

Functions of Maa *peê* + Low Tone: a Case Study of Discourse-Driven Polysemy

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Doris L. Payne (2004), Functions of Maa *peê* + Low Tone: a Case Study of Discourse-Driven Polysemy, *Journal of Language Sciences* 11-2. 97~141. The Maa *peê*+Low-tone construction corresponds to a wide array of adverbial and complement clause notions, including temporal, conditional, purpose, result, motivation, utterance complements, and subjunctive mood. The pattern of senses found in discourse argues that the construction actually codes only that the dependent clause proposition is "temporally related" (in an extended sense) to its matrix proposition. Comprehenders must interpret more specific relations based on stored knowledge and textually-overt lexical items. (University of Oregon and SIL International)

Key words: adverbial, conditional, result, purpose, Rhetorical Structure Theory, Relevance Theory

1. The Problem

In many languages, adpositions provide information about the semantic relationship of both oblique NPs and adverbial clauses. For instance, English *for* can indicate both a BENEFACTIVE NP and a REASON adverbial clause, as in *For eating all her peas, I gave Mary ice-cream for desert.* *To* can indicate a LOCATIVE or GOAL NP, and a PURPOSE adverbial clause, as in *I gave Mary ice-cream to make her happy.* *By* can indicate an AGENT or LOCATIVE NP, and a MEANS adverbial clause, as in *By forgetting to give Mary ice-cream, I made her cry.* The preposition *in* can indicate a LOCATIVE NP, and a CIRCUMSTANCE or MEANS adverbial as in *She learned patience in raising children.* There may be adposition-like morphemes which at some historical stage of a language operate only on dependent adverbial clauses

and never on oblique NPs. For example, English *because* can indicate REASON, as in *Because she ate all her peas, I gave Mary ice-cream for desert.* Further, some morphemes which can operate on adverbial clauses may also form part of complement clause syntax; this is the case with English *to*, as in *I forgot to give Mary ice-cream.*

The preceding brief examples illustrate how polysemous (if not homonymous) some adverbial clause operators are. Indeed, one question which arises in the study of dependent clause operators is to what extent they are semantically precise, versus vague. Related to this is the cross-linguistic question of whether operators in different languages code the same semantic ranges, or how much variation is possible. The current study explores a dependent clause construction in Maa marked by the pre-verb operator *peê* plus a Low tone on the dependent clause verb. This construction has a range of adverbial plus complement functions. Its range does not appear to correspond to any particular English dependent clause operator, though it certainly overlaps with English *to*. Whether the full range of uses can be put together under a single "meaning" is the central question of this paper.¹

2. Form of the Construction

As just noted, Maa has a dependent clause construction which is initiated by *peê* plus a replacive Low ([L])tone on the beginning of the dependent clause verb. I will refer to this as the *peê*+ [L] construction, and to the verb as the [L]-verb. With one known exception, the [L]-verb immediately follows *peê*. In some cases, the [L] tone extends over the entire

¹ Maa is spoken by at least some 800,000 people in Kenya and Tanzania, and is the language of the Maasai, Samburu, Camus, Parakuyo, and other related ethnic subgroups. Data collection for the current study was partially supported by NSF grant Grant SBR-9616482, and under Kenya research permit #OP/13/001/23C28. I am grateful to Leonard Ole-Kotikash, Keswe Ole-Mapena, Sarah Tukuoo, and multiple other Maa speakers for work with Maa texts, on which this study is based.

verb, but the domain depends on what other morphology is present on the verb. For example, compare the verb tone patterns in the following pairs; here the construction is translated "so that", which is one of its possible meanings:²

- | | |
|---|--|
| (1) <i>íló</i>
'You will go/you go.' | <i>peê iló</i>
'so that you go' |
| (2) <i>kípuonú</i>
'We will come' | <i>peê kipunú</i>
'so that we can come' |
| (3) <i>épuó</i>
'They will go' | <i>peê èpùò</i>
'so that they will go' |

When a word spoken in isolation has the surface tone pattern High-Falling, that same word will be pronounced as Low throughout when it occurs in a phrase with any other word. It is my belief that words transcribed High-Falling in isolation (or in slow word-by-word text transcription) have morphemic Low tone, and I treat them as such in this paper.³

The [L] tone on the verb after *peê* does not appear to be due to spreading of a Low from *peê*, as there is no general rightward-Low spreading rule in Maa. For example, the Low from a High-Low (or "falling") pattern on the final mora of other Maa words is not known to spread to following words.⁴ Also, a Low tonal morpheme can occur on adverbial clauses independently of *peê* to indicate Temporal simultaneity ('while') and/or Subjunctive

² This paper uses a practical tone orthography which reduces the number of tone diacritics. Low tone is represented with no tone mark, except at the ends of words where Low is marked by the grave accent and Downstep High by no mark. The circumflex indicates a High plus Low (or "falling") on a single mora.

³ Another possibility may be that High-Falling words are morphemically toneless. This will not be pursued here.

⁴ In fact, it appears that High tones usually spread in Maa, rather than Low tones.

meaning (By 'subjunctive', I mean that there is some degree of desire, obligation, or hoped-for realization.) I surmise that the construction in question is a frozen collocation of *peê* plus this Temporal/Subjunctive [L] tone morpheme. In any case, my concern in this paper is not with the historic origins of the construction, but with its synchronic functions. I will not gloss *peê* in the examples as it does not occur apart from the entire construction and my point is to determine the meaning of the construction. However, I will gloss the [L] replacive tone as 'temporal' (TEMP) since it can occur independently. It should be pointed out that replacive [L] by no means codes all irrealis or even all subjunctive situations in Maa.

The dependent clause [L]-verb following *peê* is inflected for person and number according to an inverse/direct system (Payne, Hamaya and Jacobs 1994). The verb may be affirmative or negative, and may take all derivational categories (e.g., Causative, applicatives, directionals, Inceptive, Passive). *Peê* can be immediately followed by the frozen Perfective Negative form *ɛitô* (also found as *éitô* and *èitô*, which is historically verbal); *ɛitô* is then followed by the [L]-verb. Aside from this frozen Perfective Negative, the verb following *peê* almost never carries overt aspect marking.⁵ However, Perfect(ive) aspect marking is structurally possible in at least the 'why' question function (Section 4.9), which at this point in history could arguably be analyzed as a homophonous construction.

Peê is almost certainly a shortened form of *peyîê*, usually translated as 'so that'. *Peyîê* also requires a [L] tone on its following verb, as seen in line (b) of the following example:⁶

⁵ This suggests the [L] tone may eventually be shown to be part of the aspect domain, as it generally precludes other known aspect morphemes. I leave this for further research.

