Introduction to Functional Discourse Grammar

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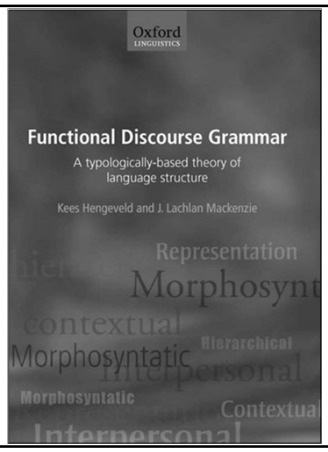


Functional Discourse Grammar: 3 words

- Functional
  - Oriented primarily to linguistic forms that reflect the instrumentality of language in human interaction
- Discourse
  - Not an account of discourse, but of the Discourse Act and its morphosyntactic and phonological encoding
  - Focus on discourse-impacted overt grammatical phenomena
- Grammar
  - Concerned with the organizational principles behind the systematicity of languages
  - Form-oriented function-to-form approach (H&M 39)

FDG as one of four components

- The grammatical component
  - The FDG itself, the central component
  - Embraces formulation and encoding
- The conceptual component
  - Develops communicative intention
- The contextual component
  - The model's "eyes", "memory", "social awareness"
- The output component
  - Conversion to acoustic, graphic or signed form

The overall architecture of the grammatical component

- Formulation
  - Interpersonal level
    - rhetoric and pragmatics (evocation)
  - Representational level
    - semantics (designation)
- Encoding
  - Morphosyntactic level
    - syntax and morphology
  - Phonological level
    - prosody and segmental phonology

Top-down architecture

- Various top-down pathways through the grammar
  - All communicative utterances involve the interpersonal and phonological levels
- Three degrees of complexity
  - From interpersonal level to phonological encoding
  - From interpersonal level to morphosyntactic and then phonological encoding
  - From interpersonal and representational levels to morphosyntactic and phonological encoding

Layered architecture

- All levels involve internal layering
  - Discourse Acts group into Moves
  - Discourse Acts consist of smaller units
  - These smaller units may themselves have layers
  - Similarly for other levels, in both formulation and encoding
  - There are default relations between layers across levels
    - Discourse Act (IL) ≈ Proposition (RL) ≈ Clause (ML) ≈ Intonational Phrase (PL)

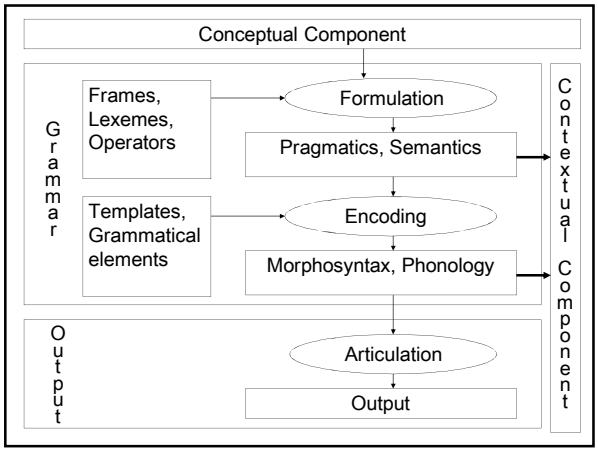
Goals of FDG

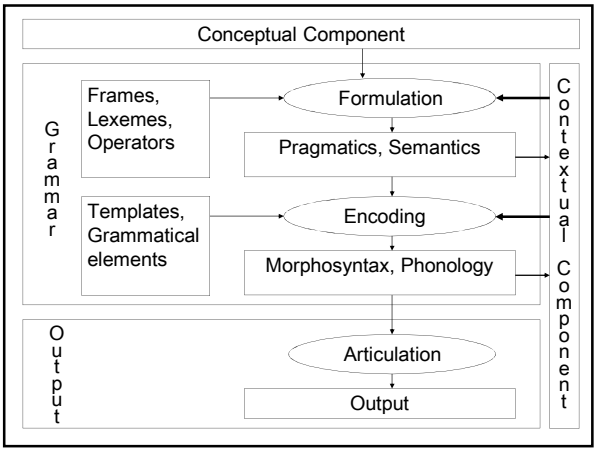
- Account of morphosyntactically and/or phonologically codified phenomena in languages
  - correlation with interpersonal or representational formulation
  - ... or with inherent properties of encoding mechanisms
- Balance between functionalism and formalism
  - not "text grammar" but concerned with impact of textuality on morphosyntactic and phonological form
  - not "syntacto-centric" but keen to display the interplay among phonology, morphosyntax, semantic and pragmatics in organizing human languages
  - formal, but treating formalisms as subservient to insight

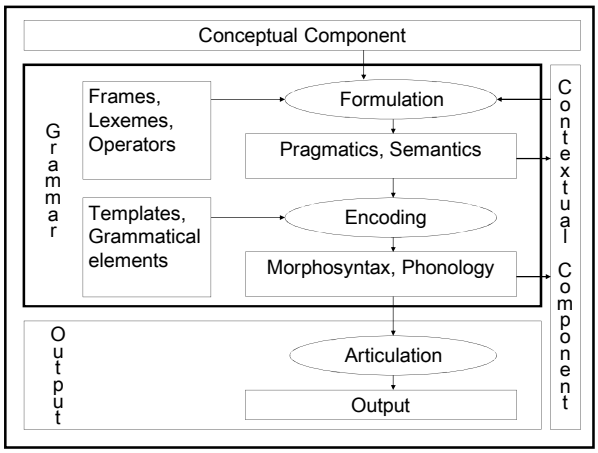
Link with language typology

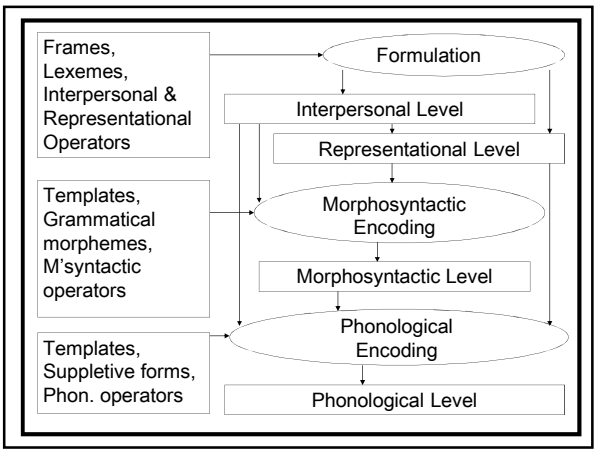
- Language user has knowledge of functional and formal units and the relations between them
  - stability > systematicity
  - limited variety across the systems > typology
- FDG provides framework for enunciating universals
  - absolute vs relative
- FDG provides framework for writing grammars
  - these feed into typological investigations
- FDG cannot provide explanations
  - but links into 3 flanking components that reflect human mental and physical capacities

