campaign finance reform, was less subtle in fund-raising materials [0] he mailed for the dinner.

"With the Republican Senate playing such a dominant role in lowering taxes," he wrote in one letter, Republican donors will "enjoy an unprecedented opportunity to meet, discuss issues and dine with top party leaders".

It does not justify the fund-raising excesses of the Clinton White House to note that this approach is strikingly similar to Democratic methods that GOP leaders have loudly criticized.

[*The New York Times*, appeared in *AEN*, Oct. 20, 1997]

#### 4.3. *The conjunctive that*

This subsection will discuss *that* used in the *so+Adj(or Adv)+(that)* structure. As explained in the previous subsection with regard to the relative pronoun *that*, physical or psychological separability and inseparability between the two clauses are expressed by the *THAT* and *ZERO* constructions, respectively. (In)separability is often related either to the length of time in which the whole event occurred, to the psychological relation between the two clauses, or to the physical or psychological distance between the event and the speaker. In other words, quickly occurring events, or closely related events (in a physical or a psychological sense) are expressed in a *ZERO* construction. A slowly-occurring event or a familiar state (as opposed to a distant event or state) is expressed in a *THAT* construction. Observe the following utterances, all the *so+Adj(or Adv)+(that)* construction instances appearing in one and the same novel.

- (26) It was exquisitely violent. I faked out one defenseman, slammed the other so hard [0] he lost his breath and then – instead of shooting off balances – I passed off to Davey Johnston, who had come up the right side. Davey slapped it into the nets. Harvard score! [Segal, 1970: 11]

- (27) [Oliver had been terribly hurt in the face during the ice hockey game]  
 With this terrible bitter taste in my mouth – I felt so bad [0] I could taste it –  
 I packed my gear and walked outside. [ibid: 20]
- (28) Jenny was so smart that I was afraid she might laugh at what I had tradition-  
 ally considered the suave romantic (and unstoppable) style of Oliver Barrett  
 IV. [ibid: 33]
- (29) Stupid as it sounds, I was so in love with her that the moment we got back to  
 Cambridge, I rushed to find out who the first two guys were. [ibid: 94]

Examples (26) through (28) can be accounted for by the (in)separability of two events. (26) and (27) describe physical actions of the narrator himself. This physical directness and quickness is realized by a ZERO construction. On the other hand, (28) is a description of the mental activity of the narrator. Therefore, indirectness here is expressed in a THAT construction.

(29) can be given many explanations. For one thing, the content of the first clause is a description of the mental state of the narrator, while that of the second clause shows his action; thus, a THAT construction is used because the two clauses represent separable domains. Another explanation may be found in the stylistic factor. As Elsness (1984) points out, the existence of an adverbial phrase between the matrix and complement clause increases the power of the *that* portion clarifying the structure. This is because without *that* it is difficult to tell which clause (the matrix or subordinate one) the adverbial phrase belongs to. (See further below, Sections 5 and 6). So in (29), considerations of style may have made the writer use *that* metalinguistically as a syntactic clarifier, in order for the reader to be able interpret the sentence more easily.

## 5. Pragmatic and syntactic factors

### 5.1. Whose perspectives?

Perspective is one of the most important factors in interpreting a particular linguistic structure. The baseline for this perspective is established by the degree of independence or emphasis the speaker exhibits towards an observed scene shift in a given contexts. In informal conversation, or in journalistic and academic writing, this baseline representing the relationship from speaker/writer (and hearer/reader) to the observed scene is fairly stable. In novels, by contrast, the narrator moves freely about, switching his/her vantage point between character and hearer/reader. When the narrator empathizes with a character, the narrator's perspective sometimes coincides with the character's. In such a case, the perspective of the character is reflected in the construction. When the narrator shares the same ground with the hearer/reader, the perspective of the hearer/reader as an observer will be expressed in a similar way as in normal conversation. Thus, the construction is determined by whose perspective the narrator is using.

