WPFG

Morphology in Functional Discourse Grammar
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1. Morphological types in Functional Discourse Grammar

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1.1. Introduction

The aim of this paper is to give an overview of the way in which the differences between morphological types can be accounted for systematically in terms of the various modules that make up the model of Functional Discourse Grammar. After summing up the most relevant aspects of FDG in section 1.2, a classification of morphological types is given in section 1.3. Section 1.4. then reviews the way in which FDG handles each of these types separately. Section 1.5. summarizes the paper.

1.2. Outline of the FDG model

Figure 1 gives a general overview of the FDG model. A summary of the various properties of this model may be found in Hengeveld (forthcoming); a full presentation of the model will be given in Hengeveld & Mackenzie (in preparation). An important property of the model in the context of the present discussion is that it distinguishes an interpersonal, a representational, a structural, and a phonological level of linguistic organization, and that each of these levels is built up using different sets of primitives. The interpersonal and representational levels of organization are structured on the basis of pragmatic and semantic frames, into which lexemes and primary operators (i.e. operators that are defined in terms of their meaning) are inserted. The structural level is organized in terms of morphosyntactic templates, into which, apart from lexical material from the preceding levels, grammatical words and morphosyntactic secondary operators

(i.e. operators anticipating bound grammatical expressions) are inserted. The phonological level, finally, is organized in terms of prosodic patterns, into which, apart from the lexical and grammatical words from the preceding levels, bound morphemes and phonological secondary operators (i.e. those anticipating acoustic effects of certain morphosyntactic configurations) are inserted.

Figure 1. Outline of FDG
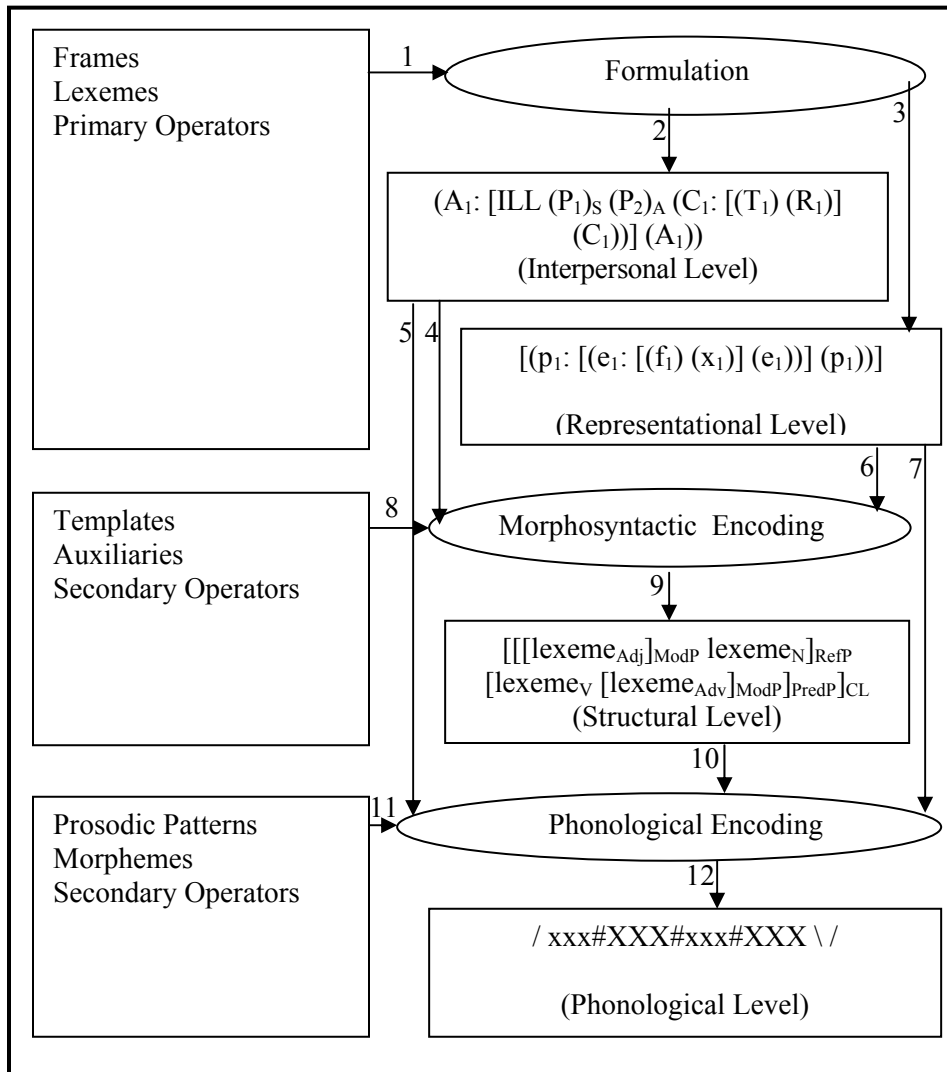
Free grammatical morphemes have to be introduced at the structural level, since, unlike bound grammatical morphemes, they occupy slots in the syntactic configuration, which is determined at this level. Bound grammatical morphemes are introduced at the phonological level since in many languages the form of grammatical morphemes may be affected by the syntactic configuration in which they occur. Therefore morphosyntactic secondary operators are inserted at the structural level in the appropriate position, anticipating the morphological means of expression that will eventually be selected at the phonological level.