⁶ In the parsed morphemic representation I will write [L] as a separate word-initial morpheme in the relevant verb, though of course it is pronounced on the verb. Abbreviations are: ACC Accusative, CAUSE Causative, CN Connective, DAT Dative, DSCN Discontinuous connective, EP epenthetic sound, F Feminine, IMP Imperative, INCEP Inceptive, INF Infinitive, INST Instrument, M Masculine, NEG Negative, NOM Nominative, OBL Oblique, PASS Passive, PF Perfect(ive), PL Plural, POSS Possessive

- (4) a. *í-nyiaŋ-ak-á-kì* *en-ar-ét*
 2IMP-buy-DAT-SUBJN-1SG FSG-kill-INST
aké *nnyé* *pə̀kí* *m-ááre*
 just 3SG.ACC all.ACC SUBJN-two
m-ááre
 SUBJN-two
 'Buy me every weapon in pairs'
- b. *peyîê* *[L]-a-rrip-íé(k)*
 so.that TEMP-1SG-guard-INST
doí *kewán* *te-n-í-púó-pùò.*
 indeed self.ACC OBL-CN-2-go.PL-go.PL
 'so that I defend myself with it when you (pl) go.'
 (girls.136-137)

Peê probably occurs more frequently, and possibly correlates with a wider range of semantic relationships, than does *peyîê*; but these issues await further study. Neither *peê* nor *peyîê* functions as a preposition on an oblique NP and thus are syntactically analogous to English *because*.

Peê+*[L]* clauses both precede and follow the clauses on which they are semantically, or relationally, dependent. Both order patterns are included in this study. However, I limit this study to *peê*+*[L]* clauses where there is no other complementizer or introducer besides *peê*. Thus, examples like (5) which include *órè* along with *peê*+*[L]* are excluded:

- (5) *órè peê* *[L]-kɪ-barn-ó*

after/when TEMP-1PL-shave-VENT
il-pápít *l-o* *l-melíl,*
 MPL-hair.ACC MPSD-MSG.PSR MSG-nape.ACC
ní-kì-dùŋ-ù-dùŋ.
 CN-1PL-cut-EP-cut
 'When/after we shave hair from the neck, we shall cut it into pieces.'
 (arinkoi.011)

The *órè peê+[L]* construction generally appears to have the temporal meaning of 'after' or perhaps sometimes simultaneous 'when'. It overlaps semantically with the form studied in this paper but is narrower in overall use; for reasons of space, it will not be specifically considered here.

3. Data, Methodological Concerns, and Definitions

This study is based entirely on examination of text materials, and not on elicited examples. In a text database of over 20,000 clauses, the target construction occurs about 516 times.⁷

A thorough-going Saussurian approach to determining the meaning of a linguistic sign would involve contrasting it with all other signs, certainly within the semantic field(s) in which that sign participates. To not do so likely leaves the researcher in some ignorance of the semantic range of the target morpheme versus other close morphemes. For example, common-sense judgments say that English *small* and *little* are "synonyms". This is certainly not misguided, as in most situations *the little girl* and *the small girl* could denote the same referent. But in saying these two terms are "synonyms," one might initially assume they cover the same semantic

⁷ The number of "clauses" in the database depends on how one determines boundaries of a clause in connected text material. I have made certain operational decisions such as counting serial verb constructions (Hamaya 1993) as comprising single clauses, I have not separated relative clauses from their matrix clauses, etc.

range. This is most certainly wrong: contrasting phrasal pairs rapidly show that *little* and *small* cannot always be substituted one for the other, either grammatically or semantically. Indeed, we find that *small* is narrower in meaning or function; compare *I worked a little*, but **I worked a small*. *Give me a little butter*, but **Give me a small butter*. On the other hand, one might initially say that *little* and *big* are antonyms, and again this is not wrong. But further investigation shows that *big* does not distribute the same as *little*: **I worked a big*. Instead, we would say *I worked a lot* – and this reveals that one sense of *little* concerns something like temporal extent or degree.

To fully explore the function(s) of a the *peê*+*[L]* construction, it should ideally be contrasted with the functions of all other constructions that contain *peê* and all others that contain the *[L]*-tone morpheme. It should be contrasted with all other constructions or morphemes that mark dependent predication relationships, at least in the TEMPORAL, REASON, CAUSE, PURPOSE, and COMPLEMENT domains. Indeed, because of its functional range, a through study would have to eventually compare it with all other dependent clause forms in Maa (cf. Payne 2004). The *peê*+*[L]* construction should also be contrasted with simple juxtaposition of two independent clause forms where the understood relational meaning(s) overlap with that of the *peê*+*[L]* construction. Without such contrastive study, we risk remaining ignorant about the functional boundaries of the *peê*+*[L]* construction. For reasons of space, this article cannot explore these contrasts, though a few comparative comments will be made as we proceed. However, we must note that the conclusions are necessarily provisional until such research is done.

The discussion which follows will appeal to a number of relational concepts, or "rhetorical predicate" relations in the sense of Mann and Thompson's (1986, 1987) Rhetorical Structure Theory. Thus I will give a very brief introduction to Rhetorical Structure Theory and briefly define selected terms.

Mann and Thompson (1986, 1987) argue that in order for discourse to be coherent, comprehenders must be able to infer that one or another rhetorical, or relational, predicate has been asserted by the speaker even if there is no overt signal for it beyond simple juxtaposition of the two predications. The relational predicate is information which does not exist if each of the predications exists alone, and it is not necessarily coded by any element in either of the predications. For example, in the following constructed discourse, clauses (6a-b) have a PROBLEM-SOLUTION relation to each other.

(6) (a) *My back is sore from sitting too long.* (b) *I'm going to mow the lawn.*

The meaning of SOLUTIONHOOD does not arise from the meaning of clause (b) as an isolated clause, but only due to how it is related to clause (a).

Mann and Thompson argue that even though there may be no overt mark of a relationship between two juxtaposed clauses, speakers do in fact perform speech acts asserting particular relationships in instances like (6a-b). One type of evidence that a PROBLEM-SOLUTION relation is asserted in (6) is that it would sound overly redundant or wordy if the relational predicate(s) are made explicit:

(6') *My back is getting sore from sitting too long. That's a problem.*
In order to solve the problem, I'm going to mow the lawn.

A second type of evidence that relational information is asserted is that this information can be actively annulled (i.e., it is defeasible). If it were never present to begin with, then it could not be meaningfully annulled:

(6'') *My back is getting sore from sitting too long. I'm going to mow the lawn.*
But mowing the lawn is not going to solve the problem of my sore back.

A discourse may in fact appear somewhat incongruous if an inferred relational predicate is denied, as in (6''). At best, the comprehender wonders why the speaker would bother to say *I'm going to mow the lawn* in this a context. The incongruity of denying that *mowing the lawn* is a solution to the problem underscores that SOLUTIONHOOD is in fact the most likely relation interpreted as holding between (6a) and (6b).

