BLACK TAI SENTENCE TYPES

A GENERATIVE SEMANTIC APPROACH[1]

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Introduction

One of the major developments in modern linguistics has been an increased awareness and study of the relationship between semantics and syntax. Syntactic structure is basically a form--a device specific to a given language--by which its speakers express underlying semantic concepts, many of which are common to human beings throughout the world.

In studying the syntax of a language, if we begin with these underlying concepts and work from the meaning down to the form, we are at a twofold advantage. First, the global nature of many broader semantic categories gives us a predictable starting point from which to investigate the diversified, less predictable syntactic patterns of individual languages. Second, the classifying of syntactic features according to the semantic categories they manifest is more relevant and satisfying than a classification based only on surface syntactic patterns. If we begin with broad semantic categories that divide conceptual experience in a meaningful fashion, it is highly probable that these divisions will be reflected in the syntax in one way or another to a large degree, and that these contrastive features will be among the ones of greatest interest. The syntactic 'feedback', in turn, can be used to cast further light on the semantic structure of the language.

For a number of years now, linguists have been wrestling with the problem of defining those semantic categories which adequately map out the range of human experience, and we are indebted to them for their labor. Charles Fillmore (1968), for example, focused on the case configurations associated with various verbs. Wallace Chafe (1970) gave more attention to the nature of the verb itself, showing a basic division between states, processes, and actions, and demonstrating the applicability of this verbal division to various noun configurations in a semantic analysis of English. Thus, meaningful semantic categories have been shown to exist along two parameters--the nature of the verb itself, and the nature of the noun case roles that surround the verb. In effect, verbs, and the sentences in which they occur, may be classified semantically according to these two criteria.

This paper uses these two parameters to develop a matrix whose members constitute semantic sentence types widely found in human speech. The matrix then provides us with a logical starting point for the investigation of the semantic and syntactic sentence structures of a specific language. Application of the matrix is made to a survey of sentence types in the Black Tai language of Vietnam.[2]

Predicate Categories

In examining the semantic structure of English, Chafe (1970:98ff) conceives of four fundamental verb types:

1. A verb, further specified as a state, describing the state of an associated patient:

(1) The elephant is dead.

2. A verb, further specified as a process, describing the change from one state to another of an associated patient:

(2) The elephant died.

3. A verb, further specified as an action, describing the activity of an agent:

(3) The men laughed.

4. A verb, further specified as both an action and a process, describing the action of an agent to bring about a change in the condition of a patient:

(4) The tiger killed the elephant.

In addition, Chafe (1970:101f) speaks of ambient sentences, in which no noun exists at all. Sometimes the verb in such sentences is specified as a state:

(5) It's hot.

(6) It's late.

and sometimes, as a process:

(7) It's raining.

The distinction between state, process, and action is by no means limited to verbs associated only with agents and/or patients. Chafe (1970:144ff) demonstrates this in some measure by applying the verbal distinction to sentences containing a number of other noun configurations as well. I would suggest, in fact, that this verbal distinction is as basic to the semantic classification of human experience as are the noun case roles associated with a verb, and therefore that the distinction of verbs between states, processes, and actions subdivides the sentences containing any given configuration of case roles, unless it can be demonstrated that a given combination of verb type and role set is incongruous with our conceptual experience.

The sentence types which Chafe labels ambient share a common feature with his third basic sentence type (verb specified as action, plus agent), namely, just as the ambients are deleted-patient subsets of basic sentence types 1 and 2, so sentence type 3 is, in essence, a deleted-patient subset of sentence type 4. Note the following illustrations:

V_{state} (patient)

(8) The stove is hot.

V_{state}

(9) It's hot. (i.e. The weather is hot.)

$V_{process}$ (patient)

(10) He's growing up.

$V_{process}$

(11) It's raining.

$V_{process\ action}$ (agent, patient)

(12) The hunter killed the elephant.

V_{action} (agent)

(13) The men laughed.

In the case of sentences such as (13) (Chafe's third basic sentence type), it is probably more accurate to say that the patient is manifested by the same noun as the agent, but is in some way non-prominent in the semantic structure, and lacks the capacity for unique manifestation, rather than to say that the patient is deleted altogether.[3] This does not destroy the analogy with ambient verbs, however. Even ambient verbs could be said to have a patient at some deep level of semantics, but because of its indefinite or irrelevant nature, the patient is relegated to the level of the subconscious and is ordinarily not expressed.[4]

If it is true that the subject of (13) fills both agent and patient roles (the patient being present only in a non-prominent sense), we may wonder whether the predicate[5] relates the two roles in the same way as in (12), and, if so, whether the two predicates should be labeled identically. This, in turn, leads to a more general and important question needing our consideration: what is the distinctive characteristic of predicates relating agents to patients? In sentence (14), it is apparent that the agent causes the patient to undergo a process involving a change of state:

(14) The explorer killed the bear.

Therefore:

(15) The bear died.[6]

This relationship between agent and patient may be symbolized:

$$P_{causative}\ (Ag,\ P_{process}\ (Pt)\ )^{7}$$

It is more difficult to see a causative relationship in a sentence such as (16):

(16) The boy hit the wall.

The difficulty is that the action of sentence (16) does not inherently involve a change of state on the part of the patient, expressible in a paraphrasing process sentence, as (15) paraphrases the change of state inherent in (14). We normally do not include such verbs as 'to become hit' among change-of-state verbs. And consequential processes, such as

(17) The wall caved in.

or

(18) The wall got scuffed up.

are not inherent in (16). Thus we could say:

(19) The boy hit the wall, but nothing happened to it.

But sentence (20) would be anomalous:

(20) The explorer killed the bear, but nothing happened to it.

It seems that an adequate view of the relationship between agents and patients is broader than the causing of a change of state, at least in the more limited sense we have employed thus far. Rather, for sentences such as (16) as well as those such as (14), we may say that the agent causes the patient to be affected in the manner described by the predicate (e.g. 'to become hit'), symbolized:

$$P_{causative}\ (Ag,\ Pt)$$

This, in turn, may cause the patient to undergo some change-of-state process as a direct consequence (e.g. sentence (17) 'caved in')--sometimes as an inherent consequence (e.g. sentence (15) 'died'). This secondary causative is symbolized, as earlier:

$$P_{causative}\ (Ag,\ P_{process}\ (Pt)\ )$$

Causation, then, seems to lie at the heart of the agent-patient relationship. Let us therefore consider all predicates relating agents and patients as $P_{causative}$.

In forming a matrix to serve as a semantic starting point with

which to approach the sentences of a specific language, then, let us use the following predicate categories as the horizontal parameter:

state process causative

Noun case roles--bound and unbound

We turn our attention now to the noun roles associated with various predicates. Note the following sentence:

(21) Yesterday I took the broken radio to the repair shop for Becky.

A survey of the noun roles manifested in this sentence results in two major groupings. The first group consists of roles which are closely bound with the predicate → *take*,[8] because the semantic content of the predicate is closely relatable to the semantic content of the role. In sentence (21), these roles are agent → *I*, patient → *the broken radio*, and direction → *the repair shop*. There is a natural basis for the co-occurrence of these roles with the predicate → *take*, due to the shared semantic features, and thus there is a notable tendency for the roles to be overtly expressed. We shall refer to the roles closely bound with a given predicate as *bound roles*.

The other roles in sentence (21) are semantically present with, but not closely bound with the predicate → *take*. These are time → *yesterday*, and beneficiary → *Becky*. The (tenseless) predicate does not share semantic features with these roles. The roles, then, may be termed *unbound*. Typically, unbound roles are semantically present over a wide range of sentence types, but are less likely to be expressed at the surface in a given case than are the bound roles. We may say that, as a general rule, of all the roles semantically present with a given predicate, those that are bound with the predicate tend to be expressed at the surface, but are optionally deleted (when the syntactic rules permit); those that are unbound tend not to be expressed, but are optionally included.[9]

Bound role clusters

A survey of the clusters of bound roles surrounding various predicates allows us to make an initial two-fold classification: between clusters containing an entity whose *existence* or *formation* is being predicated, which role we label *factitive*, following in part Fillmore (1968:25), and clusters containing an entity whose existence is assumed, and whose *state* is being described or affected (at least potentially) by the predication, which role we label *patient*, following Chafe's (1970) general usage. We then divide the vertical parameter of the matrix into two groups of role clusters: the *formational* group, containing factitives, and the *modificational* group, containing patients.

The modificational group is perhaps the larger, and to this group

we now devote our attention. Chafe (1970:144) rightly observes that patient and agent seem to play a more fundamental role than any other noun-verb relation because of the relationship of these two to his verbal specifications of state, process, action, and action-process. In fact, we may add (except in the case of ambients--i.e. sentences in which the patient is deleted or suppressed), whenever other bound roles occur at all, they are simply appended to one of the following *basic configurations:*

P_{state} (patient) $P_{process}$ (patient) $P_{causative}$ (agent, patient)

Many predicates require the addition of one or two bound roles to the set of basic patterns shown above, resulting in a number of subsets to the basic group. Some of these additional bound roles are: identity, possessor, experiencer, direction, and temporal direction. It is not within the scope of this paper to attempt an exhaustive listing of such roles. Rather, I shall label the clusters formed by the roles I have named, and use these labels as a tentative vertical parameter in a matrix of sentence types, a parameter which may be augmented as the need arises.

