

## TENSE, ASPECT, AND MODALITY IN THE USE OF THE TURKISH EVIDENTIAL<sup>1</sup>

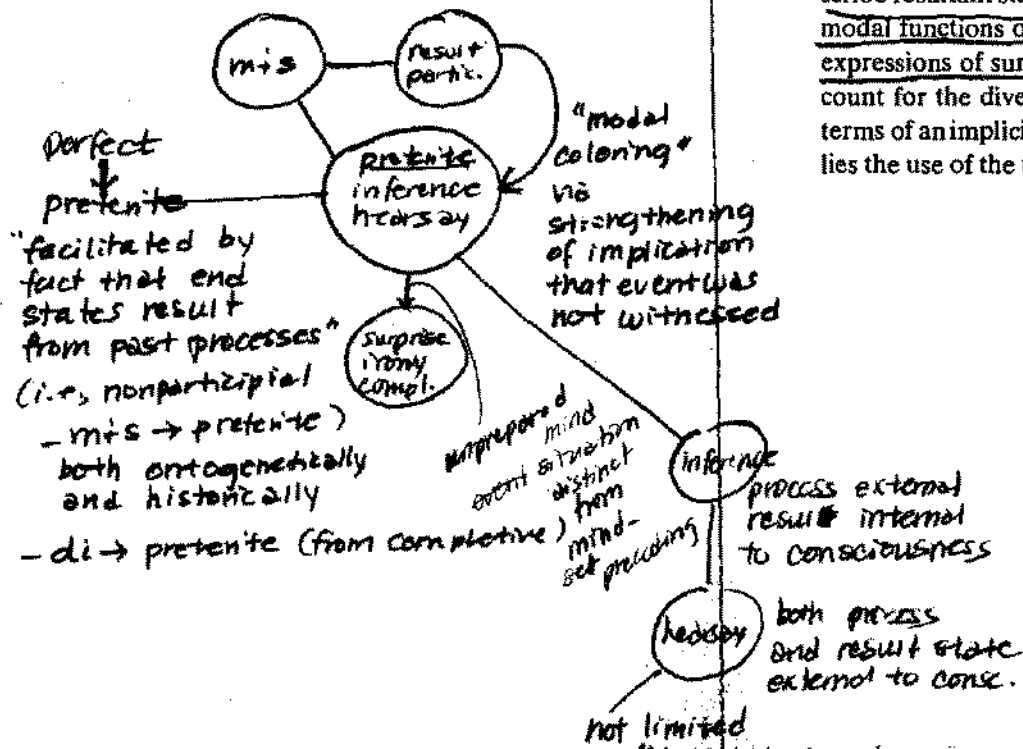
Dan I. Slobin  
University of California  
Berkeley

and

Ayhan A. Aksu  
Boğaziçi University  
Istanbul

### ABSTRACT

There are two past tense morphemes in Turkish, expressing an obligatory grammatical distinction between the report of direct versus indirect experience. The particle encoding indirect experience is related historically and ontogenetically to the perfect, and, in its participial form, functions to describe resultant states. In its use as a past tense morpheme, the particle carries modal functions of inference and hearsay, and is pragmatically extended to expressions of surprise, irony, and compliments. An attempt is made to account for the diversity of tense-aspect-modality functions of this particle in terms of an implicit theory of the nature of conscious experience which underlies the use of the two past tense morphemes.



...it is important to emphasize that, at the present stage of linguistic theory and descriptive practice, it is impossible to formulate any very clear notion of the distinctions that are grammaticalized, within the category of mood, throughout the languages of the world. The labels that are used in standard descriptions of particular languages are often misleading in that they imply that the

functions of the moods are narrower or more specific than they really are. This is true, for example, of... the 'inferential' as it is applied to Turkish.

John Lyons (1977:847)

Verbal expressions have traditionally been discussed in terms of tense, aspect, and mood or modality, indicating, roughly, the temporal placement of an event relative to the speech act, the temporal contour of the event, and the attitude of the speaker towards the event. We wish to argue here that in practice, these categories cannot be studied in isolation from one another. As a case study we present part of the Turkish verbal system.

