Part-I

General Assumptions in Generative Linguistics

Chomsky's Biolinguistic Assumptions

➢ Language is a biological endowment

   ➢ Innateness

   ➢ The Architecture

Innateness

➢ As a part of our brain, there is a Faculty of Language (FL)

➢ FL is relatively a recent biological development

➢ Its development may not be strictly for communication. (Chomsky, 2004)

Innateness cont…

- A child does not "learn" language but it matures by being exposed to the linguistic environment, in the same way as the vision matures. In both the cases the innate biological abilities mature.

- The basic nature of the FL is symbolic; it has no direct correspondence to physical objects.

Innateness (continued…)

➢ FL has an Initial State: L_0

➢ The L_0 can be modified. But, the possible modifications are highly regulated.

➢ L_0 is modified with the exposure to the target Language.

➢ L_1, L_2, L_3…. are modifiable states; they correspond to different natural languages.
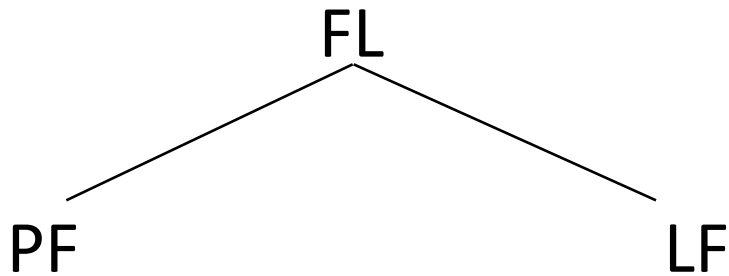
Innateness (continued…)

➢ A natural language is an instantiation of one such modifiable states of L_0

➢ The set of facts available to the L_0 is called the set of principles

➢ The set of variations possible within the principles are called parameters, which allow the languages to be different from one another

Innateness (continued…)

➢ This approach in generative grammar is called the Principles and Parameters (PP) approach.

➢ To account for a particular language the grammar has to meet "Descriptive Adequacy".

➢ To account for the L_0 the grammar has to meet "Explanatory Adequacy".

The Architecture

➢ The Faculty of Language (FL) interfaces with two other systems; they are:

　➢ Sensory Motor (Articulatory-Perceptual) system: (PF)