The possessor role also occurs in a subset of sentence types in the formational group. Within this group, other role subsets probably occur as well, but are not treated in this paper.[10]

The predicate categories and the bound role clusters discussed above, then, yield the following matrix of semantic sentence types. Unbound roles are not included in the matrix, but are discussed separately. Brief English examples of each sentence type are included in the matrix, but fuller illustration is reserved for the application of the matrix to Black Tai.

ROLE CLUSTERS	PREDICATE CATEGORIES		
	STATE	PROCESS	CAUSATIVE
I. FORMATIONAL	P_{st} (F) The rumor exists.	P_{pr} (F) The rumor developed.	P_{ca} (Ag, F) John started the rumor.
I.A. Possessional	P_{st} (F, Po) Mary has a son.	P_{pr} (F, Po) Mary conceived a son.	P_{ca} (Ag, F, Po) Mary bore John a son.
II. MODIFICATIONAL	P_{st} (Pt) The fox is dead.	P_{pr} (Pt) The fox died.	P_{ca} (Ag, Pt) Jim killed the fox.
II.A. Identificational	P_{st} (Pt, Id) Abe is president.	P_{pr} (Pt, Id) Abe became president.	P_{ca} (Ag, Pt, Id) They elected Abe president.
II.B. Possessional	P_{st} (Pt, Po) The pen belongs to Tom.	P_{pr} (Pt, Po) Tom received the pen.	P_{ca} (Ag, Pt, Po) Jim gave Tom the pen.
II.C. Experiential	P_{st} (Pt, Ex) Sue knows the song.	P_{pr} (Pt, Ex) Sue (passively) learned the song.	P_{ca} (Ag, Pt, Ex) Jill taught Sue the song.
II.D. Directional	P_{st} (Pt, Dr) The ball is in the river.	P_{pr} (Pt, Dr) The ball fell into the river.	P_{ca} (Ag, Pt, Dr) Art threw the ball into the river.
II.E. Temporal Directional	P_{st} (Pt, Tp) Lil is two years old.	P_{pr} (Pt, Tp) The wood aged two years.	P_{ca} (Ag, Pt, Tp) The lumbermen aged the wood for two years.

Chart #1

Other noun roles

The role of *instrument* is present with all causative predicates of the matrix. Often the instrument is not only present, but bound with the predicate--bound so closely that the predicate infers the likely identity of the instrument. In such cases, the prospect of redundancy diminishes the likelihood that the instrument will be overtly expressed.[11] Hence sentence (23) is an unlikely alternative to sentence (22):

(22) Bill unlocked the door.

(23) Bill unlocked the door with a key.

and sentence (25) is an anomalous version of sentence (24):

(24) Sam walked to the store.

*(25) Sam walked to the store with his legs.

If the inferred instrument is replaced or modified in some manner not predicted by the predicate, it is more likely that the instrument will be manifested, as in the following:

(26) Bill unlocked the door with Claude's key.

(27) Sam walked to the store with the aid of a cane.

However, even in cases where the identity of the instrument is not inferred by the predicate, the probability that the instrument will be expressed does not seem to be as great as in the case of the bound roles shown in the matrix sentence types. I suggest, then, that instrument be considered present, but unbound, with causative predicates, lacking the close degree of semantic relationship with the predicate typically characterizing the bound roles, except in cases where the semantic features of particular predicates imply the use of a specific instrument or type of instrument.

The question arises whether instrument is present with any non-causative predicates. A role similar to instrument, perhaps identical with it (in the sense that both may be defined as non-instigative cause), does occur with some process predicates, as in sentence (28):

(28) Harold died of pneumonia.

Again, the specific semantic features of certain predicates imply the identity of the role filler, as *see* implies one's *own eyes* in (29):

(29) I saw the shark with my own eyes!

This same role may occur with certain state predicates as well, as in (30):

(30) Harold is sick with pneumonia.

A number of other roles are present, but unbound, in sentence types over substantial areas of the matrix. The role of *beneficiary* (as distinguished from that of possessor) is present with all causative predicates of the matrix. This role specifies the one for whose benefit (or, possibly, detriment) the action of the predicate takes place. Sentence (31) contains beneficiary → *Mom*:

(31) Jenny swept the house for Mom.

In contrast with the bound roles we have labeled *direction* and *temporal direction*, which deal with the effect on the orientation in space and time, respectively, of the patient brought about by the predication, there are two unbound roles, *location* and *time*, which orient the predicate itself with respect to space and time.[12] The following sentence is ambiguous:

(32) Tim fell in the lake.

If *the lake* manifests the direction role, the goal of Tim's motion, the sentence may be paraphrased:

(33) Tim tell into the lake.

On the other hand, if *the lake* manifests the unbound location role, the place where the predication took place, we may paraphrase sentence (32) as follows:

(34) Tim fell when he was in the lake.

Location is present, but unbound, with causative and process predicates, and *time* is present, but unbound, with all predicates of the matrix. Sentence (35) contains time → *for two hours last night* and location → *in the living room*:

(35) They worked on the puzzle for two hours
last night in the living room.

Black Tai sentence types

If the matrix developed above is well-founded (albeit incomplete), it then provides us with a logical semantic starting point for an investigation of the syntax of sentences in a specific language. I shall now apply the matrix in approaching a study of sentence types in Black Tai. For each semantic sentence type in the matrix, I shall give examples of its manifestation in the language, when known, and make some observations about the syntactic features characterizing the sentence type. To close, I shall give brief attention to some of the surface features that mark the contrast be-

tween the underlying semantic types. This study is not intended to be exhaustive or highly detailed; rather, it serves as a general survey of Black Tai sentence types and as an illustration of the theory outlined above.[13]

I. Formational sentence types[14]

I.1. P_{st} (F)

(36) tɔi^5 kwa:m^4 to^4 sau^2
according-to story they
tɕiən^4 vau^6, mi^4 fuə^1
pass-down tell exist husband
miə^4 nɯŋ^5
wife one

According to the legend that has been handed down, *there was a married couple.*

(37) mɯ^6 ni^6 fa:^{6} lom^4, mi^4 be^3.
day this sky windy exist wave

Today it's windy, *and there are waves.*

(38) sau^1 pai^1 a:p^2, mi^4 kon^4
they go bathe exist person
ʔo^6 pai^1 bɤŋ^2 sau^1 bau^2 ?
large go watch them INTERROG

If they've gone bathing, *is there an adult who has gone to watch them?*

Sentences of this semantic type predicate the existence of the factitive referent. They typically employ the verb mi^4 'to exist' and have no noun in the usual subject position preceding the verb. The topic of the sentence, manifesting the factitive role, is found following the verb. In (38) the factitive is filled by a noun phrase containing an embedded sentence used as a relative clause.

I.2 P_{pr} (F)

(39) tap^5 ʔi^6 hɯ^4 lɔ^3 mi^4
beat this therefore exist
hɔ^6 mi^4 hwəŋ^1 ʔɔʔ^2
relative exist Relative go-out

When he beat the gong at this node, *relatives (magically) came into existence.*

In this sentence, the factitive goes through the process of coming into existence. In Black Tai, a process is often signified by the use of two verbs: the first, a verb ordinarily manifesting a state, and the second, a verb indicating motion. In this case, the first verb is mi^4 'to exist', the same verb used in (36) - (38), and the second is ʔɔʔ^2 'to go out'. In sentences such as this, the presence of the second verb unambiguously marks the sentence as a process rather than a state (the reader will note the verb reduplication, a common feature of Black Tai).

I.3. P_{ca} (Ag, F)

I have no Black Tai examples of this sentence type. I believe that the large majority of causative predicates associated with factitives, including all those with which I am familiar in Black Tai, are also bound with a possessor role. Such predicates normally imply that the thing formed becomes the possession of the one who formed it, unless another filler of the possessor role is made explicit. Thus the predicate → *make* may be substituted for the predicate → *buy* in sentences (i), (ii), and (v) of footnote 9 with analogous results. For this reason, I am classifying sentences containing predicates manifested by verbs such as *make* in I. A.3. below.

I. A.1. P_{st} (F, Po)

(40) man^4 bau^2 he^4 mi^4 fuə^1.
she NEG yet have husband
She doesn't have a husband yet.

(41) mɯə^4 hɔt^5 nan^6 lɔ^5 mi^4
go arrive there have
When I get there and *have a place to live*, I'll write you a letter.

bɔn^2 kin^1 bɔn^2 ju^2,
place eat place dwell

tɕaŋ^2 tɕi^4 jet^5 sɯ^1 ma:^{4} hɤɯ^3.
then FUTURE make letter come for

(42) ʔo^4 la:i^1 viə?^{5} kɔ^3 bau^2 pai^1
oh much work NEG go
Oh, *I have so much work* that I can't go anywhere.

ta:ŋ^4 lɤɯ^1 lai^3 lɔ^1.
direction any can

The only difference between this sentence type and P_{st} (F), above, is the addition of the possessor role, manifested as the subject of mi^4 in sentence (40). In (41) the subject is deleted, but the possessor role is still present in semantic structure. Thus, even though (41) has a surface structure identical in type to (36) - (38), it belongs to a different semantic sentence type.

Sentence (42) provides a less common illustration of verb ellipsis. In this case the subject pronoun and the verb mi^4 have both been deleted.

I. A.2. P_{pr} (F, Po)

(43) fu^3 ɲiŋ^4 nan^6 mi^4 lu?^{5}
person female that have child
The woman conceived a child in her womb.

