Nominalization in Malagasy: A Cognitive Analysis.

Ann Thyme

1. Introduction

In a given language, the universally fundamental categories "verb" and "noun" may be connected via a continuum of more or less nominalized structures. This continuum shows up in Malagasy, an Austronesian language spoken on the island of Madagascar. In this paper, I give a detailed presentation of Malagasy nominalization data as used by one native speaker, and I apply an existing theory to new language data. The theory is cognitive grammar (CG), based on Langacker (1987a), and has previously been applied to English nominalization data (Langacker, to appear). I also attempt to answer some questions which a cognitively based theory raises. In CG, all grammatical structures are assumed to be symbolic; each morpheme carries some cognitive meaning. In other words, the theory claims that syntax and semantics are highly interconnected. In Malagasy, all nominalized structures are formed from a limited set of affixes, most of which also occur with verbs. Assuming the claim of CG, the following questions arise: What are the cognitive notions common to both a process (verb) and a thing (noun)? How are these notions encoded in the language?

The structure of this paper is as follows: First, I present and exemplify the prototypical noun and verb in Malagasy. I then define the central concepts and terms of cognitive grammar, after which I discuss those aspects of the Malagasy verbal voice/focal system which are important for the analysis of nominalization. The body of the paper presents an analysis of the various Malagasy nominalization structures. I summarize Langacker's work with English nominalization and apply the same cognitive analysis to the Malagasy nominalization data, showing how such an analysis accounts for this new data.[1]

2. Properties of Nouns and Verbs: Some Malagasy Facts

2.1. Nouns

The following is a non-theoretical description of the properties of 'typical' Malagasy nouns.

2.1.1. Definiteness, Determiners and Number

A Malagasy nominal may be specified for definiteness; if the nominal functions as the subject, it must be definite. A noun is made definite by a preceding determiner. The definite article is *ny* (1), which is used for both singular and plural nouns. Since the morphology does not distinguish a noun itself as singular or plural, context must define the precise meaning of sentences like (1) and (2). From this point on, I will only choose one of the two possible number translations, usually singular. An indefinite noun needs no determiner (1).

(1) N-anga-latra fiara ny lehilahy.[2]
      stole   car   DET man
      'The man/men stole a car/cars'

(2) N-anga-latra ny fiara ny lehilahy.
      stole   DET car   DET man
      'The man/men stole the car/cars'

Both number distinction and count/mass noun usage can be specified using one of the demonstrative pronouns since these do differentiate singular and plural:

(3a) N-anga-latra ny boky itý vehivavy itý.
       stole   DET book DEM-SG woman DEM-SG
       'This woman stole the book'

(3b) N-anga-latra ny boky iréo lehilahy iréo.
       stole   DET book DEM-PL man   DEM-PL
       'These men stole the book'

Malagasy uses no "dummy" subjects. A typical dummy subject construction like 'It is hot' takes 'the day' as subject:

(4) M-a-fana ny andro.
      be-hot DET day
      The day is hot / It is hot.

2.1.2. Word Order and Topicalization

The unmarked word order in Malagasy is VOS:

(1) N-anga-latra fiara ny lehilahy.
      stole   car   DET man
      'The man stole a car'

(5) N-anga-larin-'ny lehilahy ny fiara.
      stolen-by   DET man   DET car
      'The car was stolen by the man'

Any nominal constituent can be construed as the most salient entity in the clause, and thus serve as the subject of that clause. That a certain nominal is construed as subject rather than object is evident from unmarked word order and verbal voice (see section 2.2.2). However, only that nominal -- the most salient -- can be topicalized. Topicalization is achieved by placing the subject in clause-initial position, followed by the marker no:

(6a) Ny lehilahy no n-anga-latra fiara.
       DET man   TOP stole   car
       'The *man* stole a car'

(6b) Ny fiara no n-anga-larin-'ny lehilahy.

```
        DET car  TOP stolen-by DET man
        'The car was stolen by the man'
```

Prepositional and adverbial phrases can also be topicalized when they are con-
strued as the most salient entity in the clause.

```
(7)  Rahampitso no h-a-mangia-ko azy.
     Tomorrow  TOP visit-1s      3s-OBJ
     'Tomorrow he will be visited by me'
```

Example (8) shows that the nominal construed as direct object cannot be topi-
calized:

```
(8)  *Ny fiara no nangalatra ny lehilahy.
      DET car  TOP stole     DET man
      'The car the man stole'
```

2.1.3. Possessive Structures and Clitics.

A noun may function as a possessor or as a possessed entity (a possessee).
Possession is formed by cliticizing the possessor onto the possessee. When the
possessor shows up in the form of a personal pronoun, a set of clitic pronouns
is used. Example (9) shows the complete paradigm of these clitic pronouns[3]:

```
(9)  Nahita ny alika-ko fotsy aho.     'I saw my white dog.'
     saw    DET dog-1s white I
     "      "  alika-nao  "      "    "    "your      "    "
     "      "  alika-ny   "      "    "    "his/her/their  "    "
     "      "  alika-ntsika "    "    "    "our(incl) "    "
     "      "  alika-nay  "      "    "    "our(excl) "    "
     "      "  alika-nareo "     "    "    "your      "    "
```

A full nominal possessor will cliticize onto the possessee via an *n'* connec-
tor, whose historical and possible underlying form will not be discussed in
this paper. Orthographically, an apostrophe usually indicates the possessive
connection. When the compound consists of two nominals, the nominal serving as
possessor must be definite, while the possessee may or may not be preceded by
a determiner:

```
(10a) (Ny) alika-n'ny namana.
      (DET) dog   DET friend
      'The friend's dog'
```

```
(10b) (Ny) alika-n'ny namako.
      (DET) dog   DET friend-1s
      'My friend's dog'
```

The possessor must be definite; an NP in which the possessor has no determiner
is ungrammatical:

```
(10c) *(Ny) alika-n'namana.
      (DET) dog   friend
(10d) *(Ny) alika-n'nama-ko.
      (DET) dog   friend-1s
```

When the possessee - possessor compound consists of a noun and a clitic pro-
noun, the whole compound must be definite (i.e. be preceded by a determiner):

```
(10e) *Nahita _ alika-ko fotsy aho.
       saw      dog-1s white I
```

2.1.4. Compounding and Adjectival scope.

Nouns may form compounds consisting of N+N or N+ADJ. In a "true" compound, the
segments form a unit (i.e. the ADJ is incorporated into the compound) and a
clitic will be the last segment of the compound.

```
(11a) Mahatadidy ny alika-keli-ko.
      remember  DET dog-small-my
      'I remember my little dog'

(11b)*Mahatadidy ny alika-ko-kely.
                   dog-1s-small
```

An ADJ in an unmarked (non-compound) relation follows the N+clitic:

```
(11c) Mahatadidy ny alika-ko kely.
                   dog-1s small
      'I remember my little dog.'
```

When the ADJ is not part of the compound, a possessive clitic must attach to
the noun, not the ADJ:

```
(11d)*Mahatadidy ny alika keli-ko.
                   dog  small-1s
```

A full NP-possessor, on the other hand, may cliticize onto the incorporated
ADJ of the possessee:

```
(12) Nahita ny satroka mainti-n'ny vehivavy antitra aho.
     saw    DET hat    black    DET woman   old     I
     'I saw the old woman's black hat'
```

An ADJ following a possessee - possessor compound can often refer to either
segment (within constraints of meaning):

```
(13)  ny alika-n'ny naman'ny    mpianatro antitra
      DET dog  DET friend  DET student-1s old
      'my old student's friend's dog'
      'my student's old friend's dog'
```

'my student's friend's old dog'

> (14a) Nahita peratra-n'ny lehilahy lehibe aho.
>   found ring   DET man   big   I
>   'I found a big man's ring'/'I found a man's big ring'

To avoid such confusion and ambiguity, a relativized structure is preferred (14b-c).

> (14b) Nahita peratra izay an'ny lehilahy lehibe aho.
>   found ring   REL LOC DET man   big   I
>   'I found a ring which belongs to the big man.'

> (14c) Nahita peratra lehibe izay an'ny lehilahy aho.
>   found ring   big   REL LOC DET man   I
>   'I found a big ring which belongs to the man.'

The reference of an ADJ does not extend out of a relative clause further than to the noun it immediately specifies. Nor can any ADJ simultaneously refer to both subject and object.