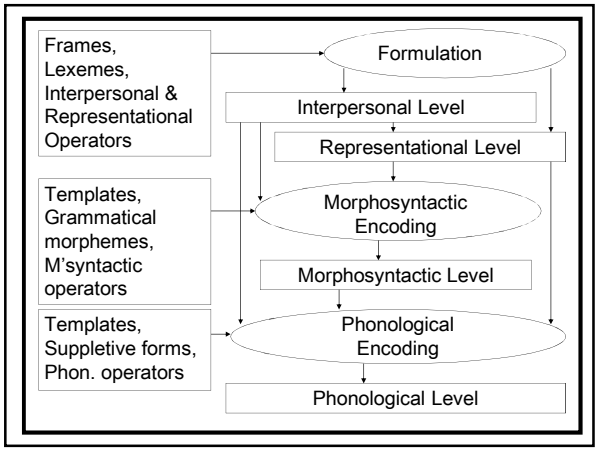
General architecture

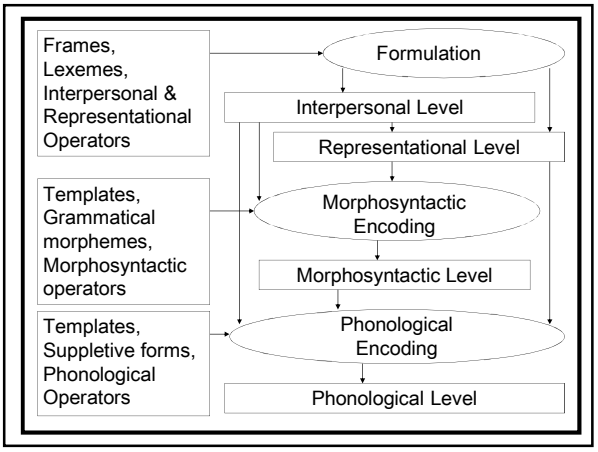


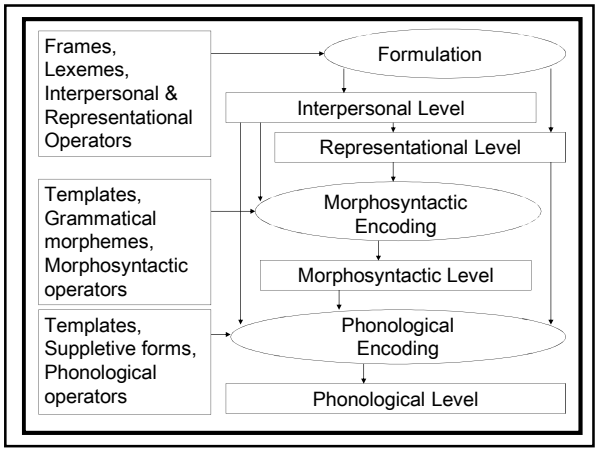












Structure of all layers

$(\pi\ v_1\text{: [head } (v_1)_\Phi\text{]: [}\sigma\ (v_1)_\Phi\text{])}$

- v_1 = variable of relevant layer
- restricted by a head taking that variable as its argument
  - "v_1, such that "head" of v_1"
- subscript index indicates coreference, and thereby also the position of the variable in a sequence of such variables
- subscript Φ indicates the rhetorical, pragmatic (IL), semantic (RL) or syntactic function (ML)
- v_1 may be specified by an operator π
- v_1 may be further restricted by a modifier σ that takes the variable as its argument

Levels and Layers: Interpersonal Level

$(M_1: (A_1: [(F_1: ILL\ (F_1))\ (P_1)_S\ (P_2)_A\ (C_1: [(T_1)\ (R_1)]\ (C_1))]\ (A_1))\ (M_1))$

M = Move
A = Discourse Act
F = Illocution
P_1, P_2 = Participants
C = Communicated Content
T = AscripTive Subact
R = Referential Subact

Levels & Layers: Representational Level

$(p_1: (ep_1: (e_1: (f_1: [(f_2: \blacklozenge\ (f_2))\ (x_1) \ldots]\ (f_1))\ (e_1))\ (ep_1))\ (p_1))$

p = Propositional Content
ep = Episode
e = State-of-Affairs
f = Property
  Configurational Property (f_1)
  Lexical Property (f_2)
x = Individual
... = {l, t, m, q, r}

Levels and Layers: Morphosyntactic Level

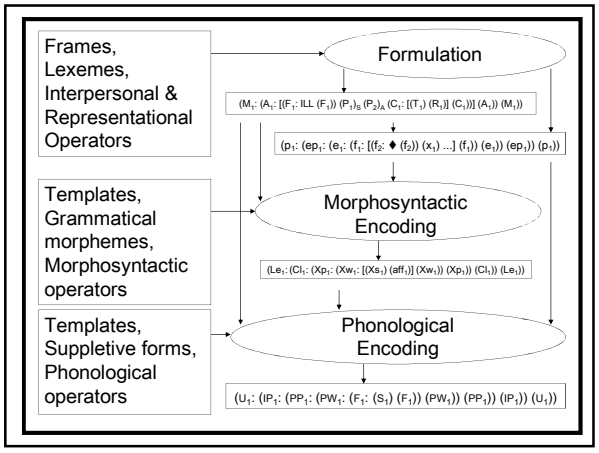
$(Le_1: (Cl_1: (Xp_1: (Xw_1: [(Xs_1)\ (aff_1)]\ (Xw_1))\ (Xp_1))\ (Cl_1))\ (Le_1))$

Le = Linguistic Expression
Cl = Clause
Xp = Phrase (of type X)
Xw = Word (of type X)
Xs = Stem (of type X)
aff = Affix

Levels and Layers: Phonological Level

$(U_1: (IP_1: (PP_1: (PW_1: (F_1: (S_1)\ (F_1))\ (PW_1))\ (PP_1))\ (IP_1))\ (U_1))$

U = Utterance
IP = Intonational Phrase
PP = Phonological Phrase
PW = Phonological Word
F = Foot
S = Syllable



An example

I like *these bananas*

(id R_l)
(prox m x_i: [(f_i: /bəˈnɑːnə/$_N$ (f_i)) (x_i)$_\Phi$])
(Np_i: [(Gw_i: this-pl (Gw_i)) (Nw_i: /bəˈnɑːnə/-pl (Nw_i))] (Np_i))
(PP_i: [(PW_i: /ðiːz/ (PW_i)) (PW_j: /bəˈnɑːnəz/ (PW_j))] (PP_i))

The Interpersonal Level in Functional Discourse Grammar

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Contents

Linguistic action

Linguistic action

- The Interpersonal Level captures all distinctions of Formulation that pertain to the interaction between Speaker and Addressee (H&M: 46)
- Not a model of actions but of the opportunities for and constraints on linguistic action
- Rhetoric and pragmatics
- Conceptual Component engenders ideas and intentions; available primitives (frames, lexemes, operators) restrict Speaker's options
- Distinction between Conceptual Component and Interpersonal Level underlies indirect speech acts (see H&M: 39-40; 73)

Hierarchy of actions

Formalization: vertical dimension

$(\pi M_1:$	Move
$\quad (\pi A_1: [$	Discourse Act
$\quad\quad (\pi F_1: \text{ILL } (F_1): \Sigma (F_1))$	Illocution
$\quad\quad (\pi P_1: \ldots (P_1): \Sigma (P_1))_S$	Speaker
$\quad\quad (\pi P_2: \ldots (P_2): \Sigma (P_2))_A$	Addressee
$\quad\quad (\pi C_1: [$	Comm' d Content
$\quad\quad\quad (\pi T_1: [\ldots] (T_1): \Sigma (T_1))_\Phi$	Ascriptive Subact
$\quad\quad\quad (\pi R_1: [\ldots] (R_1): \Sigma (R_1))_\Phi$	Referential Subact
$\quad\quad] (C_1): \Sigma (C_1))_\Phi$	Comm'd Content
$\quad] (A_1): \Sigma (A_1))_\Phi$	Discourse Act
$(M_1): \Sigma (M_1))$	Move

Formalization: horizontal dimension

- Reflects temporal succession
- Easy with Moves, but …
- … gradually tougher with Discourse Acts (H&M: 49)
- … and irrelevant with Subacts (arbitrary ordering; H&M: 49)
- Issue of relation between grammar and production
  - Left-to-right ordering required at ML and PL
  - In some cases, attractive for IL, too
    - Anaphora vs cataphora
    - Apposition
    - …

The Move

The Move

- 'Minimal free unit of discourse' (Kroon 1995)
- In FDG, defined as
  - provoking a Reaction (rhet. function: Initiation)
  - being one (rhet. function: Reaction)
- Move typically impacts Phonological Level
- In speech, Move ≈ turn
- In writing, Move ≈ paragraph
- Domain of grammatically relevant coherence relations

The Head of the Move

- Each Move headed by 1 or more Discourse Acts
  - Act as 'smallest unit of communicative behaviour' (Kroon)
- If there is more than one Act, relations can be of:
  - Equipollence (Nucleus and Nucleus)
  - Dependence (Nucleus and Dependent)
- Use of *briefly* test for determining Discourse Act status (H&M: 53)
- Dependence and 4 rhetorical functions (H&M: 53ff.):
  - Motivation
  - Concession
  - Orientation
  - Correction
- Dependence between Nuclei: Asides (H&M: 57-58)

Modifier of the Move

- Lexical indication of Move's role in discourse
  - *to cut a long story short*
  - *by the way*
  - *to sum up*
- In practice confusion possible with:
  - Modifier of Act
  - Modifier of Episode

Operator on the Move

- Grammatical indication of Move's role in discourse
- Grammaticalized discourse organization markers: *in_sum*, *however*
- What is criterial is that it should reflect the language user's strategy

The Discourse Act

The Discourse Act

- 'Smallest identifiable unit of communicative behaviour'
- Always part of a Move
- Always contains an Illocution
- No equivalent to any layer at other levels
  - Default relation with State-of-Affairs at RL
    - but can be with Episode (H&M: 61-62)
  - Default relation with Clause at ML
    - but can be with smaller units (H&M: 62-63)
  - Default relation with Intonational Phrase at PL