1.3. Morphological types

Morphological types can be defined along two parameters: semantic transparency, and synthesis. Along the first parameter one can distinguish isolating, agglutinating, and fusional languages. Isolating languages are semantically transparent in the sense that there is a one-to-one relation between a word and a unit of meaning, whereas in agglutinating languages there is a one-to-one relation between a morpheme and a unit of meaning. Fusional languages are semantically opaque, in the sense that there is no one-to-one relation between a unit of form and a unit of meaning. Along the second parameter one may distinguish between polysynthetic and non-polysynthetic languages. Polysynthetic languages allow the presence of more than one lexical element within a single word, non-polysynthetic languages do not. The two parameters are basically independent of one another: the first has to do primarily with the status of grammatical elements in the language, the second one with the status of lexical elements. As a result, polysynthetic languages can be fusional or agglutinating just like non-polysynthetic languages. The only restriction in terms of combinations of the two parameters is that a polysynthetic language cannot at the same time be isolating. Note furthermore that many languages exhibit features of more than one morphological type.

       Examples from languages from these different types are given below. Fijian (1) is an isolating language, Turkish (2) an agglutinating language, Spanish (3) a fusional

language, and Southern Tiwa (4) a polysynthetic language. The glosses clearly reveal the morphological structure of the languages involved: in (1) the gloss is a word-by-word translation, in (2) a morpheme-by-morpheme translation, in (3) a one-to-many translation, and in (4) the gloss reveals the presence of two lexical elements. Note that (4) is a case of syntactic incorporation, as the incorporated object is cross-referenced on the verb.

Fijian (Milner 1972: 42)

(1)　　Mo　　dou　　　　kauta　mada　yani　na　　cina.
　　　　IMP　2PAUC　　　take　　MIT　away　ART　lamp
　　　　'Take the lamp away.'

Turkish (van Schaaik p.c.)

(2)　　Anlı-y-abil-ecek-miş-im.
　　　　understand-y-ABIL-IRR-INFER-1.SG
　　　　'I gather I will be able to understand.'

Spanish

(3)　　Lleg-ó.
　　　　arrive-IND.PAST.PF.3.SG
　　　　'He/she/it arrived.'

Southern Tiwa (Gerdts 1998: 88)

(4)　　Te-shut-pe-ban
　　　　1.SG>PL-shirt-make-PAST
　　　　'I made (the) shirts.'

1.4. The representation of morphological types in FDG

The application of the FDG model, and particularly its division of labour between the various components, to the examples just given, leads to the following analyses of the examples just given.