ʔɔ?^{2} naŋ^3 kuəŋ^1 pum^1.
go-out at in abdomen

(44) man^{4} pen^{1} xon^{1} ʔɔʔ^{2} — She developed fur and a beard.
she suffer fur come-out

pen^{1} nuət^{2} ʔɔʔ^{2} lɛu^{6}.
suffer beard come-out already

The noun filling the factitive role is formed as an acquisition of the noun filling the possessor role. The process of formation is marked by the secondary verb ʔɔʔ^{2} 'to go (come) out' in both examples. Again, the analogy to P_{pr} (F) is clear, with the addition of the possessor noun role in the present case, manifested as a subject when expressed at the surface.

I. A.3. P_{ca} (Ag, F, Po)

(45) ʔa:i^{3} tɕi^{4} taŋ^{3} hwən^{4} mɤw^{2} — Father is going to build a new house for our widowed aunt.
father FUT build house new

hɤw^{3} pa:^{3} ma:i^{3}.
for aunt widow

(46) tɕɤ^{4} lɤw^{1} nam^{6} loŋ^{4} fon^{1} — Whenever the rains come, *we need to construct irrigation dams*.
whenever water descend rain

tok^{2}, tɕɔ^{6} pa:n^{3} mwəŋ^{1} pa:n^{3}
fall must build dam build

fa:i^{1}.
dam

(47) hɛ^{1} xai^{6} sa:n^{1}, ki^{3} — *That fishnet you're weaving now* - how many more days before it's finished, ma'am?
fishnet now weave how-many

mw^{6} tɕaŋ^{2} lɛu^{6} le^{3}, em^{4}thau^{3}?
days then finish grandmother

Sentence (45) gives the unmarked and unabbreviated surface structure for sentences of this semantic type:

subject NP VP object NP_1 hɤw^{3} object NP_2

As is the general rule for Black Tai sentences containing causative predicates, the subject NP of (45), ʔa:i^{3} 'father', manifests the agent. In (45), object NP_1, hwən^{4} 'house', manifests factitive; and object NP_2, pa:^{3} ma:i^{3} 'widowed aunt', identifies the possessor. hɤw^{3}, as an independent verb, has the meaning of 'to let or cause to occur'. In this, and certain other causative predicate sentence types, it occurs subordinate to the main predication, retaining only a portion of its independent force. However, the implication made by hɤw^{3} in (45) is evidently, 'Father is going to build a new house, and thus *cause* our widowed aunt to have (or acquire) a new house.' The agent is causing the factitive, not only to be formed, but to

assume a particular state with respect to a possessor. In most cases, as in (46) and (47), the possessor role is left unexpressed, with the implication that the thing formed becomes the possession of the one who forms it unless the context indicates otherwise.

I have referred earlier to the matter of subject deletion in connection with sentence (41). The omission of the subject is a very common feature of Black Tai sentences, occurring whenever the speaker deems it unnecessary to supply the information (usually because it is already known to the hearer). Sentences (46) and (47) delete the subject, thus leaving the agent role unexpressed.

In (47) the predicate under study, sa:n^{1} 'to weave', is in an embedded sentence serving as a relative clause modifying hɛ^{1} 'fishnet'.

II. Modificational sentence types

II.1. P_{st} (Pt)

(48) fɔŋ^{4} ŋɤɯ^{2} la:i^{1}.
wave large very
The waves are very large.

(49) tɕan^{5} tɕan^{5}!
pretty pretty
She was very beautiful.

(50) mɛn^{5} lɔ^{5} ʔan^{6} na:^{3}.
correct that
That's right.

(51) tɕi^{4} ʔau^{1} kan^{1} kɔ^{3} di^{1}.
FUT take each-other good
If you want to marry one another, that's fine.

(52) ba:^{3} nɔi^{6} ni^{6}, man^{4}
fellow little this he
This little fellow, whose child is he?

mɛn^{5} lu?^{5} fu^{3} lɤɯ^{1}?
is child person which

(53) lu?^{5} ŋin^{4} muən^{5} la:i^{1}
child hear happy very
I'm very happy to hear that.

This sentence type describes the state of an already existing entity, the patient. The usual full surface order:

subject NP - VP

is shown in sentence (48), with subject ellipsis common, as in (49). Sentence (50) shows the use of a demonstrative following the verb, in place of a preverbal subject. This appears to emphasize the verb while allowing identification of the topic. (51) shows an embedded sentence manifesting the patient (kɔ^{3} marks the following verb as

primary in the complex sentence).

This sentence type loses its predicative force when it functions as a noun-modifier phrase, as in (52). Sentence (53) shows a construction somewhat akin to English adverbials. The sentence lu?^{5} muən^{5} la:i^{1} 'I am very happy' is embedded in the sentence lu?^{5} ŋin^{4} 'I hear (that)'. The subject of the embedded sentence is deleted, being co-referential with the main subject.

II.2. P_{pr} (Pt)

(54) man^{4} ɲɤw^{2} xɯn^{3}. — He grew up.
he large go-up

(55) ta:^{1} huŋ^{5} ʔɔʔ^{2}. — His eye cleared up.
eye clear go-out

(56) bau^{2} ta:i^{1} ka:^{4} lɤw^{1}. — She didn't die at all.
NEG die EMPHATIC

(57) tɕɤ^{4} thau^{3} nan^{6} ta:i^{1} siə^{1}, — Since the time *that elderly man died*, I haven't ever been able to go.
hour old that die become-gone

kɔ^{3} tɛ^{2} nan^{6} bau^{2} lai^{3} mɯə^{4}
since that NEG can go

sak^{2} tɯə^{5}.
ever

(58) ʔau^{1} mai^{6} mɤw^{2}, ja:n^{3} to^{1} man^{4} — We'd get more timber, lest the *other logs break or rot away*.
take wood more fear body it

hak^{2} man^{4} lɔʔ^{2} siə^{1}.
break it rot become-gone

The type of sentence illustrated by (54) - (58) relates a process in which there is a change of state on the part of the patient. Sentence (54), in contrast with (48), shows the effect of the secondary verb of motion, in this case xɯn^{3} 'to go up', in marking the process of becoming large as opposed to the state of being large. Sentence (56), lacking the secondary verb, is ambiguous and could be translated 'She didn't die at all' or 'She wasn't dead at all'. The context is needed to clarify the semantic structure. Sentences (57) and (58) show P_{pr} (Pt) embedded in primary sentences of other types.

II.3. P_{ca} (Ag, Pt)

(59) man^{4} tɕaŋ^{2} mup^{5} ta:^{1} ju^{2}. — He kept rubbing his eye.
he then rub eye CONTINUE

(60) ɲa:^{4} xa:^{3} lu?^{5}!
don't kill child
Don't kill me!

(61) man^{4} thim^{3} pɯ^{5} sɤɯ^{2} nam^{6}
he hurl into water
siə^{1}, bau^{2} kin^{1}.
become-gone NEG eat
He hurled the fruit into the water *without eating it.*

(62) tɕɤ^{4} nan^{6} puə^{1} tɕaŋ^{2}
hour that ruler then
hɤɯ^{3} kon^{4}
cause-to-happen person
mɯə^{4} sap^{2} ?au^{1}.
go fetch take
Then the ruler dispatched people to go fetch him.

(63) kɔ^{3} tɕɔ^{6} jet^{5} suəŋ^{3} jet^{5}
must make trousers make
sɯə^{3} ne^{4}, hɤɯ^{3}
shirt cause-to-happen
man^{4} nuŋ^{5} di^{1} nɔi^{6} nɯŋ^{5}.
they wear good small one
We need to sew them some clothes so that they will look a little nice.

(64) laŋ^{1} fai^{4} laŋ^{1} fɯn^{4}
build fire build fire
xɯn^{3}, lɔ^{3} tom^{3} nam^{6}.
go up then boil water
Build a fire and *boil some water.*

A simple transitive sentence manifesting the agent--patient relationship has the form:

subject NP - VP - object NP

as illustrated in sentence (59). Much more frequently, an elliptical form is used, as in (60) and (61). As (61) shows, objects as well as subjects may be optionally deleted.

As we have argued earlier, the agent--patient relationship is basically a causative one, the agent causing an effect on the patient. This relationship is made explicit by the verb hɤɯ^{3} 'to cause, make to happen' in (62) and (63). hɤɯ^{3} is followed in both cases by an event, an embedded sentence, serving as the patient of the predicate → hɤɯ^{3}. In (62) the agent is manifested by a noun. In (63) the agent and the patient are both manifested by sentences, related by hɤɯ^{3}. In both (62) and (63) the agent affects the patient → embedded sentence, by causing the event in the embedded sentence to occur.

As discussed earlier, some agent--patient relating predicates inherently involve a change of state on the part of the patient. These are the predicates sometimes referred to as causatives in the more limited sense of the term. Sentences (60) and (64) illustrate these in Black Tai with xa:^{3}'to kill' and tom^{3} 'to boil'. In general, Black Tai verbs of this type are different lexically from those manifesting the corresponding process predicates, in contrast with English, which often employs the same lexical item, e.g. 'He boiled the water' and 'The water boiled'.