　➢ Systems of thought (Conceptual-Intentional system): (LF)

```
           FL
          /  \
        /      \
      /          \
    PF            LF
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PF:　　Phonetic Form　　LF:　　Logical Form

The Architecture (Continued…)

➢ For FL to be usable by the PF and LF interface systems, it should be legible to them

➢ Language is an optimal solution to legibility conditions. (Chomsky, 2002)

Part-II
Grammatical Aspects and Parameters

Bibhuti Bhushan Mahapatra

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Two types of aspect

- Aspect generally indicates how a situation is seen in the course of time.

- Smith (1997)
  - Situation Type Aspect (Aktionsart)
  - Viewpoint Aspect

- The above distinction is usually seen as:
  - Lexical vs. Grammatical.

Verb Types

- Vendler (1967)
  - States
    - *Know, resemble, belong....*
  - Activities (Processes)
    - *Push, row, loiter, walk, revolve, rotate, flow....*
  - Accomplishments
    - *Build, write, eat.....*
  - Achievements
    - *Sight, spot, burst, win, reach, blast, explode...*
- Smith (1991/1997)
  - Semelfactive
    - Knock, cough...

Feature Matrix for Situation types

(1) **Situations**   **Static**   **Durative**   **Telic**

Situations	Static	Durative	Telic
State	[+]	[+]	[-]
Activity	[-]	[+]	[-]
Accomplishment	[-]	[+]	[+]
Semelfactive	[-]	[-]	[-]
Achievement	[-]	[-]	[+]

Auxiliaries for situation types (aktionsart) in Odia

- It is generally assumed that 'situation types' are lexically marked on the verb (predicate).

- However, in Odia situation types can be expreed with a closed set of grammatical auxiliaries.

Stative auxiliary

(2)   kukura-Ta: so   -i **-rah** -i-(a)ch -ø   -i

       dog-class sleep-vl-state-vl-cop -pres-agr

       'The dog is (in the state of) sleeping.'

(3) *kukura-Ta: goTe ha:Da coba:-i-**rah**-i-(a)ch-ø-i

       dog-class   one bone   bite-vl-state-vl-cop-pres-agr

       'The dog is (in the state of) biting a bone.'

Activity auxiliary

(4)   *kukura-Ta: so   -i -**la:g** -i-(a)ch   -ø   -i
       dog-class   sleep-vl-act -vl-cop   -pres-agr
       'The dog is (in the act of) sleeping.'

(5)   kukura-Ta: goTe ha:Da coba:-i-**la:g** -i-(a)ch-ø-i
       dog-class   one bone   bite-vl-act-vl-cop-pres-agr
       'The dog is (in the act of) biting a bone.'

Process auxiliary

(6) saka:La-Thu bandi jaNa-ka ghaNa: pel-i-**la:g**-i-(a)ch-ø-i

morning-ablat prisoner class-def crusher push-vl-act-vl-cop-pres-agr

'Since morning, the prisoner is (in the act of) pushing the crusher.'

(7) ?*ka:li-Thu jangala-Ta: poD -i -**la:g** -i -(a)ch -ø   -i

yesterday-ablat jungle-class burn-vl-act -vl-cop -pres-agr

*'Since yesterday the jungle is (in the act of) burning.'

(8) ka:li -Thu jangala-Ta: poD -i -**ca:l** -i -(a)ch -ø   -i

yesterday-ablat jungle-class burn-vl-proc-vl-cop -pres-agr

'Since yesterday the jungle is (in the process of) burning.'

Action as event but not vice versa

(9) saka:La-Thu bandi jaNa-ka ghaNa: pel-i-**la:g**-i-(a)ch-ø-i

morning-ablat prisoner class-def crusher push-vl-act-vl-cop-pres-agr