All three of these broad factors intersect in the obligatory distinction in the Turkish past tense between reference to directly experienced events and what have been variously called 'indirect experience' (Banguoğlu 1974, Haarmann 1970), 'nonevident' (Kononov 1956), 'inferential' (Lewis 1967), 'presumptive' (Sebüktekin 1971), 'nonpersonal' (Grunina 1976), and others. In a close examination of the contemporary uses, history, and ontogenesis of these forms, however, it has become clear to us that more is at play than this tripartite linguistic analysis. In the following discussion we develop the idea that an important cognitive factor of the speaker's experiential participation in the referred to event accounts for the seemingly heterogeneous range of semantic and pragmatic functions of the two basic past tense forms in Turkish.

The Turkish verb is made up of an invariant root followed by a string of affixed particles, agreeing with the root in vowel harmony. For our purposes, we need attend only to the basic tense and person particles, omitting discussion of the full array of possible affixes (negative, abilitative, necessitative, optative, causative, passive, reflexive, reciprocal). For all past tense expressions there is an obligatory choice between two suffixes: (1) direct experience *-di* (realized as *-dī/-dī/-dī/-dī/-tī/-tī/-tī/-tī*) and (2) indirect experience *-miş* (realized as *-miş/-miş/-miş/-muş*). For example:

- (1) *gel- di*  
 come past of direct experience  
 'he/she/it came'  
*gel- di- n*  
 come past of direct experience 2sg.  
 'you came'

- (2) *gel- miş*  
 come past of indirect experience  
 'he/she/it came (apparently, reportedly)'  
*gel- miş sin*  
 come past of indirect experience 2sg.  
 'you came (apparently, reportedly)'

As indicated in the above examples, person particles are suffixed to the past tense particles (marking first and second persons singular and plural and third person plural). Other particles may intervene between the verb stem and the tense-person inflections. In the present paper we are concerned with the second variant, the past of indirect experience (*-miş*).

This form is used for a range of functions encoding events to which the speaker was not a direct or fully conscious participant. For example, the following utterance about a third party, Kemal, could convey inference, hearsay, or surprise to the listener:

- (3) *Kemal gelmiş* 'Kemal came'
- INFERENCE: The speaker sees Kemal's coat hanging in the front hall, but has not yet seen Kemal.
  - HEARSAY: The speaker has been told that Kemal has arrived, but has not yet seen Kemal.
  - SURPRISE: The speaker hears someone approach, opens the door, and sees Kemal — a totally unexpected visitor.

In addition to the above everyday uses, the form has a special NARRATIVE function, limited to accounts of unreal events outside the regular experience of the speech community, such as myths, folktales, dreams, and jokes. (However, generally familiar events, such as those related in historical accounts and realistic fiction, are usually reported in the past of direct experience.)

While most treatments of the *-miş* tense form discuss inference, hearsay, and narrative functions, surprise has generally been ignored. Haarmann, in a postscript to his monumental work (1970) on indirect experience forms in numerous languages, notes that such forms can sometimes be used when the consequences of an event present themselves as unexpected to the speaker (1971:94). Underhill (1976:199) notes 'that there are cases where the speaker may know that the statement he is making is true but uses *-miş* to show that the information comes as a surprise or was not part of his knowledge previously.' Kononov (1965:232) discusses a related pragmatic function of the form to express scorn or 'an ironical relation to the carrying out of the action ("ah, so you

think he went!')'.

Curiously, a form which is used to express such notions as inference, hearsay, surprise, and scorn, can also be used to convey compliments — a fact which, to our knowledge, has not been noted in any of the many grammars of the Turkic languages. The grounds of this pragmatic extension, however, can be interpreted in terms of expectation and surprise: if one did not expect an experience to be superlative, the expression of surprise, rather than being ironical, underlines the degree to which the experience surpasses normal expectation.

The array of diverse functions for one grammatical form that we have enumerated above seems to go beyond the bounds of what Sapir once characterized as the 'sober logic' of Turkish (1921: 124). At best, one might hope for a core meaning (e.g. 'indirect experience', 'nonwitnessed event') and a collection of separately motivated semantic and pragmatic extensions of that core. However, we aim to unite these diverse functions psychologically by considering the degree to which the utterance refers to contents at the center or periphery of the speaker's immediate consciousness. First, however, it will be necessary to characterize the uses of the *-miş* form in more detail.