In other cases, the predicate relating the agent to the patient does not inherently result in a change of state. But the agent does affect the patient, not only to cause the immediate effect described by the predicate, but also to *tend* to cause a change of state, describable in a process sentence, as a direct consequence. Sentence (59) illustrates such a case. The immediate effect on the patient → *eye* is 'to be rubbed'. This tends to change the state of the eye as a direct consequence. Sentence (65), giving the expanded context from which (59) was taken, specifies the consequence as a process:

(65)	man^{4}	tɕaŋ^{2}	mup^{5}	ta:^{1}	ju^{2}	*He kept rubbing*
	he	then	rub	eye	CONTINUE	*his eye. The eye cleared up*, and
	ta:^{1}	huŋ^{5}	ʔɔʔ^{2},	kep^{2}		he was able to
	eye	clear	go-out	pick up		pick up the piece of fruit.
	lai^{3}	nuəi^{2}	ma:ʔ^{2}			
	can	CLF	fruit			

II.A. Modificational subtypes--identificational

II.A.1. P_{st} (Pt, Id)

(66)	ba:^{3}	nɔi^{6}	ni^{6}	man^{4}	This little fellow,
	fellow	small	this	he	whose child is he?
	mɛn^{5}	luʔ^{5}	fu^{3}	lɤɯ^{1}ʔ	
	be-correct	child	person	which	
(67)	mɯŋ^{4}	tɕɯ^{5}	liəm^{1},	tɕɯ^{5}	Are you named Liem?
	you	be-named	Liem	correct	
	bau^{2}ʔ				
	INTERROG				
(68)	mi^{4}	lu^{5}	ʔɔʔ^{2}	ma:^{4}	pen^{1}	They had a child;
	have	child	come-out	come	be	it was a son.
	luʔ^{5}	tɕa:i^{4}.				
	child	male				

(69) bwən^1 ni^6 bwən^1 tɕiəŋ^1 tai^4 — This is the first month, according to our Tai calendar.
month this month one Tai

hau^4 lɔ^1 lɛ^5.
we

At this point we begin to consider the state, or change of state, of the patient, with respect to some specific 'semantic dimension', represented by the additional bound role introduced for each subtype. Here, the state of the patient with respect to *identity* is in question. Often such states in Black Tai are expressed by equational sentences of the type:

NP_{1_x} - equational VP - NP_{2_x}

as in sentences (66) and (67). The symbol x stands for the referent of the NP. Thus NP_1 and NP_2 are obligatorily co-referential. Deletion of NP_1 (as in (68)) or the equational VP (as in (69)) occurs frequently. The optionality of the equational VP indicates that the predicate is marked not only by the VP, but by the relationship NP_{1_x} NP_{2_x}.

II.A.2. P_{pr} (Pt, Id)

(70) man^4 pen^1 kon^4 ʔɔʔ^2 swəŋ^4 kau^2. — *She turned back into a human being* as before.
she be person go-out like formerly

(71) pen^1 fu^3 fi^1 ʔɔʔ^2. — She became a demon.
be being spirit go-out

(72) sɔŋ^1 ʔan^1 ma:^{4} tɔ^2 kan^1 — The two pieces are joined together and *become one piece*.
two thing come join one-another

pen^1 ʔan^1 nwŋ^5.
become thing one

If the verb pen^1 'to be' is followed by a secondary verb ʔɔʔ^2 'to go out', the process of changing identity is unambiguously marked, as in (70) and (71). If the secondary verb is omitted, as in (72), we depend on the context to clarify whether a process (e.g. (72)) or a state (e.g. (68)) is intended.

II.A.3. P_{ca} (Ag, Pt, Id)

(73) sau^2 xɛʔ^2 ʔa:i^3 mɑ:ʔ^2 hut^2 — They called him father Countless Bumps.
they call father CLF blemish

sɛn^1 pau^1 sin^6.
infinite tumor

(74) man^4 tɕa:n^4 pai^1 su^2 fu^3
he crawl go to person
Whomever the baby crawls to, *I will make that person the baby's father.*

lɤɯ^1, lɔ^3 ʔau^1 fu^3 nan^6
which take person that

jet^5 ʔa:i^3 man^4.
serve-as father he

(75) xɔi^3 tɕi^4 xa:^{2}
I FUT give-in-marriage
I will give this daughter of mine to be that person's wife.

lu?^{5} ɲiŋ^4 xɔi^3 ni^6
child female I this

hɤɯ^3 jet^5 miə^4.
cause-to-happen serve-as wife

In these sentences, an agent causes a patient to assume a particular identity. In (73) only a single verb is employed. (74) and (75) require more than one verb, in the following pattern:[15]

NP_1 - VP - NP_{2_x} - (hɤɯ^3) - equational VP - NP_{3_x}

NP_1 (when present) manifests the agent, and NP_2 the patient, with VP relating them in a typical agent--patient relationship. NP_3 manifests the identity, and is co-referential with NP_2. The equational VP relates NP_2 and NP_3 in a manner typical of patient and identity. In (75), the presence of hɤɯ^3 'cause to happen' makes the causal notion explicit. The sentence containing the equational VP is embedded in the one containing VP.

II.B. Modificational subtypes--acquisitional

II.B.1. P_{st} (Pt, Po)

(76) ʔan^1 nan^6 xɔŋ^1 ʔa:i^3 luŋ^4.
thing that possession uncle
That belongs to you.

(77) ɲa:^{4} ʔau^1 pai^1 ʔi^4,
don't take go IMPER
Don't take that; *that's mine.*

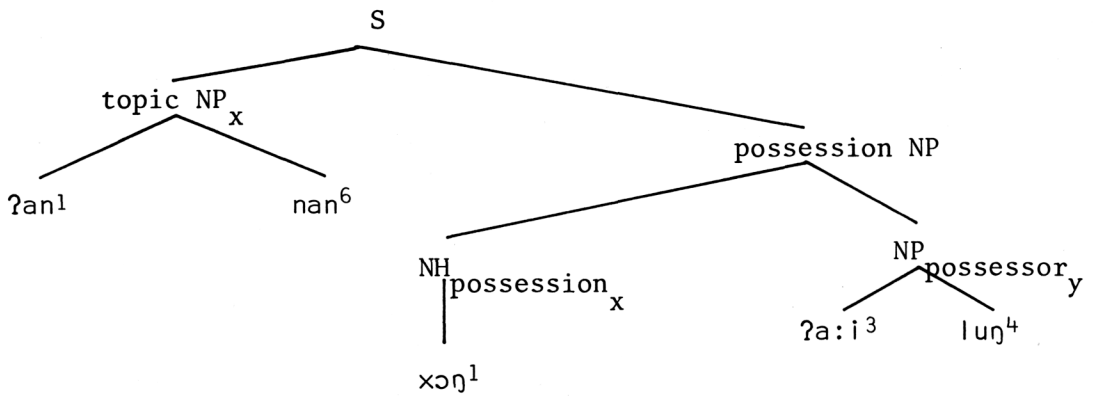
tɕwəŋ^5 xɔi^3 lɛ^1 ʔan^6 na:^{3}.
thing me that

(78) mɯ^6 pu?^{5} kɔ^3 mɯ^6 hɯ^4
day tomorrow day day-after-
One of these days, *my wife* will join me.

fu^3
tomorrow person ɲiŋ^4 xɔi^3 kɔ^3
female me

tʂi^{4} ma:^{4} lɔ^{1}.
FUT come

A neutral surface form for the sentence type in which the state of possession is predicated is illustrated by (76) and may be diagramed as follows:



The subscripts *x* and *y* indicate referents. In the possession NP, the noun head denoting the possession is co-referential with the topic NP. Sentence (77) shows that the topic may be placed following the possession NP and expressed as a demonstrative. Possibly this serves to highlight the possession NP while still providing for overt identification of the topic.

No verb need be used in this construction, though an equational verb such as pen^{1} 'to be' is permitted. In effect, P_{st} has as a primary surface signal, not a verb, but the construction described above. When the state of possession is not being predicated, the construction is reduced to a simple possession NP serving to manifest any of a variety of roles in a larger sentence, as illustrated by (78).

II.B.2. P_{pr} (Pt, Po)

(79) sau^{1} kɔ^{3} tʂi^{4} lai^{3} hɔk^{5}-boŋ^{3} lɔ^{1}....
they FUT obtain scholarship
If they receive a scholarship ...

(80) lai^{3} pa:^{1} bau^{2}?
obtain fish INTERROG
Did you catch any fish?

The verb lai^{3} 'to obtain, receive, acquire', denotes the process of coming into possession, in a passive sense. The subject, when expressed, fills the role of possessor, and the object the role of patient.

II.B.3. P_{ca} (Ag, Pt, Po)

(81) hau^4 sɔ^1 hɔt^5 pɯŋ^4
we request to PLURAL

tʂiŋ^2-fu^3 sau^2 tʂɔi^5 jwə^1
government they help

hau^4 pɯŋ^4 pap^5 sɯ^1
we PLURAL book

pap^5 sa:n^1 ni^6 na:^{3}.
book this

We have requested that *the government provide us with the textbooks*.

(82) ʔa:i^3 tʂi^4 ʔau^1 fa:i^3 ʔau^1
father FUT take cloth take

ŋɤn^4 hɤɯ^3 su^1.
silver to you

I will give possessions to you.

(83) xa:i^1 to^1 mu^1 nan^6 hɤɯ^3 sau^2
sell CLF pig that to them

ʂiə^1 ʔi^4.
become gone IMPER

Sell that pig to them.

(84) xɔi^3 tʂi^4 pai^1 sɯ^6 tʂɯəŋ^5
I FUT go buy goods

naŋ^3 sau^2 ma:^{4}.
at them

I'm going to go *buy some things from them*, and then return.

(85) tʂaŋ^2 ʔau^1 lai^3 nuəi^2 ma:ʔ^2
then take acquire CLF fruit

nan^6.
that

She got hold of the piece of fruit.