2.1.5. Object of Preposition

A noun can be the object of a preposition, as shown in (15) and (16).

> (15) akaiki-ko   'near me'
>   near-1s

> (16) Eny amboni-n'ny zavona ny fiaramanidina.
>   There over DET cloud DET airplane
>   'The airplane is over the clouds (and visible).'

A preposition may be inflected for past tense by prefixing a t-:

> (17)T-amin'ny   enina no no-hita-ko izy.
>   PST-at'DET six   TOP saw   him
>   'At six o'clock, I saw him'

2.2. Verbs

In sub-sections 1 - 2 below, I describe the properties and usage characteristics of Malagasy verbs. In 3.2, I give a cognitive theory analysis of the verbal voice system.

2.2.1. Verbal Affixes

A verb in active voice consists of a stem and a verbal prefix. The stem can be the stem for an adjective or a noun, as well as for a verb. The verbal prefix has two parts: a tense marker and a verbal marker.

2.2.1.1. Tense Marker

According to traditional analyses, Malagasy verbs show marking for present, past or future tense. The prefixed tense markers in the active voice are *m-* (present), *n-*(past) and *h-*(future):

(18a) m-anoratra   'write'
(18b) M-anoratra ny taratasy aho.   'I am writing the letter'
(18c) N-anoratra ny taratasy aho.   'I wrote the letter'
(18d) H-anoratra ny taratasy aho.   'I will write the letter'
        TNS-write DET letter   I

In the passive voice, the tense prefix is *no-* for past tense and *ho-* for future tense. In the circumstantial voice, the past and future tenses are marked by the prefixes *n-* and *h-* respectively. The present tense *m-* prefix of the active voice never occurs with the passive or circumstantial verb voices. In my analysis, I will consider this distribution constraint in detail.

2.2.1.2. Verbal Marker

The meaning of the verbal affixes is connected with transitivity and aspect. The specifics of this complex phenomenon are outside the scope of this paper. The verbs in (19) exemplify the various affixes:

(19) mihatsara (m -iha-   tsara) 'become good';
              TNS-trans/asp-root
     mahatadidy (m-aha-tadidy) 'remember';
     mitady (m-i-tady) 'buy';
     mahita (m-a-hita) 'see';
     manasa (m-an-asa) 'wash';
     mankahala (m-anka-hala) 'hate'.

2.2.1.3. Reciprocal and Causative Affixes

Reciprocal action is marked by infixing *-if-* between the tense marker and the verbal affix (20a). Causative is marked by infixing *-amp-* (20b). The two markers can co-occur with the same verb (20c).

(20a) N-if-anoratra taratasy izy.
      PST-RCPR-write letters they
      'They wrote letters to each other'

(20b) N-amp-iasa   azy aho.
      PST-CAUS-work him I
      'I made him work'

(20c) N-if-amp-ihinana ny ankizy.
      PST-RCPR-CAUS-eat DET children
      'The children fed each other' (= caused eachother to eat)

2.2.1.4. Person Marking

The person (1, 2, 3; SG/PL) of the subject is not morphologically marked on
the verb.

2.2.2. Voice.

According to traditional analyses, Malagasy employs three voices[4]: the active
(ACT), the passive (PASS) and the circumstantial (CIRC), sometimes called
relative. The choice of voice seems to depend on which participant in the pro-
cess the speaker chooses to focus on and thereby construe as subject.

The ACT voice formation was explained in 2.2.1. PASS is formed by adding a
passive suffix (usually -ina) to the stem, which usually undergoes some stem
alternation. For example, the ACT form of 'to kill' is mamono. In passive
voice past tense, the verb takes the shape novonoina. In form, the CIRC voice
resembles the PASS. CIRC is formed by adding a suffix (usually· -ana, sometimes
-ina) to the ACT stem. The CIRC form of 'to kill' is namonoina.

Compare the following sentences for typical usage of the three voices:

    (21a) N-amono   ny gidro t-amin'ny   famaky ny lehilahy.
          PST-kill(ACT) DET lemur PST-with'DET axe   DET man
          'The man killed the lemur with the axe.'

    (21b) No-vono-in'ny   lehilahy t-amin'ny famaky ny gidro.
          PST-kill(PASS)'DET man with'DET   axe   DET lemur
          'The lemur was killed by the man with the axe.'

    (21c) N-amono-in'ny   lehilahy ny gidro ny famaky.
          PST-kill(CIRC)'DET man   DET lemur DET axe
          'The axe was what the man used to kill the lemur.'

In (21a), the agent serves as subject in the clause. The verb takes the ACT
voice. In (21b), the patient serves as subject, and the verb takes the PASS
voice. Finally, in (21c) the instrument serves as subject and the verb takes
the CIRC voice.

It is important to my analysis of nominalizations to understand how a cogni-
tive theory could analyze the use of the Malagasy voice system. Therefore, I
will now introduce some of the CG concepts necessary for such an analysis. I
will then return to the voice system analysis.

3.1. Basic Concepts of Cognitive Grammar.

The following introduction to CG concepts is based on Langacker (1987a, b, ms.).

Cognitive grammar assumes that syntax and meaning have a basis in conceptualization and cognitive processing. All linguistic expressions are thought of as having a phonological and a semantic structure. A **predication** is the semantic structure or meaning of a linguistic expression, as defined with respect to some cognitive **domain**. Possible domains include any conception or knowledge system, such as time, space or quality. The predication has a semantic value which includes its conceptual content and imagery. Imagery refers to a speakers ability to structure, or **construe**, a conceived situation in alternate ways. Imagery includes varying the perspective from which a situation is viewed and the relative prominence of its various substructures. One type of prominence is profiling. The profile is some substructure of the predication, singled out for maximal prominence. The profile is the focus of attention within the overall conception, the base, necessary for the distinction of the profile.

These terms are illustrated in the following example (from Langacker,1987a):
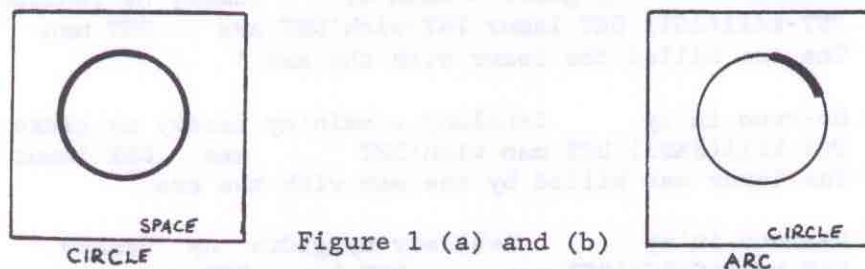

Figure 1 (a) and (b)

[CIRCLE] and [ARC] are two nominal predications, i.e. they designate things. In the informal diagram in figure 1a, the box with its label defines the base and the domain of the predication, here "space." The heavy line indicates the profiled substructure in the domain. A circle can be conceptualized as an entity in a spatial domain, as can an arc. However, [ARC], also presupposes [CIRCLE], which is an abstract domain serving as base for [ARC]. This shows the interdependence of the predicate's profile and base. "Without the profiling in [1b], the structure is simply that of a circle (not an arc). Without the base, the profiled configuration can only be identified as a curved line segment. The conception of an arc emerges only when the two are properly construed in relation to one another" (Langacker,1987a).

CG distinguishes between nominal predications, which designate things, and relational predications, which designate processes (i.e. verbs) or atemporal relations (e.g. adjectival or prepositional relations, as well as infinitives). CG defines nouns and verbs are in the following manner:

A noun profiles, or designates, a thing, while a verb profiles a process. More specifically, "a noun profiles a region in some domain, where a region is

defined abstractly as a set of interconnected entities" (Langacker;1987a). Examples of interconnecting operations are the "...co-conception of two entities as part of a single mental experience, ...the comparison of two entities, ...[the conceptualization of] a set of entities as facets of an integrated whole, ...[or] the recognition of entities as being instances of the same type" (Langacker, to appear). The stars in a "constellation" thus form a region. They are interconnected by our conceiving them as related, though they are not physically connected. A "team" consists of members, 'interconnected' via some united goal.

A verb profiles a set of interconnections. It "comprises a series of relations distributed continuously through conceived time .... The conceptualizer [the perceiver] scans the component states in serial fashion (sequential scanning) rather than simply activating them holistically as a single gestalt (summary scanning)" (Langacker, 1987a).

The trajector in a relation is its internal subject, while the landmark is the relation's internal object.

