INSTITUT FÜR SPRACHWISSENSCHAFT – UNIVERSITÄT KÖLN

Arbeitspapier Nr. 12

(6.10.1970)

ABSTRACT STRUCTURES FOR MOODS IN GREEK

Hansjakob Seiler

INSTITUT FÜR SPRACHWISSENSCHAFT – UNIVERSITÄT KÖLN

Hansjakob Seiler

ABSTRACT STRUCTURES FOR MOODS IN GREEK *

[preprint version]

1. Introduction

The inquiries of most Indo-European linguistics into the problems of modal expressions have concentrated on the modal forms of the verbal inflectional paradigm: the injunctive, the optative, the subjunctive, the indicative, the imperative. This limitation has its reason in the very structure of the ancient IE languages: the wealth of forms within the verbal paradigm called for an explanation; and quite obviously a subset of these inflectional forms, the modal ones, were involved in the expression of moods. An idealistic representation of moods in IE, still found in many writings on the subject, would hold that the expression of the semantic properties called mood was co-extensive with the modal verb forms. On the other hand, some of these same Indo-Europeanists, speculating about the origin of the modal verb forms, have advanced the hypothesis that these would all ultimately be traceable to indicative forms with some elements --particles, or even verbs, like the verb 'go', as one hypothesis holds-- added to the indicative and eventually coalesced with it into a single form. I am interested in the assumptions underlying these hypotheses, viz., that it must be possible for a language to function perfectly well by expressing moods without special verb forms such as an optative or a subjunctive. It seems to me that such assumptions are very reasonable but that they are in conflict with the idealistic representation mentioned first.

This conflict, it seems, has been carried over into descriptive studies of the expressions of mood in the Ancient IE languages. Difficulties arose when these expressions were to be described within the framework of the verbal category of mood, while it was obvious, as e.g. in Greek, that other categories, like a special type of

negation and a modal particle, and the person of the verb,
and many other factors concurred in the expression of mood.
Semantic properties were then ascribed to the verb alone
instead of to a whole array of formants. The results were
often felt to be unsatisfactory by the authors themselves.
One modal verb form turned out to have different meanings
that were hard to reconcile.

In this view both the optative and the subjunctive,
as far as we can trace them back, had always two basic and
irreducible meanings, volitional (volitive) and prospective.
Of course, we might say with Ed. Schwyzer in his Greek
Grammar (p. 310) that volition was historically first and
prospectivity developed later; or that it might just as
well have been the other way round. But the arbitrariness
of such assertions is only too obvious. The problem of will
and wish in modal expressions will never be solved as long
as one takes these notions as unanalyzed primitives. I may
not be able to offer a final solution to this problem; but
one thing seems clear to me: In the semantics of "will" we
must ask who is the person who wants something; from whom
does he want it; what is it that he wants. And to find this
out, we must go far beyond the category of the verb.

It was in the United States that theories as well as
methodological tools were developed to cope with the problem
of describing syntactic and semantic structures of high
complexity, which could never be properly understood when
limiting one's focus to one particular morphological
category. I should mention here the stimulating work on
the cases, but also the recent attempts to describe various
types of complement sentences.

It is my intention to make two major points in this
paper:

1. The first has to do with finding a frame within which
the modal expressions of one particular Ancient IE language
--I have chosen Classical Greek-- can be best described.
I shall try to point out that the regularities which we

find in these expressions must depend on an underlying principle, represented by abstract structures. These structures are semanto-syntactic, which means that the semantic properties or bundles of properties are arranged not in a linear order but in a hierarchical order, analogous to a bracketing in a PS structure. The abstract structures we propose have, of course, a very tentative character. They can only be accepted as far as evidence for them can be furnished.

2. My second point has to do with the modal verb forms that were the object of the studies of most Indo-Europeanists. If in the innermost bracket of a semanto-syntactic structure two semantic properties or bundles of properties can be exchanged without any further change in the total structure, and if this change is correlated with a change in verbal mood forms and nothing else, then I think we are faced with a case where these forms can be said to have a meaning of their own. I shall also try to show how these meanings are to be understood as bundles of features rather than as unanalyzed terms.

In my final remarks I shall try to outline the bearing these views have on comparative IE linguistics.