For example, in Sidney Sheldon's narrative quoted earlier, one finds many sentences containing the verb *know*. When the narrator is using the perspective of the

hearer/reader, and the complement content is already known as old information to the hearer/reader, but is new to the character (the matrix subject), a THAT construction is used, as in *And at that moment, Peter knew that Alexandra Mellis was in real danger* (Sheldon, 1983: 385); whereas if the content is not yet known to the hearer/reader, but only to the character, a ZERO construction is used, as in *Jamie spent many nights away from home, and Margaret [Jamie's wife] knew [0] he was at Madam Agnes's* (ibid: 134). When the narrator empathizes with the character, the information already known to the hearer/reader but new to the character appears in a ZERO construction so as to express immediacy: e.g. *At that moment, Kate knew [0] she had been deceived* (ibid: 165); *And looking at her, he knew [0] the hunger was hers, too* (ibid: 263). Thus, in a novel, *that* is one of the linguistic devices that many signal the shift of the narrator's perspective.

### 5.2. The syntactic factor

Just as do the semantic and pragmatic factors discussed so far, the syntactic factor, too, plays a key role in determining a linguistic construction. The non-deictic *that* sometimes functions as a syntactic clarifier only, without semantic function. For instance, the presence of an adverbial element between the matrix verb and the complement subject in the NP+VP+(*that*)+S structure tends to influence the determination of the construction, since it is often difficult to tell which clause the adverbial belongs to, the matrix clause or the complement clause. Elsness' (1984) research on NP+VP+(*that*)+S structures in press reports vs. fiction has shown that in the Brown Corpus, a THAT construction appears at 71.8% and 100% level, respectively, when an adverbial intervenes. The present author's statistical results from research on journalistic articles, as reported in Appendix A below, show that a THAT construction is used in 97.8% of these cases.

There are several syntactically obligatory positions for the complementizer. For example, the following example, (30), contains a very emotional utterance: although the placement of the adverbial between *hope* and the complement clause may render the structure ambiguous, we do not find any use of *that* in the first two positions. In contrast, the second complement clause under the verb *hope* has to be marked with *that* to show that this clause, too, is the object of *hope*. This *that* is obligatory; without *that*, the structure would be very difficult to determine.

- (30) I hope [0], someday, the people in the Shayne family will look back on their years at 2722 Bryden Road with the same warmth and joy that I do; and I hope [0], if they ever get the urge to come back, they won't be too shy to ask, and that people who live there in that future summer will not be too protective of their privacy to say yes. [Greene, 1983: 118]

Conversely, repetitive use of *that* in one sentence tends to be avoided, as the repetition seems redundant. The following example, (31), taken from a formal style article, shows the only two ZERO instance among eleven *that*-complement clauses. Since the contents of these eleven complement clauses are all presupposed to be

valid, the absences of *that* in (31) are considered as being due to the occurrence of a *that*, introducing the last clause of the sentence.

- (31) ... the great writer and physician Lewin Thomas, whose books turned science into a way of appreciating the grandeur of the world, told me [0] he thought [0] the true measure of a life was that it be useful. [Time, Aug. 2, 1999]

The author of the article above agrees with the proposition made by Lewin Thomas, while the article itself is held in a very objective tone. The writer seems to have wanted to avoid repetition; here, syntactic constructions appear very influential and are often seen to override the other factors.

## 6. Conclusion

It has been shown in this article that the THAT construction is more likely to be used to mark valid information or propositions dealing with states, whereas ZEROs tend to mark false information or one-time events. The non-deictic *that* denotes stable information.

Scientific writing was chosen to illustrate the tendency of the relative pronoun to express the speaker's perception of two events as separate. My choice was motivated, because (as we saw in Section 2) the THAT style is very common in academic writing. Moreover, the distinction between THAT and ZERO seems to be based on objective factors, since the writer's attitude or vantage point is not supposed to influence the description, as shown by the following.