Many of the predicates associated with this sentence type are bound with two possessor[16] roles: a prior possessor, which I shall label Po_1, and a subsequent possessor, which I shall label Po_2. The agent is often co-referential with one or the other possessor, causing transfer of the patient to or from his own possession. In sentence (81) the surface form is:

subject NP - VP - object NP_1 - object NP_2

In this case, object NP_1 manifests the subsequent possessor and object NP_2 the patient. In (82) and (83) the order is reversed, with object NP_1 manifesting patient (Pt) and object NP_2 manifesting Po_2. A second verb, hɤɯ^3 'to,for', is inserted between the two objects, hɤɯ^3 retaining only a portion of its potential causative force. A third verb,

such as siə^{1} 'become gone' in (83), may be added to reinforce the change of state undergone by the patient. In (81) - (83), Ag and Po_1 are co-referential, realized in the subject NP (when expressed). In (84), however, Ag and Po_2 are co-referential. The predicate of (85) is bound only with one possessor, co-referential with agent, but not manifested in this Black Tai sentence. When agent and possessor are thus co-referential, Black Tai often uses a compound verb --a typical filler of P_{ca}, in this case ʔau^{1} 'to take', followed by lai^{3} 'to obtain, acquire' (the usual referent in P_{pr} (Pt, Po) sentences). The compound verb overtly marks the dual role played by the subject, as the agent causer and the possessor goal in the acquisition process.

II.C. Modificational subtypes--experiential

II.C.1. P_{st} (Pt, Ex)

(86) man^{4} na:^{3} ha:j^{6} sau^{2}.
he be-ashamed them
He was ashamed (to be with) them.

(87) ja:n^{3} sau^{1} tɕom^{1} nam^{6}.
fear they be-submerged water
I'm afraid they will be submerged.

(88) sau^{1} bau^{2} hu^{6} lɔi^{4} na:^{3}.
they NEG know swim
They don't know how to swim.

(89) ʔɛ^{2} pɔ^{6} fɤɯ^{1}.
want meet anyone
I'd like to meet them all.

(90) ku^{1} ha:^{2} tɕi^{4} ʔa:j^{1} hɔm^{1} si^{6}.
I FUT have-a-fragrance sweet-smelling like this
I will have a sweet-smelling fragrance like this.

The state of the patient is now described with respect to the psychological experience of another, called the experiencer. A simple surface form is illustrated by (86), in which the experiencer is topicalized as subject, and the patient is the object of the verb. Very often the patient is manifested by an embedded sentence, as in (87) - (89). Sentence (90) shows a much rarer configuration. The patient is topicalized as subject because of the lexical nature of the verb, and the experiencer, in the case of this verb, is left indefinite by surface deletion.

II.C.2. P_{pr} (Pt, Ex)

(91) man^{4} tɕaŋ^{2} mɯə^{4} hen^{1} kɔ^{1} ma:ʔ^{2} nɯŋ^{5}.
he then go see plant fruit one
Then he went and *saw a fruit tree.*

(92) lu?^{5} ŋin^4 muən^5 la:i^1 — I'm very happy
child hear happy very — *to hear that.*

(93) tɕw^2 ?au^1 xa:ŋ^3 xɔt^2 — *You can recall the*
remember take CLF expression — *things we've said.*

sop^2 sum^4 xɔi^3 vau^6 nan^6.
mouth we(exclusive) say that

(94) ... swəŋ^4 bau^2 ŋam^2 hɔt^5 lɔ^1. — ... as though *I*
like NEG think arrive — *hadn't thought about them.*

As in (86) - (89), the normal order here (before elliptical deletions) is experiencer topicalized as subject, followed by verb, followed by patient as object. The nature of the verb, and/or the context, may convey the idea of process or change of state. Or the process notion may be conveyed or reinforced by the presence of a dynamic secondary verb, such as ?au^1 'to take', or hɔt^5 'to arrive' in (93) and (94) respectively.

II.C.3. P_{ca} (Ag, Pt, Ex)

(95) ?a:i^3 ?em^4 man^4 tha:m^1 — The girl's parents
father mother her ask — asked her that question.

lu?^{5} niŋ^4 man^4 swəŋ^4 nan^6.
child female her manner that

(96) vau^6 sin^6 hɤw^3 sau^1 ?ɛ^2. — Please say that to
say like-that to them — them.

(97) tɕaŋ^2 tɕi^4 vau^6 hɤw^3 sau^1, — Then I'll tell them:
then FUT say to them — " ... ".

vau^6: " .... ".
say (quotation)

(98) tɕaŋ^2 tɕi^4 mɯə^4 to^4 su^2 sau^1. — I'll go and *tell them.*
then FUT go tell to them

(99) ?a:i^3 ?em^4 saŋ^2 sɔn^1 swəŋ^4 — *We're reminding you of*
father mother remind manner — *this*; remember what we've said.

lɤw^1, lu?^{5} lɔ^3 tɕw^2.
which child so remember

(100) xɔi^3 la:m^6 thoi^1, — *I was just start-*
I startle-deceptively that's-all — *ling you*; there's nothing there at all.

kɔ^3 bau^2 mi^4 saŋ^1 ka:^{4} lɤw^1.
NEG exist anything at all

(101) xɔi^{3} ʔɛp^{2} lai^{3} sɔŋ^{1} ba:i^{4} I have learned
I study acquire two lesson two lessons.

lɛu^{6}
COMPLETED

In sentences of this type the agent impresses the patient on the mind of the experiencer. Typically this is accomplished through the act of communication, in which case the agent is the communicator, the experiencer the recipient, and the patient the content of the communication.

In Black Tai sentences with three-term predicates (i.e. bound with three roles), such as those of this type, the speaker normally elides one or more roles from surface manifestation. Sentence (95) provides an infrequent example containing fillers of all three roles--agent, patient, and experiencer. In this case, the surface structure is:

subject NP - VP - object NP_1 - object NP_2

with agent expressed by the subject NP, experiencer by object NP_1, and patient by object NP_2. Sentence (96) reverses the roles manifested by the objects and inserts hɤɯ^{3} 'to' before the second subject, in a manner analagous to (82) and (83). When the patient is expressed by an extended message, it is necessary to externalize the message from the rest of the sentence. Sentence (97) gives an illustration of this. On the other hand, the content of the message may not be referred to at all, as in (98).

Sentence (99) is a compound sentence, showing causation in the predicate saŋ^{2} sɔn^{1} 'to remind', followed by the consequential process in the mind of the experiencer--tɕɯ^{2} 'to remember'.

In sentence (101), the agent and experiencer are co-referential, this fact being marked by a compound verb by which the subject is seen to be both the agent causer and the experiencer goal, in a manner analogous with that of (85) above.

II.D. Modificational subtypes--directional

II.D.1. P_{st} (Pt, Dr)

(102) man^{4} ju^{2} naŋ^{3} kuəŋ^{1} pa:^{2} *He lived in the*
he live at inside forest *forest* as before.

swəŋ^{4} kau^{2}.
manner former

(103) man^{4} ju^{2} ka:^{4} nɔ?^{5} sau^{2}. He stayed outside
he stay at outside them the group.

(104) mɯ^{6} ni^{6} ju^{2} hwən^{4}. Today I'm staying home.
day this stay home

(105) hwən^{4} man^{4} tɛŋ^{4} ʔan^{6}. Her home was up there.
home her above that

With state predicates, the direction role simply indicates the orientation of the patient in space. Ju^{2} 'to be located' typically acts as the verb in sentences of this type. Often this verb is coupled with a locative marker, such as naŋ^{3} 'at' in (102), and ka:^{4} 'at' in (103). The patient, when expressed, is in subject position, and NP manifesting direction follows the verb and any locative markers. Occasionally the verb is omitted, as in (105).

II.D.2. P_{pr} (Pt, Dr)

(106) nuəi^{2} ma:ʔ^{2} nan^{6} lai^{1} nam^{6} pai^{1}. The fruit drifted down the river.
CLF fruit that drift water go

(107) tok^{2} sɤɯ^{2} kɛn^{2} ta:^{1} man^{4}. It fell onto his eye.
fall go-onto eyeball him

(108) nam^{6} xɯn^{3} lɛu^{6} lɛʔ^{2}. The water has risen.
water ascend COMPLETED

(109) ja:n^{3} sau^{1} tɕom^{1} nam^{6}. I'm afraid *they will*
fear they be-submerged water *be submerged.*

The direction role, when expressed, now specifies the direction of the patient's motion through space. The process of progression from one location to another is marked by the lexical nature of the verb, plus a reinforcing secondary verb of motion, as in (106), by the lexical content of the verb alone, as in (108), or not marked at all, as in (109), where the verb could indicate a state. In the latter case, the listener depends on the context to clarify the meaning.

II.D.3. P_{ca} (Ag, Pt, Dr)

(110) kiəu^{2} xau^{3} ʔau^{1} xau^{3} ma:^{4} Has all the rice been harvested and *brought home?*
harvest rice take rice come

hwən^{4} met^{2} lɔ^{1} kwa:^{4}ʔ
home completely INTERROG

(111) ʔɛ^{2} sui^{1} man^{4} ʔɔʔ^{2} He tried to *push the child off his lap,* but the child didn't get off.
want push him go-out

siə^{1}, ha:^{4} man^{4} kɔ^{3}
become-gone but he

bau^2 ʔɔʔ^2.
NEG go out

(112) man^4 thim^3 pɯ^5 sɤɯ^2 nam^6 — He hurled the fruit into the water.
he hurl go into water

siə^1.
become-gone

(113) hau^4 tɕaŋ^2 sɤɯ^2 hai^1 — Then we put it in the storage jug and leave it for a month or more.
we then put-into container

vai^6 bwən^1 nɯŋ^5 bwən^1 la:i^1.
leave month one month more

As is usual for three-term predicates in Black Tai, ellipsis of one or more of the manifesting noun phrases is common, and this is the case with sentences (110) - (113). The composite surface pattern that emerges, however, is as follows:

subject NP_1- VP - object NP_1 - VP_2 - object NP_2 - (VP_3)

The agent → subject NP acts on the patient → object NP_1 in the manner described by VP_1 to bring about motion of the patient described by VP_2 with respect to a location (generally, to a new location) → object NP_2. The change-of-location process on the part of the patient may be reinforced by a third verb, such as siə^1 'become gone' in (111) and (112). Sentence (112) contains all of the above surface elements except object NP_1. Sentence (113) omits VP_1 and object NP_1, with VP_2 sɤɯ^2 assuming a causative function 'put into', rather than simply the process function 'go into' of (112).