2. The Structure "DISJUNCTIVE"

In traditional grammars of Greek, including some historical ones, it is customary to class conditional sentences along with all the other embedding sentence typos into one major class representing the hypotactic sentence structures. However, I believe that conditional sentences have a basic structure --I propose to call it "DISJUNCTIVE"-- which differs vastly from other complex sentence structures. Let us examine some conditional sentences in Greek.

(1) Eur. B. 947 dúnai' àn ei boúloio

'Should it be that you wished to, you coúld do it'

We distinguish between the two major parts of this complex
sentence: (1) the protasis or if-clause represented here by
the conjunction-particle ei 'if' plus an optative verb form
2nd person singular; (2) the apodosis, which here precedes
the protasis and is represented by an optative verb form
2nd person singular and the modal particle án. I use the
term "conditional sentence" to cover the entire complex
sentence consisting of a protasis and an apodosis.

From school grammar we learn that if either the pro-
tasis or the apodosis or both are negated, they have to take
different forms of negation. One, ou(k), is usually de-
scribed as negating statements of fact. The other, mē, is
commonly referred to as "prohibitive". The latter seems to
imply at least three semantic elements: 1) speaker address-
ing interlocutor in a command; 2) negation; 3) a conse-
quence. It could be paraphrased as: 'Don't you let it happen
(or be) that ...'. The protasis requires the prohibitive,
rather than the factual negation; in the apodosis the
constraints are reversed.

(2) Ouk àn dúnaio ei mē boúloio

'Were it to be the case that you were not willing,
then one could hardly imagine your being able to'

A further constraint limits the occurence of the modal par-
ticle to the apodosis, excludes it from the protasis.

If one looks at a number of conditional sentences of
this type, it seems odd that the protasis should invariably
be negated by means of the prohibitive negation. The problem
has remained a puzzle for Hellenists and comparativists;
and it will remain a puzzle as long as one is inclined to
think that the prohibition refers to the propositional
content --i.e. mainly, the verb-- of the protasis. What
the speaker wants to exclude is not, or not necessarily,
the propositional content of the protasis; he wants to

prevent the protasis from being stated in a positive form.
To illustrate this with an example from English:

Don't come to work tomorrow, and I won't pay you.
When saying this it is not that I don't want him to come to
work; quite on the contrary. But I want to prevent the pro-
tasis from being stated in a positive form. The positive
imperative is used to indicate that the speaker wishes to
state the protasis in a positive form:

Come to work tomorrow and I'll pay you.
Let me hear that again and I'll hit you.

Summing up our description so far: in a conditional
sentence things behave as if there were a higher verb, not
phonetically expressed but quite clearly traceable, which
must have a volitive connotation and which therefore calls
for a prohibitive negation. It must be a performative verb,
the action which it denotes consisting in uttering it. Let
us assume this higher verb to be I CLAIM; we shall see
later that we need such a verb on quite independent grounds.

The type of conditional sentences studied so far shows
further pecularities which reveal to us more about their
underlying semanto-syntactic structure. Consider

(3) A. Th. 260 aitouménoi moi koûphon ei doíēs télos

'Were you only willing to grant me, who request
it, an easy end'

This is a complete utterance which shows all the structural
properties of a protasis of a conditional sentence: it does
not admit the modal particle; when it is negated, the
prohibitive negation has to appear:

(3') ... ei mē doíēs télos

'Were you only not willing to ...'

But a major semantic change can be seen in these indepen-
dent protasis-like expressions when compared with the
conditional sentences: in expressions like (3') the voli-
tive semantic element —and this includes the negative
counterpart, the prohibition— does not relate to a

particular form of stating the protasis; instead, it directly
relates to the verb, i.e. to the propositional content of
the protasis. 'I want (don't want) this to happen'. We still
have not covered all the semantic properties that can be
detected in sentences like (3'). To say it very roughly,
they presuppose the existence of a corresponding apodosis,
not phonetically expressed and semantically unspecified,
but nevertheless present. The "intuition of a native speaker
of Classical Greek", in the presence of 'if only'-clauses,
clearly perceives an unspecified 'then such-and-such' to
be present as well.

We also find apodosis-like sentences presupposing an
unspecified protasis:

(4) Ar. Nub. 747 takhú g'àn dúnaio manthánein
                                     perì rhutmõn

'(Thén of course) you could quickly learn
about the patterns'

Again we have a complete utterance showing all the struc-
tural properties of an apodosis in a conditional sentence.
The modal particle is normal here; if negated, the factual
ou is obligatory. The presupposed, unspecified protasis
could be filled by such phrases as "if such-and-such be
the case, then ...".