#### *Indirect experience and the perfect*

Historically (Grunina 1976) and ontogenetically (Aksu 1978) inferential forms seem to develop from forms expressing the perfect. As Comrie has pointed out (1976:110): 'the semantic similarity ... between perfect and inferential lies in the fact that both categories present an event not in itself, but via its results'. This close relationship is maintained in contemporary Turkish in that the same surface morpheme, *-miş*, also functions to form stative participles derived from process verbs. In this adjectival function the element of indirect experience is not present. Rather, such adjectives simply 'indicate an attribute that has been actualized at a point in the past distant from the here-and-now' (Banguoğlu 1974:272). For example:

- (4) *Adam öl- müş.*  
man die  
'A/the man died (apparently, reportedly).'
- (5) *öl- müş adam*  
die man  
'dead man' [=a man who has become dead]

Grammars of Turkish generally treat the participle in its syntactic aspect only. However, from a semantic point of view, it is evident that this participle can only be used to encode resultant state, rather than a completed process in general. That is, the participle focuses on the end state achieved by the patient. *Ölmüş adam* 'dead man' is possible, because a clear resultant state is inherent in the meaning of the verb. However, (6) is not possible, because the verb 'learn' refers to a continuing process without a specified end state.

- (6) \**öğren-miş adam*  
learn man  
'a man who has learned'

However, *öğrenmiş* 'learned' is acceptable if the clause limits the range of the process to some achievement, thus implying a resultant state, as in:

- (7) *dil bilimi öğren-miş adam*  
linguistics learn man  
'a man who has learned linguistics'

More generally, the participle is acceptable only if the clause in which it occurs specifies all of the semantic roles inherent in the case frame (Fillmore 1968) of the relevant verb. For simple change of state verbs, like 'die', 'break', 'fall', only the entity undergoing change need be specified in the adjectival clause formed with the past participle. For inherently causative verbs, the passive participle must be included because it is the resultant state of the patient which is being encoded. Compare (8) and (9):

- (8) \**kır-muş bardak*  
break glass
- (9) *kır- ul- müş bardak*  
break passive glass  
'broken glass'

If the case frame includes, for example, the source of an experience, it must be explicitly mentioned in the clause, as in:

- (10) \**kork- müş çocuk- lar*  
frightened child pl.
- (11) *köpek-ten kork- müş çocuk- lar*  
dog ablative frightened child pl.  
'children who have been frightened by/of dogs'

It should be noted that the inadmissibility of (10) lies in the fact that the past participle must encode both process and resultant state. Because the process includes a source, only clauses like (11) are acceptable. However the language does provide stative adjectives such as *korakak* 'frightened' to encode general states or attributes, without regard to the processes bringing about such conditions. The important feature of the participial adjective lies in its being a perfect, thereby serving to relate a result to a process. This is also evident in such idioms as (12)

- (12) *oku-muş kadın*  
 read woman  
 'an educated woman'

Although seemingly inadmissible according to the above discussion, the meaning of 'educated' stems from a conception of 'having read to completion', that is, having achieved a state of knowledge and social status as a result of the process of much reading.

In short, while completive in meaning, the participial use of the *-miş* particle embraces both process and resultant state in its scope. This is of importance in accounting for the development of an inferential past tense form from a perspective that is both completive and process-oriented. Both the participial and past tense functions of *-miş* are present in the earliest written monuments of the eighth century A.D. (Tekin 1968). It has been suggested (e.g. Baskakov 1971) that the participial function was prior, having been extended to indicate past tense because of its focus on both process and end state. In historically attested time, the perfect *-miş* in Turkish (like related forms in other Western Turkic languages) has been extended to a general past tense, losing characteristics of a perfect and taking on the modal distinctions described above (Grunina 1976). Thus the function of the particle shifted from aspect to tense, limiting the modal range of the past tense particle *-di* to the domain of direct experience. The shift to tense was presumably facilitated by the fact that observed end states result from past processes. The shift to indirect experience modality seems to have been facilitated (1) by the cognitive fact that nonwitnessed processes can be inferred from observation of resultant states, and (2) by the linguistic fact that the verbal system already provided a potentially contrasting past tense form which was neutral in regard to source of experience.