Though Mann and Thompson argue that the speaker *asserts* a particular relation, it is clear that the comprehender must also *infer* or *interpret* a particular relation (in the spirit of Relevance Theory; cf. Sperber and Wilson 1986). Indeed, one question that this study raises is whether the speaker may sometimes just intend to *constrain* the particular range of relations that the comprehender can infer, rather than to actually assert a *particular* relation.

Mann and Thompson argue that one of the predications in a relationship may be a "satellite" to a more "nuclear", or cognitively profiled, predication (cf. also Croft 2001). Though the relation does not exist apart from the presence of both related elements, in most cases a satellite may be said to be the element that primarily bears the indicated relation to the nucleus, just as a particular NP may be said to bear a particular semantic relation like AGENT or BENEFACTIVE relative to its predicate – though clearly AGENT or BENEFACTIVE does not exist apart from the predicate as well. For other rhetorical relationships, however, the two predications may be fairly balanced (e.g. Thesis-Antithesis) and it is difficult to say that one is the satellite of the other. Mann and Thompson suggest that not all cultures may have exactly the same list of relational predicates, and that in some cases more than one relational predicate may obtain between two overtly expressed propositions. Finally, though I have talked about two simple predications holding a rhetorical relation, Mann and Thompson are careful to note that these can just as well hold between larger discourse chunks than single predications.

Various scholars have critiqued and modified Mann and Thompson's Rhetorical Structure Theory. Nicholas (1994) gives one review and argues that it is desirable to look for clustering among relationship types (i.e., the relations are not just an unstructured list). One motivation to look for clustering is if a cluster accounts for the range of uses of particular conjunctions. Table 1 briefly lists most of the rhetorical (or relational) predicates argued for by Mann and Thompson (the reader is referred to Mann and Thompson 1986, 1987 for full discussion). Following Mann and Thompson, informational relations intend to make the comprehender recognize an Ideational ("real-world"-describing) meaning relation between the two propositions, while presentational relations intend to increase some inclination in the comprehender. The "clusters" indicated in Table 1 are based on Nicholas (1994), who primarily appeals to formal logic for establishing them. The boxed relations in Table 1 are of particular relevance in this study.

Table 1. Major Relational Predicates

(Mann and Thompson 1986, 1987)

INFORMATIONAL RELATIONS

CAUSAL cluster

Solution-Problem	Nucleus presents a solution to a problem stated in satellite.
Condition	Satellite expresses hypothetical, future, or other unrealized situation necessary for realization of nucleus.
Purpose	Satellite is desired end, which is to be realized through activity in the nucleus.
Cause	Satellite is cause of nucleus.

Result	Nucleus is cause of satellite; satellite expresses result.
Otherwise	Realization of the situation presented in nucleus prevents realization of the situation presented in satellite.
Concession	(see below)

ADDITIVE cluster

Sequence	Succession relationship between nuclei.
Contrast	Two nuclei are comprehended as the same in many respects, but differing in a few respects; the nuclei are compared with respect to one or more of the differences.

ELABORATIVE cluster

Elaboration	Satellite presents additional detail about some element of the nucleus.
Circumstance	Satellite provides temporal or locational setting for nucleus.
Background	Satellite increases ability to understand nucleus.
Interpretation	Satellite relates nucleus to a frame of ideas.
Evaluation	Satellite relates nucleus to a scale of positive-negative evaluation.
Summary	Satellite restates nucleus but is shorter in bulk.
Restatement	Satellite restates nucleus; satellite and nucleus are of comparable bulk.

PRESENTATIONAL RELATIONS**CAUSAL cluster**

Enablement	Satellite increases addressee's ability to undertake action expressed in nucleus.
Motivation	Satellite increases addressee's desire to undertake potential course of action expressed in nucleus.
Justification	Satellite addresses a speech action within the same discourse; increases addressee's readiness to accept speaker's right to present nucleus.
Evidence	Satellite argues a point (not an action), and increases addressee's belief in nucleus.
Concession	Satellite holds despite seeming incompatibility with context; increases positive regard for nucleus; satellite and nucleus are compatible.

ADDITIVE cluster

Antithesis	Increases comprehender's positive regard for the incompatible Thesis.
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In this paper I make the hypothesis that $pe\hat{e}+[L]$ serves as a relational connective, i.e., the speaker uses it to say something about the conceptual relationship that a satellite should be interpreted as holding to a nuclear predication. This is in accord with Mann and Thompson's observation that "conjunctions [act] occasionally to constrain the range of possible relational propositions which can arise at a given point in a text" (1986:71). Nicholas (1994) argues that at least sometimes, specific conjunctions are *necessary* for recovering what rhetorical relation the speaker or author intended. In Section 5 we will visit the issue of whether the speaker uses $pe\hat{e}+[L]$ to assert a particular relation, or whether it is simply used to "guide" the comprehender to a selected range of possible relations. Before

proceeding to examine the Maa data, I will briefly elaborate on some relations which are especially relevant to the concerns of this paper.

As indicated in Table 1, CIRCUMSTANCE is a satellite which sets a framework within which the addressee is supposed to interpret the nuclear situation. In general, the framework could be a time, a place, another event or situation. It is TEMPORAL CIRCUMSTANCE which concerns us here; this appears to be the relation between the initial (syntactically main) clause and the following *peê*+*[L]* clause in (7) below.

Peê+*[L]* clauses can express events that are temporally sequential one to another. However, I assume that SEQUENCE is not a relation *coded* or *profiled* by *peê*+*[L]* clauses. This is because a SEQUENCE relation involves a temporal succession relationship between situations presented in separate nuclei. Because of the asymmetrical main versus subordinate syntactic status involved with the *peê*+*[L]* construction, I assume that the two propositions are not conceptually presented as separate nuclei. In fact, SEQUENCE is the primary relation coded by a distinct connective *n[H]*- (cf. König 1993), though this cannot be explored here.

The *peê*+*[L]* construction does correspond to a number of relations which Nicholas (1994) identifies as belonging to the INFORMATIONAL CAUSAL cluster in Table 1 – though not to all of them. In particular, CONDITION, PURPOSE and RESULT appear to be relevant. A CONDITION relation exists when a satellite presents a hypothetical, future, or otherwise unrealized situation, and where the situation presented in the nucleus depends on realization of the situation presented in the satellite. This is possibly the type of situation found in (12b) below, relative to the nuclear predication in (12c). A CAUSE relation exists when the satellite presents a situation that causes the situation presented in the nucleus; what the nucleus contains is somehow more central to the speaker's purposes than is the CAUSE situation presented in the satellite. At present I do not see that the *peê*+*[L]* construction expresses this. In contrast to CAUSE, a RESULT

relation exists when the nucleus presents a situation that caused the situation presented in the satellite; what the nucleus contains is somehow more central to the speaker's purposes than is the RESULT situation presented in the satellite. The *peê+[L]* construction can express RESULT (22). A PURPOSE relation exists when the nucleus presents an activity, and the satellite presents an as-yet unrealized situation which is to be realized through the nuclear activity. That is, one action or situation is or should be done so that another (the PURPOSE) can be done. This is the type of relation evident in (16) below.