From the examples given so far, one may gather that
the optative verb form is typically connected with this
kind of conditional sentences, protaseis and apodoseis.
This, however, does not mean that an optative must necessa-
rily appear in these sentences; nor that the optative may
not appear in very differently structured modal expressions —
as we shall see later on.

We shall now look at a new set of modal expressions,
structurally quite parallel to the preceding ones, with
one semantic difference. Verb forms of the indicative
preterit (mostly imperfect) are used here instead of the
optatives:

(5) Diphil. Meineke fragm. com. 14, p. 421

ei mḗ tò labeĩn ḗn, oudè heĩs ponēròs ḗn

'If taking did not exist, nobody would be bad'

This is a proverb and does not refer to any specific time.
But even **apart** from their use in proverbs, these preterits
have not temporal reference whatsoever. If we are to assume
that preterit verb forms have a meaning of their own —and
we want to make this assumption, and we even want to justify
it— then we will have to recognize the fact that reference
to the past cannot be one of the distinctive properties of
its meaning. P. Kiparsky (FL 4/1968) has shown evidence for
the hypothesis that in Ancient IE languages, past tense is
systematically related to an underlying adverb denoting
anteriority.

The semantic difference between conditional sentences
containing optatives and otherwise identically structured
sentences containing preterits can be described as pro-
spectivity vs. factivity. 'Should it be that you wanted to,
you could do it' refers to something which may happen at
any time from now on. 'If taking did not exist, nobody
would be bad' does not convey the idea of such a prospect.
On the other hand, sentences with preterits like (5) have
a clear contrary-to-fact connotation: 'If taking didn't
exist - but it does exist ...'. We note that the presence
vs. absence of prospectivity is correlated with the change
between an optative and a preterit verb form - and nothing
else. There is no surface structure element participating
in this change, and no other abstract semantic element
intervening. It is precisely this fact which we have in
mind when we say that we attribute a semantic property
[+prospective] to the optative verb form and the absence
of such a feature to the preterit verb form.

That otherwise the structure of the modal expression
in (5) is quite parallel to the one in (1) can be seen from
a glance at (6) - (7):

(6) Eur. Heracl. 731

eíthe ẽstha dunatòs drãn hóson próthumos eĩ

'O that you were able to do as much as you are
inclined to'

This is a protasis-like expression with an apodosis unex-
pressed but nevertheless presupposed. The negated version must
show the prohibitive negation

(6') eíthe mè ẽstha dunatós ...

'Were you only not willing to ...'

and the volition relates directly to the verb whereas in (5),
exactly like in (1), it must relate to a verb outside the
conditional sentence. An apodosis-like sentence is shown in

(7) Élegon àn ...

'Perhaps it were better if I said ...'

(7') Ouk àn élegon

'I would not say ...'

Some protasis like "if things were such-and-such" or "given
such a situation" etc. is presupposed.

The parallelism is thus complete with the one exception
of prospectivity and of the two modal verb forms. Note that
mixed types of modal expressions occur, with a preterit in
the protasis, as in (1) - or reversed. But note that the
semantic property of contrary-to-fact is correlated with the
protasis only, not with the apodosis. Therfore, counter-
factualness cannot be attributed as a semantic feature to the
preterit, but must rather be related to the total structure
of the modal expression.

Let us finally consider a very different type of con-
ditional sentences:

(8) Eur. fr. 294.7

Ei theoí ti drõsin aiskhrón, ouk eisîn theoí

'If the gods do shameful things, then they
aren't really gods'

We find indicatives of the present both in the protasis and
in the apodosis. The negation in the protasis has to be pro-
hibitive, in the apodosis factual. But no modal particle is
present. And the protasis by itself used as a complete utter-
ance does not occur. Moreover, although the apodosis could
occur independently, 'they aren't gods', it does not, as the
other apodoseis did, presuppose a protasis. To make the first
part of (8) an acceptable independent protasis, we would have
to change the indicative present into either an optative or
an indicative preterit. In this instance we see that the
disjunctive structure of independent protaseis is directly
correlated with either the optative or the preterit - and
with nothing else. On these grounds we would say that both
the optative and the preterit verb form themselves must
carry in their meaning some feature which we might call
[+dissociative] and which is absent from the indicative pre-
sent as well as from the subjunctive.