This presumed historical sequence finds some parallels in the contemporary Turkish child's acquisition of the semantic functions of the *-miş* particle

(Aksu 1978). The particle emerges several months later than the *-di* particle, first being limited to picture descriptions and story telling. The earliest appearances are thus limited to descriptions of already existing, perceptible states. At this period the *-di* particle is used to comment on completed processes without regard to the speaker's direct or indirect experience of those processes. The earliest references to the past are all of this completive character, more appropriately described in terms of aspect than tense, and limited to change of state verbs encoding situations with immediately perceptible results. The *-miş* particle, from its initial use with process and stative verbs for the description of resultant states, moves from a stative to a past tense function. At the same time, *-di* moves from a completive aspectual to a general past tense function. As Piaget has pointed out (1927 [1969:284]), temporal thought for the very small child is characterized by 'living purely in the present and assessing the past exclusively by its results'. It is this conception of the past in terms of presently enduring results which first moves the child's cognition to past processes. By age three or so the two verb particles have become general past tense forms, dividing up the field in terms of witnessed and nonwitnessed modalities.<sup>2</sup> The hearsay function of *-miş* is acquired later by children, as was probably the case historically as well. This developmental sequence from aspect to tense has also been attested in other languages (French, by Bronckart 1976, Bronckart & Sinclair 1973; Italian and English, by Antinucci & Miller 1976; English by Bloom et al. 1980; Greek, by Stephany 1978). The development from modality and aspect to tense has also been attested in Greek child language by Stephany (1978). Similar claims have been made about the development of tense in creoles by Bickerton (1975), and in regard to historical sequences by numerous scholars. Thus there seem to be good psychological grounds for positing a general development from completive and perfect aspect to past tense. What is added in the Turkish case is a modal coloring, perhaps based on the implicit cognizance that perception of a resultant state, while implying an antecedent process, does not imply that the speaker himself was a witness to that process. This situation is perhaps most clear in cases where the speaker encounters the physical evidence of a nonwitnessed antecedent process, giving rise to the modal subdivision of the perfect past tense on the basis of the speaker's direct or indirect experience of the process. While the historical evidence is not certain, it is at least clear on ontogenetic grounds that the dimension of inference from physical evidence antedates the use of the same modal form to indicate indirect experience on the basis of hearsay. Accordingly, we examine first the inferential use of the form as a past tense,

considering this use prototypical for the modality.

### *Experience and inferentiality*

Inferences encoded by the *-miş* past tense can be based on any kind of sensory evidence of resultant state, provided that no aspect of the antecedent process itself has been present to consciousness. That is, use of the particle informs the listener that the speaker had no premonitory awareness of experiencing the event. Thus the issue is not simply a matter of inference from sensory evidence, but inference from sensory evidence which follows and is not temporally coexistential with the referred to process. For example, (3) *Kemal gelmiş* 'Kemal came', is appropriate in the context of encountering Kemal's coat, but not in the context of hearing the approach of Kemal's car. In both cases, the speaker has not SEEN Kemal or his arrival, but in the latter case the auditory sensory experience is part of the process of Kemal's arrival, and thus the speaker's consciousness was involved in the process before its actualization.

It is clear that the issue is one of CONSCIOUS involvement, rather than simply speaker involvement, because of cases such as

- (13) *Uyu- muş- um.*  
sleep 1sg.  
'I must have fallen asleep.'

said upon awakening over one's books; or

- (14) *Dirseğ- im- i vur- muş- um.*  
elbow 1sg. poss. acc. hit 1sg.  
'I must have hit my elbow.'

said upon feeling a bruised elbow. In these cases the process, although predicated of the first person, occurred outside of the speaker's awareness. It is this externality of the process to awareness which is at the core of all uses of the *-miş* particle, participial as well as tense.

### *Inference and hearsay compared*

In the inferential uses of the form, what is external to consciousness is the process leading to the end state. However, in the hearsay uses both process and end state are external. The nature of inference from evidence limits one to assertions about accomplished events, and is thus inherently complete in as-

*but presumably the  
recursive (participial) verb  
allows a process that has been  
witnessed (the cat has died)*

pect and past in tense. However, reported events are not limited by the nature of evidential inference, since a third party can report any kind of event, regardless of its aspectual or temporal characteristics. The hearsay use is thus purely modal.

In the case of inference, the speaker's assertion presupposes the event. The use of the *-miş* particle indicates the grounds of the assertion. In Turkish, these grounds are limited to inferences of completed processes from end states. Thus, in the inferential usage, one cannot say, on seeing a cloudy sky:

- (15) *Yağmur yağ- acak- mış.*  
rain [noun] rain [verb] fut.

