

VERB STEM CLASSES IN NORTHERN KANKANAY

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1. Agent oriented
2. Experiencer oriented
3. Patient oriented
4. Argument incorporation
5. Proposition consolidation

INTRODUCTION

In this paper I classify the verb stems of Northern Kankanay¹ on the basis of their underlying case structures. Others have realised the necessity of some kind of verb classification in Philippine languages if one is to generate well formed sentences. Miller (1964) based her classification strictly on their occurrence or non-occurrence with focus affixes.

Reid (1966) and Barnard and Forster (1968) posited a situational hierarchy and based their classifications of verb stems on co-occurrence restrictions in the situational string and in the clause level grammatical string. Reid also used transformational potential of the clause string as one of the criteria for establishing his classes.

Fillmore (1968) and Langendoen (1969) have developed a theory of case grammar in which they posit a limited number of case relationships which seem to be applicable to a wide range of languages. This paper is an attempt to apply these case relationships to a Philippine language.

The validity of this method of classifying verbs is shown in the consistency in which the classes based on case frames map onto the surface

structure, with only minor exceptions as noted in the body of the paper. It also shows why a particular case relationship matches differently in the surface structure with different classes. For example, Patient matches accessory with conveyance verbs (1.3), whereas with acquisition verbs (1.4) Patient matches object. The difference in the surface form is required, because there is a difference in the direction in which the Patient moves. Further, this method reveals the meaning underlying the different stem classes.

Understanding the underlying meaning of stem classes also allows one to recognise with what sense a word has been borrowed into the language and to predict how it will function. It is not possible, however, to predict how a word will be borrowed. Taip '*type*', for example, has become a Kankanay conveyance verb. An Agent-Source conveys a Patient, what is typed, toward a Goal, a piece of paper. Bik '*bake*' is a change of state verb. An Agent performs an action which changes the state of a Patient, the bread, with an Instrument, the oven.

Likewise, understanding the underlying meanings of stem classes allows one to recognise the kind of predicate² into which a noun has been incorporated. It is not possible, however, to predict how a given noun may be incorporated into a predicate. For example, since obi '*sweet potato*', kaiw '*wood/tree*', and sakati '*hay*' can be incorporated into predicates meaning to fetch the things mentioned, one might expect that danom '*water*' would also be incorporated in this way. But this is not the case, probably because there is a verb, sakdo, which means '*to fetch water*'. Danom '*water*' can be incorporated into a distribution verb, as in danomak nan sibo (*water-Rf-1st-sing topic viand*) '*I add water to the viand*', which has essentially the same meaning as tapiyak nan sibo is danom (*add-Rf-1st-sing topic viand nontopic water*) '*I add water to the viand*', but with a greater economy of words, which seems to be a virtue to the Kankanay.

Nouns are similarly incorporated in English as in *busing the children*, which has essentially the same meaning as *transporting the children by bus*. The noun *bus* has replaced the verb *transport* and the Instrument has been incorporated into the predicate. Although a speaker of English has little difficulty understanding *bus* used in this sense, it would be difficult to predict before the fact that this is how *bus* would come to be used.

The case relationships (whose labels are capitalised) that are valid for Northern Kankanay are Agent, Patient, Experiencer, Goal, Source, Range, Noninstigative cause, Factitive, and Essive. Benefactive, cause, instrument, developmental, and certain aspect and modal elements are considered abstract predicates, since they are not a part of the

essential meaning of the stem but are added to it as outside elements.

The problems I encountered in applying this method were mainly centered in becoming accustomed to the theory. I began by taking the case relationships posited by Fillmore (1968), Langendoen (1969), and Frantz (1971) and checking the Northern Kankanay data to see if they were valid for this language. It was difficult not to be influenced by previous studies which were based on surface structure correlations, which made me want to assume that anything that matched object, for example, had to be a Patient. It also took some practice to grasp some of the distinctions clearly enough in my own mind to be able to use them correctly. Examples of these distinctions are the differences between Goal and Range, or Agent and Source, or Agent and Experiencer.

Although surface structure forms were not the starting point of classification, they were not ignored. I assumed that there would be pattern and consistency in how the deep structure case relationships matched onto the surface structure, since without this kind of consistency there could be no communication between speakers of the language.

1. AGENT ORIENTED

Several verb stem classes are Agent oriented. That is, although these classes have different combinations of other arguments with which they occur, the argument of Agent, the performer of the action, is common to all of them.

1.1 *BODY POSITION* verbs are Agent oriented; they refer to the body position of the Agent. Motion is not inherent in the meaning of the verbs of this class, but with accessory focus³ the Agent is asserted to move to or to assume the position given by the verb. The case frame for this class is Agent and Goal. Some members of this class are tokdo 'sit', takdeg 'stand', podan 'lie down', posnok 'sit on floor with knees up', daksay 'sit on floor with legs straight out', likging 'lie on side', lokbob 'lie on stomach'.

The Agent matches the grammatical subject in the surface structure of the clause. With accessory focus, Agent still matches the grammatical nontopic subject. Goal, the place where the action ends, matches the referent.

Tomakdeg nan in-ina isnan agdan (Sf-stand topic woman nontopic stairs)
'the woman stands on the stairs'.