The Discourse Act's internal structure

- At most four components:
  - Illocution (F_1)
  - Participant with Speaker function $(P_1)_S$
  - Participant with Addressee function $(P_2)_A$
  - Communicated Content (C_1)
- Illocutions are:
  - Expressive
  - Communicative—Interactive
  - Communicative—Contentive
    - Performative
    - Abstract

Expressive & Interactive Discourse Acts

- Expressive Discourse Acts have two components (e.g. *Ouch!*)
  - Illocution (F_1)
  - Participant with Speaker function $(P_1)_S$
- Communicative-Interactive Discourse Acts have three components (e.g. *Congratulations!*)
  - Illocution (F_1)
  - Participant with Speaker function $(P_1)_S$
  - Participant with Addressee function $(P_2)_A$
  - may be expanded with Communicated Content (C_1); normally presupposed:
    - *Congratulations on winning the elections!*

Modifiers & Operators of the Discourse Act

- Lexical or grammatical indication respectively of:
  - Stylistic properties: modifiers like *briefly*, *in addition*
  - Emphasis on the Discourse Act
    - test through applicability to any kind of Illocution
    - Modifier : *dammit* (but: not modifiable)
    - Operator: Spanish *que*, Tauya *–e* (H&M pp. 66-67)
  - Irony
  - Mitigation

The Illocution

The Illocution

- Restricted number of frames per language
  - unrestricted and non-discrete range of communicative intentions
- Head of (F_1)
  - lexical predicate (*promise*, *name*, …)
    - explicit performative
  - abstract predicate occupying the ILL position
    - Implicit performative
    - correspond to grammatical distinctions in language under analysis
      - constituent order
      - particles
      - intonation

List of abstract illocutionary predicates

- Illocutionary primitives (✓ = present in English (emic)):
  - DECLarative ✓
  - INTERrogative ✓
  - IMPERative ✓
  - PROHibitive
  - OPTative ✓
  - IMPRECative
  - HORTative ✓
  - DISHORTative
  - ADMONitive
  - COMMissive
  - SUPPLicative
  - EXCLamative ✓
- Implicational relations between these? (H&M: 74-75)

Vocatives

- Communicative-Interactive Discourse Acts serving to gain or hold Addressee's attention (type of Interactive Act)
- Involve either abstract predicate of interpellation (as in *James!*) or a lexical particle as in (*Hey James!*)
- There may be a Comm'd Content as in Arabic

  Yā man yantaẓiru Zaydan!

  'You who are waiting for Zayd!'

Modifier of Illocution

- Lexical indication of speaker's strategic refinement of the Illocution
  - *I sincerely promise my government will not increase taxes*
  - *Sincerely, my government will not increase taxes*
- Resemble manner adverbials
  - Formal distinctions
    - Dutch *Hij sprak begrijpelijk tot het volk* ´He spoke to the people in comprehensible language' (Manner)
    - Dutch *Hij sprak begrijpelijkerwijs tot het volk* 'Understandably, he spoke to the people' (Illocution)

Operator on the Illocution

- Grammatical indication of speaker's mitigation or reinforcement of the Illocution
  - *Could you just remove your clothing, Madam?*
- Combination of Reinforcement and Mitigation > encouragement (Vismans 1994):

Dutch	*Kom*	*nou*	*maar.*
	come-IMP	REINF	MITIG
	'Do come along.'		

The Participants

The Participants

- Speaker and Addressee are functions
- Head may be:
  - Lexical (*The company hereby undetakes* …)
  - Abstract (default)
- Information on Participants in Contextual Component and distributed to:
  - Illocution — We promise you that …
  - Comm. Cont. — … we will not disappoint you
  - Ill. & Comm. Cont. — Spanish ¿Están despiertas?
  - Rep. Level — Spanish ¿Están despiertas?

The Communicated Content

The Communicated Content

- Totality of what the speaker wishes to evoke
- Evocation is an action consisting of one or more Subacts (to be discussed later) of:
  - Ascription
  - Reference
- Communicated Content (C) may be:
  - All New (*Please don't smoke*)
  - Combination of Presupposed and New (*Smoking kills*)
  - Presupposed (*Thank you for not smoking*)

Communicated Content: Subacts

- Two types of Subact (two forms of evocation):
  - Ascriptive (T_1)
  - Referential (R_1)
- Minimally one Subact per C
- Subacts may carry pragmatic functions
  - the possible arrays of pragmatic functions are primitives known as 'content frames'
- FDG recognizes three dimensions for these functions
  - Focus—Background
  - Topic—Comment
  - Contrast—Overlap

Focus vs Background

- Focus assigned to elements bearing new or corrective information
- Assigned to any number of (R_1) and/or (T_1), or to (C_1)
- Applied only if there are formal consequences
  - Adaptation of the form at ML
  - Presence of a Focus marker at ML
  - Unusual position in constituent order at ML
  - Special Focus construction at RL
  - Special prosodic contour at PL
  - For application to Background, see H&M, pp. 441

Topic vs Comment

- Topic assigned to a Subact that signals how the Communicated Content relates to the gradually constructed record in the Contextual Component
- Topic may be given, inferred or reactivated information; or may indicate setting of S-o-A
- Topic typically assigned to (R_1) but (A_1) also possible
  - Dutch *Spugen doen we hier niet* 'Spitting we don't do here'
- Assigned only if there are formal consequences
  - at ML, constituent order, particles, etc.
  - At PL, operator at PP layer, etc. (cf. H&M, pp. 439-440)

Contrast vs Overlap

- Contrast assigned to bring out differences between two (or more) Communicated Contents or a Comm'd Content and the Contextual Component
- Independent of Focus and Topic, but may share marking with Focus
- Focus + Contrast: typical of cleft constructions
- Topic + Contrast: marked by *-nɯn* in Korean
- Focus + Topic + Contrast:
  - *There is BEER without alcohol, not whisky*

Content Frames

- Frames for the non-hierarchical combinations of Subacts within the Communicated Content
- Thetic $[(SA)^N]_{FOC}$
- Categorical $[(SA)_{TOP}\ (SA)^N\ (SA)_{FOC}]$
  - Topic-oriented $[(SA)^N\ (SA)_{TOP}]$
  - Focus-oriented $[(SA)^N\ (SA)_{FOC}]$
- Presentative $[(SA)^N\ (SA)_{TOPFOC}]$

Modifier of Communicated Content

- These may emphasize the content (*really*); typically integrated into clause at ML
- Or may indicate that Comm'd Content has been expressed or implied by others (*reportedly* ; *or so he says*; S. Amer. Spanish & Braz. Port. *dizque*)
- Also appropriate for quotation sources, e.g. Bill said, "The weather's getting worse."

Operator on Communicated Content

- Typically realized as morphological indication of the relayed status of the Comm'd Content
- Lithuanian

Kadaise	*čia*	*buv-ę*	*didel-í*
long.ago	here	be.A.PTCP.NOM.PL	large-NOM.PL
mišk-ai.			
forest-NOM.PL			

'Long ago there were large forests here, it is said.'

- Spanish

Que si	*vienes*	*mañana.*
REP if	come-prs.ind.2.sg	tomorrow

'Will you be coming tomorrow, [they ...] want to know?'

Subacts

Subacts

- Evocation = execution of the set of Subacts that make up the Communicated Conten
- 2 types that are linguistically relevant
  - Subacts of Ascription (T_1)
  - Subacts of Reference (R_1)
- Some languages explicitly mark this

Tagalog

Silá	*mag-iná*	*ay*	*na-tulog*	*na.*
3.pl	rec-mother	pm	rls.stat-sleep	now

'The mother and her daughter fell asleep.'

Ascription

- Reflects Speaker's attempt to ascribe a semantic category
- Ascription and Reference are mutually supporting
  - Ascription may occur within Reference
- Head of Ascriptive Subact usually empty
  - May be occupied at IL by lexical filler
- Modifiers: *allegedly*, *so-called*
- Operators: approximative, exact, emphasis

Reference

- Reflects Speaker's attempt to evoke an entity
- Frequent distinctions are
  - identifiable vs non-identifiable (± id)
  - specific vs non-specific (± s)
- Head
  - one or more Ascriptive Subacts
  - proper name or dummy lexeme
  - abstract combination of Speaker/Addressee features
- Modifiers: e.g. *poor old Bill*
- Operators: (± id), (± s); emphasis
  - ignoratives as [+ id, –s]

The Representational Level in Functional Discourse Grammar

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Contents

Semantics in FDG

A restricted definition of semantics

The relation that obtains between language and the world it describes: designation (ideation, Darstellung, representation)

Semantic categories are independent of interpersonal function

Universal semantics not presupposed

Designation

Peter told her that John was ill.
That's not true (John wasn't ill/Peter didn't tell her)

I'm telling you that John is ill.
That's not true (John isn't ill/*You are not telling me)

Functions and categories: Turkish

Öğretmen gel-iyor-Ø-Ø.
teacher come-PROGR-PRES-3SG
'The teacher is coming.'