Within the PRESENTATIONAL set of relations, the *peê+[L]* construction is most certainly involved with MOTIVATION, as in (26) below. In discussing some instances of CONDITION below, I will sometimes use the word *enable*; but by this I do not mean the presentational relation of ENABLEMENT that Mann and Thompson describe, as their definition explicitly concerns increasing the *addressee's* ability to do something.

Finally, there appear to be some functions of the *peê+[L]* construction which do not clearly involve any of Mann and Thompson's proposed relational predicates, but which are concerned with the subjunctive modal value of the structurally dependent predication. Additionally, in complement-like uses, the *peê+[L]* construction arguably has something more like an argumental Theme semantic role, than one of the proposed rhetorical predicate relations.

4. Functions of the *peê+[L]* Construction

I now examine the data demonstrating what relationships *peê+[L]* clauses appear to correlate with. The particular relationship cannot always be determined just by looking at the clause which syntactically contains *peê+[L]*, nor by just looking at the matrix clause. However, as one of the clauses does syntactically contain *peê+[L]*, I will sometimes talk about the *peê+[L]* clause as "having" a PURPOSE, REASON, TEMPORAL etc.

relationship. At the moment I make no claims about the prototypical, "central," or historically prior function of the *peê*+*[L]* construction. However, PURPOSE (sections 4.3 and 4.4) is clearly the most frequent in the text corpus. We will start by examining TEMPORAL variations.

4.1 Coextensive time with another situation

A *peê*+*[L]* clause may express a situation that is co-extensive in time with another event. Example (7) comes from the report of a colonial situation in which a British District Commissioner took a warrior's prized bull, resulting in the eventual death of both the proud colonial administrator and the proud Maasai warrior. The *peê*+*[L]* clause in line (b) expresses a situation that occurs simultaneous with, or conceivably even co-extensive with, the situation expressed in line (a). There is no particular sense that one situation occurs before the other, that one is a purpose for the other, or that one results in the other. There is nothing clearly conditional or contingent about the use of *peê*+*[L]* here.

- (7) a. *né-m-é-tíi* *apá* *ilô* *morrání*
 CN-NEG-3-be.at long.ago that.M.NOM warrior.NOM
- b. *ìnà* *kátá* *peê* *[L]-ε-ibση-í*
 that.F.ACC time.ACC TEMP-3-seize-PASS
- in-kíshú* *enyéna,*
 FPL-cattle.ACC 3PL.POSS.ACC.F
- 'And that warrior was not there when his cows were taken'
 (DC.008)

Co-extension in time is also apparent in (8), where (from an English bias, at least), one may be tempted to look for a functional complement clause relationship. The example comes from a text describing the growth of children generally, and how to care for young children affected by polio. This excerpt describes a point where one now finds a child lying in a relaxed state on his/her back because at a prior time the child had received

appropriate physical therapy. Clearly, 'seeing' (which is literal here) and 'lying' are contemporaneous:

- (8) *n-í-dól* *táatá* *peê* *[L]-ε-irrág*
 CN-2-see today TEMP-3-lie
tì *órìòḡ,*
 OBL back.NOM
 'Today you see that he is lying on (his) back,' (Embul 018-019)

In (7), the *peê+[L]* clause could be understood to express a temporally shorter event of seizing the cattle which punctuates a temporally more extended situation of the warrior being away. But in (8), the temporal relationships could be understood in just the opposite way, namely, the *peê+[L]* clause possibly expresses a temporally extended situation which the observer notices at one point in time. Altogether, *peê+[L]* clauses are neutral for whether they express more imperfective or more perfective/punctual situations, relative to the main clause situations. Thus, we may diagram the relationship as in Figure 1, where the beginning and end points of temporal overlap are unspecified by the *peê+[L]* construction. Note that in both (7) and (8) the *peê+[L]* clause follows the main clause.

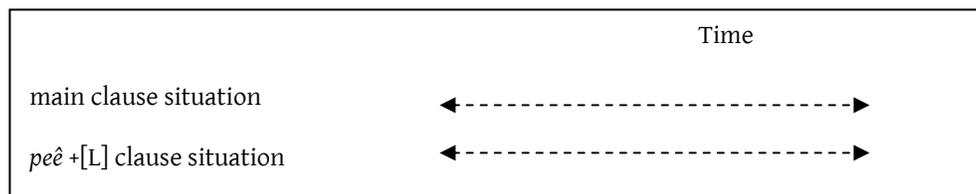


Figure 1. TEMPORAL overlap, with unspecified overlap in starting and ending points

4.2 TEMPORAL plus CONDITION

A *peê+[L]* clause may express a situation which clearly exists prior to the main clause situation, but which also overlaps in time with it. Unlike the examples in Section 4.1, now the *peê+[L]* clause structurally precedes its

that (9) is simply TEMPORAL and not CONDITIONAL. An argument for lack of conditionality might be strengthened by the supposition that any decent warrior could spear an enemy or someone from a different ethnic group even if an animal does not pass by. (Indeed, the most frequent means of indicating a conditional relationship in Maa is probably to use an alternative *tè+n[H]*- construction involving the oblique preposition *tè*). However, the point in the story is that the spearing is not *supposed* to happen *until* the animal passes by, precisely so that the homicide can be presented as accidental because the warrior will feign aiming for the animal; what is conditionally enabled by waiting for the animal is the ability to claim that the killing was accidental.

A variation on the temporal situation is when the main clause event does not temporally overlap with the *peê+[L]* clause event, though the *peê+[L]* clause still provides a temporal frame for the nucleus. The following comes from a story in which Hare tricks Elephant. Hare gets onto Elephant's back so that they can both safely cross the river. Elephant happens to be carrying honey on his back. Unbeknownst to Elephant, Hare eats all the honey while they cross the river. The next sentence is:

- (10) a. *enâ kátá peê [L]-è-làŋ*
 this.F.SG.ACC time.ACC TEMP-3-cross
 'When they crossed it [=river],'
 b. *n-é-j-okí "áyà, sawa"*
 CN-3-say-DAT okay okay
 he [=hare] told him [=elephant] "Okay. Okay" ' (elephare.026)

The event of saying happens entirely after the crossing is completed. From the non-native listener's perspective, is not totally clear what Hare communicates by saying "*áyà, sawa*", though the Hare then gets down off of Elephant's back and runs away. Perhaps the speaker's intention is that Hare means "All right you can let me down now." Crossing the river is not any kind of precondition for general conversation between the two

necessary prior condition for being able to sense something, namely, whether the child is gaining weight. Thus, here the *peê*+*[L]* clause expresses a CONDITION, without which the following event could not happen.