Itakdegyo no songgep nan Padi (Af-stand-2nd-pl when enter the Priest)
'you stand when the Priest enters'.

Takdegan nan in-ina nan agdan (*stand-Rf nontopic-subject woman topic stairs*) '*the woman stands on the stairs*'.

1.2 *MOTION* verbs assert that the Agent moves. With these verbs the Agent is viewed as moving along a trajectory. Gieser (1972) describes how these motion verbs are used to establish setting. The case frame for this class, besides Agent, includes Range and Goal: someone moves somewhere on something. Range matches the grammatical object and Goal the oblique in the surface structure. Some members of this class are layaw '*run away*', saa '*return home*', lokso '*work in the fields*', tikid '*climb up*', layog '*descend*', tagtag '*run*', tayaw '*fly*'. Lomayog nan babalo isnan dap-ay (*Sf-descend topic young-man nontopic men's-house*) '*the young man descends to the men's house*'. Layogen nan babalo nan paytokan (*descend-Of nontopic-subject young-man topic stone-steps*) '*the young man descends the stone steps*'.

Any verb in this class also has the additional case frame Agent-Source, Patient, and Goal. The Agent, the one who performs the action, is now also the Source, the one away from whose initial location the action is directed. He moves along with the Patient toward the Goal. As with conveyance verbs (1.3), the Patient matches the grammatical accessory. Ilayog Ina nan obi isnan ili (*Af-descend Mother topic sweet-potato nontopic village*) '*Mother descends with (takes) the sweet potato down to the village.*'

Rather than describe this as an additional case frame of this class, one could say that Patient is an optional argument of the class. For the present, however, I prefer to make this a separate case frame, so that it will be comparable to conveyance verbs.

1.3 *CONVEYANCE* verbs assert that the Patient moves away from the initial location of the Agent, who is therefore also Source, toward a Goal.

Since I am describing stem classes according to their underlying case frames and not merely according to their surface structure focus possibilities, it is possible to assign Goal as an argument, even though the Goal cannot be topic of the clause but rather matches the oblique. Patient matches accessory.

The case frame of conveyance verbs is identical to the second case frame of motion verbs. Both assert that the Patient moves, and in some instances that the Agent-Source moves with it. The motion class, however, describes basically the motion of the Agent, and the Patient is optional with it. The conveyance class is concerned mainly with the motion of the Patient and the motion or non-motion of the Agent is incidental. Some members of this class are wasit '*discard*', gayang

'throw'⁴, dowa 'give', dogos 'push', bowa 'spit out', dolin 'put away'.
Iwasit lna nan okis isnan tabbak (Af-discard Mother topic peeling non-
topic pigpen) 'Mother discards the peeling in the pigpen'.

Distribution verbs are a subclass of conveyance verbs. These verbs not only imply motion away from the Agent-Source, but also that the action is distributed over a group or a field. The case frame is the same as for conveyance verbs, but Goal matches the grammatical referent, rather than the oblique. Some members of this class are walas 'distribute', sebseb 'put out a fire by throwing something on it', megmeg 'feed something to chickens'. Imegmeg lna nan bagas isnan manok (Af-feed-chickens Mother topic rice nontopic chicken) 'Mother feeds the rice to the chickens'. Goal matches the grammatical referent in the example Megmegan lna nan manok is bagas (feed-chickens-Rf Mother topic chicken nontopic rice) 'Mother feeds the chickens rice'.

1.4 ACQUISITION verbs assert that a Patient moves toward the Agent, who is therefore also Goal. Patient matches the grammatical object, Source the oblique. Some members of this class are ala 'get', sikipaw 'catch', ani 'harvest', kan 'eat', inom 'drink', awit 'carry'⁵. Alaen lna nan bagas isnan kamowan (get-Of Mother topic rice nontopic basket) 'Mother gets the rice from the basket'.

Separation verbs are a subclass of acquisition verbs which parallels the distribution subclass of conveyance verbs. As in the previous class of distribution verbs in which the meaning of conveyance or motion away from the Agent-Source is further defined by saying that the Patient is moved to a Goal which extends over a field or group, likewise separation verbs further define the meaning of acquisition by saying that the Source from which a Patient is moved extends over a group or field. The case frame is the same as for acquisition verbs, but Source matches the grammatical referent rather than the oblique. Some members of this class are bolas 'gather fruit or vegetables', dalos 'clean', koskos 'remove the bark of a tree', konot 'scratch', bodas 'clean food for cooking by removing the inedible parts', and daos 'weed'. Bodasan lna nan bagas (clean-Rf Mother topic rice) 'Mother cleans the rice'. Bodasen lna nan eta isnan bagas (clean-Of Mother topic unpounded-grains-of-rice nontopic rice) 'Mother cleans the unpounded grains from the rice'.