Bu erkek öğretmen-Ø-Ø.
DEM man teacher-PRES-3SG
'This man is a teacher.'

Functions and categories: Turkish

Öğretmen gel-iyor-Ø-Ø.
teacher come-PROGR-PRES-3SG
'The teacher is coming.'

T_I R_I
$(e_i: [(f_i: \text{gel-}(f_i))\ (x_i: (f_j: \text{öğretmen}(f_j))\ (x_i))_{\varnothing}]\ (e_i))$

Functions and categories: Turkish

Bu erkek öğretmen-Ø-Ø.
DEM man teacher-PRES-3SG
'The man is a teacher.'

T_I R_I
$(e_i: [(x_i: (f_j: \text{öğretmen}(f_j))\ (x_i))\ (x_j: (f_k: \text{erkek}(f_k))\ (x_j))_{\varnothing}]\ (e_i))$

Functions and categories: Turkish

T_I R_I
$(e_i: [\ (f_i: \text{gel-}(f_i))\ (x_i: (f_j: \text{öğretmen}(f_j))\ (x_i))_{\varnothing}]\ (e_i))$

T_I R_I
$(e_i: [\ (x_i: (f_j: \text{öğretmen}(f_j))\ (x_i))\ (x_j: (f_k: \text{erkek}(f_k))\ (x_j))_{\varnothing}]\ (e_i))$

Functions and categories: English

I approached the lion cautiously.

T_I: T_J R_I R_J
$(e_i: [\ (f_i: \text{approach-}(f_i): (f_j: \text{cautiously}(f_j))\ (f_i))\ (x_i: \text{I}(x_i))\ (x_j: \text{lion}(x_j))]\ (e_i))$

Functions and categories: English

The way that I approached the lion was cautiously.

T_J R_K: R_I T_I R_J
$(e_i: [\ (f_j: \text{cautiously}(f_j))\ (f_i: \text{--way that I approached the lion--}\ (f_i)]\ (e_i))$

Functions and categories: English

T_I: T_J R_I R_J
$(e_i: [\ (f_i: \text{approach-}(f_i): (f_j: \text{cautiously}(f_j))\ (f_i))\ (x_i: \text{I}(x_i))\ (x_j: \text{lion}(x_j))]\ (e_i))$

'I approached the lion cautiously.'

T_J R_K R_I T_I R_J
$(e_i: [\ (f_j: \text{cautiously}(f_j))\ (f_i: \text{--way that I approached the lion--}\ (f_i)]\ (e_i))$

'The way that I approached the lion was cautiously.'

Function-free semantics

The semantic nature of a linguistic unit is independent of the function in which it is used.

Universal semantics? English

Peter is going **to** Paris.
Peter is staying **at** the Ritz.
Peter is coming **from** Paris.

Universal semantics? Portuguese

Vou n-a igreja.
go.1.SG.PRES LOC-DEF church
'I am going to the church.'
Est-ou n-a igreja.
be-1.SG.PRES LOC-DEF church
'I am in the church.'
Venho d-a igreja.
come.1.SG.PRES LOC-DEF church
I am coming from the church.'

Universal semantics? Tariana

Na-pidana uni-**se**.
3PL.go-REM.PAST.REP water-LOC
'They went into water.'

Nawiki pa:-putsita-**se** nehpani-pidana.
people one-CL-LOC 3PL.work- RPST.REP
'People were working on a clearing.'

Hĩ wyaka-**se** ka-nu-karu
DEM.ANIM far-LOC REL-come-PAST.REL.F
'she who came from far'

LOC/ALL/ABL

	English	Portuguese	Tariana
LOC	at	em	-se
ALL	to		
ABL	from	de	

Universal semantics? Chickasaw

Sa-ttola.
1.sg-fall.down
'I ($^{-C}$Ag) fell down (by accident).'

Ittola-li.
fall.down-1.sg
'I ($^{+C}$Ag) fell down (on purpose).'

Universal semantics? Spanish

(Él) rompió el vaso.
(3SG) break.3SG.PAST.PF DEF glass.
'He broke the glass (on purpose).'

Se le rompió el vaso.
REFL 3SG.DAT break.3SG.PAST.PF ART glass
'He broke the glass (by accident).'
"The glass broke to him."

Semantic categories

Description	Variable	Example
Property	f	*colour*
Individual	x	*chair*
State-of-Affairs	e	*meeting*
Propositional Content	p	*idea*
Location	l	*top*
Time	t	*moment*
Episode	ep	*incident*
Manner	m	*way*
Reason	r	*reason*
Quantity	q	*litre*

Semantic categories

Description	Variable	Example
Property	f	*weak-ness*
Individual	x	*paint-er*
State-of-Affairs	e	*explora-tion*
Propositional Content	p	*wish-Ø*
Location	l	*bak-ery*

Semantic categories

		basic interrogative words	basic demonstrative words	nominali-zations
x	Individual	who, what	this, that	brew-er
l	Location	where	there, here	brew-ery
t	Time	when	then, now	--
m	Manner	how	thus	--
r	Reason	why	--	--
q	Quantity	--	--	--

Semantic categories: demonstratives

Language	x	l	m	t
Kwaza				
Cubeo	x			
Apalaí	x	l		
Hixkaryana	x	l	m	
Tariana	x	l	m	t

Semantic categories

q

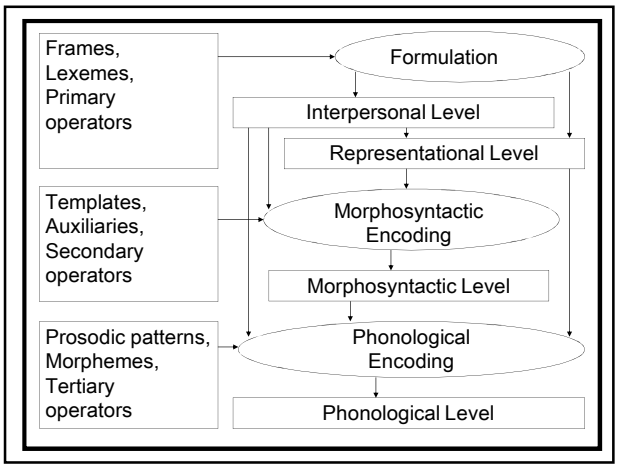
∪

x ⊂ l ⊂ m ⊂ t

∩

r

The structure of the Representational Level



Representational Level

$(\pi\ p_1$:	Propositional Content
$(\pi\ ep_1$:	Episode
$(\pi\ e_1$:	State-of-Affairs
$[(\pi\ f_1$: [	Configurational Property
$(\pi\ f_1)$	Lexical Property
$(\pi\ x_1)_\Phi$	Individual
$]\ (f_1))$	Configurational Property
$(e_1)_\Phi])$	State-of-Affairs
$(ep_1))$	Episode
$(p_1))$	Propositional Content

Layers

$(\pi\ v_1$: $[h\ (v_1)_\Phi]$: $[\sigma\ (v_1)_\Phi])$

$(\pi\ v_1$: $[h\ (v_1)_\Phi]$: $[\sigma\ (v_1)_\Phi])$ Head

$(\pi\ v_1$: $[h\ (v_1)_\Phi]$: $[\sigma\ (v_1)_\Phi])$ Modifier

$(\pi\ v_1$: $[h\ (v_1)_\Phi]$: $[\sigma\ (v_1)_\Phi])$ Operator

Propositional Contents

Propositional Contents

- Propositional contents are mental constructs that do not exist in space or time but rather exist in the minds of those entertaining them.
- They may be qualified in terms of propositional attitudes (certainty, doubt, disbelief) and/or in terms of their source or origin (shared common knowledge, sensory evidence, inference).
- $(\pi\ p_1$: $[(ep_1)\ \ldots\ (ep_{1+n})_{\{\Phi\}}]\ (p_1)$: $[\sigma\ (p_1)_\Phi])$

Propositional Contents

Unable to collect from the responsible party, the original card-holder, the credit grantor hopes that *maybe* the authorized user will pay to keep their credit record clean.