- (12) a. *órè aké táatá peyîê [L]-ε-ból-ó*
 now just now TEMP-3-grow-VENT
 'Now when she grows up,'
- b. *peê [L]-ɪ-jó á-íbòŋ*
 TEMP-2-try INF.SG-hold
enk-áíná a-ikó injí,
 FSG-arm.ACC INF.SG-do thus
 'if you try to hold the hand like this,'
- c. *n-í-niŋ a-jó k-é-íróíshì.*
 CN-2-hear INF.SG-say DSCN-3-be.heavy
 'you hear (=sense) that she is heavy' [i.e., gaining weight]
 (embul 023-026)

Semantically, the sensing in (12c) is necessarily contingent on the situation expressed in (12b). Temporally this example conforms to (9), namely, that the two situations overlap in time as sensing will not start until the holding has been initiated. The TEMPORAL and CONDITIONAL relationships are diagrammed in Figure 2. The possibility that CONDITION is not necessary (cf. the discussion of examples 9-11) is indicated by parentheses.

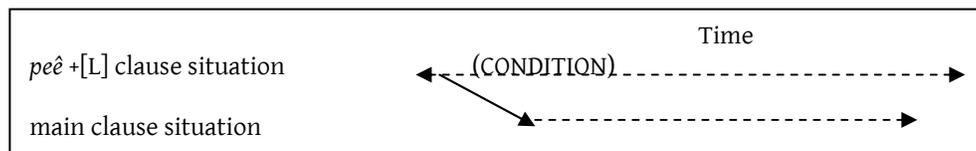


Figure 2. TEMPORAL overlap (of CONDITION) with main clause situation

CONDITIONAL *peê*+*[L]* clauses may also express situations or events which precede but do not overlap in time with their contingent situations. Consider (13) from a text about all the stages that children pass through on

- ε-sokári* *áà-pìk-àkì* *mk-áík*
 FSG-sugar.ACC INF.PL-put-DAT FPL-hands.ACC
 'All children are given sugar to put on their hands'
 b. *peê* [L]-*é-mêj*.
 TEMP-3-lick
 'in order to lick it.' (eishoi.001)

In the remaining figures I will not demonstrate both TEMPORAL overlap and TEMPORAL non-overlap, though both are possible; rather, my concern is with the profiled relation.

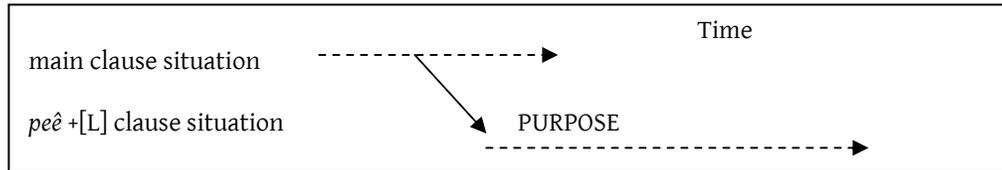


Figure 4. PURPOSE Relation

The idea of PURPOSE may generally presuppose that the nuclear situation facilitates the possibility of the satellite *peê*+*[L]* situation, if not physically then at least logically. In (16), for example, if the children do not have sugar on their hands, it would be pretty hard to lick the sugar. Thus, putting sugar on hands is not only done for the PURPOSE of children licking it as a treat, but putting sugar on the hands is simultaneously a CONDITION for licking. Why, then, should we identify (16) as profiling PURPOSE and not CONDITION? The answer turns on what is nuclear. Unlike the situations diagrammed by Figures 2 and 3, in (16) and in PURPOSE clauses generally, it is the nuclear (main clause) predication that sets out any enabling situation, and not the *peê*+*[L]* clause.

As we will see later (sections 4.4 and 4.5), RESULT is often a meaning dimension associated with the *peê*+*[L]* construction. However, as reflected in Figure 4, the construction can have a pure PURPOSE sense without a (realized) RESULT. Thus, a child might have sugar put on her hand with the

- b. *peê* [L]-*kr-sík*; *n-é-àny*.
 TEMP-1PL-scrape.sth.off CN-3-refuse

'so that we disappear; he refused.' (enamuke1.0032)

In sum, semantically these PURPOSE instances differ from true RESULTS like *He pounded the metal flat*, where one could not felicitously add **but the metal never got flat*.

There is a separate serial construction (involving the most infinitive verb form that Maa allows, Hamaya 1993) which has PURPOSE as a frequent function. How the serial construction differs from the *peê*+ [L] construction cannot be explored here, though a reasonable hypothesis turns on whether the PURPOSE predication is conceptualized as a separate event from the main clause (motivating the *peê*+ [L] construction), versus is viewed as part of a single complex event (motivating the serial construction).

4.4 PURPOSE terminating in RESULT

In the preceding section we saw that *peê*+ [L] clauses can code pure PURPOSE without RESULT. Of course, however, the usual hope is that the PURPOSE will be realized. Sometimes RESULT is implicit when the *peê*+ [L] construction is used. For example, (20a) is literally 'He gave him to go', meaning 'He allowed him to go'. In the context of the story, line (b) makes it clear that not only was permission given, but that going actually resulted.

- (20) a. *n-é-íshò* *aké* *peê* [L]-*é-lô*,
 CN-3_i-give just TEMP-3_j-go

- b. *n-é-akv* *é-í-ηəjímé*.
 CN-3_j-begin 3_j-VBLZ-hyena

'He let him go, he started limping.' (lit: 'He gave him so that he go; he started being like a hyena.') (enamuke1.0038)

Clear examples expressing both PURPOSE and (realized) RESULT do

not seem to be all that frequent, but we can diagram the semantics as in Figure 5.

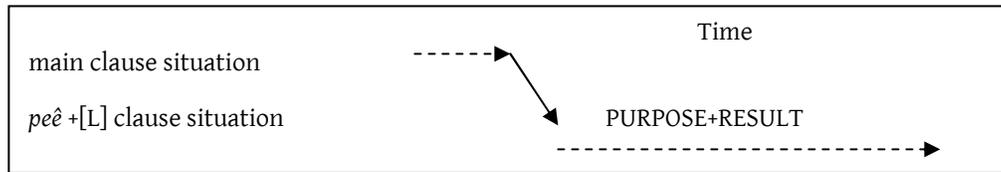


Figure 5. PURPOSE plus RESULT

4.5 RESULT without PURPOSE

As just noted, with most PURPOSE predications it is the intention that some RESULT will materialize, and in some examples excerpts it is at least implicit that it did. In another semantic step, some *peê+[L]* clauses express pure RESULT but without intended PURPOSE. The following is from a text about how to ensure that respect for clan members will be guarded and maintained, so that ill will not result. The context concerns what might happen if a man hits his niece such that blood comes out. Obviously one would not intend that she bleed a lot, because very difficult inter-familial social relations would ensue. Thus, the *peê+[L]* clause expresses just RESULT. (CONDITIONALITY in the first clause is indicated by *tê+n[H]* construction, and not by *peê+[L]*.)