A few stems have multiple conveyance-acquisition case frames. With one case frame Agent is the Source and with the other Agent is Goal. For example, in ilakon lna nan baat ken Indi (Af-transact Mother topic

bananas nontopic-person Indi) 'Mother sells bananas to Indi', 'Mother' is both the Agent and Source, while 'Indi' is Goal. The Patient, 'bananas', moves away from the Agent-Source. However, in *lakowan Indi nan baat ken Ina* (*transact-Rf Indi topic bananas nontopic-person Mother*) 'Indi buys bananas from Mother', 'Indi' is now the Agent, although her role as Goal has not changed, and 'Mother' remains the Source but not the Agent. The Patient, 'bananas', moves toward the Agent-Goal.

Motion verbs also have this kind of a converse relationship. When a Patient matches accessory the action is directed away from the initial location of the Agent-Source as in *ikaab Moting nan sokit* (*Af-climb Moting topic stick-used-to-remove-fruit-from-trees*) 'Moting climbs up with the stick'. When a Patient matches object the direction of the action is toward the Agent-Goal as in *kaaben Moting nan ollaw* (*climb-Of Moting topic kite*) 'Moting climbs up for the kite'.⁶

1.5 EXTENDED ACTION verbs assert that an action is performed on the surface of a Range. These verbs are similar to separation and distribution verbs in that the action extends over a field, but they differ in that they do not assert that a Patient is directed toward or away from the field. Range matches the grammatical referent. Some members of this class are *saba* 'cultivate', *lampaso* 'scrub the floor with a coconut husk', *laba* 'launder clothes', *owas* 'wash something such as dishes', and *denas* 'wash the feet'. *Sabaan Ina nan om-a* (*cultivate-Rf Mother topic field*) 'Mother cultivates the field'.

1.6 CHANGE OF STATE Agent oriented verbs have the Agent performing an action on a Patient which changes the Patient. Patient matches the grammatical object. Some members of this class are *betbet* 'cut with a chopping motion', *palti* 'butcher', *disig* 'chop fire wood', *dopla* 'smoke tobacco', *langen* 'singe hair off a butchered animal', and *poyo* 'cut down trees'.

An instrument is usually implicit with change of state verbs. Following Langendoen (1969), I have handled instrument as an abstract predicate (5.4). The instrument is not normally expressed in the surface structure unless it is other than the expected instrument.

Change of state verbs can be inflected for referent focus. Under these circumstances Patient is no longer an explicit argument of the predicate, but Range. The action, instead of changing the state of a Patient, is rather localised to a specific Range. For example, *betbeten Moting nan kaiw* (*chop-Of Moting topic wood*) 'Moting chops the wood' asserts that Moting is changing the state of the Patient, 'wood', from

one large piece to smaller usable pieces. However, in the example, *betbetan Moting nan kaiw (chop-Rf Moting topic wood) 'Moting chops the wood'*, the meaning appears to be the same as the first example, but the informant clarifies the meaning as *'Moting chops the end off of the wood'*. 'Wood' now indicates the Range where the action takes place.

1.7 SPEECH verbs are distinguished from other Agent oriented classes in that the action is identified as a speech event and its Patient is a quotation. Both subclasses have the same case frame but are separated into subclasses by the kind of action involved.

Speech categorising verbs classify the kind of discourse which the Agent, who is the speaker, uses to communicate a message, the Patient, to a Goal to whom the message is directed. The Patient matches the grammatical object, and the Goal, the oblique. Some members of this class are *kali 'speak'*, *soot 'ask'*, *sodok 'relate stories'*, *sappit 'relate stories with a moral'*, *toya 'discuss'*, *banag 'conduct a trial'*, and *damag 'tell news'*. *Sodoken Ama nan inommat id kasin isnan ongong-a (relate-stories-Of Father topic happened nontopic before nontopic children) 'Ama relates what happened long ago to the children'*. ('What happened long ago' represents a particular story.)

In speech conveying verbs the action of speaking is asserted to be directed away from the Agent, who is also Source, as with conveyance verbs. The Patient, or message, matches the grammatical accessory, and the Goal, the grammatical referent. Members of this class include *bodaw 'shout'*, *ayag 'invite'*, *baga 'tell'*, *songbat 'answer'*, *oog 'agree'*, and *lowalo 'pray'*. *Ayagan Ama nan agida (invite-Rf Father topic relative-3rd-pl) 'Father invites their relatives'*; *iyayag Ama nan solat isnan agida (Af-invite Father topic letter nontopic relative-3rd-pl) 'Father sends a letter to invite their relatives'*.

It could well be argued that speech conveying verbs could be included in the class of conveyance verbs. Perhaps all Agent-Source verbs should be included in one class. At this point, however, the similarities that these classes have with other classes is better illustrated by keeping them separated, that is, grouping speech conveying verbs with speech categorising verbs.