Figure 2 contains the analysis of the Fijian example (1). It shows that the grammatical words *mo*, *mada*, and *na* are inserted at the structural level, and furthermore can be seen as the direct translation of the basic illocution 'IMP' and the primary operators 'MIT' and 'SPEC', thus reflecting the semantic transparency of this type of language at the syntactic level. For a detailed analysis of the isolating language Saramaccan see chapter 3.

Figure 2. Fijian

$(A_1: [\textbf{IMP} (P_1)_S (P_2)_A (C_1: [(T_1) (R_1) (R_2)] (C_1))] (A_1))$

$(e_1: [(f_1) (x_1)_{Ag} (x_2)_{Pat} (e_1))$
$(f_1: \text{Lex} (f_1): (l_1)_{Dir} (f_1))$

$\text{dou}_{Pro}, \text{kauta}_{Lex}, \text{yani}_{Lex}, \text{cina}_{Lex}$

MIT, **SPEC**

1 → Formulation

2

$(A_I: [(\textbf{MIT} F_I: \textbf{IMP} (F_I)) (P_1)_S (P_2)_A (C_1: [(T_1) (R_1) (\textbf{SPEC} R_2)] (C_1))] (A_1))$

3

5   4

$(e_i: [(f_i: \text{kauta}_{Lex} (f_i): (l_i: \text{yani}_{Lex} (l_i))_{Dir} (f_i)) (x_1: \text{dou}_{Pro} (x_i))_{Ag} (x_j: \text{cina} (x_j))] (e_1))$

6   7

$[\text{PredPhr RefPhr}^n]_{Clause}$
$[\text{Part1 } [\text{Pro}]_{Subj} \text{ Lex Part 2}$
$[\text{Lex}]_{ModPhr}]_{PredPhr}$
$[\text{Part Lex}]_{RefPhr}$

mo, **mada**, **na**

8 → Morphosyntactic Encoding

9

$[\textbf{mo} [\text{dou}_{Pro}]_{Subj} \text{kauta}_{Lex} \textbf{mada} [\text{yani}]_{ModPhr}]_{PredPhr} [\textbf{na} \text{cina}_{Lex}]_{RefPhr}$

10

(suprasegmental patterns)