He believes that *maybe* the effect of the PeptoBismol® is due to its color.

Propositional Contents vs Communicated Contents

Unable to collect from the responsible party, the original card-holder, the credit grantor hopes that **reportedly* the authorized user will pay to keep their credit record clean.

He believes that **reportedly* the effect of the PeptoBismol® is due to its color.

Propositional Contents vs Communicated Contents

Allegedly the area stimulated for the upper plexus would *presumably* include C7.

Even some of C.'s friends *reportedly* are suggesting *maybe* he ought to cut back.

Propositional Contents vs Communicated Contents

Tsafiki

Manuel ano fi-nu-ti-e.
Manuel food eat-INFER-REP-DECL
'It is said Manuel must have eaten.'

Episodes

Episodes

- Episodes are combinations of States-of-affairs that are thematically coherent, in the sense that they show unity or continuity of Time (t), Location (l), and Individuals (x).
- They may be modified by expressions of absolute tense
- $(\pi\ ep_1: [(e_1) \ldots (e_{1+N})_{\{\Phi\}}]\ (ep_1): [\sigma\ (ep_1)_{\Phi}])$

Episodes

Swahili

Ni-li-kwenda soko-ni, ni-ka-nunua ndizi
1.SG-PST-go market-LOC 1.SG-SUBS-buy banana
sita, ni-ka-la tatu, ni-ka-mpa
six 1.SG-SUBS-eat three 1.SG-SUBS-give
mwenz-angu tatu.
companion-1.SG.POSS three
'I went to the market, and bought six bananas; I ate three and three I gave to my companion.'

Episodes

Coming out, stopping to check the mailbox, taking a look at the driveway and pausing to adjust his hat, he walked to his car.

Episode versus Propositional Content

Probably [he left for Berlin yesterday] and [she will go to London tomorrow].

Wanka Quechua

Paaga-llaa-shrayki-chra-a
pay-POLITE-1>2.FUT-INFR-EMPH
'I suppose I'll pay you, then.'

States-of-affairs

States-of-affairs

States-of-affairs are entities that can be located in relative time and can be evaluated in terms of their reality status.

They may be modified by expressions specifying the relative time of occurrence, location of occurrence, frequency of occurrence, reality status and others

$(e_1: [[(f_1: [...] (f_1)) ... (f_{1+N}: [...] (f_{1+N}))_{\{\Phi\}n}] (e_1)_{\Phi}])$

States-of-affairs

Sheila went out *before dinner*. (Relative Time)
Sheila works *in London*. (Location)
Sheila goes to London *frequently*. (Frequency)
Sheila is *really* a guy. (Reality)

States-of-affairs vs. Episodes

Hausa

Jiya da 3:00 sun shiga.
yesterday at 3:00 3.PL.ANT enter
'Yesterday at three they had entered.'

Gobe da 3:00 sun shiga.
tomorrow at 3:00 3.PL.ANT enter
'Tomorrow at three they will have entered.'

States-of-affairs vs. Episodes

Hausa

da 3:00 sun shiga.
at 3:00 3.PL.ANT enter
'At three they had entered.'

da 3:00 sun shiga.
at 3:00 3.PL.ANT enter
'At three they will have entered.'

Configurational Properties

Configurational Properties

Configurational Properties constitute the inventory of predication frames relevant to a language and designate a 'situational concept', i.e. characterize a set of States-of-affairs

They can be modified by aspectual expressions, among others

$(\pi f_1: [(v_1) (v)_{\Phi n}] (f_1): [\sigma (f_1)_{\Phi}])$

Quantitative valency

Spanish
Est-á nev-ando.
AUX-3.SG.PRS snow-PROG
'It is snowing.'

Turkish
Kar yağ-ıyor-ø.
snow rain-PROG-3.PRES
'It is snowing.'

Quantitative valency

Chinese

Wǒ gěi nǐ dào chá.
I give you pour tea
'I'll pour you some tea.'

Qualitative valency: semantic categories

$(f_1: [(f_2)\ (x_1)_\Phi\ (l_1)_\Phi]\ (f_1))$
'Charles lives in Antwerp.'

$(f_1: [(f_2)\ (e_1)_\Phi\ (e_2)_\Phi]\ (f_1))$
'The heavy rainfall caused a lot of problems.'

Qualitative valency: semantic functions

$(f_1: [(f_2)\ (x_1)_A\ (x_2)_U\ (x_3)_L]\ (f_1): (x_4)_{Ben}\ (f_1))$
Will you give Mary these flowers for me?

Qualitative valency: semantic functions

Spanish

Me	gust-an	las	fresa-s.
1.SG.REC	please-3.PL.PRS	DEF.PL	strawberry-PL

'I like strawberries.'

Portuguese

Eu	gost-o	de	morango-s.
1.SG.NOM	like-1.SG.PRS	from	strawberry-PL

'I like strawberries.'

Configurational Properties vs. State-of-affairs

- He had been reading the newspaper.
- He has been reading the newspaper.
- He will have been reading the newspaper.

Lexical Properties

Lexical Properties

Basic building blocs

Properties exist only when they can be applied to other semantic categories

They can be modified by e.g. expressions of degree

Lexical Properties

(f_i: man (f_i)), (f_j: intelligent (f_j)), (f_k: high (f_k))

(f_j: intelligent (f_j): [(f_k: high (f_k)) $(f_j)_U$])
'highly intelligent'

(x_i: [(f_i: man (f_i)) $(x_i)_U$]: [(f_j: intelligent (f_j): [(f_k: high (f_k)) $(f_j)_U$]) $(x_i)_U$])

Lexical Properties vs Configurational Properties

She usually dances beautifully.
*She beautifully dances usually.

Individuals

Individuals

Individuals are concrete, tangible entities occupying a portion of space
They can be modified by a wide range of modifiers specifying colour, shape, weight, quantity, location, etc.
(x_1: [(f_1) $(x_1)_U$])

Individuals

this beautiful painting
three glasses of wine

Further semantic categories

Furter semantic categories

Location
Time
Manner
Reason
Quantity

Only if there is evidence

Chichewa

yend-ets	→	ka-yend-ets-edwe
go-CAUS		CL-go-CAUS-MANN.NR
'drive/flying'		'manner of driving/flying'

Rukai

lo kal-akəcəl-aə	alaka-i
if TMPNR-STAT.NONF.cold-TMPNR	because-3.SG.GEN
o-kaoθ-inamə	koloto.
DYN.FIN-not.exist-1.PL.EXCL.OBJ	blanket

'In the winter, we did not have any blanket.'

Representational Level

$(\pi\ p_1$:	Propositional Content
$(\pi\ ep_1$:	Episode
$(\pi\ e_1$:	State-of-Affairs
$[(\pi\ f_1$: [	Configurational Property
$(\pi\ f_1)$	Lexical Property
$(\pi\ x_1)_\Phi$	Individual
$]\ (f_1))$	Configurational Property
$(e_1)_\Phi])$	State-of-Affairs
$(ep_1))$	Episode
$(p_1))$	Propositional Content

The Morphosyntactic Level in Functional Discourse Grammar

Kees Hengeveld
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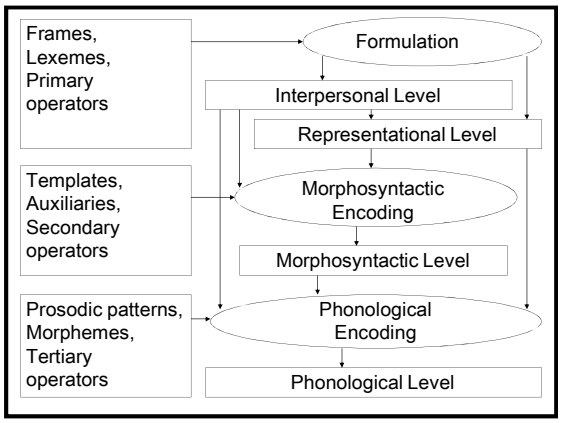
Morphosyntax in FDG