1.8 With all Agent oriented classes in which Agent is not Source, that is, acquisition, separation, extended action, change of state, and speech categorising, the Patient, or Range in the case of extended action verbs, may match the grammatical accessory. Generally these forms carry the meaning of doing the action in the manner of the stem rather

than in some other way. I am not prepared to describe this fully, but I would like to suggest, as a result of these studies, that perhaps accessory focus implies conveyance. The phenomenon described in Section 2.1.1 of accessory focus occurring with perception verbs to add the meaning of intention seems also to be a kind of conveyance. An example of accessory focus with an acquisition verb is *bilalayena nan awitna danat iyagto* (*carry-in-the-hand-Of-3rd-sing topic load-3rd-sing then-3rd-sing-immediately Af-carry-on-the-head*) '*she carries the load in her hand then she carries it on her head*'. This could be paraphrased '*she picks up the load (acquisition) and carries it in her hand and then she moves it (conveyance) and carries it on her head*'. An example of accessory focus with a change of state verb is *ay isangag tako nan mani onno ipenpen tako* (*question Af-roast 1st-pl topic peanuts or Af-boil 1st-pl*) '*shall we roast the peanuts or shall we boil them?*'. Both *sangag* 'roast' and *penpen* 'boil' are change of state verbs, which generally focus on the Patient with object focus. This example might be paraphrased '*where shall we convey these peanuts: to the skillet to be roasted or to the pot to be boiled?*'. An example of accessory focus with extended action verbs is *ilabam od nan badom adim aped ibabadeng* (*Af-laundry-2nd-sing please topic clothes-2nd-sing negative-2nd-sing just Af-place*) '*please laundry your clothes; don't just lay them down*'. *Laba* 'laundry' is an extended action verb which generally focuses on the Range with referent focus. This example might be paraphrased '*take these clothes and laundry them instead of leaving them lying around*'.

1.9 With the exception of motion verbs, when no Patient occurs, and body position verbs, which take no Patient distinct from the Agent, all the Agent oriented classes can occur with no Agent expressed, but with none of their other case relationships changed. The Agent may be unexpressed to indicate either that it is highly predictable or that the action is unintentional. The nonagentive prefix *ma-* occurs alone with object focus, as *mai-* with accessory focus, as *ma- ... -an* with referent focus, and as *mai- ... -an* with benefactive focus.

2. EXPERIENCER ORIENTED

Experiencer oriented verbs differ from Agent oriented verbs in that the subject is asserted to perceive or feel the predication.

2.1 In *PERCEPTION* verbs the Experiencer, who may also be Agent, is asserted to perceive a Patient. The action may or may not be instigated by the Experiencer-Agent. In the main subclass of this class Patient

matches object. Members of this subclass include *ila* 'see', *denge* 'hear', *songsong* 'smell', *likna* 'feel', *getek* 'know', *layad* 'like/love', *nemnem* 'think/remember', *iitaw* 'dream', *ganas* 'enjoy', and *sakit* in its extended meaning of 'feel offence', not its literal meaning of 'feel pain'. *Dengngen lna nan kanta* (hear-Of Mother topic song) 'Mother hears the song'.

2.1.1 A subclass of perception verbs are intentional action perception verbs. Patient matches accessory. Some perception verbs are also members of this subclass. The difference between this subclass and other perception verbs parallels the difference described in Section 1.7, when the Patient matches the accessory instead of the object as expected. I do not fully understand the extent of the meaning of verbs as they occur in this subclass, but I have illustrated them here as best I can: *idngena nan kanan nan mistalana* (Af-hear-3rd-sing topic say possessive teacher-3rd-sing) 'he actively hears (obeys) what his teacher says'; *isongsong nan maliton nan lipolyo* (Af-smell nontopic-subject pregnant topic cabbage) 'the pregnant one rejects the smell of cabbage', *igtekna nan binasana* (Af-know-3rd-sing topic Of-completive-read-3rd-sing) 'He applies what he has read'. Other verbs that behave this way are *sakit* 'feel offence', *nemnem* 'think', *likna* 'feel', and *ganas* 'enjoy'.

Some intentional perception verb stems, which are not also members of the main subclass of perception verbs, are *nengneng* 'look carefully at something', *sin-eng* 'look through a small opening at something', and *naag* 'listen carefully/eavesdrop'. *Inengneng Ama nan lilos* (Af-look-carefully Father topic clock) 'Father looks carefully at the clock'.

2.2 In SENSATION verbs the Experiencer who does not initiate any action is asserted to sense by seeing, hearing, tasting, smelling, feeling, or what the Kankanay consider the sixth sense, knowing. The Experiencer matches the grammatical referent of a nonagentive clause. What is sensed in this class is a Noninstigative cause rather than a Patient, and it matches the oblique when the Experiencer matches the grammatical referent. Noninstigative cause matches subject when these verbs occur with another case frame as described in 3.1. Some perception verbs also occur with the case frame of sensation verbs. Members of this class include *denge* 'hear', *songsong* 'smell', *getek* 'know', *bango* 'fragrant', *aged* 'sour', *dagsen* 'heavy', *peteg* 'bad odour', and *ngenge* 'buzz'. *Nasongsongan si lna isnan bawang* (nonagentive-smell-Rf topic Mother nontopic onions) 'Mother senses the smell of onions'. This can also be paraphrased as 'Mother is adversely affected by the smell of onions'.

3. PATIENT ORIENTED

Several classes of verbs are Patient oriented, that is, a Patient is affected in some way by the predication. All Patient oriented clauses may be dominated by an abstract developmental predicate which is described in Section 5 on proposition consolidation.