II.E. Modificational subtypes--temporal

II.E.1. P_{st} (Pt, Tp)

I have found no sentences of this semantic type in Black Tai. Statements of age seem to be considered only as processes, as discussed in II.E.2. below.

II.E.2. P_{pr} (Pt, Tp)

(114) ʔem^4 hɔt^5 ha:^{3} sip^2 lɛu^6. — I had already reached fifty years of age.
mother reach five ten COMPLETED

(115) man^4 ɲɤɯ^2 xɯn^3 hɔt^5 tuəi^3 — She grew up and *reached the age of 16*.
she large go-up reach age

sip^2 hok^2 pi^1.
ten six year

(116) sin^{6} fu^{3} ɲiŋ^{4} nan^{6} tɕaŋ^{2}
so person female that then

lai^{3} kau^{3} bwən^{1}, hɔt^{5} mɯ^{6}
attain nine month reach day

hɔt^{5} bwən^{1} ʔɔʔ^{2}.
reach month give-birth

So 9 months passed for the woman until the time came for her to give birth.

(117) man^{4} kɔ^{3} si^{4} sip^{2} ha:^{3} pi^{1}
he four ten five year

thoi^{1}.
that's-all

He was only 45 years old.

(118) tuəi^{3} man^{4} lai^{3} si^{2} sip^{2}
age him attain four ten

ha:^{3} pi^{1} thoi^{1}.
five year that's-all

He was only 45 years old.

In these sentences, the process is a progression through time on the part of the patient. The NP manifesting the patient is the subject of a very limited set of verbs, and the time phrase manifesting temporal direction is the object. In the case of statements of age, the surface verb may be omitted, as in (117). However, the process idea is apparently retained, since elicited paraphrases such as (118) employ the verbs lai^{3} 'to attain, pass through (a period of time)' or hɔt^{5} 'to attain, reach'.

II.E.3. P_{ca} (Ag, Pt, Tp)

(119) hau^{4} tɕaŋ^{2} sɤɯ^{2} hai^{1}
we then put-into container

vai^{6}, bwən^{1} nɯŋ^{5} bwən^{1} la:i^{1}.
leave month one month more

Then we put it into the storage jug and leave it for a month or more.

Little study has been made of this sentence type. It appears that sentence (119) may illustrate it, using the verb vai^{6} in the sense of 'leave to age or ferment'. The resulting process of progression through time may be marked by optionally inserting lai^{3} 'to attain, pass through' before bwən^{1} nɯŋ^{5} bwən^{1} la:i^{1} 'a month or more'.

Ambient forms

Some of the sentence types described above have sub-types which I shall label ambient, in which no unique manifestation is given the patient because the patient is not clearly present in the semantic structure, or, if present, is suppressed to the point

where it always shares the manifestation of the agent by the nature of the predicate.

To begin with, statements of weather, which may be considered ambient in English, may not be ambient in Black Tai:

(120) mɯ^{6} ni^{6} fa:^{6} lɛt^{2} hɔn^{6}. — Today it's sunny and warm.
day this sky sunny warm

Since fa:^{6} 'sky' may be used in such sentences, unless it can be shown the fa:^{6} carries no semantic content to a Black Tai speaker, we must assume that this is a routine P_{st} (Pt) sentence.

On the other hand, Black Tai does have sentences that are evidently ambient in terms of Black Tai semantic structure. Ambient sentence types which have been noted include the following:

1) P_{st}

(121) tɕɤ^{4} lɤɯ^{1} tɕaŋ^{2} tɕi^{4} jiən^{1} — Whenever *it is peaceful*, we will be able to go home.
time which then FUT peaceful

tɕi^{4} ha:n^{4}, lai^{3} mɯə^{4}
FUT peaceful be-able go

hɯən^{4} siə^{1} le^{4}.
home become-gone

2) P_{ca} (Ag)

(122) man^{4} lɔ^{3} kɯ^{4} hai^{3} kɯ^{4} lɛn^{5} — *She cried* and ran away.
she so both cry and run

siə^{1}.
become-gone

(123) sau^{1} bau^{2} hu^{6} lɔi^{4} na:^{3}. — They don't know how *to swim*.
they NEG know swim

Sentences (122) and (123) are analogous with sentence (13), discussed earlier. Patient may be present, but only in some non-prominent sense, being obligatorily co-referential with agent. The agent causes itself to undergo the effect described by the predication. I am writing the formula for the sentence type as though patient were entirely absent.

Sentences of this type contrast with sentences containing verbs such as ʔa:p^{2} 'to bathe', in which the non-manifestation of patient, while common, is an optional feature of surface syntax. The sentences in which ʔa:p^{2} appears, then, are not ambient, but are of the sentence type P_{ca} (Ag, Pt). The following sentences containing ʔa:p^{2} show instances of deleting the NP manifesting the

patient (124), and expressing it (125) - (126):

(124) hau^4 pai^1 ʔa:p^2 nam^6.
we . go bathe water
We're going bathing.

(125) mɯŋ^4 lɔ^3 bi^1 huə^1 mɯŋ^4,
you comb head you
Comb your hair and *wash it.*

ʔa:p^2 huə^1 mɯŋ^4.
bathe head you

(126) hau^4 pai^1 ʔa:p^2 to^1 ʔa:p^2
we go bathe body bathe
We're going to bathe ourselves to get cleaned up.

kiŋ^4 hɤɯ^3 man^4
body cause-to-happen it

pɛʔ^5 siə^1.
clean

3) P_{ca} (Ag, Id)

(127) man^4 tɕaŋ^2 biən^2
she then change-herself
She turned into a flower.

jet^5 thuəŋ^1 bɔʔ^2.
act-as CLF flower

In this sentence, biən^2 conveys the meaning of a self-instigated change of identity, a causation, not a passive process.

4) P_{ca} (Ag, Dr)

(128) tɕɤ^4 nan^6 man^4 lɔ^3 ma:^{4} hwən^4.
hour that he return home
At that time *he returned home.*

(129) lɛu^6 tɕaŋ^2 tɕi^4 loŋ^4
COMPLETED then FUT descend
Then I'll go down to Bao Loc.

pai^1 bla:u^1.
go Bao-Loc

(130) hau^4 pa:i^5 sɤk^2 pa:i^5 swə^1
we flee enemy flee enemy
We fled from the enemy.

mwə^4.
go

(131) hai^1 tuk^2 hɛ^1 bau^{2}ʔ
go cast net INTERROG
Have you gone fishing?

(132) tɕɔm^{6} pai^{1} sɯ^{6} tɕɯəŋ^{5} ma:^{4}.
just go buy goods return
I've just returned from going shopping.

Predicates of self-instigated change of location are a very common source of patient-suppressed sentences. The verb may be simple, as in (128), or compounded, as in (129). The manifestation of the direction role may be a simple destination, as in (128) and (129), another location related to the event, such as the source location 'enemy' in (130), or an embedded sentence expressing the destination in terms of an event which is the purpose of the motion, such as the embedded sentence tuk^{2} hɛ^{1} 'to cast a fishnet' in (131). In (132) the embedded sentence sɯ^{6} tɕɯəŋ^{5} 'to buy goods' serves both to manifest direction (i.e. destination) for the predicate → pai^{1} 'to go' and direction (i.e. source location) for the predicate → ma:^{4} 'to return'.[17]

5) P_{pr} (Tp)

(133) bɯən^{1} tɕiəŋ^{1} ma:^{4} mɤɯ^{2}
month first come moreover
Moreover, the New Year is coming.

In this sentence, temporal direction is expressed as subject NP.

Other roles in Black Tai

The following sentences illustrate briefly the usage in Black Tai of certain roles regarded as basically unbound, and not included in the clusters of the basic matrix. Examples include only a portion of the sentence types with which such roles occur:

Instrument (I)

P_{ca} (Ag, F, Po, I)

(134) hau^{4} ʔau^{1} mai^{1} pa:n^{2} nan^{6}
we take thread hemp that
We used that hemp thread to weave fishnets.

sa:n^{1} hɛ^{1}.
weave fishnet

P_{ca} (Ag, Pt, I)

(135) iɔ^{3} ʔau^{1} ʔa:ŋ^{2} tɔ^{1} ʔau^{1}
take basin catch take
So they used a basin to catch the blood.

lɯət^{5}.
blood

P_{ca} (Ag, I)

(136) ʔau^{1} hɯə^{4} pai^{1}. They went by boat.
take boat go

The usual way of expressing instrument in Black Tai sentences with causative predicates is through the use of ʔau^{1} 'to take' (or possibly ha:^{1} 'to seek'), whose object manifests the instrument of the predication identified by the following verb. The subject of ʔau^{1} identifies the agent employing the instrument.