Form and function

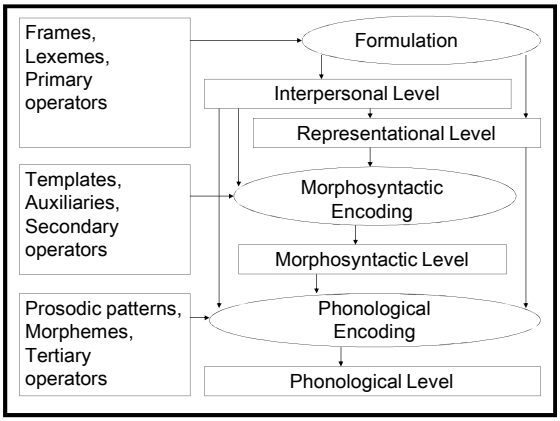
- Morphosyntax encodes interpersonal and representational configurations and is one of the means by which these configurations can be brought across
- At the same time, it has its own principles of organization, partly because there are arbitrary options, partly because once functional structures may become fossilized

Form and function

Morphosyntax is functional in that it helps the adressee to interpret

- scope relations (iconicity),
- domain boundaries (domain integrity),
- pragmatic, semantic and syntactic functions (functional stability)

The structure of the Morphosyntactic Level



Morphosyntactic Level

$(Le_1$:	Linguistic Expression
$(Cl_1$:	Clause
$(Xp_1$:	Phrase
$(Xw_1$:	Word
(Xs_1)	Stem
(Aff_1)	Affix
$(Xw_1))$	Word
$(Xp_1))$	Phrase
$(Cl_1))$	Clause
$(Le_1))$	Linguistic Expression

Steps in the morphosyntactic encoding process

Encoding steps

Hierarchical ordering
Alignment
Non-hierarchical ordering
Dummy-insertion
Agreement

Linguistic expressions

Linguistic expressions

German

Je kürzer desto besser.
CORR short.COMPV CORR good.COMPV
'The shorter the better.'

$(Le_i: [(Ap_i)\ (Ap_j)]\ (Le_i))$

Linguistic expressions

If he comes, then I go

$(Le_i: [(Cl_i)\ (Cl_j)]\ (Le_i))$

Clauses

Clauses

Constituent structure, recursive combinations:

$(Cl_1: [(Xw)\ (Xp)_{\{\Phi\}}\ (Cl)_{\{\Phi\}}]\ (Cl_1))$

Ordering templates, selection of absolute anchor points

P^I P^2 P^M P^F

to be expanded by relative positions:

etc. P^{F-2} P^{F-1} P^F

Clauses: hierarchical ordering

Top-down placement of elements according to their hierarchical position at the Interpersonal and Representational Levels respectively

Starting with absolute position, and only after that occupying relative positions

Clauses: hierarchical ordering

She finally (Σ^F) honestly (Σ^F) reportedly (Σ^C) is the queen's sister.

Clauses: hierarchical ordering

She finally (Σ^F) honestly (Σ^F) reportedly (Σ^C) is the queen's sister.

P^I	P^M
---	---

Clauses: hierarchical ordering

She finally (Σ^F) honestly (Σ^F) reportedly (Σ^C) is the queen's sister.

P^I	P^M	P^{M+1}
---	finally (Σ^F)	---

Clauses: hierarchical ordering

She finally (Σ^F) honestly (Σ^F) reportedly (Σ^C) is the queen's sister.

P^I	P^M	P^{M+1}	P^{M+2}
---	finally (Σ^F)	honestly (Σ^F)	---

Clauses: hierarchical ordering

She finally (Σ^F) honestly (Σ^F) reportedly (Σ^C) is the queen's sister.

P^I	P^M	P^{M+1}	P^{M+2}	P^{M+3}
---	finally (Σ^F)	honestly (Σ^F)	reportedly (Σ^C)	---

Clauses: hierarchical ordering

she has been drinking continuously (σ^f) again (σ^e) recently (σ^{ep}).

P^M	P^F
---	---

Clauses: hierarchical ordering

she has been drinking continuously (σ^f) again (σ^e) recently (σ^{ep}).

P^M	P^{F-1}	P^F
---	---	recently (σ^{ep})

Clauses: hierarchical ordering

she has been drinking continuously (σ^f) again (σ^e) recently (σ^{ep}).

P^M	P^{F-2}	P^{F-1}	P^F
---	---	again (σ^e)	recently (σ^{ep})

Clauses: hierarchical ordering

she has been drinking continuously (σ^f) again (σ^e) recently (σ^{ep}).

P^M	P^{F-3}	P^{F-2}	P^{F-1}	P^F
---	---	continuously (σ^f)	again (σ^e)	recently (σ^{ep})

Clauses: alignment

the way in which non-hierarchically related pragmatic and semantic units map onto morphosyntactic ones

three types of alignment:

- interpersonal alignment
- representational alignmen
- morphosyntactic alignment

Clauses: Interpersonal alignment

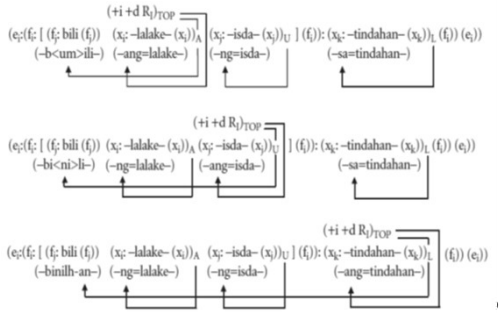
Tagalog

bumilí *ang=lalake* ng=isda sa=tindahan.
PFV.AV.buy SPEC.TOP=man OBL=fish LOC=store
'The man bought fish at the/a store.'

binilí ng=lalake *ang=isda* sa=tindahan.
PFV.UV.buy OBL=man SPEC.TOP=fish LOC=store
'The/a man bought the fish at the/a store.'

binilhan ng=lalake ng=isda *ang=tindahan.*
PFV.LV.buy OBL=man OBL=fish SPEC.TOP=store
'The/a man bought fish at the store.'

Clauses: Interpersonal alignment



Clauses: Representational alignment

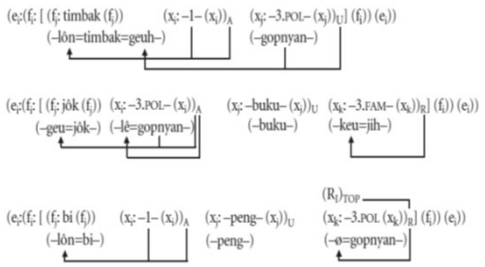
Acehnese

Gopnyan na=lôn=timbak=geuh
3.POL AUX=1.A=shoot=3.POL.U
'I shot him.'

Keu=jih ka=geu=jôk buku=nyan lê=gopnyan.
to=3.FAM INCH=3.POL.A=give book=that by=3.POL
'He (polite) gave him (familiar) that book.'

Gopnyan ka=lôn=bi peng.
3.pol inch=1=give money
'I have given him some money.'

Clauses: Representational alignment



Clauses: Morphosyntactic alignment

The man (A) walked.
The man (U) fell.

The man (A) saw a dog (U).
The dog (U) was seen by the man (A).
the seeing of the dog (U) by the man (A)

Clauses: Morphosyntactic alignment: Subject

The man gave the book to the boy. (A-Subject)
The book was given to the boy by the man. (U-Subject)
The boy was given the book by the man. (R-Subject)

Clauses: Morphosyntactic alignment: Object

He (A) bought a book (U).
He (A) spoke to Sheila (L).
He (A) gave a book (U) to Sheila (L).

Clauses: Morphosyntactic alignment: Object

Kham

Ŋa:-Ø no:-lai ŋa-Ø-ɾĩ:h-kɐ.
I-NOM he-OBJ 1.SG.SBJ-3.SG.OBJ-see-PFV
'I saw him.'
Ŋa-lai ca-o u-cyu:-na-o-kə.
I-OBJ good-NMLZ DUM-look-1.SG-3.SG-OPT
'May he look favourably upon me!'
Ŋa-lai bəhtanji y-ã:-kɐ-o.
I-OBJ potato give-1.SG.OBJ-PFV-3.SG.SBJ
'He gave me a potato.'

Clauses: Non-hierarchical ordering

interpersonal factors: pragmatic functions, reference;
representational factors: semantic functions, designation;
morphosyntactic factors: syntactic functions, complexity.

Clauses: Non-hierarchical ordering: Interpersonal factors

Tzotzil

A ti prove tzeb-e sovra ch'ak'bat.
TOP DEF poor girl-TOP leftovers was.given
'It was leftovers that the poor girl was given.'

P^{I} P^{I+1} P^{I+2}
A_ti_prove_tzebe^{TOP} sovra^{FOC} ch'ak'bat.