3.1 *SENSATION STATIVES* describe a Patient in a way which can be perceived by an Experiencer. Patient matches the grammatical subject. Members of this class describe smells, both pleasant and unpleasant, tastes, and also things which can be felt, such as textures and the sharpness of a knife. These stems also have the case frame of sensation experiencer verbs. Subject focus *-om-* with this class indicates developmental; the Patient develops into or becomes the state specified in the verb (Section 5.3).

Members of this class include aged *'sour'*, tamnay *'tasteless'*, sampet *'rough'*, leteg *'straight'*, bango *'fragrant'*, dagsen *'heavy'*, yap-ew *'light weight'*, akoo *'smell of something dead'*, angseg *'smell of rotten plants'*, angilit *'smell of singed hair or feathers'*, amay *'nice'*, ngenge *'buzz'*, and kiking *'jingle'*. Men-aged nan lolokison (Sf-*sour* topic orange) *'the orange is sour'*.

3.2 Another class describes the *INHERENT STATE* of a Patient. The Patient matches the object of a nonagentive clause when the verb is inflected with the completive affix *na-*. These verbs cannot be affixed with the incompletive *ma-*, and they cannot take an Experiencer. Subject focus *-om-* indicates developmental; the Patient takes on the characteristic of the stem. Members of this class include dalos *'inherently clean'*, toled *'brave'*, gaget *'industrious'*, anos *'patient'*, imot *'selfish'*, pigsa *'strength'*, ngina *'expensive'*, and sokil *'naughty'*. Natoled nan soldado (nonagentive-Of-*brave* topic soldiers) *'Soldiers are brave'*.

3.3 *ACQUIRED STATE* verbs are Patient oriented. Patient matches the grammatical object, and Noninstigative cause, the subject. Verbs of this class may be affixed with either the incompletive *ma-* or completive *na-* forms of the nonagentive object focus affix. It is the distinction between not yet and already acquired that allows this class to be inflected with both forms of the affix. The incompletive implies that the Patient is in the process of acquiring the state of the verb, for example, maseyepka (nonagentive-incompletive-Of-*sleep*-topic-2nd-sing) *'You go to sleep'*. With the *na-*, completive form, as illustrated by

Naseyep si Ina (nonagentive-Of-completive-sleep topic Mother) 'Mother is asleep', the Patient has acquired the state. This contrasts with inherent statives in that in the inherent state the Patient is taken as being in the state of the verb, but not as acquiring it. Naanoska (nonagentive-completive-patient-topic-2nd-sing) 'you are patient'.

Acquired statives include bisil 'wealthy', togo 'crazy', bosog 'full from eating', toweng 'deaf', seyep 'asleep', gido 'awake', kao 'thin', beáy 'tired', owat 'hungry', tago 'alive', and siken 'mature'.

3.4 RELATIONAL STATIVES describe the Patient in a way which can be compared: long in relation to short, or small in relation to large. The verb is uninflected for any focus, but the Patient is always topic. Verbs of this class have the additional case frame of change of state Agentive oriented verbs. See Bierwisch (1969) and Chafe (1970) for a fuller description of relational predicates.

Members of this class include ando 'long', aptik 'short', teeten 'small', dakel 'large', atik 'few', ado 'many', gawis 'good', ngawi 'bad', adaem 'deep', atapew 'shallow', and atakdag 'high'. Teeten nan baeymi (small topic house-1st-pl) 'our house is small'.

4. ARGUMENT INCORPORATION

Verbs and nouns can be distinguished in most Philippine languages by strictly surface structure criteria, though the description may be rather complicated. The description is further complicated since verbs may function as nouns and nouns as verbs. An oversimplification of the distinction between nouns and verbs in Northern Kankanaey is that verbs can be inflected for focus and complete versus incomplete aspect. Nouns can occur with pluralising or counting affixes and possessive pronouns. However, verbs according to the above description may occur as the noun of a noun phrase, e.g. isgepmo nan binilag (Af-enter-2nd-sing topic Of-completive-dry) 'Bring in what-has-been-put-out-to-dry' or in simple English 'bring in the clothes'. A verb like inom 'drink' may occur with both counting affixes and possessive pronouns, e.g. sinkainomko na (unit-drink-1st-sing this) 'this is my one-unit-of-drink' or 'this is enough for me'.

Nouns, stems which identify a person, place, or thing, may also occur with focus affixes and be inflected for completive aspect. For example, abistong 'jew's harp', abistongen 'play on the jew's harp'; agas 'medicine', agasan 'apply medicine to'; and benge 'hair beads', menbenge 'wear hair beads'.

Frantz (1971) calls nouns, adjectives, and verbs contentives and shows how they can all be treated as predicates with arguments in the underlying structure. Nouns are predicates that have the argument Essive, but they can also be incorporated into a predicate that has the case arguments of verbs. When this happens, however, the noun brings with it the case arguments of its nominal form and adds them to the ones the predicate already has. Hall (1969) has described this phenomenon in terms of a dummy verb. He says that the dummy verbs indicate that some action is performed using the verb stem.

In the examples cited above, the Patient is incorporated into the predicate in place of whatever less specific predicate might be assumed there. Examples of Instruments being incorporated into change of state verbs are *balbeg 'spear'*, *balbegen 'kill with a spear'*; and *igad 'grater'*, *igaden 'shred with a grater'*.