'Since morning, the prisoner is (in the act of) pushing the crusher.'

(10) saka:La-Thu bandi jaNa-ka ghaNa: pel-i-**ca:l**-i-(a)ch-ø-i

morning-ablat prisoner class-def crusher push-vl-proc-vl-cop-pres-agr

'Since morning, the prisoner is (in the process of) pushing the crusher.'

- Although the language allows the process reading of the activity it still keeps them grammatically distinct, as evident from (6)-(8).

Accomplishment auxiliary

- The aux, *sa:r* (finish) on the surface is a 'completive'.

- But it is not available with 'state', 'process' and 'activity', but, only with accomplishment:
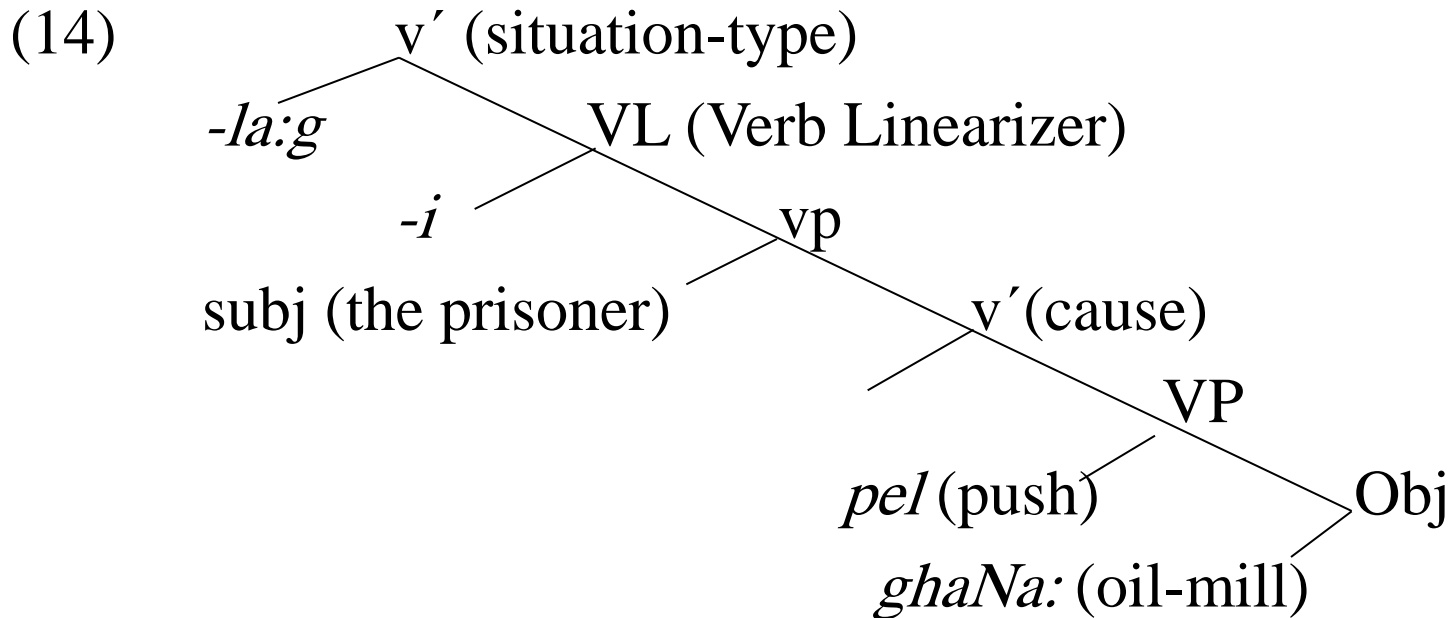
11)   ra:ju bahi-Ta: paDh-i-**sa:r**-i-(a)ch-ø-i

   Raju book-class read-vl-finish-vl-cop-pres-agr

   'Raju has finished reading the book.'

12)   anDa:-Ta: sijh -i -**sa:r** -i -(a)ch -ø   -i

   egg -class boil-vl-finish-vl -cop -pres -agr

   'The egg has already boiled.'

'Situation-type' auxiliaries and their related aspect features in Oḍia

(13) *rah* (stay)   State

      ca:l (walk/move/continue)   Process

      la:g (engage/continue/stick)   Activity

      sa:r (finish)   Accomplishment

The position of the situation type aux.

(14) v′ (situation-type)

-*la:g* VL (Verb Linearizer)

-*i* vp

subj (the prisoner) v′(cause)

VP

pel (push) Obj

ghaNa: (oil-mill)

- I adopt the left-branching structure, which gives the mirror image of the sequence of the morphemes in the VP.

Viewpoint aspects

- Earlier analyses, e.g. Nayak (1987), Mohanty (1992) and Sahoo (2001) identify two aspects for Odia:

Progressive   (marked with the morpheme -**u**)

Perfective   (marked with the morpheme -**i**)

- Smith (1997) labels imperfective and perfective aspects as viewpoint aspects.

Progressive vs. Perfective:
A minimal contrastive pair in present

(15) ra:dha: ma:cha kha:-**u** -(a)ch -ø   -i

      Radha   fish   eat -impf -cop-pres-agr

      'Radha is eating fish.'

(16) ra:dha: ma:cha kha:-**i** -(a)ch -ø   -i

      Radha   fish   eat -pf -cop-pres-agr

      'Radha has eaten fish.'

Progressive vs. Perfective:
A minimal contrastive pair in past

(17) ra:dha: ma:cha kha -**u**   -th   -il   -a:

Radha   fish   eat -impf-cop-past-agr

'Radha was eating fish.'

(18) ra:dha: ma:cha kha -**i** -th -il   -a:

Radha   fish   eat -pf-cop-past-agr

'Radha had eaten fish.

The Progressive goes with accomplishments

(19) a:ji-ka:li ra:dha: ma:cha kha:-**u** -(a)ch -ø -i

   today-tomorrow Radha fish eat-impf-cop -pres-agr

   'These days Radha is eating fish.'

(20) pila:-din-e ra:dha: ma:cha kha:-**u** -th   -il -a:

   child-day-loc Radha   fish eat-impf-cop-past-agr

   'In the childhood Radha was eating fish.'

The Progressive goes with processes

(21)   pruthibi surjya ca:ri-paT-e ghur -**u**   -(a)ch -ø   -i

Earth sun four-side-loc revolve-impf-cop-pres-agr

'The Earth is revolving around the sun.'

(22)   goda:bari bha:rata-ra pascima-ru purba-ku bah-**u**-(ach)-ø-i

Godabari India-gen west-ablat east-acc flow-impf-cop-pres-agr

The (river) Godabari is flowing from India's west to the east.'

The Progressive goes with activities