3. Abstract Structures: The basic structure "DISJUNCTIVE"

NOT EV_1 OR

A. I CLAIM YOU ((LET HAPPEN EV_1) AND (LET HAPPEN EV_2))

a. I CLAIM NOT YOU ((...))

B. I CLAIM YOU ((LET BE EV_1) AND (LET BE EV_2))

C. I CLAIM EV_1 AND EV_2

Structure A. would represent example (1) and a. example (2).
B. represents (5), C. (8). The other examples are derivable
from these structures by such processes as deletion. The first
thing to keep in mind about these proposals is their extremely
tentative character. If they can be accepted, it is only
inasmuch as they reflect and directly account for the regular-
ities which we have been pointing out before or which we
might still discover.

The second important thing is the bracketing. It indi-
cates that the various semantic factors concurring in a modal
expression show a hierarchy analogous to the one in a phrase
structure. This allows for entities inside a bracket being
changed without affecting the remainder of the structure; on
the contrary, things outside the brackets being changed while
the content of the brackets remains untouched. It is assumed
that only the modalities of sentences are being represented
here; for the remainder which is sometimes being referred to
as the propositional content, I have deliberately chosen the
vague label of Event (EV).

The NOT EV_1 OR which precedes all disjunctive structures
was chosen in various grounds. First, it has been suggested
that the 'if - then' structure must be traceable to some more
basic semantic structure while the anaphoric pronominal
element 'then' points to something derived. Second, and more
specifically, every conditional sentence seems to make allow-
ance for the opposite of the protasis being true. In the
usage of Greek this is reflected in many ways: often, a
positive conditional sentence is followed by one with a
negative protasis: 'if - then; if not - then'. A frequent
characteristic feature consists in the omission of the first
apodosis, where the translator often supplies a 'then o.k.':

(9) A 135-7   all' ei mèn dōsousi géras megáthūmoi
        Akhaioí· ... ei dé ke mḕ dōōsin, egṑ dé ken
        autòs hélōmai

        'If the Achaeans want to present me with the gift
        (,then o.k.); if not, I shall take it myself'

The third reason is represented by the fact that NOT EV_1
assumes truth value and the protasis becomes contrary-to-fact
just in case the abstract element BE appears (structure B.).
It seems plausible that counterfactiveness to become a
semantic factor requires an element like BE referring to
something that exists and is incompatible with an element
like HAPPEN referring to the future.

HAPPEN and BE and absence of either one (in C.) are intro-
duced to account for this difference, but also to account for
the difference which we found between prospective and factive.

I CLAIM: if it is true that every conditional sentence
potentially links a protasis with its opposite, then somebody
must do the linking; the somebody is the speaker; and the
linking is brought about by a performative verb. But we said
before that we also need a performative verb to account for
the way in which the speaker wants the protasis to be stated,
positive or not positive. The verb, we said, must have a
volitive connotation. Hence my proposal of I CLAIM.

AND is to account for the fact that in a conditional
sentence the protasis presupposes the existence of an apodosis
and reverse. An independent protasis 'If only ...' could be
derived from the complete structure by deleting the content
of the second bracket. The AND remains. The strongest evidence
for the reality of the abstract AND comes from the fact that
this AND does appear as 'and' (kaí) on the surface under
certain definite conditions. Consider

> (10) S. Ai. 550
> Õ paĩ, génoio patròs eutukhésteros, tà
> d'áll' homoĩos• kaî génoi' àn ou kakós
>
> 'O son, may you become luckier than your father,
> in other respects equal, then (literally: and)
> you will not be bad'

The conditions are as follows: the LET of the protasis is
not represented by ei 'if', and the AND is not represented
by any anaphoric pronominal element like tóte 'then'. We

thus find that the surface structure constructions of the
'if A then B' type are in complementarity with constructions
of an 'Imperative A and B' type. Thus they both must go back
to the same underlying structure.

YOU is the addressee of I CLAIM. In independent protaseis,
when the content of the second bracket is being deleted, we
could get rid of one pair of brackets. But I have not been
able so far to find a device that would place the YOU in the
immediate neighborhood of LET, which would then account for
the fact that volition in this instance directly relates to
the content of the protasis. I also do not understand why in
such exclamations 'if only ...!' the addressee may be not the
interlocutor but an imaginary person.

LET is to account for the contrast between volition and
nonvolition in modal expressions. This is the most difficult
aspect of all. We reserve treatment until we have seen the
behavior of LET in the other structures.