11 → Phonological Encoding
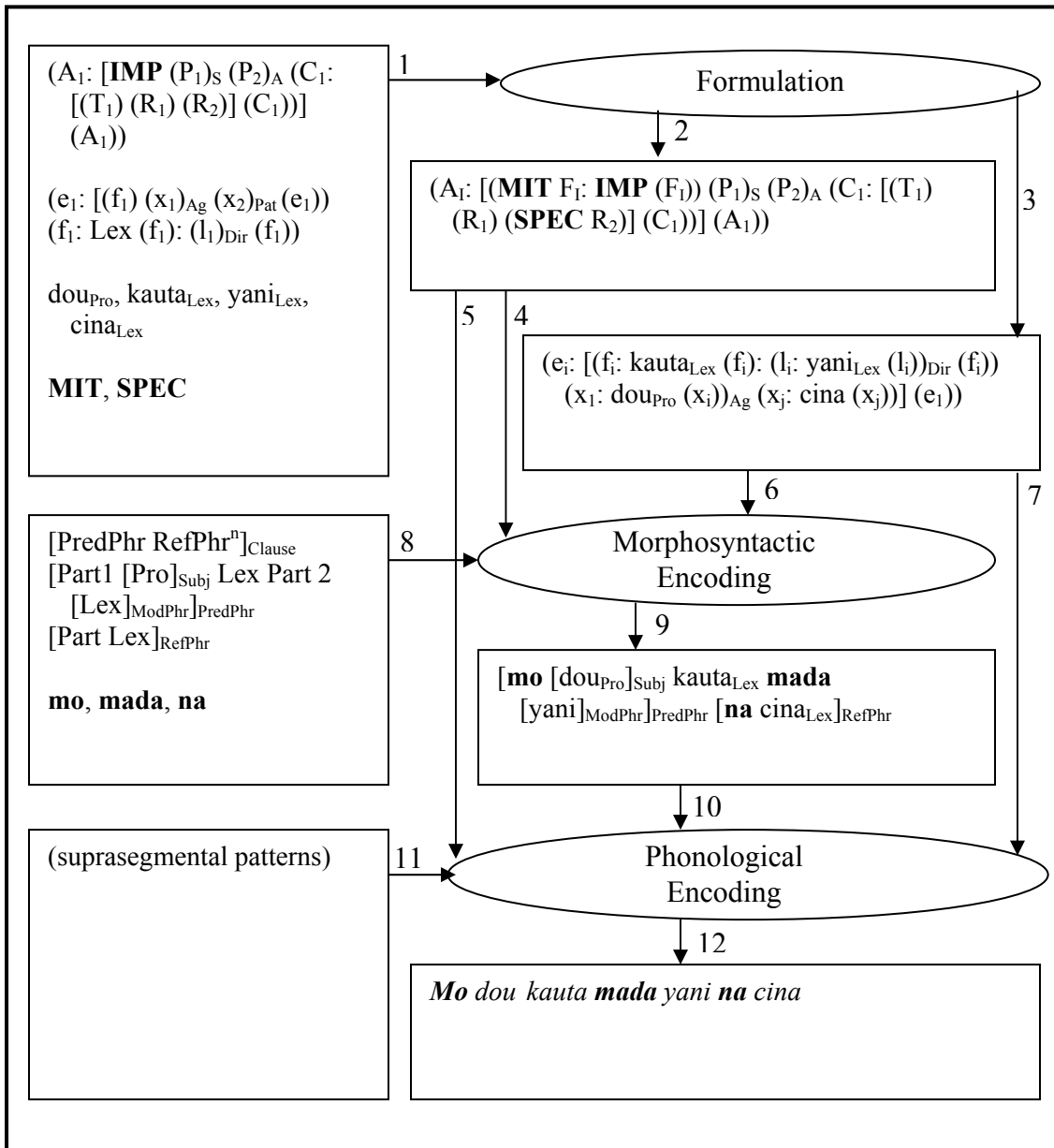
12

*Mo dou kauta **mada** yani **na** cina*

Figure 3 contains the analysis of the Turkish example (2). It shows that the bound grammatical morphemes *-AbIl*, *-EcEk*, *-mIş*, and *-Im* are inserted at the phonological level, as the expression of the secondary operators 'Abil', 'Irr', 'Infer', '1Sg' that are introduced at the