(23) ra:ju goTe ghara khoj -**u** -(a)ch -ø -i
      Raju one house look for-impf-cop-pres-agr
      'Raju is looking for a house.'

(24) kukura-Ta: goTe ha:Da coba: -**u** -(a)ch -ø -i
      dog-class one bone bite-impf -cop -pres-agr
      'The dog is biting a bone.'

The Progressive does not go with states

(25) *se murti-Ta: goTe masa:la dhar-**u**-(a)ch-ø-i

dis statue-class one torch hold-impf-cop-pres-agr

*'That statue is holding a torch.'

(26) se murti-Ta: goTe masa:la dhar-**i**-(a)ch-ø-i

dis statue-class one   torch   hold-pf-cop-pres-agr

'That statue holds a torch.'

Aspect difference as sense difference between verbs

(27)   *se murti-Ta: goTe masa:la dhar-**u**-(a)ch-ø-i

dis statue-class one torch hold-impf-cop -pres-agr

'That statue is holding a torch.'

(28)   pila:-Ti goTie kanki dhar-**u**-(a)ch-ø-i

child-calss one dragonfly catch-impf-cop -pres-agr

'The child is catching a dragonfly.'/

*The child is holding a dragonfly. (Process/Accomplishment)

•   The verb *dhar* (hold/catch) has different senses in (27) and (28); (28) indirectly supports that the progressive does not go with the stative verbs.

Some lexically ambiguous verbs

- Some lexically ambiguous verbs:

  cã:h (be awake/look at/look forward to/gaze at)

  dhar (hold/catch)

  ja:N (know/realize/understand/learn)

  paD (lie/fall)...

- Their sense difference depends on their choice of different aspects.

- They have process or accomplishment sense with the progressive.

- They have stative sense with perfective.

The Progressive is [+Dynamic]

- The progressive *-u* goes with:
  - Accomplishments
  - Processes
  - Activities
- But, it does **not** go with:
  - States
- One can analyse that the progressive *-u* actually bears the feature [+Dynamic] in Odia; and it is in binary opposition with the feature [-Dynamic], which marks the state.

Problems with
the perfective reading of *–i*

- In the following slides we will see that the morpheme *–i,* which is analysed as the perfective marker in earlier studies, does not have the perfective sense in many contexts:

Lacks perfective meaning in its usual position

(29) ra:dha: ma:cha kha:-**i** -(a)ch -ø   -i

　　　Radha   fish   eat -pf -cop-pres-agr

　　　'Radha has eaten fish.'

(30) singha-Ti   so   **-i** -(a)ch -ø   -i

　　　lion-class sleep-vl-cop -pres-agr

　　　'The lion is sleeping.'

• Notice in (30) the morpheme *-i* has no perfective meaning!!!

The So Called perfective Occurs in the Positions where the Progressive Cannot

(31)   *a:me-ma:ne se swara suN -**u**   -pa:r -u   -th -il -u

we -class   dis voice hear-impf-mod-impf-cop-past-agr

(32)   *a:me-ma:ne se swara suN -**u**   -pa:r -i   -th -il   -u

we-class   dis voice hear-impf-mod-vl-cop-past-agr

(33)   ra:ju se swara suṇ -**i** -pa:r   -u   -th   -il   -a:

Raju dis voice hear-vl-mod-prog-cop-past-agr

'Raju was being able to hear that voice.'

(34)   ra:ju se swara suṇ -**i** -pa:r -i   -th   -il   -a:

Raju dis voice hear-vl-mod-pf-cop-past-agr

'Raju had been able to hear that voice.'

When governed by situation type auxiliaries