An encyclopedia on animals for children was read carefully, and the occurrences of the relative pronoun in the whole book analyzed; there were a total of 19 instances of the relative pronoun clause. These were categorized into eight groups, according to the following two types of syntactic and discoursal pattern: matrix subject (discourse new/old); time axis between the matrix and relative clauses (agreed/different). The number of instances of each construction were counted. Logically speaking, there should be eight patterns, but only four were identified. See examples (32).

- (32) a. ZERO; subject pronoun in relative sentence X agreed time axis: 12 (63.2%)  
 Ex. In attempting to control these insects and the disease [0] they cause, the cost of drugs, vaccines and eradication programs is enormous.
- b. THAT; subject pronoun in relative sentence X agreed time axis: 2 (10.5%)  
 Ex. ... the leaf material that they bring back to the nest provides the substrate on which the fungus spores are sown.
- c. THAT; subject discourse new in relative sentence X agreed time axis: 2 (10.5%)  
 Ex. Gametes contain half the number of chromosomes that every other adult cell in the body possesses, ...



- d. THAT; subject pronoun in relative sentence X different time axis: 3 (15.8%)

Ex. animals ... can thus modify their behavior to deal with problems that they have encountered before.

The instances of the ZERO construction were all located in the pronoun matrix subject, and conformed to an agreed-on time axis pattern (32a). This means that the content of the relative clause is closely connected to the content of the matrix clause, since the subject of the relative sentence refers to some element in the matrix clause or the preceding sentence (discourse-old) and both contents share the same time axis. As shown by (32c) and (32d), THATs tend to occur when the content of the relative clause refers to some new topic (a discourse-new subject) or does not share the same time axis (the content of the relative clause has taken place already) as that of the matrix clause. Thus, the fact that the THAT construction tends to express two separate, rather than one holistic, event can also be observed in objective academic writing.

The proposed function of the non-deictic *that* has thus been confirmed. However, it should also be noted again that the constructional distinction is determined by the interaction of semantic, pragmatic, and syntactic factors in actual language use. In particular, the non-deictic *that* has a basic semantic function, despite its different syntactic manifestations. The non-deictic *that* expresses the speaker's attitude or his/her vantage point. It marks fact, valid information, conscious mental activity, proposition, formality, an entity observed from a distant location, public information, and old information. This function is derived partly from the semantic functions of the demonstrative *that* in terms of referentiality and psychological distance, partly in terms of the speaker's perception of the two clauses' spatial or temporal closeness (here, the notion of *iconicity* is invoked). Curiously enough, the THAT or ZERO construction reflects how the speaker perceives the observed scene: slow, thought-like analytic processing vs. fast, sensation-like holistic processing, a constructional contrast which is philosophically expressed in terms of mental reason vs. bodily sensation. Johnson (1987) explains this as follows:

"[O]ur cognitive, conceptual, formal, or rational side [is] in contrast with our bodily, perceptual, material, and emotional side ... [A]ll meaning, logical connection, conceptualization, and reasoning are aligned with the mental or rational dimension, while perception, imagination, and feeling are aligned with the bodily dimension." (Johnson, 1987: xxv)

Thus it can be said that the non-deictic *that* represents the ultimate mental activity.

## Appendix A: Research results

This Appendix tabulates the results of two lines of research that I have undertaken. First, in order to prove that the non-deictic *that* functions as a referential marker, a search on newspaper and magazine articles has been carried out. The NP+VP+(*that*)+S structures were chosen from journalistic articles since these often report contrasting opinions of the parties

involved.<sup>9</sup> Although the reporter is supposed to be neutral, his/her own attitude is often implicitly expressed. Two issues of *Time* and a one-day main section of *The Observer* (Britain) and *The New York Times* were investigated with regard to the NP+VP+(*that*)+S structure. Utterances in quotation marks and captions were excluded from the data, since they do not express the writer's attitude. The NP+*is*+*that* structure was also excluded, as there were no ZERO instances in the data. As Table A1 shows, there was a total of 351 articles. To compare the semantic functions of *that*, the 102 articles which had both THAT and ZERO constructions were focused upon.