An "atemporal relation profiles a series of relational configurations and scans them in summary fashion, so by definition it has no temporal profile (even if the states are distributed through conceived time). A process involves a series of relational configurations that necessarily extend through conceived time and are scanned sequentially" (Langacker, 1987b).
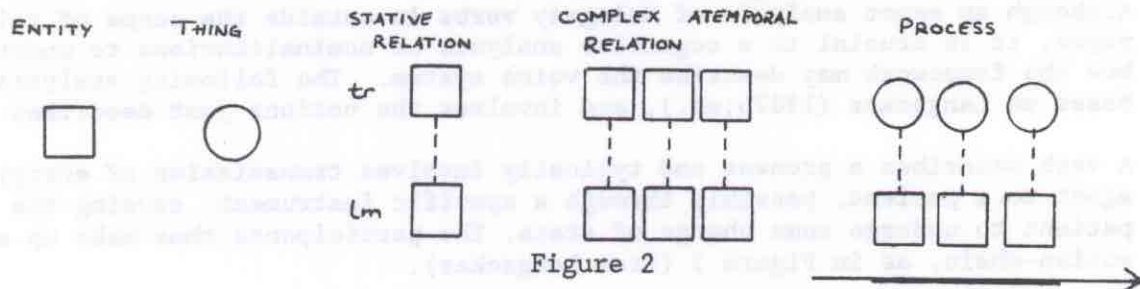

Figure 2

Two more central CG concepts need to be defined before we return to the analysis of the Malagasy voice system: The related notions of an action-chain and paths.

The subject in a clause is the most prominent participant and is typically the agent, which is the source of energy, while the object can be seen as an energy sink. The subject transmits the energy (via an optional instrument) to the object along an action-chain as in (22a):

    (22a) Anne hit Brian with a shovel.
    (22b) Maria saw a bear.
    (22c) A wall surrounds the city of Visby.

Sentences (22b) and (22c) show that the action-chain need not involve the transmission of physical energy, but rather some abstract analog thereof. Sentence (22b) involves a perceptual path, while (22c) involves abstract

motion by the speaker, tracing a path around the object. The flow of energy in an action-chain constitutes one possible path through a sentence. The subject follows this path (physically, mentally or perceptually) from itself to the object. Similarly, the conceptualizer or perceiver is the center and source of energy when construing some complex structure.

Different "natural paths" can be taken through such a structure, each having some particular starting point:

Natural Path	Starting Point
flow of energy (in action-chain)	energy source (agent)
prominence of participants	subject/trajector
empathy hierarchy	speaker
linear order	first word
temporal order of events	first event

I will apply this notion of natural paths to the Malagasy nominalization data. The data will illustrate the following observation (from Langacker, ms.): "There is a notable tendency for these paths to be co-aligned and for their starting points to coincide; expressions in which they fail to 'harmonize' represent the marked situation and often have special properties."

3.2. A Cognitive Analysis of the Voice System.

Although an exact analysis of Malagasy verbs is outside the scope of this paper, it is crucial to a cognitive analysis of nominalizations to understand how the framework may describe the voice system. The following analysis is based on Langacker (1987b;ms.), and involves the notions just described.

A verb describes a process and typically involves transmission of energy by an agent to a patient, possibly through a specific instrument, causing the patient to undergo some change of state. The participants thus make up an action-chain, as in Figure 3 (from Langacker).
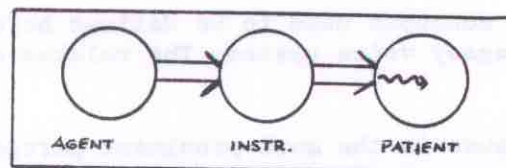

Figure 3

Different portions of the action-chain may be profiled, i.e. be designated as especially prominent in a semantic structure. The construed subject is (in the typical unmarked case) the profiled participant which is farthest upstream in the energy flow and in focus, while the direct object is the profiled participant which is farthest downstream (and not identical to the subject). Prototypically, the complete action-chain (optionally including an instrument) is profiled:

(23a) N-amono   ny gidro t-amin'ny   famaky ny lehilahy.
       PST-kill(ACT) DET lemur PST-with'DET axe   DET man
       'The man killed the lemur with the axe.'

Therefore, the agent tends to serve as subject while the patient is the direct
object. In Malagasy (as well as in English), this is the typical situation
for a sentence with the verb in the ACT voice, making that the unmarked or
prototypical one. Example (24) shows that the agent need not always be the
construed subject for the ACT voice to be used:

(24) N-ahafaty   ny gidro ny famaky.
      PST-hit(ACT) DET lemur DET axe
      'The axe hit the lemur'

The difference between (24) and (23a) is that in (24) the agent is not at all
prominent. Instead, focus is on the instrument 'axe', which becomes the
focused entity farthest upstream and thus may function as the subject of an
ACT verb.

To summarize, the ACT voice is used when the most prominent participant
farthest upstream in the profiled portion of the action-chain is construed as
subject. The CG analysis thus considers ACT voice as the unmarked voice. The
most prominent participant (the construed subject) coincides with the head of
the profiled portion of the action-chain (a natural path starting point),
which is the 'natural' subject choice.

Passive voice is a marked structure where the patient, or the tail of the
action-chain, is construed as the subject, i.e. "the most salient participant
lies downstream in the energy flow (Langacker, ms.)." In a cognitive frame-
work, the markedness of this construction follows from the fact that the sub-
ject does not coincide with the starting point in the natural path of energy
flow. It follows that a passive structure always is intransitive: no partici-
pant can serve as direct object, since a direct object by definition lies
downstream from the subject.

Example (23b) is the passive counterpart of (23a):

(23b) No-vono-in'ny   lehilahy tamin'ny famaky ny gidro.
       PST-kill(PASS)'DET man   with'DET axe   DET lemur
       'The lemur was killed by the man with the axe.'

In the Malagasy circumstantial voice, some (non-prototypical) participant
other than the agent or the patient is construed as the most prominent entity.
The construed subject is a non-endpoint participant or some setting while the
agent typically also has some prominence. Example (23c) is the CIRC counter-
part to (23a) and (23b). Here, the instrument functions as subject.

(23c) N-amono-in'ny   lehilahy ny gidro ny famaky.
       PST-kill(CIRC)'DET man   DET lemur DET axe
       'The axe was what the man used to kill the lemur.'

Example (23c) differs from (24) in that in (23c), the agent is explicitly stated, whereas in (24) the agent is not overtly stated. A cognitive grammarian may interpret this difference as the result of the agent being less prominent and not part of the profile in (24), whereas it is part of the profile in (23c). Although the agent is specified in (23c), it is not the most prominent participant. That position is held by the instrument, which therefore serves as subject. The CIRC voice (like the PASS) can thus be seen as a marked structure since the most prominent participant does not coincide with the head of the energy flow path. If the agent is not part of the profile (24), we do not expect it to function as subject, so the less marked ACT verb can be used. Only if the agent is specified but not the most prominent participant is a marked structure -- using the PASS or CIRC voice -- necessary. A non-subject agent left unspecified is not prominent in the PASS and CIRC voices. A speaker may choose to overtly specify an agent which carries some prominence. Its less prominent status compared to the construed subject is apparent by the use of cliticization:[5] the agent cliticizes to the verb rather than stands alone as a full noun or pronoun.

The CIRC subject can be topicalized using *no* like any other subject (cpr. Sec 2.1.2.). In fact, the subject of a circumstantial verb is often topicalized, seemingly marking the 'oddness' of subject choice, and focusing on it by the use of both the CIRC voice and *no*. (23d) is thus preferred over (23c).

> (23d)Ny famaky no n-amono-in'ny   lehilahy ny gidro.
>   DET axe   TOP PST-kill(CIRC)'DET man   DET lemur
>   'The axe was what the man used to kill the lemur.'

The subject of the circumstantial voice is often more 'abstract' in character than the subject of the active or passive voices, which are connected with prototypical participants. Traditional Malagasy grammars call the circumstantial voice "relative", emphasizing its use with various relations, including time, space, instrument and cause. In CG terms, this includes temporal and spatial settings.
In (25a), a temporal setting functions as subject, while the subject in (25b) is a spatial setting:

> (25a) Omaly   no n-iala-ny   teto.
>   yesterday TOP PST-leave(CIRC)-3s here
>   'Yesterday is when he left here'

> (25b) Any   an-trano no h-ahita-ko   anao.
>   There at-house TOP FUT-see(CIRC)-1s you
>   'There at home is where I'll see you'

The entities functioning as subjects in (25) could not be subjects of ACT voice verb forms in the way that an instrument could (cpr. (24) and (23c)). This restriction follows from the definitions of voice with respect to the action-chain. A setting is not directly part of the prototypical action-chain; it is not a participant involved in the transfer of energy. Thus it cannot function as subject of an active verb since it cannot be the head of

the action-chain.