structural level. Note that the secondary operators are in a one-to-one relationship with the primary operators 'abil', 'irr', 'infer' and the person marker '1sg', thus reflecting the semantic transparency of this language at the morphological level. For a detailed analysis of the agglutinating language Tarma Quechua see chapter 2.
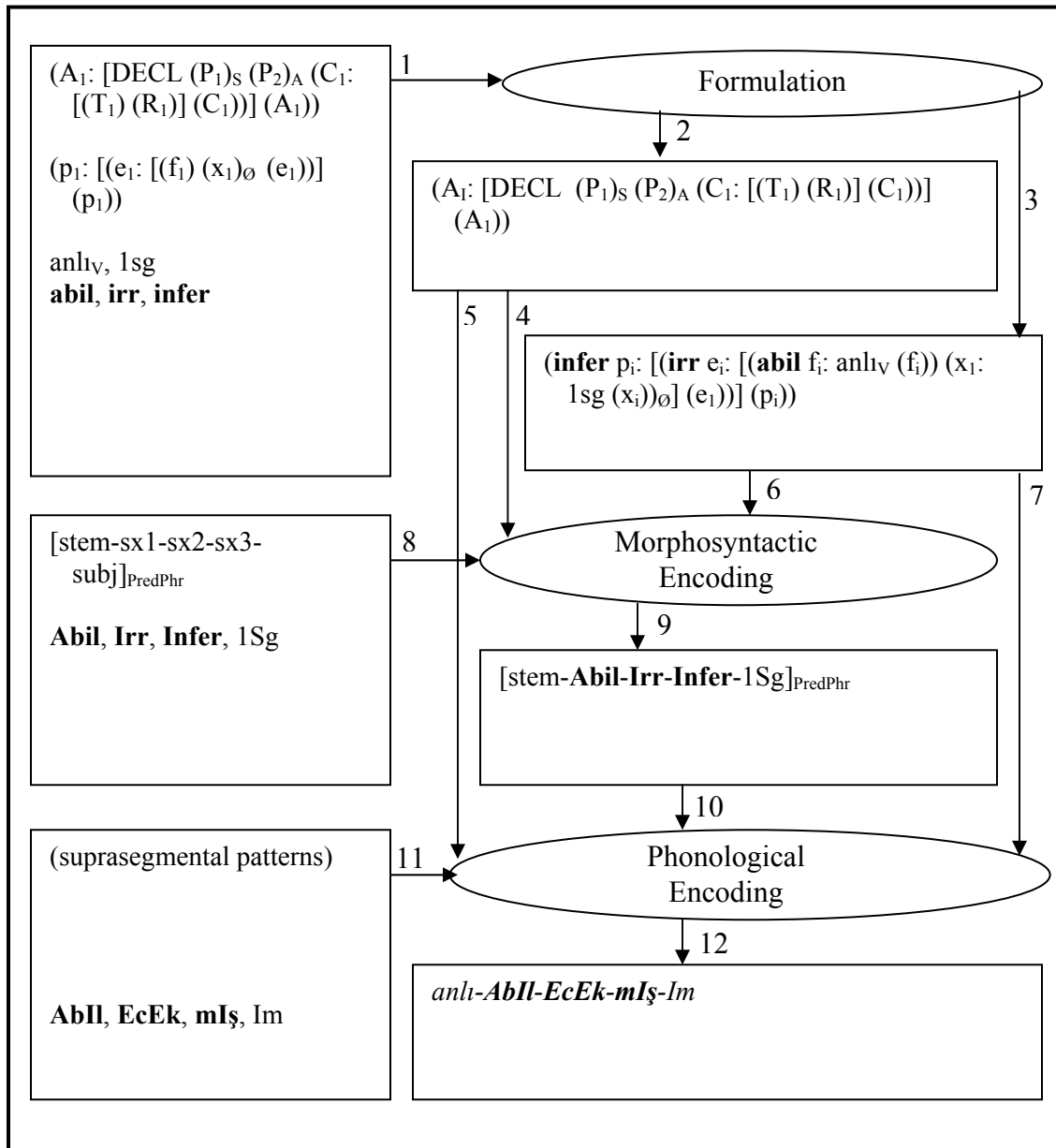
Figure 1.3. Turkish