Clauses: Non-hierarchical ordering: Representational factors

Movima

Tikoy-na=sne os mimi:di.
kill-DRCT=F.ABS ART.N.PST snake
'She killed the/a snake.'

Tikoy-kay-a=sne os mimi:di.
kill-INV-V=F.ABS ART.N.PST snake
'The/a snake killed her.'

Clauses: Non-hierarchical ordering: Morphosyntactic factors

Dutch

Ik zag hem.
I see.PST.SG him
'I saw him.'

Het regen-t.
it rain-PRS.3.SG
'It's raining.'

Clauses: dummies

Jan wandelt.
John walks

Gisteren wandelde Jan
Yesterday walked John

Het regent hier niet
It rains here not
'It doesn't rain here.'

Regen-en doet het hier niet.
rain-INF does it here not
'It doesn't rain here.'

Clauses: agreement

Nous chant-ons.
we sing-1.PL
'We are singing.'

$(Cl_i$: $[(Np_i$: $(Nw_i$: /nu/ $(Nw_i))$ $(Np_i))_{Subj}$ $(Vp_i$: $(Vw_i$: /ʃãt/-pres $(Vw_i))$ $(Vp_i)]$ $(Cl_i))$

Copying ->

$(Cl_i$: $[(Np_i$: $(Nw_i$: /nu/ $(Nw_i))$ $(Np_i))_{Subj}$ $(Vp_i$: $(Vw_i$: /ʃãt/-pres<1.Pl> $(Vw_i))$ $(Vp_i)]$ $(Cl_i))$

Words

Words

Words are built up in exactly the same way as clauses and phrases

Syntax and morphology can in this way be seen as pertaining to the same level

Syntax is fully recursive at this level too:

(Xw_1: [(Xs) (Aff) (Xw) (Xp) (Cl)] (Xw_1))

Words: hierarchical ordering

Tsafiki

Manuel ano fi-nu-ti-e.
Manuel food eat-PERC-REP-DECL
'It is said Manuel must have eaten.'

Words: hierarchical ordering

Manuel ano fi-nu-ti-e.
Manuel food eat-PERC-REP-DECL
'It is said Manuel must have eaten.'

P^F
--

Words: hierarchical ordering

Manuel ano fi-nu-ti-e.
Manuel food eat-PERC-REP-DECL
'It is said Manuel must have eaten.'

P^{F-1} P^F
-- -e

Words: hierarchical ordering

Manuel ano fi-nu-ti-e.
Manuel food eat-PERC-REP-DECL
'It is said Manuel must have eaten.'

P^{F-2} P^{F-1} P^F
-- -ti -e

Words: hierarchical ordering

Manuel ano fi-nu-ti-e.
Manuel food eat-PERC-REP-DECL
'It is said Manuel must have eaten.'

P^{F-3} P^{F-2} P^{F-1} P^F
-- -nu -ti -e

Word: Interpersonal Alignment

Nivkh

T'a ku-ñivɣ-əz-ja.
PROH DEM-person-call-IMP.SG
'Don't call that person.'

Ku-ñivx t'a j-əz-ja.
DEM-person PROH 3.SG.U-call-IMP.SG
'That person, don't call him/her.'

Word: Representational Alignment

Southern Tiwa

I-k'uru-k'euwe-m.
3.SG.SBJ-dipper-old-PRS
'The dipper is old.'

*I-musa-k'euwe-m.
3.SG.SBJ-cat-old-PRS
'The cat is old.'

Word: Morphosyntactic Alignment

Nivkh

Təf tiv-ḍ.
house cold-IND
'The house is cold.'

Atak k'e-seu-ḍ.
grandfather net-dry-IND
'Grandfather dried the net.'

Word: Morphosyntactic Alignment

Nivkh

Atak k'e-seu-ḍ.
grandfather net-dry-IND
'Grandfather dried the net.'

Objezḍtik k'e atak-asqam-ḍ.
bay_watcher net grandfather-take_away-IND
'The bay watcher took the net away from grandfather

Word: Morphosyntactic Alignment

Southern Tiwa

Ti-seuan-mũ-ban.
1.SG.SBJ>SG.OBJ-man-see-PST
'I saw the/a man.'

Ti-'u'u-wia-ban ĩ-'ay.
1.SG.SBJ>SG.OBJ-baby-give-PST 2.SG-ALL
'I gave the baby to you.'

Word: non-hierarchical ordering

Yimas

wa-mpu-ŋa-r-akn
3.SG.ABS-3.PL.ERG-give-PERF-3.SG.DAT
'they gave it to them'

Word: dummies

Tariana

nu-pitana
1.SG-name
‘my name’

kuphe i-pitana
fish INDEF-name
‘the name of a fish’

Word: agreement

Southern Tiwa

Te-shut-pe-ban
1.SG.SBJ>PL.OBJ-shirt-make-PST
'I made (the) shirts.'

home.hum.uva.nl/oz/hengeveldp

The Phonological Level in Functional Discourse Grammar

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Introduction

Phonological Level

- Shares task of Encoding with ML
  - either supplements encoding incomplete at ML
  - or backs up encoding at ML (e.g. in clefts)
- Input from IL, RL & ML; interfaces with outputs to Output Component
  - Output Component 'analogue'
  - PL 'digital'
  - Intonational 'melody' created in Output Component on basis of presence/absence of features at PL (individual variation!)

Primitives at PL

- PL serves to generate final phonemic form
- It acts on phonemic and non-phonemic input using 3 sets of primitives:
  - the prosodic patterns (templates) that apply at each layer of analysis
  - inventory of segmental sequences expressing configurations of morphemes or placeholders
    - "grammatical lexicon"
  - a set of tertiary operators which will have their ultimate effect in the Output Component

Hierarchy of layers

Hierarchy of layers

$(\pi\ U_1$:	Utterance
$(\pi\ IP_1$:	Intonational Phrase
$(\pi\ PP_1$:	Phonological Phrase
$(\pi\ PW_1$:	Phonological Word
$(\pi\ F_1$:	Foot
$(\pi\ S_1)^N$	Syllable
$(F_1))^N$	Foot
$(PW_1))^N$	Phonological Word
$(PP_1))^N$	Phonological Phrase
$(IP_1)^N$	Intonational Phrase
$(U_1))$	Utterance

Note that the PL has no Modifiers but does have Operators

The Utterance

The Utterance

- The Utterance (U_1) is the largest stretch of speech covered by the PL
- Typically separated by longer pauses
  - never misinterpreted as hesitations
- Utterances may display paratones
  - Shown as operator (π) in ($\pi\ U_1$)
- Output Component interprets identical operators at different levels as cumulative.

The Intonational Phrase

The Intonational Phrase

- Externally, separated from other IPs by pause
- Internally, characterized by nuclear (PP_1):
  - pitch movement localized on one/more Syllables
  - direction of movement is Operator f/r on ($\pi\ IP_1$)
  - position of movement is set language-specifically
    - English > stressed Syllable of last (PP_1) (+ following Ss)
  - choice of movement correlates with Illocution at IL
  - complex interplay in 'tone languages'
- Default correlation with Discourse Act
  - but this default can be overridden

Variety in Intonational Phrases

- Extent of (IP_1) can vary according to
  - speed of delivery
  - attachment point of modifiers
  - integration of Discourse Acts
  - avoidance of ambiguity
  - demarcation of direct speech
- Task of encoding shared between ML & PL

The Phonological Phrase

The Phonological Phrase

- In stress languages, (PP_1) contains one Syllable that is more strongly stressed
- In tone languages, (PP_1) defines domain of tone sandhi
- Default correlation with Subact

The nuclear Phonological Phrase

- Since the location of the nuclear (PP_1) is determined language-specifically, it is not marked as an operator on (PP_1)
  - but additional operators can operate
    - cumulatively (fIP_1: [... (fPP_1) ...] (IP_1))
    - hierarchically (rIP_1: [... (fPP_1) ...] (IP_1))
- The application of the language-specific rule can also be overridden by an operator
  - $[[\text{The train}]_{Top}\ \text{arrived}]_{Foc}$
  - (fIP_i: [(fPP_i: /ðəˈtreɪn/ (PP_i)) (lPP_i: /əˈraɪvd/ (PP_i))] (IP_i))

Non-nuclear Phonological Phrases

- Clefts as bearing Contrast and Focus

  It was the zoo that they went to, not the museum
  - (U_i: [(rIP_i: [(PP_i) (hPP_j) (PP_k)] (IP_i)) (fIP_j: [(hPP_l) (PP_m)] (IP_j))] (U_i))
- Irony operator at IL