I previously observed that the *m-* prefix occurs in the present tense (and in the "infinitive" form) of the ACT voice, but never with the CIRC or the PASS voice. This fact seems to indicate that *m-* encodes some default or unmarked situation, just as ACT constitutes the default voice. I regard present tense as unmarked since it defaults to indicating temporal coincidence between the speech event and the predicate in the clause, whereas *n-* and *h-* explicitly state that the speech event and the clause predicate do not coincide temporally.

To summarize, the cognitive framework claims that the ACT voice is the unmarked voice, where the choice of subject coincides with the starting point in the natural path of energy flow. The PASS and CIRC voices are marked in that they designate structures where the chosen subject does not coincide with a natural starting point. PASS occurs with the action-chain tail as subject. CIRC takes any non-endpoint entity as subject.

Finally, consider the following interesting situation which arises when a recipient is construed as the subject in a clause. The recipient is usually the indirect object in a clause. This "unmarked" situation uses the ACT voice:

(26a) M-anolotra ny vary ny vahiny aho.
     hand(ACT) DET rice DET guests I
     'I am handing the rice to the guests.'

Manolotra, 'to hand', is a 3-place predicate, demanding an agent, a patient and a recipient. Thus, the recipient is the expected endpoint in the action-chain. When the recipient is chosen as subject, the verb is in the PASS voice, since the endpoint (or tail) of the action-chain is profiled:

(26b) Tolora-ko   ny vary ny vahiny.
     hand(PASS)-1s DET rice DET guests
     'The guests are handed the rice by me.'

The patient is not at the tail of the action-chain in a 3-place predicate. When the patient is construed as the subject, the verbal voice used is apparently therefore the CIRC:

(26c) Atolotr-o   ny vahiny ny vary.
     hand(CIRC)-1s DET guests DET rice
     'The rice is handed by me to the guests.'

Now consider *mividy*, 'to buy', a 2-place predicate with an optional recipient. Here, if the recipient is construed as subject, the verb is in the CIRC voice:

(27) Ny ankizy no n-ividi-ana-ko mofo.
    DET children TOP PST-buy(CIRC)-1s bread
    'It's the children I bought bread for.'

However, if the patient is construed as subject, the verb is in the PASS voice (as predicted by the analysis to this point):

(27b) No-vinidi-ko   ny ankizy   ny mofo.
      PST-buy(PASS)-1s DET children DET bread
      'The bread was bought by me for the children.'

The difference in treatment of the recipients of these two verbs is possibly based on the fact that *manolotra*, 'to hand', demands a recipient which then functions as the necessary endpoint in the action-chain, while *mividy*, 'to buy', takes a recipient only optionally. This 2-place predicate has the patient as the expected / prototypical endpoint (and takes PASS when construed as subject). The optional recipient is thus not as closely connected to the action-chain as is a mandatory recipient -- perhaps more like a setting in that respect. When the recipient more peripheral to the action-chain is chosen as the subject, the CIRC voice is used.

In my analysis, I can describe this notion of closeness and periphery with respect to the action-chain can also be described in terms of paths. The verb 'to hand' describes a typical action-chain, a directed physical path involving an object and a goal. The recipient is thus a clear goal in the physical path. In contrast, the beneficiary of 'to buy' is involved in a less physical and more abstract relationship. The involvement of the beneficiary is less tangible -- it is not as much a typical participant involved in a clear physical path as is the recipient of 'to hand.'

4. Nominalization in Malagasy

In this section, I will investigate the wide variety of nominalizations that occur in Malagasy. I am applying the analysis given by Langacker (to appear), as presented in section 4.1. In section 4.2., which is the main body of the paper, I describe and exemplify the various nominalizations which occur in Malagasy and show how a cognitive framework might analyze them.

4.1. Nominalization in a Cognitive Framework

In cognitive grammar, nominalization is a matter of conceptual reification. The difference between the noun and the verb in a pair such as *a cry / to cry* is considered to be conceptual construal and profiling. This difference is encoded syntactically by the language. Recall from the above discussion of CG concepts that the theory regards all morphemes as meaningful. When a morpheme occurs both in a verb and in a nominalization, it should therefore encode some notion which can exist either in a nominal or a processual predication. While verbs are considered conceptually dependent with respect to their nominal arguments, nouns are considered conceptually autonomous. Nominalization could thus be seen as a way of making conceptually dependent structures autonomous.

Nominalizations can vary in two ways:

1) Which part of the relational predication is conceptually reified as a nominal and profiled?
   The nominal may profile one of the participants in the relation or it may profile the whole relation as an entity. An English example of the result of profiling a participant would be *singer* (from the "trajector", or internal subject). Profiling the "landmark" (internal object) could give *advisee*, while a *rocker* is a profiled instrument. If an episode of the process is profiled, the result could be *a walk*. Reifying the process as a whole may also result in a nominal such as *walking*. These various possibilities will be explored further below.

2) Is the predication a **type** or an **instance** of that type?
   While a verb stem specifies a process type, the profiled process in a finite clause specifies a grounded instance of that type. "An entity is grounded when its location is specified relative to the speaker and hearer and their spheres of knowledge. For verbs, tense and mood ground an entity; for nouns, definite/indefinite specifications establish grounding" (Langacker,1987a).
   Langacker (to appear) distinguishes between 3 different kinds of nominalizations involving type vs. instance:
   1) an **action nominalization** structure results from reifying a verb stem, i.e. a process *type* is profiled;
   2) a **that-clause nominalization** structure results from reifying a finite clause, i.e. it profiles a grounded instance of a process type;
   3) the intermediate **factive nominalization** structure, which "applies to a structure that is like a finite clause except for the absence of an

explicit subject and a predication of tense or modality....The fact that
the nominalized structure incorporates a fully specified direct object
supports the claim that it represents an instance and not just a type"
(Langacker, to appear).

An example best illustrates the difference between the three kinds of
nominalizations:

> (a) Tom's easy stealing of the jewels will jeopardize his career.
> (b) That Tom stole the jewels is unlikely.
> (c) Tom's easily stealing the money won't happen again.

The action nominal in (a) is more noun-like while the factive nominal in
(c) has an internal clause structure. For example, (a) takes an adjec-
tive, while (c) takes an adverb. In (b), *Tom stole the jewels* is a
clause able to stand alone which has been nominalized.

4.2. Nominalization in Malagasy

We can think of the nominalized verbs in Malagasy as distributing themselves
along a spectrum or continuum from more prototypically nominal, or concrete,
in character to more verbal in character.
I give each nominalization structure a name strictly based on its form, so as
not to assign the nominalizations possibly misleading theoretical labels. Each
nominalization is formed with some prefix (p-, f-, or a verbal tense marker)
on either the active (ACT) voice verb stem or the circumstantial (CIRC) voice
stem. Notice that no nominalizations apparently form on the PASS voice, a
fact which I discuss in section 4.2.1.B.
I present and discuss each kind of nominalization structure in the order given
below. I analyze each nominalization type in light of the above CG analysis.

4.2.1	ACT-nominals
4.2.1.A	ny mp-ACT
4.2.1.B	ny f-ACT
4.2.1.C	ny m-ACT
4.2.2	CIRC-nominals
4.2.2.A	ny f-CIRC
4.2.2.B	ny n/h-CIRC
4.2.3	fa-clauses

4.2.1. ACT Nominals

A nominal structure can be achieved by shifting the profiling in a structure
from the process to some inherent substructure of that relation. In Malagasy,
a distinction is made between whether the profiled entity is the trajector
(the result being an mp-ACT nominal), or another participant or one episode of
the process (which results in an f-ACT nominal). If the nominal refers to all
instances of a process, an m-ACT nominal is the result. I interpret the nomi-
nalization data as support for the CG analysis of *m-* and ACT/CIRC with respect

to starting point coincidence and natural paths.