4. The basic structure "SUBJUNCTIVE"

The term here refers not to the modal verb form (although
it is true that subjunctives occur quite typically, but not
necessarily, in these structures); it refers to a special
type of modal expressions. Here we give the structures first
and then illustrate them with examples:

D.   I Performative? (X LET HAPPEN EV)

  a. X = I

      (11)   A 262 Ou gár pō toíous ídon anéras oudè ídōmai
             'I have never seen such men nor do I expect
             to see any'

We are interested in the conjoined sentence 'and not do I expect to see' showing a subjunctive verb form and the non--prohibitive negation. We perceive an element 'prospective' in the expression.

b. X = YOU

(12) A 26 mḗ se, géron, ... kikheíō

'Let me not catch you, old man!'

We find a prohibitive negation, a subjunctive, and a clear volitional connotation.

(13) Áphes máthō

'Let me learn!'

More literally something like 'let that I learn!' A governing verb in the imperative and a dependent subjunctive form. Again a volitional connotation.

c. X = 3rd person (he,it); it = EV_1 : EV_1 LET HAPPEN EV_2

(14) Hdt. 2.161 The Egyptians thought that Aprias had deliberately sent them into a seemingly bad spot,

hína dè spheōn phthorḗ génētai (subjunctive),
autòs dè tōn loipōn Aigyptíōn asphalésteron árkhoi (optative)

'so that they would perish and he could more safely dominate the remaining Egyptians'

Only the subordinate clause is given here in the Greek original. It shows a connotation of intent, thus of volition, which is clearly correlated with the expression 'deliberately sent' which precedes.

We may now be in a better position to dispel some of the darkness around the notion of volition. Suppose we started —as suggested in some writings on the subject— from an abstract verb with volitive meaning, thus from an underlying X WANTS HAPPEN EV. In (14) this would not do the trick, since

the portion WANTS HAPPEN EV does not depend on an X = he, but
on an X = EV ('deliberately sent')$_1$; thus the formula would
read EV$_1$ WANTS HAPPEN EV$_2$, which is semantically bizarre.
What is more: (14) is one of the numerous types of subordinated
sentences; they often show, with very little or no change in
structure, a fluctuation between such relations as volition,
cause and consequence. It seems, from looking at (14) and many
other examples, that the connotation of will becomes pre-
dictable from the matrix sentence.

Our strategy consists in looking for a device that would
account for all instances of volition in a similar way, for
the examples (11) - (13) as well as for (14). We thus chose
an abstract verb which does not itself contain volition. It
would simply have to link the preceding semantic elements
from which volition can be predicted with the following
entities where volition appears in the surface.

In English, LET would be such a verb. If the 2nd person
precedes, as in (12), it automatically becomes an imperative
and what follows is volitional. If the 1st person precedes,
as in (11), it cannot be an imperative, and the whole ex-
pression is non-volitional. If a matrix sentence precedes
which contains an element of intent, which would have to be
marked in the underlying structure, the constituent sentence
becomes volitional. But the strongest support for the exist-
ence of an abstract LET comes from Greek itself, where, as
(13) shows, the higher verb is no longer abstract but assumes
phonetic shape and is the imperative 'let'. This is found in
Attic. In the development towards Modern Greek, this impera-
tive has become an inflexible particle, ás, and is now an
integrating part of the subjunctive verb form. In Modern Greek,
the higher verb would have to be abstract again.

One final remark about the modal verb forms in (14):
subjunctive and optative occur in otherwise parallel
structures but with a significant change in meaning: the
subjunctive indicates an immediate prospectivity emanating
from the agent of the matrix sentence ("The Egyptians thought
... that they might perish"). The optative indicates a

dissociated prospectivity linked with or emanating from
someone else than the agent of the matrix sentence.

5. The Semantic Structure of Some Verbal
Mood Forms

We found certain definite places within the bracketed
semantic structure of modal expressions where a semantic
property is related to a particular modal verb form and to
nothing else. This, then, is the ground on which we would
ascribe semantic properties to these verbal forms. The pro-
perties may be tabulated as follows:

	prospective	dissociative
Optative	+	+
Preterit	–	+
Subjunctive	+	–
Indicative	–	–

We note that these properties have certain affinities with
the semantic structures of the modal expressions in which
the forms are preponderantly used: the feature "dissociative"
common to both Preterit and Optative is obviously related to
the disjunctive structure of conditioned sentences where a
distinction between a protasis and an apodosis is always made.
However, these features of the verbal forms would evidently
not suffice to explain the overall structures of the modal
expressions in which they occur. The preterit, for one,
occurs in non-disjunctive structures as well, and here,
the feature **"dissociative"** is related to the distance in
time between present and past.