In Northern Kankanay the Factitive (result) is also expressed by argument incorporation: *katlowen Ama nan tali* (non-cardinal-three-Of Father topic rope) '*Father thirds the rope*'. Object focus here implies that '*three*' has the change of state semantics of '*cut*', so the gloss for this example could be '*Father cuts the rope into three pieces*'.

Under incorporation these noun roots fit into regular verb stem classes when they are verbalised, according to their meaning. I have not explored the full extent of argument incorporation in this study. The above examples suggest the possibilities.

5. PROPOSITION CONSOLIDATION

Langendoen (1969) has shown how assuming abstract predicates in the deep structure can help explain the relationship between predicates and their arguments for English predicates like *shake*, which can have one argument, as in *the tree shook*, and two arguments, as in *the boy shook the tree*. He points out that *the boy shook the tree* and *the boy caused the tree to shake* have virtually the same meaning. By establishing a deep structure predicate, causative, which has an Agent as one of its arguments, in this case *the boy*, and another proposition as another argument, this similarity in meaning is captured. The second proposition is a predicate, *shake*, with one argument, *the tree*. By a transformational rule the predicate *shake* is substituted for the abstract predicate causative to give the surface structure *the boy shook the tree*. This description enables him to say that "*shake* is a single lexical item which occurs in the deep structure with just one argument". He also shows how by the same principle an abstract instrumental predicate and an abstract inchoative predicate can be established.

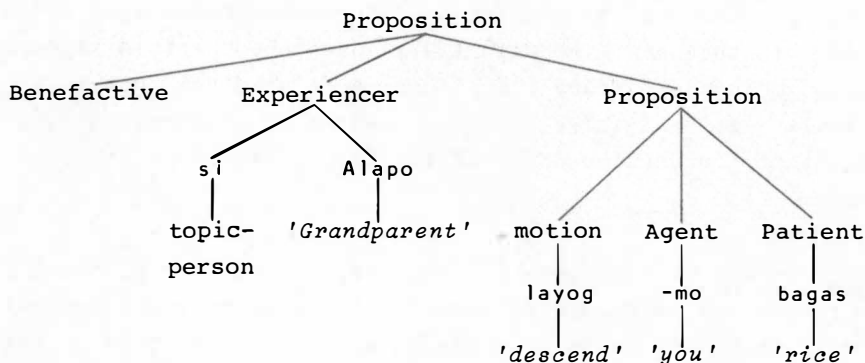
Following this same principle, I have found it useful to assume abstract instrumental, benefactive, causative, and developmental (Langendoen's inchoative) predicates. Perhaps nonagentives could also be handled in this way. Hohulin (1971) describes certain aspects, modes, and manners in Keley-i Kallahan, a related Philippine language, in a similar way, and she calls them complex predicates. She finds, however, that nonagentive does not fit the system as an abstract predicate.

5.1 Benefactive is indicated in the surface structure by the affix *i-* ... *-an*, which is a combination of the accessory focus and referent focus affixes. This could be interpreted as a combination of two semantic elements in a metaphorical sense, that is, one could consider Goal, which frequently underlies referent focus, and motion away from the Agent, which is indicated by accessory focus, as together underlying benefactive. On the other hand, whether one defines benefactive as a simple relation or a composite one does not make a significant difference at this point. For that reason, and since it has been traditionally referred to as one of the focus categories, I have continued so to refer to it in this paper.

The *benefactive* predicate, as opposed to the grammatical benefactive, has Experiencer as one of its arguments. This follows Frantz's (1971) usage. In Northern Kankanaey, benefactive indicates that the action is done on behalf of the Experiencer. The Experiencer may or may not be the Goal of the action. The following examples illustrate Experiencer as Goal. *Ilayogan Moting si Alapo is pagey (Bf-descend Moting topic Grandparent nontopic rice) 'Moting takes the rice down for (and to) Grandparent'*. The Agent '*Moting*' is doing the work for Grandparent, but implicit in the statement is that Grandparent will also receive the rice. Benefactive is not necessarily the Goal of the action, however, as in the example *itagtagan Moting si Songado (Bf-run Moting topic-person Songado) 'Moting runs for Songado'* in a baseball game when Songado can still bat, but his sprained ankle won't let him run. Figure 1 (overleaf) illustrates how the abstract benefactive predicate is consolidated with a basic predicate.

5.2 Causative is indicated in the surface structure by the affix *pa-*. The *causative* predicate has an Agent as one of its arguments as well as an Experiencer, which must have the same referent as the Agent of the basic predicate with which causative is consolidated. With motion verbs and some acquisition verbs, causative can be layered on causative. An ordering rule is needed to indicate which arguments map on which