A) mp-ACT Nominals

An mp-ACT noun takes the meaning of a person carrying out the action of the verb, often habitually or continuously. The mp-ACT noun is formed on the ACT voice verb stem, by infixing -p- between the m- prefix and the remainder of the verbal prefix.

For example:
    (28) a) mpianatra 'student' (from m-ianatra 'to study')
         d) mpampianatra 'teacher' (from m-amp-ianatra 'to cause to study')
         c) mpihira 'singer' (from m-ihira 'to sing')
         b) mpandeha 'wanderer' (from m-andeha 'to walk')

As example (29) shows, the agent nominal has all the nominal properties described in 2.1. above. A determiner can make it definite or specify number (29a, b). It may topicalize when functioning as subject (29c). It may participate in possessive relations and cliticize when necessary (29d), and it can be the object of a preposition (29e).

    (29a) N-amaky ny boky ny m-p-ianatra.
           PST- read DET book DET student
           'The student read the book.'

    (29b) Namaky ny boky irèo mpianatra irèo.
           read DET book DEM-pl student   DEM-pl
           'Those students read the book.'

    (29c) Ny mpianatra no namaky ny boky.
           DET student TOP read DET book
           'The *student* read the book.'

    (29d) N-angalatra ny boki-n'ny mpiantra Ikoto.
           PST-steal DET book DET student Ikoto
           'Ikoto stole the student's book.'

    (29e) akaiki-n'ny mpianatra
           near   DET student
           'near the student'

Malagasy has a widespread phonological alternation where f --> p following a nasal. The alternation occurs historically, but its synchronic productivity is unclear. The source for the -p- in an mp-ACT nominal may therefore historically be the general Malagasy f-nominalizer. The m- is not normally pronounced in the mp-ACT nominals.[6] It therefore seems that, whatever the historical root of -p- is, Malagasy speakers today analyze -p- as a morpheme which indicates a person carrying out the action of the process.

In a CG framework, we may interpret the nominalizer -p- as having a base in

the form of a schematically characterized process in which some participant entity, here the trajector, is profiled. The composite noun takes the contents of the verb and the profiling of the nominalizer:
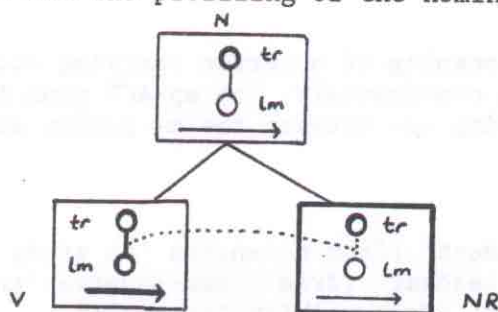

Figure 4 (from Langacker, to appear)

An mp-ACT nominal results from the simplest conceptual reification of a process: shift from profiling the process in its prototypical form to profiling the trajector of that process, the most prominent participant. Since a participant is already a concrete entity, such a change in profiling seems fairly easy conceptually. Let us now investigate exactly what aspects of meaning the ACT voice and the *m-* prefix carry in the nominal structure.

First, recall what the ACT voice and the *m*-prefix were claimed to represent in a process. ACT voice is the prototypical verbal voice. It is used when the entity construed as subject is the participant situated farthest upstream with respect to energy flow in the focused portion of the action-chain. The idea of entities functioning as members in an action-chain is thus central in the ACT voice, as is the unmarkedness of subject choice with respect to energy flow.

The *m*-prefix indicates coincidence in conception with the starting point in some natural path. A process must be grounded with respect to time and the moment of speaking. Present tense is temporal coincidence of the clause predicate with the speech event, a starting point in processing, and thus unmarked or more central to the speaker. Also, *m-* implies non-PASS and non-CIRC since it occurs only with the ACT voice. *m-* is therefore also unmarked in a way similar to the ACT voice.

Now, what aspects of meaning persist in the reified structure?

The mp-ACT nominal profiles the trajector or the agent in the action-chain, i.e. the most prominent substructure in the process. The ACT voice indicates the salience of one of the inherent substructures in the process, specifically the participant at the head of the profiled action-chain. Thus, in a verbal construal, ACT indicates that the most upstream or most natural/unmarked entity is construed as subject. In a nominal construal, ACT comes to indicate that the most prominent (internal) entity or substructure is profiled.

m- can be analyzed in two ways.
The simplest analysis is based on the observation that the presence of *m-* in

the mp-ACT nominals is merely a spelling remnant of a historical situation. Since *m-* is not pronounced and since I am doing a *synchronic* analysis of the data, *m-* may be analyzed as not being actually present in the mp-ACT nominals. Be that as it may, lets consider how a CG analysis could account for the presence of *m-*.

A nominal is grounded in space (via a determiner), not in time, as is a verb. Malagasy does not seem to allow participant entities to be marked specifically for tense. I have not found any forms of e.g. *mpianatra*, 'student', which are inflected for past or future tense to mean 'ex-student' or 'student-to-be':

    *npianatra, *hpianatra (*hianatra)

Instead of marking tense in a nominal, *m-* extracts some other facet of its verbal usage. The use of *m-* to indicate present tense can be seen as stemming from its indicating temporal unboundedness -- if a process is unbounded in time (or unmarked with respect to time), it will coincide also with the present. Unboundedness implies continuity or habituality, and this is the notion carried over to the nominal.

The mp-ACT nominal specifies an agent/trajector who carries out some process habitually or continuously. The analysis accounts for the meaning of the nominal: the notion of continuity stems from *m-*, while *-p-* (or *f-*) is the nominalizer which profiles the trajector in the process.

B) f-ACT Nominals

The f-ACT nominal is formed on the ACT voice verb stem by prefixing an *f-* rather than an *m-* onto the verbal affix.

An f-ACT nominal may profile

1) an instrument:
    m-amaky 'to cut, chop' --> f-amaky 'thing for cutting; axe'
    m-anjaitra 'to sew' --> f-anjaitra 'thing for sewing; needle'

2) the result or object of some process:
    m-anatitra 'to carry,bring' --> f-anatitra 'something which one
                             carries/brings; present'
    m-isotro 'to drink' --> f-isotro 'something which one drinks; a drink'

3) the process as an entity:
    m-andeha 'to walk' --> f-andeha 'a walk'
    m-ihaza 'to hunt' --> f-ihaza 'a hunt'
    m-iteny 'to speak' --> f-iteny 'a speech'

Like the agent nominal, the f-ACT nominal has all of the typical nominal properties. It can refer to singular or plural; it must be definite when functioning as subject; it can take clitics (within certain limits); it can be topicalized and it can be the object of a preposition.

Although the f-ACT nominal may profile very different entities (an instrument,

an object, or the whole process), a given nominal does not seem to be ambiguous with respect to what profiling is intended. Thus, *fanjaitra* only refers to 'needle', the prototypical instrument for sewing. It does not refer to the result or object of the sewing, nor to one instantiation of the process as a whole. The analysis should account for this fact.

The f-ACT nominal, like the mp-ACT nominal, results from conceptual reification of a process which, when functioning as a verb, was formed on the ACT voice.
This type of nominal is formed with the ACT voice because some inherent substructure of the relation is profiled while no entity (such as the trajector/agent) farther upstream in the action-chain is in profile.
f- is the general nominalizer in Malagasy and quite productive. *f-* profiles some bounded region or substructure in a complex structure. Given the analysis, a nominal which results from combining *f-* with the ACT voice should profile some substructure which is the most prominent or salient entity in the inherent structure. In other words, the f-ACT nominal profiles some substructure which is semantically prototypical (and therefore a prominent entity) to the base process. The use of the ACT voice shows that the most natural, or unmarked, or most prominent substructure is profiled by the nominal.

Let us now see how each of the three profiling possibilities exemplifies the analysis.

1) The nominals in 1) above profile the inherent instrument of some process. Such an f-ACT nominal results only from the reification of a process which involves a prototypical instrument, such as *manjaitra*, 'to sew'. Since the process so closely implies the involvement of an instrument, that instrument is likely to be the naturally most prominent entity in the structure. Since the instrument is a physical object, reification is easily done to profile the instrument rather than the process.