(36)   kukura-Ta: so   -i **-rah** -i -(a)ch -ø   -i
        dog-class sleep-vl-state-vl-cop -pres-agr
        'The dog is (in the state of) sleeping.'

(37)   kukura-Ta: goTe ha:Da coba:-i **-la:g**-i -(a)ch -ø   -i
        dog-class   one   bone   bite -vl-act -vl-cop -pres-agr
        'The dog is (in the act of) biting a bone.'

The morpheme –*i* as conjunctive participle

(38)   ra:ju naDia-Ta:-ku [PRO bha:ng **-i**] kor -il-a:

       Raju coconut-class-acc [PRO break -vl] scrape-past-agr

       'Raju having broken the coconut scraped it.'

(39)   naDia:-Ta: [PRO gacha-ru paD-**i**] gaD-**i**-a:s-il-a:

       coconut-class [PRO tree-ablat fall-vl] roll-vl-come-past-agr

       'The coconut having dropped from the tree came rolling.'

• It indicates functions like: completion of the event as in (38); the manner function of the event as in (39). cf. Dwarikesh (1971) and (Masica 1991).

The challenge posed by
the morpheme -*i*

- Thus, there are a number of facts which suggest that the analysis of the morpheme -*i* as the perfective marker is too simplistic and misleading. The morpheme -*i* can occur in different positions in the verb phrase with different functions.

- Any attempt to explain the morpheme -*i* has to decide:
  - Whether the language has homophonous -*i*'s or,
  - If it has a unified underlying function, and its different functions are its conditional variants.

A descriptive perspective of *-i*

- So far, it must be obvious that the morpheme -i does not have any single semantic sense. Thus, its function seems to be more general and syntactic.
- **Descriptively**, it would be adequate to say that it is a default verb subordinator, which overtly marks the subordinate relation of the lower verb with the higher one.
- It is marked on a lower verb to simply indicate that the lower verb needs some more verbal feature to be merged.
- This analysis of -i is consistent with its behaviour in all positions as it always occurs between two verbal elements.

Distinctness Condition of Richards (2010)

- Richards (2010) proposes an obligatory 'distinctness condition' on multiple items of the same category label.

- Items with the same category label are not distinct unless their hierarchical grammatical relation is visible to Phonetic Form (PF).

- Therefore, they must be linearized just before the spell-out with some hierarchical grammatical information.

Sequence of event and state: The perfective relation

(40) ra:dha: ma:cha kha: -i -(a)ch -ø   -i

    Radha   fish   eat -vl-cop -pres-agr

    'Radha has eaten fish.'

Sequence of state and state: The stative relation

(41)   singha-Ti   so   -i   -(a)ch -ø   -i

lion-class sleep-vl-cop   -pres-agr

'The lion is sleeping.'

As a simple verb linearizer with non copular auxiliaries

(42)   kukura-Ta: so   -i -rah -i -(a)ch -ø   -i
        dog-class sleep-vl-state-vl-cop -pres-agr
        'The dog is (in the state of) sleeping.'

(43)   a:me-ma:ne se swara suN -i -pa:r -i   -th   -il   -u
        we   -class dis voice hear-vl-mod-vl-cop-past-agr
        'We had been able to hear that voice.'