One must express the inferred EXPECTANCY by use of the future tense and a qualifier, such as:

- (16) *Yağmur yağ- acak herhalde.*  
rain [noun] rain [verb] fut. probably  
'It will probably rain.'

However in the case of hearsay, the speaker's assertion presupposes the REPORT of the event, in whatever tense-aspect-modality expression used by the third person making the presupposed assertion. Thus (15) is both grammatical and appropriate in predicting rain on the basis of hearsay, such as a weather forecast ('It is reported that it will rain'). Here the use of the *-miş* particle indicates the grounds for the speech act — namely, that the speaker is saying what he has heard.

The *-miş* particle suffixed to a bare verb root is ambiguous in communicating either inference or hearsay, as in (3) *Kemal gelmiş* 'Kemal came.' However, when suffixed to any stative, existential, and/or tense, aspect, or modal particle, *-miş* can ONLY convey hearsay or surprise, and not inference. For example, on hearing

- (17) *Selma bura- da- ymış.*  
Selma here loc.  
'Selma is here.'

the listener knows that the speaker is conveying hearsay (or perhaps surprise, as discussed below) — but not inference, since the language limits inference to the predication of processes, and (17) is stative. In similar fashion, all of the following, because of their aspectual-modal coloring, cannot be interpreted as inferential:

- (18) *Çok çalış-ıyor-muş.*  
much work pres.  
'(It is said that) he is working a lot.'
- (19) *Üç yaş-ın- da- yken oku- yabil- miş- im.*  
three age poss. loc. when read abilitative lsg.  
'(It is said that) I was able to read when I was three.'
- (20) *Araba- sı yok- muş.*  
car poss. neg.exis.  
'(It is said that) he doesn't have a car.'

The list could be expanded through all possible aspectual-modal combinations, but the point should be clear from the above.

It is interesting, however, to note what occurs when the *-miş* particle is combined with itself, or with the other past tense particle, *-di*. An event reported as having occurred in the past can be transmitted as hearsay:

- (21) *Kemal gel- miş- miş.*  
Kemal come  
'(It is said that) Kemal had come.'

In this case, the first *-miş* is simply the perfect, while the second *-miş* indicates hearsay. If one wishes to specify that a directly experienced event has reached completion prior to a past reference point (i.e. past perfect), again *-miş* functions purely as a perfect, suffixed by *-di*, which carries tense:

- (22) *Kemal gel- miş- ti.*  
Kemal come  
'Kemal had come.'

However, *geldimmiş* is not possible because, as Banguoğlu has pointed out (1974:459): 'transposing something directly known into the plane of something indirectly known is a logical conflict'.

#### Pragmatic extension

In both the inferential and hearsay uses, the grounds for stating a proposition are indirect, and, of course, such grounds can vary in reliability. This had led some grammarians to make the mistake of considering the use of *-miş* to express doubt. Redhouse, for example, called it the 'Dubitative Verb', saying that the speaker expresses 'that what he relates is either doubtful, hearsay,

or erroneous assumption' (1884:141). In fact, the form CAN be used ironically to cast doubt on a proposition, but it should be clear from the above discussion that this is not the central or required meaning of the form. Rather, it is a pragmatic extension based on the fact that hearsay has the possibility of being unreliable. When uttered with the appropriate intonation, in the appropriate context, an utterance like (18), for example ('He is reportedly working a lot') can convey not only hearsay, but doubting scorn when predicated of a well-known loafer.

The possibility of treating hearsay with scorn can be extended to imagined hearsay for rhetorical effect. For example, in failing to remember the words of a song, one might say:

- (23) *Bu şarkı- nın söz- ler-i- ni ne de iyi bil- iyor- muş- um.*  
this song gen. word pl. poss. acc. how emph. good know pres.  
lsg.  
'How well I know the words to this song!'

What is conveyed is something like the English, 'I'm supposed to know the words of this song!', with the ironic assertion that it is general knowledge that I do know the words. In the Turkish case, metaphorical reference is made to a possible world in which my knowledge of the words has been asserted, and by utterance (23) I report that assertion. The utterance is of an ironic nature only when juxtaposed to the real world, in which my lack of knowledge of the words is painfully apparent.