Table A1  
Articles compared

	<i>Time</i> , July	<i>Time</i> , August	<i>The Observer</i>	<i>The New York Times</i>	Total
No use of <i>that</i> -clause	31	34	26	55	146
THAT only	14	16	12	21	63
ZERO only	11	4	10	25	40
THAT and ZERO	25	16	33	28	102
Total	81	70	81	119	351

As Table A2 shows, there was a total of 729 *that*-clause instances in the data.

Table A2  
Instances of THAT, ZERO, and adverbial constructions

	<i>Time</i> , July	<i>Time</i> , August	<i>The Observer</i>	<i>The New York Times</i>	Total
THAT instances	55	58	107	145	365
ZERO instances	38	39	101	96	274
Adverbial THAT/ZERO	15/0	10/0	20/2	43/0	88/2
Total	108	107	230	284	729

These 102 articles were read very carefully and the 729 *that*-clauses were analyzed according to how true or valid the speakers perceived them to be. Before discussing the results, some syntactic factors should be considered.

First of all, as discussed in Section 5.2, the adverbials seem to be among the most influential syntactic factors in our data. In seven out of 102 articles, adverbials seemed to be the only factors inducing a THAT construction, while the other, non-adverbial clauses all figured as ZEROs (this I call 'basic ZERO style writing'). When an adverbial intervened between the matrix verb and the complement subject (90 instances), only two ZERO instances (2.2%) were found: the other 88 instances were THAT constructions. As seen from example (i), one of the two ZERO instances showed false information. Curiously enough, in the case in (i), an another adverbial in the same sentence induced a THAT construction, with a true content.

<sup>9</sup> The verb *mean* was excluded from the analysis, since it is sometimes difficult to tell who, the speaker or the matrix subject, 'means' the complement content. The *it*+VP+(*that*)+S structure is also excluded from the data, since almost all cases appear in a THAT construction. (Only two ZERO contrary instances were found in the data, both of which express invalid information.) Also, the repetitive use of the epistemic expression, such as *he said he thought ...* was excluded from the data.

- (i) Mrs. Sonya Sutcliffe was never prosecuted though she said on oath [0] she had never received money for her story when it was later proved conclusively that she had.  
[The Observer, Jan. 9, 2000]

Since there were no instances of THAT constructions with an adverbial ('adverbial THAT constructions') that obviously expressed false information, adverbial THAT constructions were not considered in the analysis.<sup>10</sup>

Secondly, as discussed with regard to example (31) in Section 5.2, the presence of a non-deictic *that* in another part of the same clause or sentence may make the writer refrain from using the complementizer. There were four articles whose style was basically THAT, with only one ZERO instance. This single instance is considered to have been caused by the presence of a non-deictic *that* in the same clause.

The third factor has to do with the matrix subject being in the first person pronoun. As discussed in Subsection 3.2.4, the first person pronoun tends to be used without *that* to a higher degree than does the third person, when it is the matrix subject. There were six THAT style articles, with only one ZERO instance using a first person pronoun matrix subject such as *I think*. This single ZERO construction is thought to be induced by the third factor. The above mentioned 17 cases were excluded from the analysis of the 102 articles, since they did not express any contrast of the matrix subject's claims in the constructions. As to the remaining 85 articles, 45 showed the distinction between the THAT and ZERO constructions as expressing the speaker's attitude toward the matrix subject and the truth-value or public availability of the content of the complement clause. See Table A3–A5.

Table A3

How THAT and ZERO are utilized\*

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Article no.    Usage

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*Time, July, 1999*

- |   |  |
|---|--|
| 1 | Basically THAT style (state proposition);** one ZERO – a one-time event                  |
| 2 | One THAT – a state proposition; one ZERO – unconfirmed information                       |
| 3 | Basically THAT style (facts, assumption); one ZERO – false information                   |
| 4 | Basically ZERO style (one-time events); one THAT – a state proposition,                  |
| 5 | THATs – statistical data; ZEROs – false information                                      |
| 6 | Basically ZERO style (unconfirmed information, one-time event); One THAT – a proposition |
| 7 | THATs – facts; ZEROs – emotion of the speaker, unconfirmed information                   |