2) The nominals in 2) above profile the "theme" of the relation: the inherent object (landmark) or result of the relation. A nominal profiling an inherent object can only be the result of a reified transitive verb. *Fisotro* means 'a drink' rather than 'an instrument for drinking' since such an instrument is not prototypical or naturally prominent in the process. The naturally most prominent entity in the inherent (transitive) structure is the internal object (the landmark), which is thus profiled in the nominal structure. Notice that a nominal profiling the object/landmark is formed on the ACT voice rather than the PASS voice, which may have been expected. The analysis gives a reason for this fact by claiming that the unmarked ACT voice is used when the most prominent or salient entity in the structure is profiled.

3) The third group of f-ACT nominals profiles a single instantiation of a process as an entity. Such 'episodic' nominals involve a reification of the whole processual relation. The resulting nominal designates one bounded occurrence of the process: *fandeha*, 'a walk', is a bounded occurrence of *mandeha*, 'to walk.' The episodic f-ACT nominals seem to

result from the reification of intransitive verbs.[7] An intransitive verb
may be seen as a process which does not have a (prototypical) object or
landmark. When reified as a nominal, the whole entity rather than an
inherent participant is therefore profiled.

A verb was previously defined in CG concepts as a set of related com-
ponent states. These states are distributed through time and connected
by the process of sequential scanning. The result of this interconnec-
tion process is that each verb has an abstract latent region of related
states. If this region is profiled, we get a nominal by CG definition (a
noun profiles a set of interconnected entities; here these entities are
the component states of a process).

[figure 5]

Like other f-ACT nominals, this episodic nominal is not temporally
grounded. As a bounded region, the structure is a count noun.

In the episodic f-ACT nominal, the situation is very similar. The
reified structure profiles one instantiation of a process. The individual
participants are not salient or in focus.

C) m-ACT Nominals

While the f-ACT nominals are count nouns, m-ACT nominals are mass nouns, simi-
lar to English -ing nominalizations as in:

(30) Walking is good for you.

This third group of Malagasy ACT-nominals have a 'generic' sense to them, just
like their English counterparts:

(31) Tsara ny m-andeha.
good DET PRS-walk(ACT)
'Walking is good for you.'

For the English data, CG claims that -ing is atemporalizing, imperfectivizing
and suspends sequential scanning. For the Malagasy data, the analysis of m-
should cover these notions.

The m-ACT nominal has the form of a present tense or infinitive verb, but its
nominal status is indicated by the fact that it must take a DET when

functioning as subject:

(32) Ratsy ny m-angalatra.
     bad   DET steal-ACT
     'Stealing is bad'

(33) M-ankarary an'Ikoto ny m-angalatra.
     PRS-be-sick LOC   DET PRS-theft
     'Stealing makes Ikoto sick'

Like the episodic use of the f-ACT nominal, the m-ACT nominal can be said to
profile not a participant, but a latent region of interconnected states (from
which a suspension of sequential scanning would follow). Thus the formation
on the ACT voice. However, compare (32) with the f-ACT nominal in (34):

(34)?? Ratsy ny f-angalatra.
       bad   DET theft

The conveyed meaning of a generic statement is not that one particular episode
of stealing is bad, which (34) seems to indicate. Rather, it is the carrying
out of the process by some agent that is bad. Note that (34) is questionable
only because of its intended generic meaning. The sentence is acceptable if
the intention is to comment on some particular theft. I previously suggested
that f- nominalizes some bounded entity. The absence of f- in m-ACT nominals
would therefore be explained assuming the unbounded mass noun structure of
these nominals -- an m-ACT nominal refers to all instances of some process.

We can again see that m- retains a continuous, progressive value from its ver-
bal construal, implied from its unboundedness, as was the case in the mp-ACT
nominal. Generic statements occur only with the m-prefix, not with the other
verbal tense markers. Since they specify something which is always true, the
relation should not be bounded in time.

To summarize the analysis so far, ACT-nominals profile some entity or sub-
structure which is unmarked or is the most prominent entity in the inherent
structure. f- is the general nominalizer which profiles a bounded entity. m-
indicates an entity which is unbounded with respect to some parameter, such as
time. Therefore, m- implies continuity.

4.2.2. CIRC Nominals

There are two kinds of CIRC nominals: f-CIRCs and n/h-CIRCs. The latter show
temporal grounding with respect to the speech event. The CIRC nominals differ
from the ACT nominals either in being more abstract (not designating any sim-
ple inherent substructure of the process) or by designating some structure in
which some inherently more prominent participant is also present.

A) f-CIRC Nominals

A nominal formed with an f-prefix on the CIRC voice may profile one of the

following entities:

1) **an episodic nominal with a prominent internal participant:**

   ny fangalaran'Ikoto   'Ikoto's theft'
   ny fahatongavany   'his arrival'
   ny fihazan'ny liona   'the lion's hunt'

2) **an abstract noun:**

   f-if-ankatiava-na   'mutual love'
   f-ankasitra-hana   'gratitude'
   f-ahalala-na   'knowledge'

3) **a "manner" nominal:**

   ny f-andeha-na-ko   'my gait'

As the following examples demonstrate, the syntactic properties of the f-CIRC nominals parallel those of any regular noun.

i)   When the trajector/agent of the process is salient in the composite structure, adjectival scope ambiguity is possible:

> (35)   N-ahatadidy   ny f-ipetra-han'ny lehilahy faly aho.
>   PST-remember(ACT) DET living   DET man   happy I
>   'I remembered the happy living of the man'
>   'I remembered the living of the happy man'

In (35), *faly*, 'happy', may refer either to the whole nominal *ny fipetrahan'ny lehilahy*, 'the living of the man', or only to the "internal" participant *ny lehilahy*, 'the man.'

ii)   The nominal can act as either subject or object in a clause:

> (36)   N-ahatezitra   an-dRasoa ny f-angalara-n'Ikoto   ny akoho.
>   PST-annoy(ACT) LOC-Rasoa DET NOM-steal(CIRC)'Ikoto DET chicken
>   'Ikoto's chicken-stealing was annoying to Rasoa'

> (37)   N-ahatadidy   ny f-angalara-n'Ikoto   aho.
>   PST-remember(ACT) DET NOM-steal(CIRC)'Ikoto I
>   'I remembered Ikoto's thieving'

The word order indicates that the f-CIRC nominal in (36) functions as subject of its clause, while the f-CIRC nominal in (37) functions as direct object.

iii) The nominal can be specified by a demonstrative:

> (38)   M-alahelo   ity f-angalara-n'Ikoto akoho ity aho.
>   PRS-regret(ACT) DEM-sg theft   chicken DEM-sg I
>   'I regret this stealing of chickens by Ikoto'

iv) The following sentence exemplifies the use of clitics as well as topicalization:

    (39) Ny f-ahatongava-nao no m-aha-faly   ahy.
           DET arrival-2sg   TOP PRS-be-happy   me
           'Your arrival made me happy'

v)   Attempts to elicit data where an f-CIRC nominal is the object of a preposition often failed. The best results were with the episodic nominals and prepositions such as 'before','during' or 'after', which locate the entity in a temporal domain. I found no acceptable occurrences with the entity as object of a spatial preposition, such as 'on' or 'under'. This contrast is not surprising. The f-CIRC nominal focuses on a process or relation as a whole rather than on more prototypical things such as participants. Even if the temporal aspect of the reified process is not salient, it is still an inherent part of the structure, as fig.3 shows.

While an f-ACT nominal typically profiles one of the participants in the relation, the f-CIRC nominal is less concrete. A verb is in the CIRC voice when a) the most prominent entity (the subject) is not at the head of the profiled portion of the action-chain (i.e. the subject is a non-agent), and b) that profiled head is also prominent.
Compared to the usage of the ACT voice, this is a marked structure since the most prominent entity does not coincide with the participant farthest upstream in the profiled portion of the action-chain. The construed subject may be either a participant downstream from the agent, or a setting, which is not downstream from the agent since it is not a participant in the action-chain. That non-participant-like character of the setting also makes it an inherently more marked choice as subject than is the agent (or any other participant in fact).

The data in 1) above exemplify the difference between the episodic nominal formed on the ACT voice (e.g. *ny fandeha*, 'the walk') and that formed on the CIRC voice (e.g. *ny fandehanako*,'my walk'). The former, being the unmarked situation, shifts the profiling to the abstract latent region of interconnected entities, without focusing on any internal participant. The latter also shifts profiling to that latent region, but an internal participant, specifically the trajector/agent, remains prominent. Since that participant is at the head of the action-chain, it is inherently more prominent than the reified process -- the construed subject. The structure's resulting markedness is encoded by the use of CIRC.
The reified f-CIRC nominal may contain both the processual agent and an object:

    (40) N-ahatezitra   an-dRasoa ny f-angalara-n'Ikoto   ny akoho.
           PST-annoy(ACT) LOC-Rasoa DET NOM-steal-CIRC'Ikoto DET chicken
           'Ikoto's chicken-theft was annoying to Rasoa'

The second and third categories of f-CIRC nominals involve a deviation from another notion claimed to be encoded by the ACT voice. While ACT nominals

seem to designate some inherent substructure in the relation, the abstract
nouns and manner nominals formed with CIRC do not profile such an inherent
substructure.