FIGURE 1

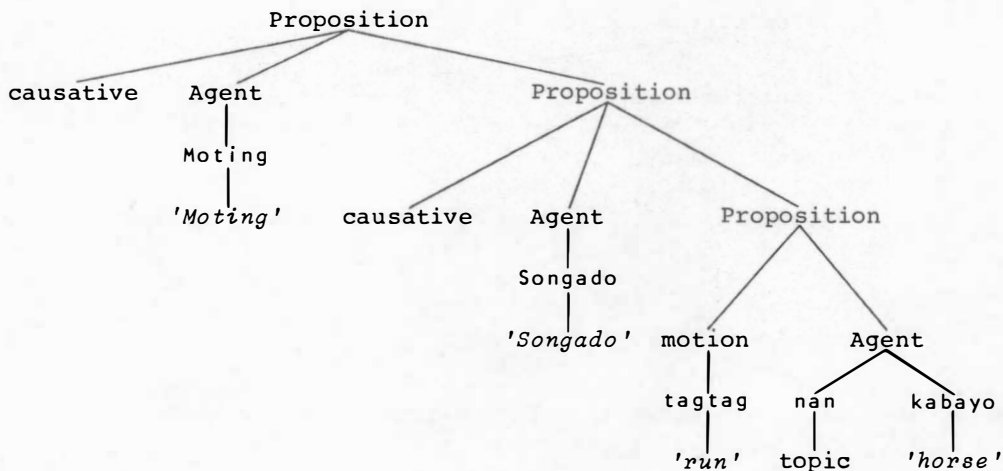


ilayogam si Alapo is bagas (Bf-*descend*-2nd-sing topic-person Grandparent nontopic rice) 'you take the rice down for Grandparent'.

grammatical category in the surface structure, but this and other mapping rules have not yet been worked out fully. See Frantz (1971) for his description of mapping rules for a similar kind of proposition consolidation in Blackfoot. Double causative is seen in the example *papainomenyo si Aket ken Ikit* (*cause-cause-drink-Of-2nd-pl topic-person Baby nontopic Aunt*) 'you have Aunt give Baby a drink'. With motion verbs double causative is indicated in the surface structure by the choice of the grammatical category which matches the Agent of the basic predicate. In the simple causative *patagtagen Moting nan kabayo* (*cause-run-Of Moting topic horse*) 'Moting makes the horse run', 'horse' matches the object even though it is the horse that does the running. However, in the double causative *paitagtag Moting nan kabayo ken Songado* (*cause-Af-run Moting topic horse oblique-person Songado*) 'Moting has Songado make the horse run', 'horse', though still the Agent of the basic predicate, matches the accessory slot and still another causative predicate is consolidated with the basic predicate. Abstract causative predicates can be illustrated as in Figure 2, on page 15.

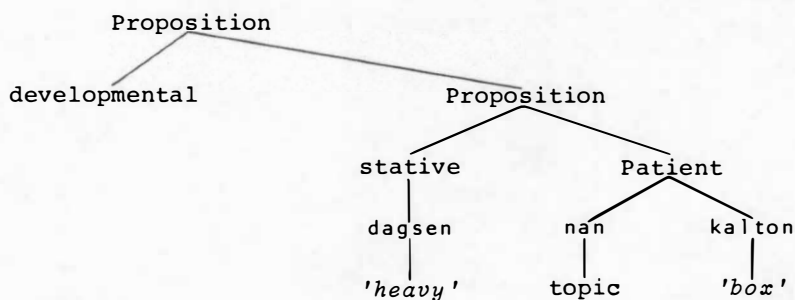
5.3 The *developmental* predicate has no argument other than the embedded proposition. Developmental is indicated in the surface structure by the -om- infix with Patient oriented verbs, except for the class of acquired statives: *domagsen nan kalton* (Sf(-om-)-*heavy* topic box) 'the box becomes heavy', which can be illustrated as in Figure 3, on page 15.

FIGURE 2



paitagtag Moting nan kabayo ken Songado (cause-Af-run Moting topic horse oblique-person Songado) 'Moting has Songado make the horse run'

FIGURE 3

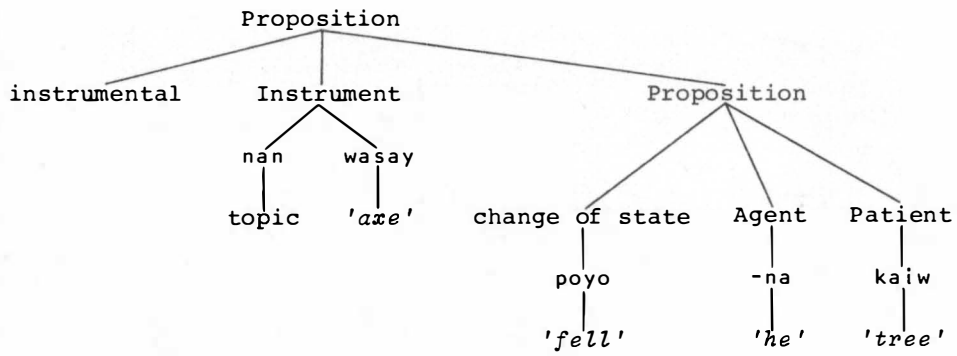


domagsen nan kalton (Sf-heavy topic box) 'the box becomes heavy'

5.4 The *instrumental* predicate has an Instrument as one of its arguments. Instrument matches the accessory in the surface structure: ipoyona nan wasay isnan kaiw (Af-fell-3rd-sing topic axe nontopic tree) 'He fells the tree with an axe'.

See Figure 4, overleaf.