We have now come to the first example in which the use of *-miş* does not conform to any of the standard grammatical categories discussed thus far. In a sense, one can look upon the extension to a hypothetical assertion reported from another possible world as simply a metaphorical extension of the normal hearsay function. While we believe this to be true, we also believe that more is revealed by this example. What the speaker finds to be true in the real world — namely the lack of memory for the words of the song — is contrary to her habitual assumptions of the state of her knowledge. Her mind was NOT PREPARED to find this gap. We emphasize the phrase 'not prepared' in the previous sentence, because it seems to us that the essence of all uses of *-miş* is to encode situations for which the speaker is not somehow prepared — situations on the fringe of consciousness, learned of indirectly, or not immediately assimilable to the mental sets of the moment. It is the burden of the remainder of the paper to elaborate this notion.

The reader will recall that our first example, (3) *Kemal gelmiş* 'Kemal came', could also be an expression of surprise, uttered in the face of concrete physical evidence. Normally, upon opening the door to a visitor, one would say *Kemal geldi*, using the past of direct experience. But it seems that 'normally' must be taken to mean 'consonant with the current state of mind of the speaker'. Similarly, stative like (17) *Selma buradaymış* 'Selma is here', can be uttered on directly experiencing Selma's presence if the speaker had no mental preparation for that situation. Both the inferential and hearsay functions have been removed, but what remains is their common core of psychological distancing from the event. It is as if the speaker were saying: 'I have just become aware of something for which I had no premonitory consciousness.'

On the other hand, when the speaker's mind is well prepared for an event — when he has full premonitory consciousness of an occurrence — even hearsay can be reported as direct experience. For example, during an early phase of investigating these issues in 1974, our minds were being increasingly prepared for Richard Nixon's resignation. When the event finally took place, it was quite natural to report it — although it was certainly a matter of hearsay — in the past of direct experience, *-di*:

- (24) *Nixon istifa et- ti.*  
Nixon resignation make  
'Nixon resigned.'

During the same time period, the Turkish premier Bülent Ecevit suddenly resigned. There was no way to report this event except in the past of indirect experience, *-miş*, although the source of experience — the mass media — was equally indirect in both cases:

- (25) *Ecevit istifa et- miş.*  
Ecevit resignation make  
'(It is reported that) Ecevit resigned.'

These are examples of a general phenomenon. Again, the use of *-miş* implies an unprepared mind from the standpoint of the speaker.

This interpretation casts light on a curious loosening of the obligatory use of *-miş* as the referred to event recedes in time from the moment of speech. That which is reported as *-miş* today may be reported as *-di* next week or next month. In communicative terms, the *-miş* particle functions to indicate to the listener the source of currently relevant information. Psychologically, information which has been stored for some time becomes assimilated to one's own knowledge, often losing the qualification as to its source. Such information

becomes part of the speaker's general mental set, and can no longer be reported as something which has entered an unprepared mind. Thus as Ecevit's resignation became familiar recent history, it came to be reported as *Ecevit istifa etti*. Indeed, all history is reported in this form.

Returning to the dimension of surprise, we are now in a position to account for the pragmatic extension of *-miş* to compliments. Again, the speaker is conveying his lack of preparation for the experienced event — in this case, his lack of preparation for the high quality of the event on the evaluative plane. Thus, to say to a proud mother at the conclusion of her daughter's recital

- (26) *Kızınız çok iyi piyano çal-ıyor-muş.*  
daughter your very good piano play pres.  
'Your daughter plays [*-miş*] the piano very well.'

is not to say that one slept through the concert and obtained this information second hand, nor to ironically convey that the daughter is reputed to play well in some possible world which differs from the current world. In this context, the *-miş* expression is heard as a compliment because it shares with other uses of this form the implication of the speaker's distance from the event; but here the distance is given a positive interpretation because the setting predisposes the listener to assume that the speaker's normal expectations could not accommodate the high quality of the experience.