Figure 4 contains the analysis of the Spanish example (3). It shows that the bound grammatical morpheme *-ó* is inserted at the phonological level, as the expression of the secondary operator 'IndPastPf3Sg' that is introduced at the structural level. In contrast to the previous case, the selection of this secondary operator is triggered by the joint presence of the basic illocution 'DECL', the primary operators 'past' and 'pf', and the person marker '3sg', thus reflecting the lack of semantic transparency of this language within its inflectional system.
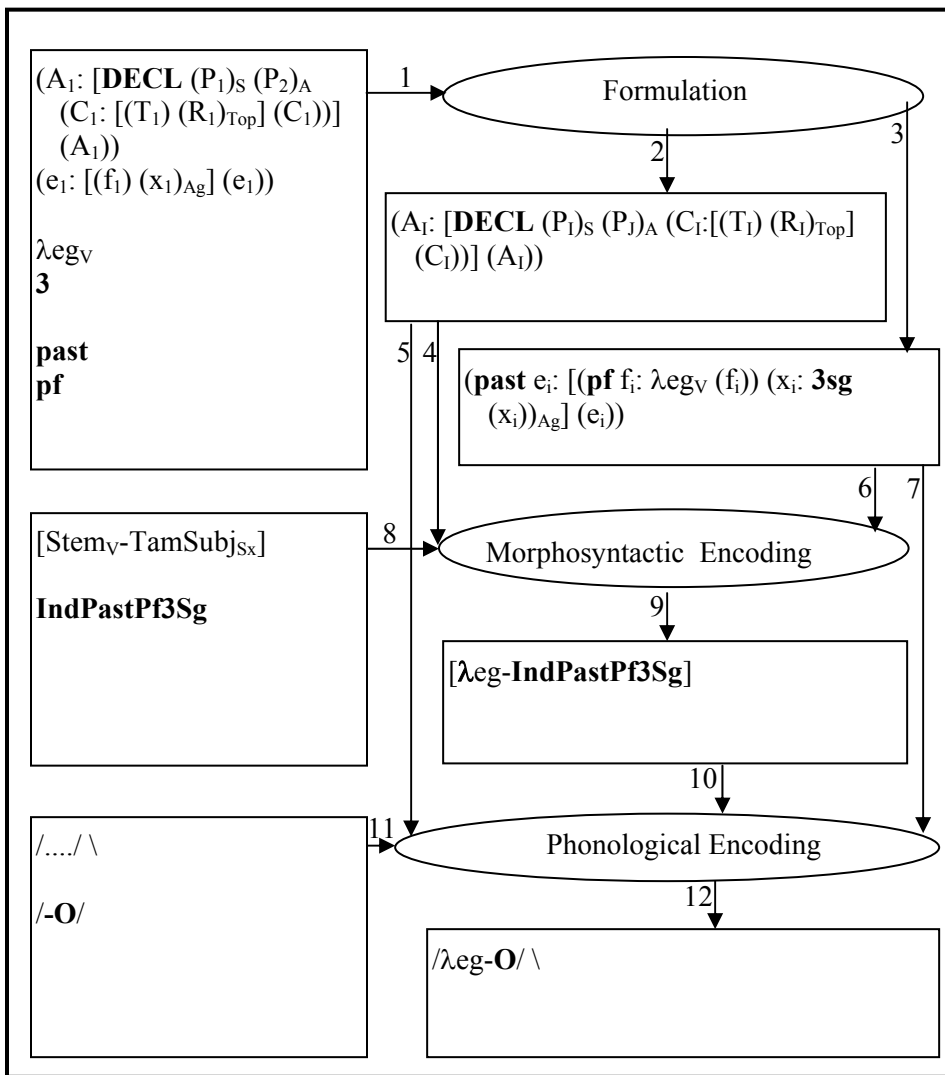
Figure 4. Spanish

Figure 5 contains the analysis of the Southern Tiwa example (4). Apart from the agglutinating characteristics of this example, the analysis shows that two lexically filled units at the representational level, (f_i) and (x_j), are inserted into a single complex word template at the structural level, thus reflecting the semantic independence of the two units on the one hand, and their structural dependency on the other.