*Time, August, 1999*

- |    |   |
|----|---|
| 8  | Basically ZERO style (facts, one-time event); one THAT – proposition, one THAT – a <i>add+that+S+and+that+S</i> structure |
| 9  | THATs – official, true statements, fact; ZEROs – between-the-lines interpretation, a lie                                  |
| 10 | THATs – facts; ZEROs – lies, unconfirmed information  |
| 11 | THATs – facts; ZEROs – invalid evidence   |
- 

<sup>10</sup> Another structure which often uses *that* is NP+VP+NP+(*that*)+S. The complementizer *that* seems to function as a syntactic clarifier. There are two ZERO instances, in both of which the writer does not admit the claim of the matrix subject. There are nine THAT instances.

Table A3

How THAT and ZERO are utilized\*

Article no.	Usage
12	THATs – facts; ZEROs – information which seems untrue
13	THATs – Bush's proposition, a specialist's prediction; ZEROs – false information, an anonymous voter's future plan
14	THATs – confirmed information; ZEROs – unconfirmed information
<i>The Observer</i>	
15	Basically ZERO style (one-time event, facts); THATs – statistical data, <i>warn+direct object+that</i>
16	THATs – facts; ZEROs – information which seems untrue
17	THATs – public statement by and in favor of an allegedly bribe-ridden politician; ZEROs – unconfirmed information going against the politician, information seemingly untrue
18	THATs – propositions; ZEROs – one-time events, subjunctive clauses (not valid)
19	Basically ZERO style (unconfirmed information); two THATs – expressing contrasting claims of IRA and Government
20	THATs – long-held official view; ZEROs – new ideas
21	THATs- The Observer-based information, a <i>tell+The Observer+that</i> structure; ZEROs – other information
22	THATs – information all the parties agree with; ZEROs – each party's claim
23	THATs – information the writer perceives as true; one ZERO – false information
24	THATs – statistical data, facts; ZEROs – expressing contrastive stance of black people and the police
25	Basically ZERO style (expressing contrastive claims by journalists and Government); THATs – public opinions
26	One THAT – statistical data; one ZERO – invalid information
27	THATs – deontic verbs ( <i>rule, insist</i> ); ZEROs – epistemic verb ( <i>say</i> )
28	THATs – the police's official statements; ZEROs – expressing contrastive claims from witnesses from both sides
29	THATs – information which turned out to be true or valid; one ZERO – information which did not turn out to be true
30	Basically THAT style (facts, valid evidence); ZEROs – seemingly true assumptions without valid evidence
31	One THAT – fact; ZEROs – false statement, first person pronoun
32	THATs – proposition, habit; ZEROs – one-time event, assumption
33	One THAT – politely paraphrased statement; ZEROs – seemingly quoted (impolite) words of a wrong-doing judge
34	One THAT – fact; ZEROs – false statement, first person pronoun
<i>The New York Times</i>	
35	THATs – Republican Party's claims; ZEROs – opinions of Democratic Party and one Republican politician going against the Republican Party
36	Basically THAT style (expressing facts); one ZERO – not fact, using subjunctive
37	THATs – contrastive main stances of both parties at the beginning and at the end; ZEROs – claims of both parties
38	THATs – objective public opinions, fact; ZEROs – police chief's claims and opinions against him
39	THATs – objective facts, poll results, critical opinion against the mayor; ZEROs – mayor's claims

Table A3  
How THAT and ZERO are utilized\*

Article no.	Usage
40	Basically THAT style (expressing contrastive claims of Jewish and Arab groups); two ZEROs – agreed claims of Jewish and Arab groups against Disney
41	THATs – agreed claims from both parties (and police); ZEROs – lies, conflicting claims of both parties, unconfirmed information
42	THATs – claims and opinions for and against President Clinton; ZEROs – Clinton's own claims
43	THATs – statements of pathologist, lawyer, and prosecution; ZEROs – defendant's claims
44	Basically ZERO style (facts, one-time events); two THAT'S – a proposition, a <i>say+that+S+and+that+S</i> structure
45	Basically ZERO style (facts, one-time events); one THAT – a state proposition

\* Adverbial THAT constructions were excluded in Articles No. 4, 5, 7, 13, 16, 22, 25, 33, 34, 37, 39, 41 and 45.