(44)   dipa-Ta: libh   -i -ja: -i   -th   -il   -a:
        candle-class extinguish-vl-go-vl-cop-past-agr
        'The candle had got extinguished.'

Two types of aspectual relation between events

- If two events are juxtaposed they are either in a sequence or concomitant.

Sequence of events and perfective relation

- If they are in a sequence, as they are in (38), their event boundaries have to be discrete; and therefore, one has to be complete with relation to the other.

- Thus, the default subordinator $-i$ which is just syntactically present in a verb sequence seems to indicate the sequential function and the completion of an event with relation to the other.

- In fact, these two functions are the two sides of the same coin— the event sequence.

Concomitance of events and manner relation

- On the other hand, if two events are concomitant one must have the manner function for the other.

(45) naDia:-Ta: gaD-**i**   a:s   -il   -a:

coconut-class roll-vl come-past-agr
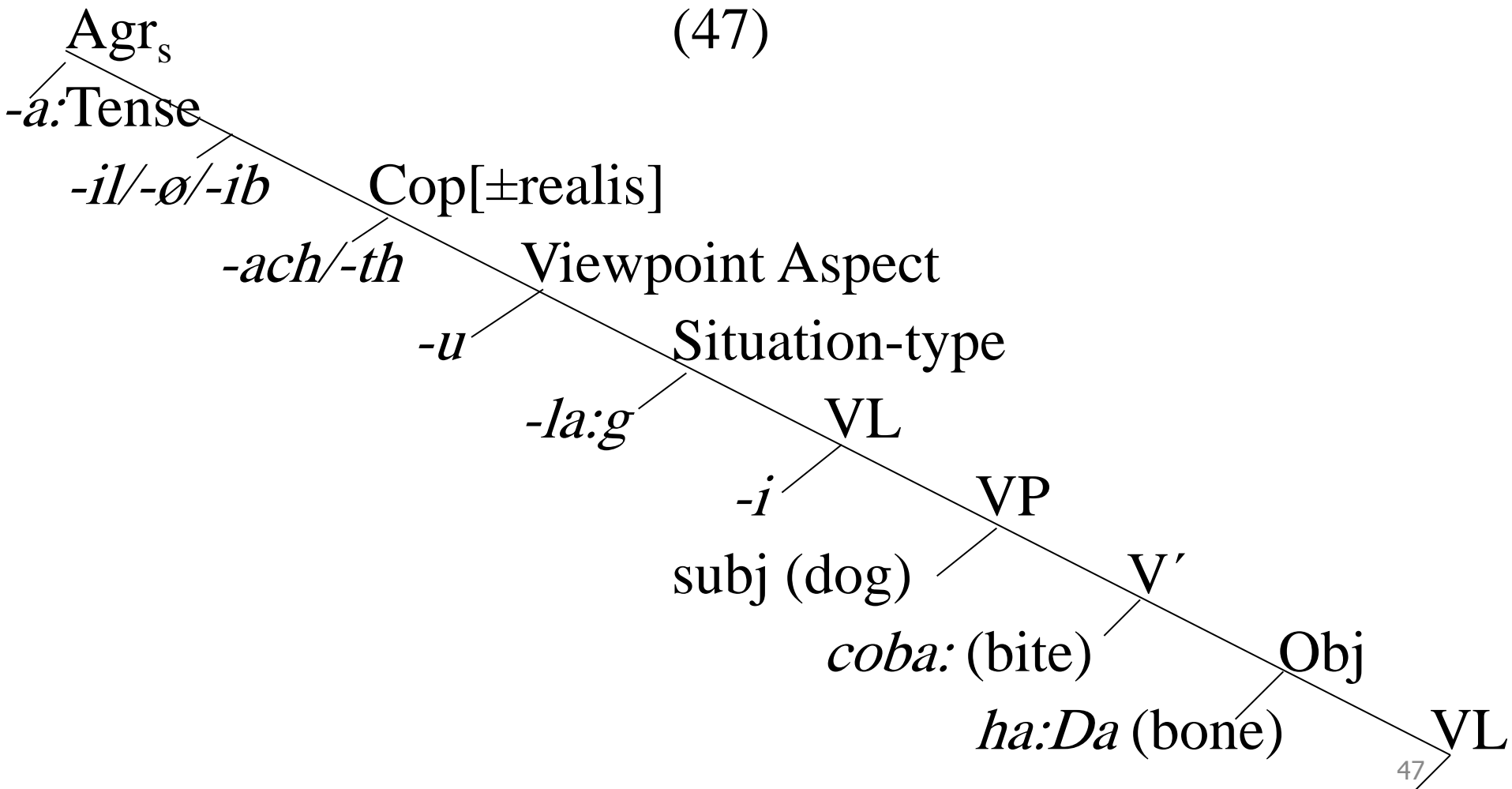
'The coconut came rolling.'

Manner relation and verb reduplication

46)   naDia:-Ta: gaD-i gaD-i a:s   -il -a:

        coconut-class roll-vl roll-vl come-past-agr

        'The coconut came rolling.'

- The verb *gaD* (roll) is reduplicated to indicate its manner function.

Viewpoint and Other Functional Features

(47)

Agr$_s$

*-a:*Tense

   -il/-ø/-ib   Cop[±realis]

      -ach/-th   Viewpoint Aspect

        -u   Situation-type

          -la:g   VL

            -i   VP

            subj (dog)   V′

               coba: (bite)   Obj

                 ha:Da (bone)   VL

Imperfective Aspect

- Odia has an overt progressive marker.
- But it does not have an overt perfective.
- It does not have an imperfective marker too.
- However, Hindi has both progressive and Imperfective.
- Let us see how they contrast in Hindi:

The progressive in Hindi

Consider the progressive marker *-rah* in the following Hindi sentences:

48)   ra:dha: ga: **-rah** -i   -hɛ

      Radha sing-prog-gnr-world.time.agr

      '(Now) Radha is singing.'

49)   *ra:dha: sanskrit ja:n **-rah**-i   -hɛ

      Radha Sanskrit know-prog-gnr -world.time.agr

      *'Radha is knowing Sanskrit.'

The Imperfective in Hindi

• Consider the imperfective marker *-t* in the following Hindi sentences:

50)   ra:dha: sanskrit ja:n   **-t**   -i   -hɛ

Radha Sanskrit know-impf-gnr-world.time.agr

'Radha knows Sanskrit.'

51)   ra:dha: ga: **-t**   -i   -hɛ

Radha sing-impf-gnr-world.time.agr

'Radha sings.'

Progressive vs. Imperfective

- The progressive grammatically bears the [+Dynamic] feature.

- In contrast, The imperfective bears [+Stative]/[-Dynamic] feature.

Interpretability of the progressive

52) ra:dha: ga: -u -(a)ch -ø -i

Radha sing -prog -cop.realis-pres-agr

'(Now) Radha is singing.'

53) *ra:dha: ga: -u -i

Radha sing -prog -agr

*'Radha (is) singing.'

- Across languages the progressive is uninterpretable without worl-time features (available with the copular auxiliaries).

Interpretability of the imperfective

- The Marathi facts:

  54) ra:dha: ga: -t   -ah   -ø   -e