  That is interesting
  - (fIP_i: [(PP_i) (rPP_j) (lPP_k)] (IP_i))
- Emphasis operator at IL

  Really??
  - (rIP_i: (rPP_i) (IP_i))

The Phonological Word

The Phonological Word

- The Phonological Word (PW_1) is slice of phonological structure between the (PP_1) and the more segmental groupings of Foot and Syllable
  - not universal
  - may be defined segmentally (e.g. minimum no. of Syllables)
  - or prosodically (e.g. domain of nasalization)
  - or phonologically (e.g. domain of phonological rules)
- Correlates in varying degrees with Word at ML
  - 1-to-1 correlation in agglutinating Turkish
  - 1-to-many in polysynthetic Yimas
  - but cf. also Dutch *roodachtig* 'reddish', English *set theory*

The Phonological Word and Placeholders

- PL converts all placeholders into phonological form and integrates them into Phonological Words
  - cf. French ML: /ʃãt/-Pres<1.pl> PL: /ʃãtõ/
- PL uses store of forms providing phonemic material with which to replace the placeholders
  - 'grammatical lexicon'
- English comparative
  - *large => larger /? more large*
  - *massive => *massiver/✓more massive*
  - form depends on the phonological characteristics of the Adj
  - ML: Adj+Comp > PL: Adj+/ə/ or /mɔ:/ + Adj

Syllables and Feet

Syllables and Feet (1)

- A full representation of a PW invokes feet and syllables
- A syllable is a grouping of phonemes:
  - Onset – [head – coda]$_{rhyme}$
    - Head is required
    - Head is typically either a vowel or a sonorant (syllabic) consonant
- A foot is a grouping of syllables around a stressed one
  - In English, position of the stress is generally not predictable so is marked
  - In Czech & Hungarian, the stress is always PW-initial, and so is not marked
- Example: *agricultural*

  (PW$_i$: [(F$_i$: [(sS$_i$: /æg/ (S$_i$)) (S$_j$: /rɹ/ (S$_j$))] (F$_i$)) (sF$_j$: [(sS$_k$: /kʌl/ (S$_k$)) (S$_l$: /tʃə/ (S$_l$)) (S$_m$: /rl/(S$_m$)] (F$_j$))]
  - Four syllables, two feet (both trochaic)
  - S-operator on both syllable and foot: primary stress

Syllables and Feet (2)

- Ambisyllabicity:
  - the coda of (S$_n$) also functions as the onset of (S$_n$+1)
  - *horrible*

    (PW$_i$: (F$_i$: [(sS$_i$: /hɒr/ (S$_i$)) (S$_j$: /rɹb/ (S$_j$)) (S$_k$: /bl/ (S$_k$)] (F$_i$)) (PW$_i$))
  - the articulator (Output Component) that will reduce such sequences to single phonemes (through a process of degemination)
- PL-units need not correspond to ML-units:
  - le-s ancien-s élève-s
    def-PL ormer-PL pupil-PL
    'the former pupils'
    (PP$_i$: [(S$_i$: /le// (S$_i$)) (S$_j$: /zɑ̃/ (S$_j$)) (S$_k$: /sjɛ̃/ (S$_k$)) (S$_l$: /ze/ (S$_l$)) (S$_m$: /lɛv/ (S$_m$))] (PP$_i$))

Syllables and Feet (3)

- In many tone languages, syllable is location of tonal distinctions:
  - Tone languages, e.g. Thai
    k^háá 'trade$_{\downarrow}$'
    (h S$_i$: /kha:/ (S$_i$))
  - Tonal accent languages, e.g. Swedish
    tanken 'the thought'
    (F$_i$: [(ls S$_i$: /t^{h}aŋk/ (S$_i$)) (S$_j$: /ɛ̆n/ (S$_j$))] (F$_i$))
  - Accentual tone language, e.g. Japanese
    kakí 'fence'
    (h PW$_i$: [(S$_i$: /ka/ (S$_i$)) (s S$_j$: /ki/ (S$_j$))] (PW$_i$))

FDG: An example

Bininj Gun-Wok

Evans (2003), Bishop & Fletcher (2005)

Ba-rri-ø-yaw-gurrme-ng,
3.subj(pst)-pl-3.sg.obj-child-put-pst.real.pf
wotjbirr
'smack'
'They put the child down, smack!'

Interpersonal Level

(M_I:[(A_I: [(F_I: DECL (F_I)) (P_I)$_S$ (P_J)$_A$ (C_I)] (A_I))
(A_J: [(F_J: DECL (F_J)) (P_I)$_S$ (P_J)$_A$ (C_J)] (A_J))
] (M_I))

Declarative acts have falling intonation, the last one in a move falling more prominently

Interpersonal Level

Barri-yaw-gurrme-ng
3.subj.pl(pst)>3.sg.obj-child-put-pst.real.pf
'They put the child down.'

(A_I: [(F_I: DECL (F_I)) (P_I)$_S$ (P_J)$_A$ (C_I: [(T_I) (R_I) (R_J) (R_K)] (C_I))](A$_I$))

BGW is a pronominal argument language

Representational Level

(e_i) (e_i)

Two descriptions of the same State-of-affairs

The first description is in terms of content, the second one in terms of the sound produced

Representational Level

Barri-yaw-gurrme-ng
3.subj.pl(pst)>3.sg.obj-child-put-pst.real.pf
'They put the child down.'

(p_i: (past ep_i: (real e_i: [(pf f_i: [(f_i: /gʊrmɛ/ (f_j)) (x_i)$_A$ (x_j: [(f_k: /jaʊ/ (f_k)) (x_j)$_Ø$])$_U$] (f_i)) (e_i)$_Ø$]) (ep_i)) (p_i))

x_i is expressed pronominally, its identity is given in the Contextual Component
x_j is incorporated but is referential

Representational Level

wotjbirr
'smack'

(e_i: [(s_i: /wɔcbɪr/ (s_i)) (e_i)$_U$])

Morphosyntactic Level

(Cl_i: [(Vw_i)] (Cl_i))

This is a clause since external modifiers may be added

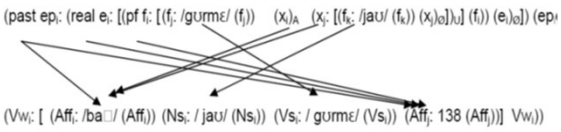
Morphosyntactic Level

PI P^{F-2} P^{F-1} P^{F}
(Vw_i: [(Aff_i: /baɪ/ (Aff_i)) (Ns_i: /jaʊ/ (Ns_i))(Vs_i: /gʊrmɛ/ (Vs_i)) (Aff_j: 138 (Aff_j))] Vw_i))

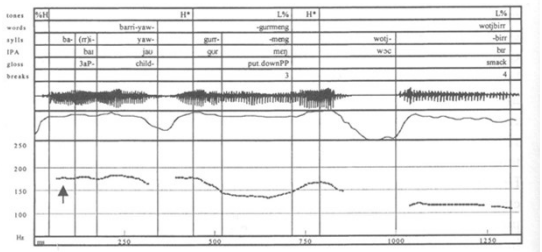
The template for verbal words (Vw) is highly complex, much more than can be illustrated here

The form of the tense suffix is dependent on phonological information, hence a placeholder ('138') is used anticipating decisions at the phonological level

Representational and Morphosyntactic Levels



Phonological Level



Phonological Level

(f u_i: [(f ip_i: [(f pp_i: [(h f_i: [(s s_i: /baɪ/ (s_i)) (s_j: /jaʊ/ (s_j))] (f_i)) (f_j: [(s s_k: /gʊr/ (s_k)) (s_l: /mɛŋ/ (s_l))] (f_j))] (pp_i)) (ip_i)) (f ip_j: (f pp_j: [(f_k: [(s s_m: /wɔc/ (s_m)) (s_n: /bɪr/ (s_n))] (f_i)) (pp_j))] (ip_j))] (u_i)

Index 3 pause between IPs, index 4 between Us
PPs have a falling contour, PWs irrelevant
Feet are trochaic

Interpersonal and Phonological Levels

$(M_i: \quad [\quad (A_i: [(F_i: \text{DECL } (F_i)) \ldots.] \ (A_i)) \quad (A_j: [(F_j: \text{DECL } (F_j)) \ldots.] \ (A_j)) \ ] \ (M_i))$

$(_r U_i: \quad [\quad (_r IP_i) \qquad\qquad (_r IP_j) \qquad\qquad] \ (U_i)$