\*\* 'State proposition' means a proposition that expresses a stable, maxim-like claim, not a one-time event.

As the analysis shows, not only adverbials, but also the NP+VP+object+(*that*)+S and NP+VP+(*that*)+S+VP+(*that*)+S structures along with the first person pronoun all seem to influence the choice of construction. If these patterns are excluded from consideration, 45 articles (52.3%) out of 85 clearly show that the complementizer *that* is used to mark the referentiality or the public availability of the information, in contrast to the non-use of *that*. Since more than half the articles clearly showed the THAT construction as being in contrast to the ZERO construction, the proposal made in the present study seems to be valid. Out of 45 articles, 43 articles showed that *that* marks referentiality: 19 expressed a fact or public statement vs. a lie or unconfirmed information; 11 expressed a proposition vs. a one-time event or new information, while 3 contained both contrasts. In ten articles, the writer used the distinction of construction to express the contrastive stances or claims of the parties involved, showing his/her neutral position. As Table A3 shows, in the journalistic articles in which the writer utilized the constructional distinction, a THAT construction expressed propositions (especially, the main thesis of the article), statistical data, and valid information. One-time events and suspect claims (not propped up by witnesses) were expressed by a ZERO construction. When there was some kind of dispute among parties involved, the writer exploited the constructional distinction to mark that contrast. (See articles 17, 19, 22, 24, 25, 28, 35, 38, 40, 41, 42, 43.)

Nineteen further articles (22.3%) showed a similar tendency.<sup>11</sup> However, here it was impossible to account for our distinction, basing ourselves exclusively on validity, public

<sup>11</sup> In the remaining 21 articles, three THAT instances were found which obviously expressed false information. Observe the following examples (i)–(iii). The writer of these articles did not distinguish the constructions in terms of truth-value, but used THATs for state propositions and ZEROs for one-time events.

- (i) She was hospitalized there and told, incorrectly, that she had acute diverticulitis ... [*The New York Times*, Sep. 18, 1999]
- (ii) [Concerning an arrested cult leader] A delicate-looking man with bright eyes showed up in this dusty town a few years ago, preaching that he was a resurrected god ... [ibid.]

availability, or distance. Other factors, such as semantic bleaching of the NP+VP phrase, also seemed to influence the construction. However, since these factors are beyond the scope of the present study, no further analysis was undertaken.

## Appendix B: Materials

AEN (Asahi Evening News).

The animal world, 1987. Chicago: The World Book Encyclopedia of Science.

CDMS (Cobuild Direct Mail Service).

Greene, Bob, 1983. *American beat*. Tokyo: Kodansha.

Longman Dictionary Of Contemporary English.

Newsweek, September 8, 1997.

The New York Times, September 18, 1999.

The Observer, January 9, 2000.

Segal, Eric, 1970. *Love story*. New York: Avon Books.

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TIME Almanac, 1995.

Time, September 8, September 15, December 5, 1997; July 26, Aug. 2, 1999.

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- (iii) [Concerning an alleged cult leader] ... a 'Master' who hints that he may not be merely human ...  
[Time, Aug. 2, 1999]

Apparently, in all instances, the writer disagrees with the complement contents. In (i), the presence of the adverbial may have caused *that* to appear. (There were four instances of the NP+*be+told+(that)*+S structure, including (i): of the remaining three, one was a ZERO, expressing an invalid piece of information, while the other two were THAT's, expressing facts.) The other two examples, (ii) and (iii), express a seemingly false, but still a state proposition, not a one-time event. It was impossible to identify the writer's rule for utilizing *that* in these two articles. Even though the frequency rate for THAT constructions expressing false information is low, the THAT construction nevertheless seem to express a propositional statement, not a one-time event.

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