(21) *n-àà tɛ-n-í-ntódòr*

CN-be OBL-CN-2-bloody.by.hitting

peê [L]-e-pukú éê sárgé,

TEMP-3-emerge this.ACC blood.ACC

'And if you bloody her and then/so that blood oozes out, ' (enkashe.007)

Interestingly, a number of *peê+[L]* RESULT constructions are immediately preceded by a demonstrative pronoun or nominal element (see also Section 4.9). The nominal refers back to some antecedent situation which explains why, or gives the reason, for the expressed

Figure 6 diagrams the semantic relationships.

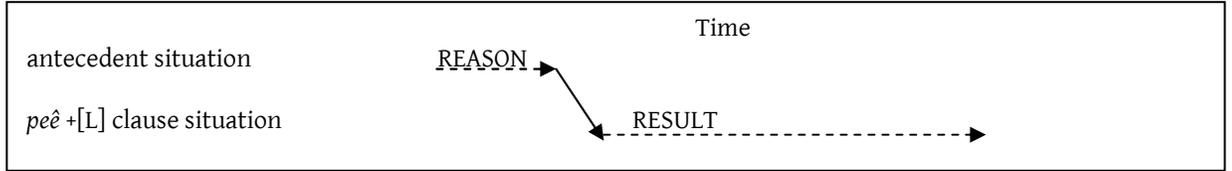


Figure 6. RESULT

4.6 MOTIVATION

In another relational twist, the *peê*+*[L]* construction can be used in threats where the *peê*+*[L]* predication holds a MOTIVATION relation to the main predication. MOTIVATION is defined as obtaining when the main predication, or conceptual nucleus, presents an as-yet unrealized action in which the addressee would be the actor, and the dependent predication, or conceptual satellite, presents information that increases the addressee's desire to perform that action. This is precisely (part of) what is going on in line (b) of (26). In (26), the addressee presumably understands that not giving the ear will result in being reported. (Here the *peê* clause involves a negative verb form which, together with the AWAY directional, affects surface tone on the verb such that no Low is evident.)

- (26) a. *n-é-ítàkí* *a-jo-kí:*
 CN-3-do.again INF.SG-say-DAT
- b. *"I-ncòó-kì naá en-kíòk*
 2-give-1SG FOCUS FSG-ear.ACC
 peê *m-áá-líkí-òò;"*
 NEG-1SG>2SG-tell-AWAY
- c. *n-é-nyà* *ìnà*
 CN-3-eat that.ACC
- 'He told her again: "Give me your ear so that I will not report you." He ate that one.' (girls.099)

No natural cause-effect relation between the predications in (26); failing to give an ear does not facilitate or cause reporting in any natural world. However, in a threat like this the speaker may present it as if there were some unavoidable causal relation. Nevertheless, as with other relations, in general the MOTIVATION relation may simultaneously co-exist with other relations. But is it just pragmatic knowledge that accounts for the difference between (26) and something like *Put the key in your purse (or) you'll lose it?* In the English example, MOTIVATION presumably co-exists with some type of causal relation likely holding between guarding the key in a particular place, and not losing it? MOTIVATION in the English example also arguably shades into (negative) RESULT. A similar example is *Do your homework every week so you don't fail the course*, where *so you don't fail the course* can be argued to hold both MOTIVATION and (negative) PURPOSE+RESULT relations. All these examples are effective as threats precisely because the addressee presumably wants to avoid the opposite (resulting) situations of failing the course, losing the key, or being reported; the desire is thus a MOTIVATION.

Though there are elements of RESULT and PURPOSE relations in the English examples just presented, the Maa example in (26) most certainly does not constitute a canonical instance of PURPOSE; this is because the speaker's communicative intent is not to 'report the addressee', but rather to 'eat the addressee's ear'! MOTIVATION is certainly the *salient* relation for the speaker's communicative purposes. Nevertheless, it is simultaneously true that a particular TEMPORAL relationship, characteristic of the PURPOSE and RESULT instances we have seen, is asserted by the speaker within the quote: 'reporting the addressee' will happen after the situation of 'not giving the ear' has been initiated. This temporal relationship gives the addressee time to comply with the nuclear predication and thus avoid the unwanted RESULT. The temporal relationship evident in (26) and sketched Figure 7 is the same as that sketched in Figure 5.

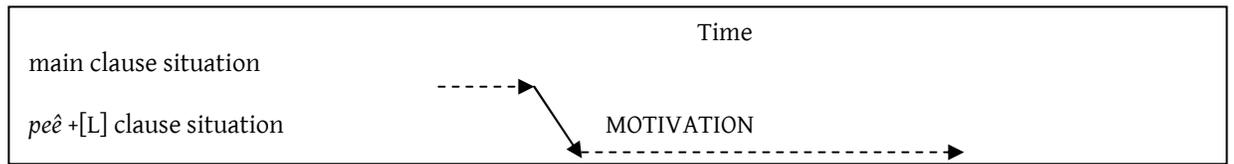


Figure 7. MOTIVATION

Given the apparent multiple co-existing relations and potential ambiguity about what may be profiled in particular instances, we have to ask whether by using *peê*+*[L]* the speaker is indeed asserting MOTIVATION in instances like (26), and is not just asserting a TEMPORAL relationship. Indeed, is the speaker asserting any *particular* type relationship? One thing we must observe from the discussion so far is the extent to which the interclausal relations in particular examples seem to be dependent on pragmatic real-world culturally-specific knowledge (e.g. how to prevent losing keys, how studying affects course grades), and on particular lexical concepts. Thus, to what extent can we legitimately conclude that *peê*+*[L]* construction *codes* these relations, versus to what extent they are just *inferences* drawn by the comprehender? We shall return to this problem in Section 5.

In the following sections, we turn to uses of the *peê*+*[L]* construction which cannot be clearly sketched in terms of the type of temporal diagrams used in Figures 1 through 7. Even if a TEMPORAL relation can sometimes be argued for, literal TEMPORAL circumstance is certainly not the cognitively salient or profiled relation.

4.7 Complement which is not a RESULT

There are some instances where *peê*+*[L]* clauses occur in contexts of extremely "bleached" relational semantics, where perhaps the most we can say is that the *peê*+*[L]* clause has a complement relation to a matrix predicate. The text corpus suggests this complement function is especially prominent with verbs of utterance where the complement is something

'I will get up and go ... and tell the children to pack the donkeys.'
(Ilangeni.0010)

The next *peê*+*[L]* clause quite clearly does not express a PURPOSE of not-knowing, not saying, or not cognizing something. Nor does it appear to express RESULT. Nevertheless, it is irrealis. The example comes from a conversation in which participants were discussing Maa dialect differences.