An instrument-like role (i.e. like instrument, it identifies non-instigative cause) is found with some process predicates, as illustrated by (137):

P_{pr} (Pt, I)

(137) man^{4} pen^{1} tɕep^{2} pɔt^{2} ta:i^{1}. He died of lung
he suffer disease lung die disease.

or, as paraphrased by (138):

(138) man^{4} ta:i^{1} tɕep^{2} pɔt^{2}. He died of lung
he die disease lung disease.

Note that ʔau^{1} 'to take' is not used to mark the instrument (or non-instigative cause) when the main predication is a process--in this case ta:i^{1} 'to die'.

Beneficiary (B)

P_{ca} (Ag, Pt, B)

(139) ʔem^{4} nɯəi^{2} la:i^{1}, lu?^{5} mɯŋ^{4} I'm very tired--
mother tired very child you *go sweep the house for me.*
pai^{1} fɛu^{3} hɯən^{4} hɤɯ^{3} ʔem^{4} ʔi^{4}.
go sweep house for mother IMPER

P_{ca} (Ag, Pt, Po, B)

(140) ku^{1} va:n^{4} mɯŋ^{4} pai^{1} xa:i^{1} to^{1} Please go sell the
I request you go sell CLF pig to them for me.

mu^{1} ʔan^{6} hɤɯ^{3} sau^{2} hɤɯ^{3} ku^{1}
pig that to them for me

siə^{1} ʔi^{4}.
become-gone IMPER

hɤɯ^{3} 'for' is a characteristic marker of beneficiary, as shown in both (139) and (140). In (140) hɤɯ^{3} occurs twice, marking the goal or subsequent possessor, sau^{2} 'them', and the beneficiary ku^{1} 'me'.

Location (L)

P_{pr} (F, Po, L)

(141) fu^3 ɲiŋ^4 nan^6 mi^4 lu?^{5}
person female that have child
The woman conceived a child in her womb.

?ɔ?^{2} naŋ^3 kuəŋ^1 pum^1.
go-out at in abdomen

P_{ca} (Ag, Pt, L)

(142) lu?^{5} ɲiŋ^4 la:^{3}
child female youngest-child
The daughter of the ruler, his youngest child, went bathing in the river.

puə^1 pai^1 ?a:p^2 ka:^{4} nam^6.
ruler go bathe at water

P_{ca} (Ag, L)

(143) mɯŋ^4 bat^2 ju^2 naŋ^3 nɔ?^{5}.
you hide be located at outside
Hide outside.

Sentences (141) - (143) illustrate the occurrence of location, an unbound role specifying the orientation of the predication in space. The surface form resembles that of P_{st} (Pt, Dr) sentences such as (102) and (103); it appears, in fact, that an unbound location is manifested by an embedded P_{st} (Pt, Dr) sentence.

In sentence (142) I believe that the direction role bound with the predicate → pai^1 'to go' is manifested by the embedded sentence with predicate → ?a:p^2 'to bathe'. In other words, the destination is expressed primarily in terms of an event, as in (131). In turn there is a location role unbound with the predicate → ?a:p^2, which is manifested by nam^6 'river'.

Since all events occur in space, it seems apparent that all sentences containing process and causative predicates may include a reference to location. The question arises whether such references are appropriate with state predicates. Sentence (144) seems to give such an instance:

P_{st} (F, Po, L)

(144) naŋ^3 lam^4 mɔ^5 teŋ^4 ka:^{2} na:^{3}
on CLF body entire face
He had blemishes all over his body.

ta:^{1} tin^1 mɯ^4 pen^1 tum^2
eye foot hand suffer pimple

pen^1 pau^1 met^2.
suffer tumor completely

Time (T)

P_{st} (Pt, Dr, T)

(145) mɯ^{6} ni^{6} ju^{2} hwən^{4}.
day this stay home
Today I'm staying home.

P_{ca} (Ag, Pt, T)

(146) tʂɤ^{4} nan^{6} puə^{1} tʂaŋ^{2} hɤɯ^{3} kon^{4} mɯə^{4}
hour that ruler then cause -to-happen person go
sap^{2} ʔau^{1}.
fetch take
At that time, the ruler dispatched people to go to fetch him.

(147) hau^{4} ʔɛp^{2} sɯ^{1} mɯ^{6} ŋwa:^{4}.
we study words day yesterday
We studied yesterday.

P_{ca} (Ag, Dr, T)

(148) kin^{1} lɛu^{6} ma:^{4} hwən^{4}.
eat already return home
When she had finished eating it, she returned home.

P_{ca} (Ag, F, Po, T)

(149) hau^{4} jet^{5} hai^{5} kɔn^{2} sau^{2}.
we make dry-field before them
We made a dry field before other people did.

P_{st} (Pt, Id, T)

(150) jet^{5} liŋ^{2} tɛ^{2} nɔi^{6}.
serve-as soldier since small
I've been a soldier since I was young.

The above sentences give a sampling of the widespread applicability of the time role, an unbound role denoting the orientation of the predication in time. It is probably true that the time role is present with every sentence type in the matrix; that is, that any predication may be made with reference to time in some form. The reference may be to a fixed point of time, as in (145) - (147), time relative to some other event, as in (148) - (149), or a duration of time, such as in (150). Specific time information manifesting the time role in a sentence reinforces and further specifies any general time information conveyed by tense and aspect markers.

Surface features reflecting contrasts between sentence types

Once the sentences of Black Tai have thus been categorized, subject to further refinement, according to their semantic type, fruitful study may be made of the syntactic and lexical characteristics of each type, and of those features that mark the underlying semantic contrast between one type and another. Such a study, in any detail, is beyond the scope of this paper. However, a few remarks should serve to illustrate further how Black Tai sentences differ from one another at the surface, and to demonstrate the value of a semantic approach to the syntax and lexicon of a language. First, we may summarize the means by which the various predicate categories are distinguished by their surface characteristics. In sentences of a given set of roles (such as the identificational sub-group) there is little problem distinguishing between causative sentences (i.e. sentences containing P_{ca}) and process sentences. The verbs are generally lexically distinct, the presence of agent with P_{ca} increases the number of NP's in a non-elliptical sentence, and, for three-term causative predicates, a second VP is often used to separate and distinguish the object NP's, as in (74).

The difference between process sentences and corresponding state sentences is not as great. The number of NP's allowed does not change. Sometimes the lexical form of the basic verb only occurs in one or the other type (e.g. ju^2 'be located' only manifests P_{st}), but in many cases, the same basic verb form is used for both types. We then depend on the addition of a dynamic secondary verb (such as $ʔɔʔ^2$ 'go out' in (70)) to mark the sentence as a process, that is, a dynamic event, not just a state. This dynamic secondary verb is a major marker of processes as opposed to states. Sometimes even this marker may be omitted from a process sentence, as in (56), in which case the surface form is ambiguous in isolation and context becomes the determining factor in deciphering the meaning.

Two semantically similar but distinct sentence types may have important structural or lexical contrasts marking the shade of difference that does exist between them semantically. For example, the structure diagramed above for sentence (76), a sentence of the type P_{st} (Pt, Po), is never found in Black Tai sentences of the type P_{st} (F, Po). Conversely, there is some question whether the structure characterizing P_{st} (F, Po) sentences, as illustrated by sentence (40) is to be found in Black Tai P_{st} (Pt, Po) sentences, and if so, how commonly. It is possible, in fact, that the verb mi^4, so characteristic of state and process sentences containing factitives as shown earlier in the paper, does not occur independently in sentences containing patients, and thus may serve as a marker of formational sentences, a function which the English verb *have* definitely does not fill.

In Black Tai, a particular surface structure may often be derivable from more than one semantic sentence type. However,

sentences of the same surface structure but derived from differing semantic types may well have differing paraphrase potential. The following two Black Tai sentences illustrate this point:

P_{ca} (Ag, Pt, Dr)

(151) ʔa:i^3 pam^3 kɔ^1 mai^6 hak^2 loŋ^4.
father chop tree break go-down
Father chopped the tree down.

P_{st} (Pt, Ex)

(152) ʔa:i^3 ja:n^3 kɔ^1 mai^6 hak^2 loŋ^4.
father fear tree break go-down
Father was afraid the tree would break and fall down.

In (151) the subject NP manifests agent, causing the patient → kɔ^1 mai^6 to be chopped and thus to change locations. In (152) the subject NP manifests experiencer in a state of fear. The patient which is the object of fear is an embedded sentence → kɔ^1 mai^6 hak^2 loŋ^4. Sentence (151), a causative construction, may be paraphrased as (153):

(153) ʔa:i^3 pam^3 kɔ^1 mai^6
father chop tree
Father chopped the tree down.

hɤɯ^3 man^4 hak^2 loŋ^4.
cause-to-happen it break go-down

However, a similar insertion of hɤɯ^3 man^4 would not be permitted in sentence (152) containing a state predicate. Thus (154) is ungrammatical:

(154) ʔa:i^3 ja:n^3 kɔ^1 mai^6 hɤɯ^3
father fear tree cause-to-happen

man^4 hak^2 loŋ^4.
it break go-down

Sentences (155) and (156) provide further illustration of how structurally similar but semantically distinct sentences differ in paraphrase potential:

P_{ca} (Ag, F, Po)

(155) ʔa:i^3 tɕi^4 taŋ^3 hɯən^4 mɤɯ^2
father FUT build house new
Father is going to build a new house for them.

hɤɯ^3 sau^1.
for them

P_{ca} (Ag, Pt, Po)

(156) ʔa:i^{3} tɕi^{4} xa:i^{1} hwən^{4} mɤw^{2} — Father is going to sell a new house to them.
father FUT sell house new

hɤw^{3} sau^{1}.
to them

Sentence (156), containing an already existing patient, may be paraphrased in a manner that conveys (in a figurative sense only) procurement of the patient for the purpose intended, thus:

(157) ʔa:i^{3} tɕi^{4} ʔau^{1} hwən^{4} mɤw^{2} — Father is going to sell a new house to them.
father FUT take house new

xa:i^{1} hɤw^{3} sau^{1}.
sell to them

But sentence (155), containing a factitive being brought into existence by the sentence event, cannot be paraphrased in a procurement manner. Sentence (158) is ungrammatical:

*158) ʔa:i^{3} tɕi^{4} ʔau^{1} hwən^{4} mɤw^{2}
father FUT take house new

taŋ^{3} hɤw^{3} sau^{1}.
build for them

Conclusion

This introduction to Black Tai sentence types, while rather lengthy, is nonetheless somewhat cursory and, no doubt, raises as many questions as it answers. What has been accomplished, I believe, has been, 1) to provide a semantic framework, viable yet capable of further refinement and expansion, for more detailed semantic and syntactic analysis of Black Tai sentences, 2) to show something of the productivity of approaching the syntax of Black Tai from the semantic framework provided, and 3) to contribute, by means of this framework, to the study of how the syntax of any given language may be approached by exploiting the common semantic characteristics of languages throughout the world.