#### *Unprepared minds and indirect experience*

Although we began the paper with a discussion of 'direct' and 'indirect experience', we have been relying more and more on a factor which we have variously referred to with such terms as 'involvement of the speaker's consciousness', 'mental sets of the moment', 'premonitory consciousness', and 'prepared mind'. Clearly, the range of pragmatic extensions just reviewed goes well beyond the issue of the speaker's direct or indirect experience of the event. A general psychological or phenomenological stance towards experience seems to underlie the entire range of functions of the two past tense forms. The neutral expectation, encoded by the *-di* particle, is that experienced events can be assimilated to a network of existing assumptions and expectations. The normal course of experience is characterized by premonitory consciousness of the contents of coming moments. We refer to this neutral, background mental set as a 'prepared mind'. In its linguistic reflection, an observed process arouses premonitory consciousness of its consequences, allow-

ing for encoding in the past of direct experience. Hearsay assimilable to a prepared mind is not really hearsay, because the recipient has had premonitory consciousness of the state of affairs leading up to the reported event. Such reports are conveyed as 'direct experience'.

When a mind is unprepared, however, events cannot be immediately assimilated. One stands back, saying, in effect: 'It seems that I am experiencing-such-and-such' or 'It seems that such-and-such an event must have taken place.' An unprepared mind has not had normal premonitory consciousness of the event in question. The event has become apparent through its consequences, or through report, or the experienced event is radically different from the consciousness that preceded the experience. The speaker thus feels distanced from the situation he is describing. Events which enter unprepared minds are encoded by the *-miş* particle.

There are some kinds of events for which one is always unprepared — events which partake of a quality of unreality or otherworldliness.<sup>3</sup> Thus the *-miş* form is always used in such narratives as myths, folktales, and fairy tales, and this is the form used for recounting those parts of dreams which are most alien to everyday experience. In all of these cases, the speaker is psychologically distanced from the event. This dimension of psychological distance is elusive. It is not a matter of placement of events on a time line, but rather one of relative closeness of events to one's ongoing feeling of participation in the here-and-now. Native speakers we have asked share the vague feeling that of two events occurring at the same objective point in past time — one related in *-miş* and the other in *-di* — the one encoded by *-miş* seems more 'psychologically distant' than the one encoded by *-di*. While this intuition is obviously in need of further research, it is consonant with our claim that the central meaning of the distinction between the two past tense forms is not so much one of the modality of direct versus indirect experience, but rather one of the degree to which the speaker's mind has been prepared to assimilate the event in question prior to forming an utterance about that event.

If this approach should prove to be revealing, it would be of interest to apply it to the inferential-evidential systems of other language groups. We have yet to determine the degree to which human languages embody implicit theories of conscious experience such as the one suggested above. It is our suggestion that a full description of linguistic phenomena requires attention to such theories.

## FOOTNOTES

1) We would like to thank Francesco Antinucci for lengthy and enlightening discussions on some of the topics considered here. D.I. Slobin expresses gratitude to Hubert Dreyfus, who will hopefully detect some aspect of his skillful presentation of the ideas of Merleau-Ponty. We acknowledge support from the W.T. Grant Foundation to the Institute of Human Learning and from NIMH to the Language-Behavior Research Laboratory, both at the University of California at Berkeley, and from the American Research Institute in Turkey to A.A. Aksu.

2) It is suggestive that this course of events has not been followed by all Turkic languages in their history. While *-di* is a common and ancient past tense, the perfect is a more recent development (varying in morphological realization from language to language), and its evolution into a modality of indirect experience is not a general feature of the language group (Grutina 1976). Thus the later phases of ontogenetic development in Turkish seem to parallel more recent phases in the development of that language.

3) We have omitted from our discussion a puzzling use of *-miş* in baby talk addressed to infants and pets. It is difficult to account for this tendency on the part of Turkish adults in the terms developed in this paper, however it could be that attempting to communicate with an inarticulate and often unresponsive small creature partakes of a certain unreal or otherworldly quality — at least from the point of view of the grounds of normal discourse. The fact that speech in this modality also takes place between lovers and is used in recounting dreams suggests its extension to a general realm of non-mundane experiences.

## REFERENCES

- Aksu, Ayhan A. 1978. Aspect and modality in the child's acquisition of the Turkish past tense. Berkeley: University of California dissertation.
- Antinucci, Francesco, and Ruth Miller. 1976. How children talk about what happened. *Journal of Child Language* 3.169-189.
- Banguoğlu, Tahsin. 1975. Türkçenin grameri. İstanbul: Baha Matbaası.
- Baskakov, N.A. 1971. O kategorijax naklonenija i vremeni v tjurkskix jazykax. *Struktura i istorija tjurkskix jazykov*, 72-80. Moscow: Nauka.
- Bickerton, Derek. 1975. Dynamics of a creole system. Cambridge: Cambridge University Press.
- Bloom, Lois; Karin Lifter; and Jeremie Hafitz. 1980. Semantics of verbs and the development of verb inflection in child language. *Language* 56.386-412.
- Bronckart, Jean-Paul. 1976. Genèse et organisation des formes verbales chez l'enfant. Brussels: Dessart et Mardaga.
- , and Hermine Sinclair. 1973. Time, tense, and aspect. *Cognition* 2.107-130.
- Comrie, Bernard. 1976. Aspect. Cambridge: Cambridge University Press.