- (30) *n-é-mi-jo peê [L]-e-yioló ol-tónání*
 CN-3-NEG-say TEMP-3-know MSG-person.NOM
l-é
 MPSD-FSG.PSR
Kinopóp en-tókì n-a-j-î
 Kinopop.ACC FSG-think.ACC F.REL-3rel-say-PASS
em-bálèlò
 FSG-bálèlò

'There is no way a Kinopop person will know something called *embalelo*' [= word for 'kid' in some dialects] (enaidurra.054)
 (More literally: 'They don't say that a Kinopop person knows something called *embalelo*')

The most common speech verb is *jo* 'say'.¹² The verb *jo* can take *peê*+*[L]* complements, but with the sense of 'want,' 'wish' or perhaps even of just a subjunctive modal operator, as (31) and (32) illustrate:

- (31) *kólô ayíok taá l-é*
 these.M.ACC boys.ACC be.PF MPSD-FSG.PSR
n-tító
 FSG-girl.ACC
ε ηótónyé è-jò peê [L]-é-íshô
 of mother 3-say TEMP-3-give

¹² *Jo* actually has multiple functions, including sometimes functioning as a complementizer.

'Because it is not so many (times that) I get [=understand] that, ...'
 (Iloikop.003)

4.8 Subjunctive (future)

We have seen that in complement-like functions there is often a modal subjunctive-like or irrealis meaning in the *peê*+*[L]* clause. One might question whether the modal meaning does not come from the matrix verbs themselves, rather than from the effect of *peê*+*[L]*. That is, utterance verbs might in some of their senses be manipulatives: *I told her to take the garbage out* involves the manipulative event: 'I tried to get her to take the garbage out by saying something to her.' We may ask whether other verbs like 'be appropriate' and negative elements are not also inherently manipulative or modal matrix elements. In (35), however, the matrix element is just the verb 'be', which in multiple contexts of use is certainly not modal. Here, it seems clear that the deontic modal meaning must come from the *peê*+*[L]* element.

- (35) *n-aá peê [L]-ε-akó il-tóháná*
 CN-be TEMP-3-become MPL-people.ACC
ə-wâη in-kiasî
 MREL.PL-be.light FPL-deeds.ACC
 'They [=the people who go to preach the word of God] should be
 people with light in (their) deeds' (Ilomon.0332)

Other examples that do not even involve matrix verbs make the subjunctive effect of *peê*+*[L]* especially clear. In particular, NPs can take *peê*+*[L]* complements, and subjunctive or irrealis modal meaning can result. In some of the following examples, the nominal elements come from relativized verbs. That they are syntactically functioning as full head nouns (and not as a modifiers to nouns) is shown by the Gender-Number prefixes.

- (36) ε -átà ε -n-a-ikó ájàlì *peê* [L]-e-lot-ú
 3-have FSG-F.REL-3rel-do accident TEMP-3-move-VENT
 'there is a way an accident could come' (lit: 'that which is done has
 an accident *peê* come') (enkashe 007b)
- (37) n -é-íṅḍr-ò e -n-e-ikó
 CN-3-look-VENT FSG-FREL-3-do
peê [L]- ε -isho-óyo ε n-kítéṅ ...
 TEMP-3-give-AWAY FSG-cow.ACC
 'they look for a way they could give out a cow ...' (history.071)
- (39) a. n -é-jo-kí "m-kérà áinéí
 CN-3-say-DAT FPL-children.ACC my.PL
 'She tells them "My children
- b. é-táá *taá* *nanó* *ink-ólòṅì* *ánàà*
 3-be.SUBJN be.SUBJN 1SG.NOM FPL-days.ACC like
 'it is only a few days'
- c. *peê* [L]-a-gil-ó *em-bénéyíó*."
 TEMP-1SG-break-VENT FSG-leaf.ACC
 'so that/until 'I break a leaf' [= dies]"
 (Lit: 'She tells them, "My children, I be days like *peê* I break a
 leaf".') (enkeeya2.023)
- (40) n -áà n nyé n -á-yiolo e -n-í-ntókì
 CN-be 3.ACC FREL-3rel-know FSG-FREL-2-do.again
 a -ikó *peê* [L]-i-pukú
 INF.SG-do.like TEMP-2-emerge
 'and she (is the one) who knows how you are going to come out
 (Ilomon.0217)
 (Literally: 'and she (is the one) who knows what you will repeat to
 do to emerge')

It is reasonably common for *peê*+*[L]* to occur with the nominalized relative form *enaikó*, roughly meaning 'how', 'what', or 'way' formed from the verb root 'do' or 'do like'. A few examples illustrating this range of meaning follow:

- (41) *nnyé n-á-ídím a-táà*
 3.ACC FREL-3rel-can INF.SG-be.SUBJN
k-é-yíólò ε-n-a-ikó peê [L]-e-ibo-óyò
 DSCN-3-know FSG-FREL-3rel-do.like TEMP-3-block-AWAY
 'She is the one who can know how/what to prevent' (ilomon.0228a)

- (42) *m-ε-átà ε-n-a-ikó ol-mórûô*
 NEG-3-have FSG-FREL-3rel-do.like MSG-old.NOM
peê m-é-ár-à ó en-kitók.
 NEG-3-fight-MID ASSOC FSG-woman.ACC
 'there is no way that a man and a woman won't fight.' (Lit: a man does not have a way to not fight with a woman.' (enkashe.026)

Most of the examples in this section do involve subsequent time, but (35) is important in showing that subjunctive rather than TEMPORAL meaning may be profiled. In (35) the focus is on the way preachers should be all the time, not just at some subsequent or anterior point in time relative to some other situation.

4.9 'Why' questions

Finally, *peê*+*[L]* clauses can serve as complements to words which ask adverbial questions, and where subjunctive, or at least deontic, modal meaning does not seem to be profiled. The element which expresses 'why' may be formally an interrogative question word, or some other word which is itself not necessarily a question element. The following are just like the Reason-RESULT instances (sections 4.5, 4.5), except that the Reason is being questioned. Hence, the focus switches to the 'why' element and the RESULT

Other generalizations are perhaps less obvious. *Peê* does not correspond to any bona fide preposition in Maa, nor to any synchronic relational noun, nor to any verb form. It most certainly is related to the longer form *peyiê*, but whether this might have historically been a verb or a noun is unknown. However, like the adposition *tè* in certain conditional clauses, *peê* is preposed to clauses with adverbial function. However, it also extends into subjunctive or irrealis mood and complement clause functions.

We have discussed the fact that in some examples multiple rhetorical relations appear to be present, if not equally profiled. Mann and Thompson try to clarify the distinctness between the particular rhetorical relations they posit, but they themselves note that more than one rhetorical relation may hold between a given pair of overt propositions. But this does raise the question of whether the multiple relations are in the mind of the speaker, or whether there is just ambiguity or "vagueness" which allows for potentially multiple inferences by comprehenders, depending on what is most relevant to them at the moment (cf. Sperber and Wilson 1986). As noted in Section 3, Mann and Thompson discuss the possibility that conjunctions may help to "constrain" what particular relation(s) may obtain between two clauses. Nicholas (1994:6) notes that:

... even where connectives do merely constrain rhetorical interpretation, the fact they do not (always) *signal* particular relations means that the issue of ambiguity remains. It is not always possible to identify which rhetorical relation holds between two spans, on the basis of linguistic evidence. Indeed, it may not even be possible to do so based on contextual evidence.