6. Historical Considerations

The semantic analysis of the verbal moods which we have
outlined very briefly may help us to understand some of the
changes which took place within the paradigm of modal forms.
We begin to get an insight into the nature of the close
association between the optative and the preterit which has
led to mergers in many languages and different periods of IE.
The Latin imperfects in -ba- (amabam) owe their origin to a
periphrasis with the verb 'to be' in the optative mood, the
modal element -ā- being identical with the ā of the so-called
subjunctives (dicat) and being the regular representation of
the optative in thematic present tense forms in Italic and
Celtic.

The further fate of the modal verb forms in Greek offers
an interesting test case. We know that the optative began to
fade in the Hellenistic period, and it has almost disappeared
in the New Testament. The subjunctive form has survived
until this day. Thus, one could say that either the optative
and the subjunctive, or the optative and the preterit, have
merged. A priori, both developments show some plausibility
because, as we see from the chart, each of the pairs has one
feature in common, differs only by one other feature. We
cannot deduce from the chart, i.e. from the semantic analysis
of the verb forms alone, which forms actually merged. And,
what is more, we cannot explain on the basis of the chart
why the optative should have disappeared and why not the sub-
junctive. In fact, when considering just the modal forms and
not the total modal expressions, we would rather have expect-
ed the optative to have survived. In the development of Greek
from Homer onwards, the optative first made substantial gains
in territory, as can be seen from an inspection of Attic. In
the Germanic languages the inherited optative proved to be
the survivor, and the so-called subjunctive forms in Latin
are at least in part inherited optatives.

An explanation of all these changes in different
directions can only be sought within the larger frame of
modal expressions, and this means for us: within the frame
of their underlying structures. As for later Greek we note
that within the structure "Disjunctive" of the prospective
subtype, preterit (imperfect) forms of certain verbs with a
futuric connotation in their lexical meaning came to be used
in lieu of older optatives. In the New Testament we find the
imperfect of the verb 'want, wish': eboulômēn 'I should like
to' instead of Attic bouloímēn àn. Still later, in Modern
Greek, we find forms consisting of a future particle thâ
(thélō hína) plus an imperfect used in this position. Since
we have seen in our descriptive part that this was precisely
one of the crucial positions for the optative, where it
could be shown to have a meaning of its own, we now under-
stand why the replacement by future-preterits in this very
position must have made the old optative forms superfluous.
This presents a case where the abstract structure remains
unchanged.

But we also find evidence for diachronic change in the
abstract structures. The rule that all conditional sentences
show the prohibitive negation (mḗ) in the protasis is a
peculiarity of Greek; we can even see that it must have
developed only gradually within Greek, since Homer still
shows instances of if-clauses with factual negation. We can
also see that this peculiarity of Attic again disappeared
in the later developement of the language: Medern Greek shows
only the factual, not the prohibitive negation in if-clauses.
We would then have to set up different abstract structures
for these different stages of the language; specifically,
the element NOT, which we placed outside the brackets for
Attic, would have to be moved inside for Homer and for
Modern Greek.

With these admittedly sketchy remarks I wanted to make
it clear, nevertheless, that I consider these abstract
structures to be language-specific. Of course, certain
parts may be universal. But I cannot decide definitely

which parts are universals and which other parts are
language-specific. All I can tell is that the parts that
change cannot be universal.

The task of IE syntax, as I see it ahead of us, con-
sists in passing beyond the stage of a one-sided morpholo-
gical approach. It seems a feasible task to describe the
underlying principles of modal expressions in the older
IE languages and to formulate them in terms of abstract
structures. From there we can move on to observing histo-
rical change.

One major obstacle in this kind of research I see in
the currently wide-spread belief that only native speakers
can do adequate descriptions of their languages. The belief
is unwarranted and has a pernicious effect on the further
development of IE linguistics in particular and of lingui-
stics altogether. I hope that some linguists will give up
this belief; or, if this should prove too difficult, that
by some miracle they may turn into fluent speakers of some
of the ancient Indo-European languages.

***