- Fillmore, Charles J. 1968. The case for case. Universals in linguistic theory, ed. by Emmon Bach and Robert T. Harms, 1-90. New York: Holt, Rinehart & Winston.
- Grunina, E.A. K istorii semanticheskogo razvitija perfekta *-mis*. Sovetskaja tjurkologija 7(1).12-26.
- Haarman, Harald. 1970. Die indirekte Erlebnisform als grammatische Kategorie. Eine eurasische Isoglosse. Wiesbaden: Otto Harrassowitz.
- . 1971. Verbale und pronominale Grammatisierung der indirekten Erlebnisform. Ural-Altäische Jahrbücher 43.89-99.
- Kononov, A.N. 1956. Grammatika sovremennogo turetskogo literaturnogo jazyka. Leningrad: Izdatel'stvo Akademii Nauk SSSR.
- Lewis, G.L. 1967. Turkish grammar. Oxford: Oxford University Press.
- Lyons, John. 1977. Semantics. Vol. 2. Cambridge: Cambridge University Press.
- Piaget, Jean. 1927. Le développement de la notion de temps chez l'enfant. Paris: Presses Universitaires de France. (1969. The child's conception of time, trans. by A.J. Pomerans. New York: Routledge and Kegan Paul.)
- Redhouse, J.W. 1884. A simplified grammar of the Ottoman-Turkish language. London: Trübner & Co.
- Sapir, Edward. 1921. Language. New York: Harcourt Brace.
- Sebüktekin, Hikmet. 1971. Turkish-English contrastive analysis. The Hague: Mouton.
- Stephany, Ursula. 1978. The modality constituent — a neglected area in the study of first language acquisition. Universität Köln - Institut für Sprachwissenschaft: Arbeitspapier Nr. 36.
- Tekin, Talat. 1968. A grammar of Orhon Turkic. Bloomington: Indiana University Publications (Ural and Altaic Series Vol. 69).
- Underhill, Robert. 1976. Turkish grammar. Cambridge, Mass.: M.I.T. Press.

## FIGURE AND GROUND: THE INTERRELATIONSHIPS OF LINGUISTIC CATEGORIES

STEPHEN WALLACE  
*Houston, Texas*

0. Introduction. This paper addresses three points of the traditional way of viewing linguistic categories, with particular reference to categories of verbs. <sup>1</sup> One, linguists have worked with the notion that the usual categories of the verb, viz. tense, aspect, mode, voice, and transitivity, are clearly defined logical divisions suitable for analyzing the grammar of any language whatever. The very title of this symposium suggests that "tense" and "aspect," while perhaps closely related enough and sufficiently compatible to share the same conferential stage, are areas of discussion isolable from one another and from other areas. Two, many analyses of the meaning of verbal categories take the clause, or at most the sentence, as the operative domain of the relevant category. That linguistic categories contribute significantly to the structure of an extrasentential text, indeed, that one does not truly understand the meaning of a linguistic category until one comprehends its function in a text, are suggestions that mainstream twentieth-century linguistics has all but ignored. Three, discussions of the semantics of linguistic categories, whether for a specific language or for language in general, typically amount to "extracting" the distinctive semantic features of grammatical sets, positing *Grund-* or *Gesamtbedeutungen*, making lists of the uses of e.g. the optative mode or the ablative case, or doing whatever one's favorite analytical trick is, for the most part without attempting to achieve some broader perspective on how the posited semantic contents or contrasts fit into an overall view of human behavior and cognition. In the following sections I aim to show that these three points, which I view as shortcomings of usual linguistic approaches, are not unrelated. I suggest that the distinction made in perceptual psychology between figure and ground provides an interesting and useful parallel which may help to elucidate the meanings of linguistic categories and their interrelationships.