Figure 5. Southern Tiwa
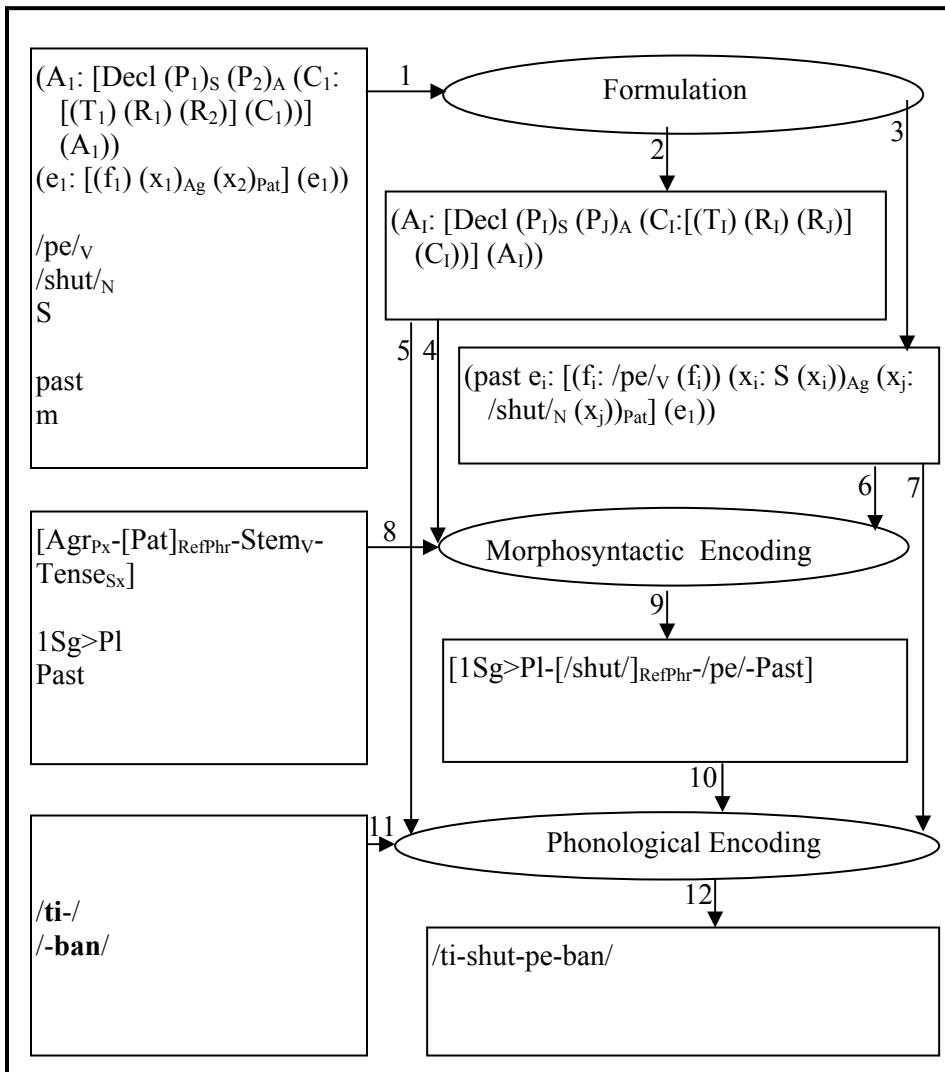
1.5. Summary

Figure 6 summarizes the relationship between the various levels in FDG in languages of distinct morphological types along the parameter of semantic transparency. Recall that in this paper this parameter was used to characterize the differences between languages as regards grammatical forms, i.e. grammatical words and bound morphemes. These elements show no isomorphism across levels of representation in fusional languages, isomorphism between the interpersonal/representational levels and the structural level in isolating languages (in which the phonological level is irrelevant for the expression of grammatical elements), and isomorphism between all levels in agglutinating languages.

Figure 6. Semantic transparency

Morphological type	Interpersonal/ representational level	Structural level	Phonological level
Fusional			
Isolating	isomorphism		
Agglutinating	isomorphism		

Figure 7 summarizes the relationship between the various levels in FDG in languages of distinct morphological types along the parameter of semantic transparency. Recall that in this paper this parameter was used to characterize the differences between languages as regards the use of lexical forms. In polysynthetic languages there is isomorphism across the structural and phonological level of analysis, but there is no one-to-one relation between units at these levels and units at the interpersonal and/or representational ones. In non-polysynthetic languages there is such a one-to-one relation across the various levels.

Figure 7. Synthesis

Morphological type	Interpersonal/ representational level	Structural level	Phonological level
Polysynthetic		isomorphism	
Non-polysynthetic	isomorphism		

The FDG model thus helps to arrive at a systematic characterization of languages as regards their morphological types in terms of differences in their underlying representations.

References

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