KEY TO ABBREVIATIONS AND SYMBOLS

Semantic terms

Ag	agent	The one causing the formation of a factitive, or acting upon an already existing patient to cause an effect on the patient.
B	beneficiary	The one for whose benefit (or possibly detriment) the event occurs.

Dr	direction	The direction of a patient's motion through space, characteristically (but not necessarily) expressed in special terms; or, in the case of a state predicate, the orientation of the patient in space.
Ex	experiencer	The one in whose mind the event or state described by the predicate occurs.
F	factitive	The one brought into existence by the event described by the predicate; or, in the case of a state predicate, the one whose existence is predicated.
I	instrument	The non-instigative cause of an event.
Id	identity	A further specification of the identity of the patient.
L	location	The orientation of a predication in space.
P_{ca}	causative predicate	Specifies the action of an agent to cause the formation of a factitive, or to cause an effect on a patient.
P_{pr}	process predicate	Specifies the formation of a factitive or the change of state of a patient.
P_{st}	state predicate	Specifies the existence of a factitive or the state of a patient.
Po	possessor	The one having possession of a patient (not necessarily the legal owner).
Po_1	prior possessor	In the case of predicates specifying a transfer of possession, the one possessing the patient before the transfer is made.
Po_2	subsequent possessor	In the case of predicates specifying a transfer of possession, the one possessing the patient after the transfer is made.
Pt	patient	The one whose state is described or affected (or tends to be affected) by the predication.
T	time	The orientation of the predication in time.
Tp	temporal direction	The measure of a patient's progress through time, characteristically (but not necessarily) expressed in temporal terms; or, in the case of a state predicate, the orientation of the patient in time.

General syntactic terms

CLF	classifier
FUT	future
IMPER	imperative
INTERROG	interrogative
NEG	negative
NH	noun head
NP	noun phrase
NP_x	noun phrase with referent x
VP	verb phrase

Symbols

→	manifested by, realized as
( )	enclose the set of roles bound with the predicate, plus any unbound role specifically under discussion

NOTES

1 This paper, being primarily taxonomic and pragmatic, and written by one not well-versed in generative grammar, may lack the rigor of a truly generative approach. The title is meant to identify this as an approach to syntax from a semantic starting point.

2 Black Tai is a member of the Tai (or Daic) language family. Black Tai speakers are concentrated in the upland valleys of northern Vietnam and Laos; clusters of resettled refugees are located elsewhere in Laos and in South Vietnam. The author has been engaged in the study of Black Tai for a number of years, using as language teachers those who have resettled in South Vietnam from a number of localities in North Vietnam. I am indebted to these teachers, to the authors of various works, including those cited in this paper, and to Kenneth Gregerson, whose extensive help has greatly influenced my work, and who deserves credit for a number of the observations that have been made. Appreciation is also due to Christopher Court, who read and commented on an earlier draft, thus helping to pinpoint certain problems. Responsibility for the opinions published herein, however, remains my own.

Occasional reference was made to a computerized concordance of Black Tai text processed by the University of Oklahoma Office of Research Administration under National Science Foundation Grant GS-1605.

[3] It is possible that certain Koiné Greek middle-voice verbs, such as erchomai 'to come', mark by the middle voice the presence of both agent and patient roles in the subject noun, though this is far from certain.

[4] Note that what is ambient in one language may not be in another, although the same phenomenon is referred to. For example, the Vietnamese sentence trɤi mɯə 'It's raining' translates literally 'The sky is raining'. Unless it can be shown that, to a Vietnamese speaker, 'sky' carries zero meaning in this context, we must assume that the sentence is not ambient in Vietnamese.

[5] At this point I begin using the word *predicate* to indicate the semantic unit, and I reserve the words *verb* and *verb phrase* (VP) to indicate the surface unit ordinarily containing lexical items manifesting the predicate.

[6] Some Mon-Khmer languages of Vietnam, such as Bahnar, mark this relationship overtly through the use of a causative prefix to differentiate the two verbs. Thus 'to kill' in Bahnar is, literally, 'to cause-die' (Banker (1964:105)).

[7] A key to the abbreviations used in this paper will be found at the end of the main text of the paper. In sentence-type formulas, roles bound with a predicate are enclosed in parentheses following the symbol for the predicate.

[8] The symbol → is used to mean 'manifested by', or 'realized as', with a semantic unit on the left side of the arrow and a surface unit on the right.

[9] It is not always true, however, that a bound role tends to be manifested in surface structure. In some cases, the semantic relationship between predicate and role is so close that the predicate infers the filler of the role. Note the following sentences:

(i) Susie bought a scarf.
(ii) Susie bought herself a scarf.

(iii) I saw the shark!
(iv) I saw the shark with my own eyes!

The possessor role → *herself* in (ii) and the instrument-like role → *my own eyes* in (iv) are bound with their respective predicates so closely that the semantic structures of the predicates infer the likely fillers of the respective roles. In (i) and (ii) the predicate → *buy* infers that the buyer becomes the possessor. In (iii) and (iv), *see* infers the use of one's own eyes as the means of sight. In such cases, then, it is redundant to manifest the expected filler of the noun role in surface structure, and we tend to leave such a referent unexpressed to avoid this redundancy, as

in (i) and (iii). The expected filler of the role may be expressed for emphasis, as in (ii) and (iv), or an unexpected filler may be substituted, as in (v) and (vi) below:

(v) Susie bought Tim a scarf.

(vi) I saw the shark with these binoculars!

[10] In particular, the experiential subtype, which seems to be a special case of the possessional relating to possession within the mind, undoubtedly has as much place within the formational group of sentences as does the possessional subset. In English, we might think of the following as experiential subtypes of formational sentences:

P_{st} (F, Ex)

(vii) I have an idea.

P_{pr} (F, Ex)

(viii) I got an idea.

P_{ca} (Ag, F, Ex)

(ix) They gave me an idea.

[11] Sometimes the redundancy is not attributable to the semantic structure of the predicate alone, but to an inference carried by the lexical nature of another item in conjunction with the predicate. Thus 'hit' alone does not infer the instrument used, but 'hit the nail' normally infers the use of a hammer.

[12] Some linguists prefer to combine the roles I have labeled as *direction* and *location*. I see a number of reasons for distinguishing between them. In addition to those reasons given at this point in the paper, there is an additional consideration: the fact that the direction role need not be manifested in spatial terms. Thus in the two sentences:

(x) I went to the store.

(xi) I went fishing.

fishing manifests the direction role as fully as does *the store*.

[13] Most of the sentences presented herein are taken, sometimes in amended form, from transcriptions of recorded language texts - two conversations and two legends. Some sentences were obtained from other sources, particularly from my present teacher, Mr. Lo Van Lo.

With certain exceptions, the orthography used is similar to that used in our article about Black Tai phonemes (Fippinger 1970). The following represent the changes from that orthography:

ɲ	=	/ñ/		a:	= /aa/
tɕ	=	/c/		ɯ	= /ɨ/
j	=	/y-/		ɯə	= /ɨə/
i	=	/-y/ after vowels		ɤ.	= /ə/
u	=	/-w/ after vowels		ɤɯ	= /əw/

[14] The numbers of sentence types in this section corresponds with the numbering used in the left margin of the matrix, for ease of cross-reference.

Certain particles are unglossed, but the lack of a gloss in such cases should not inhibit the reader from following the discussion in the paper. Black Tai words manifesting roles under study are marked with a single underline. Words manifesting the predicate with which these roles are related are marked by a double underline. In the free translation, if only a portion of the translation is under study, the portion involved is underlined.

Only bound roles are included in the Formula for each sentence type, except where a given unbound role is being specifically discussed, in which case the symbol for that unbound role is also included.

[15] The parentheses enclosing $hɤɯ^3$ in the formula do not indicate that $hɤɯ^3$ is optional in any given sentence, but that the word appears in this position in some sentences of this type.

[16] Some may prefer role titles more distinctive, such as *source* and *goal*; others may wish to differentiate more clearly between legal owner and the one in physical possession. For the purposes of this paper, I am not attempting any finer distinction than the one used.

[17] For the purposes of this paper, I have not considered it necessary to divide the direction role into component roles, such as source, route, and destination.

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