Indeed, connectives are notoriously ambiguous in most languages. For example, the English connective *because* can be used for all of Motivation, Purpose, Justification, Evidence, and Cause (Nicholas 1994:34). As we have

seen, another case in point is the Maa form $pe\hat{e}+[L]$, which correspond to a fairly wide range of rhetorical relations. Given its breadth, we might well ask how tightly $pe\hat{e}+[L]$ constrains the interpretation.

Nicholas argues along with Mann and Thompson that in many cases connectives constrain the possible interpretations to some subset of *interrelated* relations. Radical Construction Grammar (Croft 2001) makes an explicit typological claim to the same effect, arguing from cognitive principles.

So, do the multiple relations we have discussed for the $pe\hat{e}+[L]$ construction all belong to a single cluster of interrelated relations? Table 1 reflects Nicholas' proposal about clustering, or relatedness, among rhetorical relations. If the interpretation of a form or construction should correspond to a subset of interrelated relations on cognitive and theoretical grounds, then the distribution of the boxed relations in Table 1 shows that Nicholas proposal for specific clusterings is not supported by empirical evidence from Maa. Recall that his proposal is based on formal semantic arguments. Thus, to the extent that the distribution of senses associated with the $pe\hat{e}+[L]$ construction is any indicator, it would seem that in at least this case formal semantics does not correspond very well to natural human cognitive patterns.

The semantic map in Figure 8 attempts to portray a cognitively realistic clustering of selected relationships, based on empirical investigation of $pe\hat{e}+[L]$ in a large text corpus. The arrangement in Figure 8 demonstrates the probable routes in which senses of (or inferences about uses of) the $pe\hat{e}+[L]$ construction have developed. In Figure 8, "Nuclear Situation" refers to the situation expressed in the syntactically higher clause, which I take to be the rhetorical nucleus. All other boxes represent one of the functions or senses of the $pe\hat{e}+[L]$ satellite predication in relation to the nucleus, except that "Later contingent TEMPORAL situation" does not occur apart from one of the senses below it. By "contingent", I mean that the

satellite situation is in some way typically facilitated by or dependent on the nuclear situation. The heavy lines indicate that I take the TEMPORAL relations to be the most central meanings (not necessarily the most frequent) of the *peê*+*[L]* construction, in that all others eventually derive from them.

One interesting observation is that *peê*+*[L]* clauses express both temporally antecedent and temporally subsequent propositions. What this suggests is that *peê*+*[L]* itself codes only that the satellite predication is "temporally related" to the nuclear situation, and even this coding is cognitively "porous" such that it can be extended to include hypothetical time in a potentially irrealis world. The speaker may indeed have some more specific relation in mind, but *peê*+*[L]* itself does not *code* anything more specific. The comprehender must use her stored knowledge plus explicit lexical items and concepts available in the discourse to build a possible interpretation relevant in a given context.

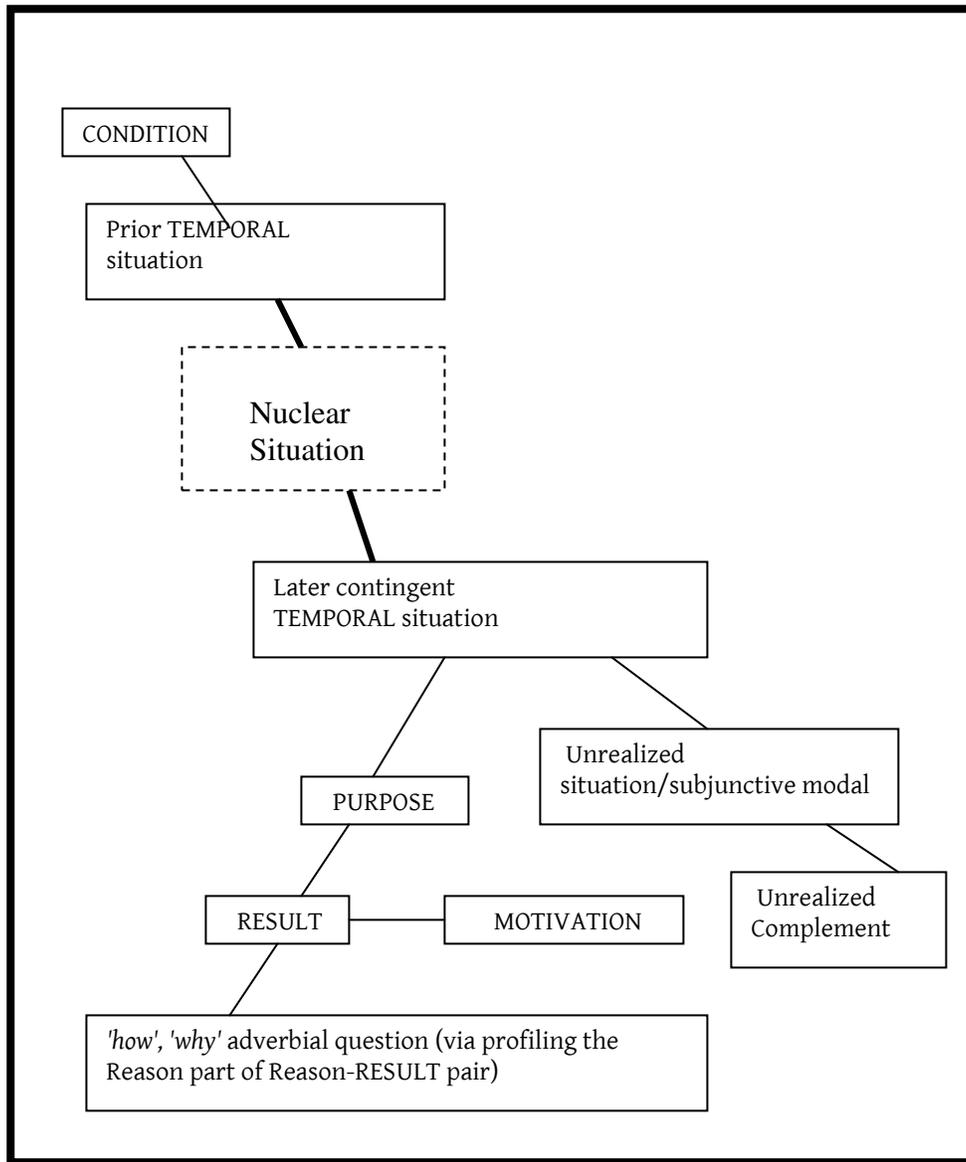


Figure 8. Functions of the *peê+[L]* construction

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