The second category of f-CIRC nominals profiles abstract nouns such as *fahala-
lana*, 'gratitude', or *fitiavana*, 'love.'

  (41a) M-ahatadidy   ny f-itiava-nao aho.
     PRS-remember(ACT) DET love-2sg I
     'I remember your love.'

  (41b) Ny f-itiava-ko anao no n-anaova-ko   izany.
     DET love-1sg you TOP PST-do(CIRC)-1sg it
     'My love for you made me do it.'

In a CG framework, these structures can be considered nominals because of
their profiling a region in some domain. The primary domain for more concrete
nominals (i.e. prototypical nouns and most ACT-nominals) is physical space.
For abstract nominals, the primary domain may be 'emotive space', as in the
case of 'happiness' or 'love', or 'color space' for the nominal use of the
colors 'blue','white',etc.

The third group of f-CIRC nominals are the so-called "manner-nominals,"
including e.g. *fandehanana*, 'gait'[8]:

  (42) Ny f-andeha-ny no ahafantara-ko azy.
    DET gait-3sg TOP recognize(CIRC)-1sg him
    'It's by his gait that I recognize him.'

A manner nominal represents the manner in which the processual agent or tra-
jector performs some specified action.

The CIRC voice seems to encode the remoteness in character of abstract nouns
which designate tangible physical objects or simple episodes of a process.
The nominals' boundedness within a non-prototypical domain such as 'quality',
'emotion' or 'color', rather than within the prototypical domain of physical
space, makes them marked structures, as CIRC indicates.

Up to this point, I have presented only nominal structures which show no tem-
poral reference. The two remaining structures are nominalizations which indi-
cate some specification with respect to time.

B) n/h-CIRC nominals: Nominals with Tense Marking.

Like the episodic f-CIRC nominal, the n/h-CIRC nominal results from construing
a process as an entity, where the trajector/agent of the process continues to
be salient in the nominalized structure. The nominal involves conceptual
reification of a finite clause with a tensed verb and as such contains either
the past tense marker *n-* or the future tense marker *h-*:

```
(43a) M-alahelo        ny  h-angalara-n'Ikoto aho.
      PRS-regret(ACT) DET FUT-theft(CIRC)     I
      'I regret Ikoto's (future) stealing.'

(43b) M-alahelo        ny  n-angalara-n'Ikoto akoho aho.
      PRS-regret(ACT) DET PST-theft(CIRC)     chicken I
      'I regret Ikoto's (past) stealing of the chickens.'

(44a) M-alahelo        ny  h-ipetra-ha-n'Ikoto eto aho.
      PRS-regret(ACT) DET FUT-living(CIRC)     here I
      'I regret Ikoto's (future) living here.'

(44b) N-alahelo        ny  n-ipetra-ha-n'Ikoto teto     aho.
      PST-regret(ACT) DET PST-living(CIRC)     PST-here I
      'I regretted Ikoto's (past) living here'
```

In (43), the process *mangalatra*, 'steal', has been reified and the main clause predicate *malahelo* is in the present tense. In (44), the process *mipetra*, 'live', has been reified as a nominal while the main clause predicate is in the present tense.

Since the n/h-CIRC nominals result from the nominalization of a finite clause (via *ny*), they are more verb-like in character than the prototypical f-nominals are. However, the n/h-CIRC nominals show the same syntactic proper-ties as the corresponding episodic f-CIRC nominals. The nominal must be definite when functioning as subject in the clause. It may topicalize, form possessive compounds, serve as the object for some prepositions and take cli-tics. Since the trajector/agent of the process is salient in the composite structure, adjectival scope ambiguity is possible:

```
(45a) N-ahatadidy         ny  n-angalara-n'Ikoto irero aho.
      PST-remember(ACT) DET PST-theft(CIRC)     lonely I
      'I remembered the /lonely/ (past) thieving of the /lonely/ Ikoto.'

(45b) H-ahatadidy         ny  h-angalara-n'Ikoto irero aho.
      FUT-remember(ACT) DET FUT-theft(CIRC)     lonely I
      'I will remember the /lonely/ (future) theft of /lonely/ Ikoto.'
```

irero, 'lonely', may refer either to the complete CIRC-nominal or only to the periphrastically specified agent.

Only the 'episodic' use of the f-CIRC nominal has a tensed counterpart. The CIRC nominals designating manner or abstract entities cannot take *n-* or *h-*. Neither can ACT-nominals which designate process participants. A possible reason for this distribution involves a difference in the prominence of the temporal aspect in the base relation. An episodic nominal is more process-like than a nominal which designates a participant or an abstract entity. Therefore, a temporal relation is more prominent in the episodic nominal. It is often not clear if the temporal specification of the nominal is with respect to the moment of speaking or with respect to the temporal grounding of

the clausal predicate.

In the episodic use, the reification of a finite clause with the verb in present tense results in an f-CIRC nominal, not in an m-CIRC nominal:

    (43c) H-alahelo   ny f-angalara-n'Ikoto akoho aho.
          FUT-regret(ACT) DET theft   chicken I
          'I will regret Ikoto's chicken-stealing.'

    (44c) M-alahelo   ny f-ipetra-han'Ikoto eto aho.
          PRS-regret(ACT) DET living   here I
          'I regret Ikoto's (pres./continued) living here'

Recall that the present tense *m*-prefix never occurs with the CIRC voice; the non-existence of an m-CIRC nominal should therefore come as no surprise:

    (43d)*N-alahelo   ny m-angalara-n'Ikoto akoho aho.
          PST-regret(ACT) DET PRS-stealing(CIRC) chicken I
          'I regretted Ikoto's stealing the chicken'

    (44d)*M-alahelo   ny m-ipetra-han'Ikoto eto aho.
          PRS-regret(ACT) DET PRS-living(CIRC) here I
          'I regret Ikoto's living here.'

My analysis offers an account for the absence of m-CIRC nominals. I analyzed *m*- as marking some entity which is unbounded in time or space. The episodic use of a CIRC-nominal indicates some particular instance of the process. The entity is bounded, as well as grounded via the specification of its participants. *n*- and *h*- grounds the process in time. The episodic CIRC-nominal, unspecified with respect to time, does not profile an entity which implies continuity or unboundedness. Therefore, *f*- is used rather than *m*-.

4.2.3 fa-clauses.

The final Malagasy nominalization structure is the sentential that-clause nominalization formed with *fa*, 'that'. The *fa*-complement is a finite clause that could function independently as a sentence:

    (46) M-alahelo   aho fa n-angalatra   akoho Ikoto.
       PRS-regret(ACT) I that PST-steal(ACT) chicken
       'I regret that Ikoto stole the chicken.'

    (47)* Tsara fa   h-andehana-n'i Jeanne.
       good that FUT-go(CIRC)
       'It is a good thing that Jean is going.'

The complement in (47), *handehanan'i Jeanne*, is not a complete independent clause -- it has no subject -- therefore, the sentence is not acceptable. Internally, the *fa*-clause keeps all the properties of a clause, including having a verb in any one of the three verbal voices:

   (48a) M-alahelo   aho fa m-anasa   ny lamba   tamin'ny savony Rasoa.
       PRS-regret(ACT) I that wash(ACT) DET clothes with-DET soap R.
       'I regret that R. is washing the clothes with the soap.'

   (48b) M-alahelo   aho fa no-sasan-dRasoa tamin'ny savony ny lamba.
       PRS-regret(ACT) I that wash(PASS)R. with-DET soap DET clothes
       'I regret that the clothes are being washed with the soap by R.'

   (48c) M-alahelo aho fa anasa-n-dRasoa   ny lamba tamin'ny savony.
       PRS-regret I that wash(CIRC)R. DET clothes with-DET soap
       'I regret that the soap is used by R. to wash the clothes.'