      Radha sing-prog-cop-pres-agr

      '(Now) Radha is singing.'

  55) ra:dha: ga: -t   -e

      Radha sing-impf-agr

      'Radha sings.'

- The same marker is progressive with world-time features.

- The same marker is imperfective without world-time features.

The Imperfective in Odia and English and French

56)   ra:dha ga:-ø-e
       Radha sing-impf-agr

       'Radha sings.

• Both Hindi and Marathi have imperfective markers; but Odia and English do not have it

• Nonetheless, both Odia and English express the imperfective meaning with their so called 'simple present' forms.

The Imperfective Ambiguity in French

57)   Marie chante.

• French does not have a progressive form; and the imperfective form in (57) is ambiguously used for both.

• The form can have progressive interpretation with the typical speech time adverb *là* (right now and here) appearing in the CP position; or it can have the imperfective interpretation without the speech time adverb.

The imperfective parameter:

If a language does not have an overt imperfective marker then it can express the same by the verb not checking for the world and time features.

The Progressive English

58)   Mary is eating an apple.   (Accomplishment)

59)   The earth is moving around the sun.   (Process)

60)   The dog is biting a bone.   (Activity)

61)   The book is lying on the table.   (state)

- Unlike the situation in Oḍia, the progressive in English, apart from occurring with accomplishments, processes and activities, occurs with (stage-level) states.

- The values for the progressive in Odia and English differ:

- The progressive in Odia bears [+Dynamic]

- The progressive in English bears [+Telic]

Smith's (1997) parameter of aspect

– Theoretically, the situation types are universal in the sense that their semantic values do not change from language to language.

– However, Smith (op. cit.: 2) assumes that viewpoint categories have a parameterized structure in the sense that a language may deviate form their universal content.

Root Aspectual Distinction and the parameter for Odia

- Though it is less common for languages to show situation type aspects, by and large, they show the [±Dynamic] or [±Telic] features grammatically. This indicates the primacy of such aspects features over the situation types (aktionsarts) in grammar. Therefore, I will call the aspect features, namely [±Dynamic] or [±Telic] the <u>primary/root aspects</u> and the morphemes holding such features the <u>primary/root aspect</u> morphemes, but not "viewpoints". By and large, languages show that the number of such morphemes is much fewer than the number of situation types assumed. Apparently, the UG essentially needs such binary values marked grammatically to set the aspectual parameter.

- Taking [±Dynamic] or [±Telic] as the primary/root aspects, English uses [±Telic] as the primary aspectual distinction. However, Odia differs from English by choosing [±Dynamic] as the primary/root aspectual distinction, which is built into the language by grammatical morphology.

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Thanks