FIGURE 4



ipoyona nan wasay isnan kaiw (Af-fell-3rd-sing topic axe nontopic tree)
'he fells the tree with the axe'

NOTES

1. Material for this paper was gathered in Balugan, a barrio of the Sagada municipality of Mountain Province (formerly Bontoc Sub-Province), Philippines. Sagada lies on the northernmost edge of the Northern Kankanay language area. According to Dyen (1965), Sagada is one of the languages of the Igorot subfamily of the Philippine branch of Malayo-Polynesian languages. The language spoken in Sagada, according to Scott (1957), is representative of that spoken in the municipalities of Sagada and Besao, which, according to the 1970 census, include over 22,000 speakers. This language is also understood in the municipalities of Kayan, Bauko, and Sabangan, which represent a population of about 25,000. Scott and others have suggested that Sagada is the northernmost extension of Kankanay of the Lepanto area. The Sagada language and culture have been referred to as Northern Kankanay and Northern Kankanai, and Scott has used the term Sagada Igorot. The people refer to themselves and their language as Igot; however, by this term they include all the ethnic and linguistic groups of the whole former Mountain Province complex. Reid refers to the Sagada language as Western Bontoc in a footnote (1964).

The author has been engaged in field work in Northern Kankanay under the auspices of the Summer Institute of Linguistics since 1963. This study was made during a three-month workshop conducted by Joseph E. Grimes of SIL and Cornell University in 1971 at the Philippine Branch of SIL's southern center at Nasuli, Malaybalay, Bukidnon. Dr Grimes' presence in the Philippines and the workshop he conducted were both partially supported by Grant GS-3180 of the National Science Foundation. Appreciation is expressed for Dr Grimes' guidance during the workshop both in doing the research for and in the writing of this paper. I also gratefully acknowledge the kind assistance Miss Edith Abeya, a native speaker of Northern Kankanay, gave me during the workshop.

Finally, it is acknowledged that the research for this paper was greatly facilitated by the concordance of Northern Kankanay texts, a

concordance made on the IBM 1410 computer at the University of Oklahoma as part of the Linguistic Information Retrieval Project of the Summer Institute of Linguistics and the University of Oklahoma Research Institute, which was partially sponsored by Grant GS-270 of the National Science Foundation.

The phonemes for Northern Kankanay consist of fifteen consonants b, d, g, k, l, m, n, ŋ, p, s, t, w, y, a voiced velar fricative, and glottal stop; and four vowels a, ɨ, i, and o. All examples are given in the practical orthography. The velar fricative which only occurs medially in the vowel sequences ea, aa, ae is symbolised by acute accent on the stressed vowel. Glottal stop is symbolised by hyphen when it occurs in a consonant cluster, and is not symbolised between vowels and word initially. The velar nasal ŋ is symbolised by ng; a hyphen between n and g indicates that this is to be read as a sequence of n and g, not as the velar nasal. The high central vowel ɨ is symbolised by e. Stress, although phonemic, is not written.

2. The terms predicate and argument are used exclusively in their logical sense.

3. Focus is a relationship between certain verbal affixes and a topic noun phrase in the clause. The focuses distinguished in Northern Kankanay are subject (Sf), object (Of), accessory (Af), referent (Rf), and benefactive (Bf). Unlike Ivatan (Reid 1966, 8-11), noun phrases in Northern Kankanay do not contain an explicit identifier of their grammatical roles in the sentence. The focus morpheme which co-occurs with the topic identifies the grammatical role of the topic. There are noun phrases which are never topic; therefore, their grammatical role cannot be identified. I call the grammatical roles of these noun phrases oblique throughout this paper.

4. Some stems have multiple case frames. For example, *gayang* 'throw' also has the case frame of change of state verbs. With this case frame it has the meaning 'injure by stoning'. Although I have indicated when an entire stem class has multiple case frames, I have not indicated it for isolated stems. This will have to be shown, however, in the dictionary.

5. One verb stem *bolig* 'carry on the shoulder' occurs with referent focus rather than object focus; otherwise it functions the same as other verbs meaning to carry in various ways. I believe that this is an exception and does not constitute a reason for handling it differently

from other carry verbs.

6. It is ambiguous from the surface structure as to whether the object here matches Patient or Range. An example of Range is *kaaben Moting nan kaiw* (*climb-Of Moting topic tree*) '*Moting climbs the tree*'. A similar problem in English occurs with *follow that man* and *follow that trail*.

7. A special mapping rule is needed for some verbs when Patient and Agent have the same referent as in *men-emeska* (*Sf-bathe-topic-2nd-sing*) '*you bathe (yourself)*' in contrast to *emsem nan onga* (*bathe-Of-2nd-sing topic child*) '*you bathe the child*'.

I have not included symmetric verbs, such as *asawa* '*marry*' and *sape* '*fight*', and verbs with group Patients, such as *iso* '*compare*', but I believe that they can be included in the class of change of state, or perhaps acquisition verbs, and that mapping rules can also handle the referents for these verbs. Langendoen (1970) has discussed symmetric predicates. Wolff (1970) in his classification of Cebuano verbs has called symmetric verbs a separate class.

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