A *fa*-nominal tends to serve as object rather than subject. When it does func-
tion as subject, *fa* serves the purpose of making the entity definite, so *ny* is
not needed. When construed as a subject, the *fa*-nominal may also topicalize,
but the nominal seems to have none of the other typical nominal properties.[9]

     The effect of reification (marked by *that*) is to "step back" from the
situation -- including both the event and its relation to the ground --
and construe it as an abstract object or proposition capable of being
manipulated, evaluated, and commented on. Instead of being asserted,
this proposition is taken as one participant in a higher-order relation-
ship (e.g. a relationship of belief, denial, evaluation, etc.), whence
its role as a clausal subject or object. (Langacker,ms.)

Since the fa-clause results from the reification of a complete clause, it
retains all specifications of tense and voice present in its non-nominalized
form.

5. Summary and Conclusion

Cognitive Grammar offers an appealing analysis of Malagasy nominalizations.
The analysis succeeds in one of its main goals: to assign some conceptually
based meaning to each of the lexical constructs involved. The analysis can
account for both verbal and nominal data, given a sufficiently general specif-
ication of each morpheme. The CG analysis also accounts for the absence of
f-PASS nominals, as well as the occurrence of agent clitics with the CIRC
voice and their absence in the ACT voice.

m-
I analyzed the *m*-prefix as encoding unboundedness in some domain. In a verb,
m- indicates present tense, which is in a sense unmarked and unbounded with
respect to time since it has a progressive notion. In a nominal, the progres-
sive notion carries over to imply continuity or habituality.

f-
f- is a nominalizing prefix. It profiles a bounded substructure or entity
unspecified with respect to time.

ACT

The ACT voice is an unmarked structure, involving the prominence of the participants following the natural direction of energy flow. In a verbal construal, the choice of subject is natural: it coincides with the most prominent participant farthest upstream in the profiled portion of the action-chain. In a nominal construal, the structure designates some simple and naturally prominent substructure in the process. The ACT nominals are thus often fairly concrete and prototypically noun-like.

CIRC

The CIRC voice is a marked structure, involving some deviation in the choice of subject with respect to participant prominence and energy flow. In a verbal construal, the subject choice does not coincide with the salient participant farthest upstream in the energy flow. The construed subject may be a non-participant -- a setting -- which is not a part of the action-chain. In a nominal construal, the structure designates some region which is not a unitary substructure of the process. The CIRC-nominals seem less prototypically noun-like. They appear peripheral to some norm, while the ACT-nominals appear more central to that norm.

If my analysis of each individual morpheme is correct, the meaning of each nominal structure should be a composite of the morphemes' values. This observation seems to hold:

> The ACT-nominals all profile a simple substructure, the most prominent entity in the process.
> The mp-ACT (agent) nominal profiles the agent who habitually or continuously (thus the m-) carries out the process. The profiled entity is a participant and therefore bounded (f-)[10].
> The f-ACT nominal profiles either a participant or a bounded (f-) 'episode' of the process.
> The m-ACT nominal profiles an unbounded (m-) progressive process, similar to English -*ing*.

The CIRC-nominals profile some non-prototypical entity; something which is not a simple, concrete substructure or not the naturally most prominent entity in the base process.
The f-CIRC nominal profiles either a bounded (f-) abstract entity or a bounded (f-) episode of the process with specified participants.
The n/h-CIRC profiles an episode of the process with respect to time: either past (n-) or future (h-).

Finally, recall the CG proposal that nominalization can differ in 2 ways:

1) Which part of the relational predication is reified and profiled?
    I have shown that a participant may be profiled, resulting in an f-ACT nominal. If a non-participant-like entity such as the setting or a manner is profiled, the result tends to be an f-CIRC nominal.

2) Is the predication a **type** or an **instance** of that type?
    While a verb stem specifies a process type, the profiled process in a

finite clause specifies a grounded instance of that type.
Langacker (to appear) distinguishes among 3 different types of nominalizations involving type vs. instance:
1) an action nominalization structure is the result of reifying a verb stem, i.e. a process *type* is profiled. In Malagasy, the action nominals are formed on the ACT voice verb stem.
2) a that-clause nominalization structure is the result of reifying a finite clause, i.e. it profiles a grounded instance of a process type. In Malagasy, that-clause nominals are formed with *fa*.
3) the intermediate factive nominalization structure, which is the result of reifying a finite clause without predication of tense or modality, i.e. an ungrounded instance is profiled. In Malagsy, these factive nominals seem to be formed on the CIRC voice.

Notes

I would like to thank Mr. Aurelien Rajoharison who provided me with most of my data during a 1986-87 Field Methods class. Thank you also to the following persons who provided invaluable comments and discussion: Ronald W. Langacker, Ken Cook, Jeff Elman, Mary Hare, Margaret Langdon, and Ricardo Maldonado.

2. I use standard orthography for all data, with the exception of dashes, which indicate morpheme boundaries.

3. Phonological alternation occurs when the pronouns cliticize onto words ending in -*ka*, -*tra* or -*na*. The result of -*ka* + -*ko* (1s) is -*ko* rather than -*kako*. For a detailed analysis of Malagasy phonology see Dziwirek (1988).

4. Keenan (1975) argues for a fourth voice: an 'intermediary' voice. The status of this intermediary voice is unclear. Keenan chooses to treat the 'goal' and 'intermediary' voices together as passive, pointing out that many verbs have only one of the two forms. He further observes that "...it appears that at least for some speakers, the use of the intermediary voice is being usurped by the circumstantial." Since my consultant often disagreed with Keenan's data and since Keenan does not give conclusive evidence for the existence of a distinct 'intermediary' voice, I have chosen to comply with most works dealing with the Malagasy voice system in recognizing only three distinct voices.

5. The cliticization follows exactly the rules of section 2.1.3. above, i.e. if the agent is in the form of a personal pronoun, one of the clitic pronouns in (9) is used.

6. My consultant only pronounced the *m*- when pressed to do so. This occurred mainly during early elicitations when I was unfamiliar with the sound system and the orthography of the language.

7. *mihaza*, 'to hunt', a transitive verb in English, does not seem to occur in the ACT voice when an object is specified. This fact may indicate that *mihaza* does not normally take an object, i.e. it is an intransitive verb.

8. In some older descriptive works (Malzac, 1960), the claim is sometimes made that manner nominals are f-ACT rather than f-CIRC nominals. My consultant does not agree with this. When elicited in actual clausal context, an f-CIRC is given with or without a preceding *ny fomba*, 'the way,manner': *mamindra*,'to march' --> *ny fomba famindrana*. Even Malzac agrees that *fandeha* means 'a walk', while *fandehany* in example (42) above means 'his gait'.

9. As (46) and (48) show, the preferred word order in a main clause where a *fa*-clause functions as object is VSO rather than the regular order VOS. Keenan (1975) suggests that this is due to a rule of "Heavy NP Shift."

10. Recall the discussion of phonological alternation of /f/ and /p/.

REFERENCES

Burgess, J. 1987. Sentential Complementation in Malagasy. UCSD ms.

Cook, K. 1987 ms. Some Observations Concerning Keenan's Remarkable Subjects in Malagasy. UCSD.

Dziwirek, K. 1988 ms. Malagasy Verbs: The Interaction of Phonology and Morphology. UCSD.

Garvey, C. 1964. Malagasy Introductory Course. Washington DC:Center for Applied Linguistics.

Keenan, E. 1976. Remarkable Subjects in Malagasy. In Charles Li, ed., Subject and Topic. New York: Academic Press.

Langacker, R.W. 1982. Space Gramar, Analysability, and the English Passive. Language 58:1, 22-80.

----. 1987a. Foundations of Cognitive Grammar, vol. 1, Theoretical Prerequisites. Stanford: Stanford University Press.

----. 1987b. Nouns and Verbs. Language 63. 53-94.

----. ms a. Transitivity, Case, and Grammatical Relations: A Cognitive Grammar Prospectus. UCSD.

----. ms b. Absolute Construal.

----. To appear. Foundations of Cognitive Grammar, vol 2, Descriptive Application.

Malzac, R.P. 1960. Grammaire Malgache. Paris: Societe D'Editions Geographiques, Maritimes et Coloniales.

----. 1968. Dictionnaire Francais-Malgache. Paris: Editions Maritimes et D'Outre-Mer.

Randriamasimanana, C.1986. The Causatives of Malagasy. Honolulu: University of Hawaii Press.