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Notional and coded information roles
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0. Introduction

In this paper[1] I argue that the distinction between coded information roles and notional information roles is important for linguistic models such as Functional Grammar (Dik 1989) that recognize pragmatic functions as primitives.

Language-independent notional criteria for information roles stem from universal typologies and classifications of context-types or types of pragmatic conditions. These criteria function to define and delineate the discourse domains of topicality and focality and are used as discovery-procedures to classify constituents in texts according to notional information roles. However, since grammars of individual languages code informational roles of constituents in language-specific ways, the analyst needs to establish the language-specific system of formal (phonological and morphosyntactic) oppositions which determines how the notional cake is cut up into coded pieces. Pragmatic functions in grammars of individual languages can then be defined in terms of (i) coded information roles and (ii) the expressive devices for these coded information roles. I illustrate my proposals with data from Papuan languages.

The paper has the following structure. In the first section I distinguish between notional and coded information roles and I discuss notional criteria for topical and focal roles. In the second section two general properties of coded information roles are discussed, neutralization and discretization.

1. Notional and coded information roles

Traditional field-linguistic method distinguishes between discovery-procedures and the write-up; the write-up (the grammar) is the result of the application of the discovery-procedures to a corpus of data. The discovery-procedures have an 'etic' (outside) perspective whereas the write-up reflects the 'emic' (inside) perspective, i.e. it contains only the distinctions systematically encoded by the grammatical organization of the language.

The terms 'etic' and 'emic' stem from the distinction

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between phonetic and phonemic. If one wants to describe the sound system of a language, one starts with description of the sounds of that language in terms of a language-independent phonetic classification using for example the symbols of the I.P.A. to represent those sounds. The next step is then to determine the language-specific contrastive organization of the sound-dimension in the phonemic system of the language under study. The language-specific relations between the sounds in terms of opposition and complementary distribution determine the definition of the phonemes of that language.

Dik et al. (1981: 59), De Vries (1985, 1989) and Dik (1989) use this distinction between 'etic' and 'emic' to clarify the relation between language-independent notional typologies of topicality and focality and language-specific 'emic' Topic and Focus systems. Dik et al. (1981: 59), for example, propose a subdivision of focal types and state that this subdivision ".. may be seen as an attempt to get a picture of the 'etics' of Focus, in the sense that it distinguishes the various ways in which Focus can manifest itself, without necessarily implying that these different ways are also coded in different grammatical constructions in natural languages." In Dik (1989: 285), there is an explicit distinction between the 'etics' and 'emics' of focality, the 'emics' of focality being defined as follows:

> "..the "emics" of focality, i.e. which distinctions must be integrated into a grammar to account for the different focalizing strategies found in a language (cf. De Vries 1985). When studying this question we find that Focus is probably relevant to the grammar of all languages, but that languages may differ in the way in which they "cut up the cake", and in the degree of detail required within the domain of Focus."

In this paper I use the terms notional for 'etic' and coded for 'emic'.

1.1 *Notional and coded information roles: focality*

The distinction between notional and coded information roles can be illustrated by contrasting the Focus systems of Wambon (De Vries 1985, 1989) and Aghem (Watters 1979). In the notional classification of focality proposed in Dik et al. (1981), six types of conditions in verbal interaction are mentioned which universally induce focality. Six notional focal roles of constituents correspond with these conditions. This description of focality-related context-types and the way they relate to each other is the result of an effort to operationalize the notional category 'focality' defined by Dik (1989) as "that information which is relatively the most important or salient in the given communicative setting, and considered by S to be most essential for A to integrate into his pragmatic information".

Analysing the Wambon data during my fieldwork, I used this notional theory of focality as a set of discovery-procedures and I found the criteria for context types of Dik et. al (1981) easily applicable cross-linguistically. One of the notional

pragmatic conditions discussed in Dik et al. (1981) is that of the question-word question and its answer. Consider the following exchange from Wambon, a Papuan language of Irian Jaya, Indonesia (De Vries and Wiersma 1992, de Vries 1985, 1989):

(1) Evo kap keno-nde   takhimokhe?
     that man what-Focus   buy.3sg.pres
     'WHAT does that man buy?'

(2) Oi-nde   (takhimokhe).
     pig-Focus buy.3sg.pres
     '(He buys) a PIG.'

According to Dik et al. (1981), the constituent in (2) that presents the information which fills the blank in the pragmatic information of the addressee is the relatively most focal constituent in that context. *Oi-nde* 'pig' is marked by the clitic *-nde*. This element *-nde* cliticizes to the last word of the term-phrase with the notional information role 'completive focality' (Dik et al. 1981: 63). Question-words like *keno-* 'what' in (1) are also predicted to be informationally salient according to the notional criteria of Dik et al. (1981) and always receive the clitic *-nde*.
    The clitic *-nde* not only appears in completive question and answer pairs like (1/2), where the pragmatic information of the addressee is completed, but also in another context which creates focality, viz. in contexts which are labelled 'replacing' in the typology of Dik et al. (1981: 63):

(3)A: Mbitemop ndune   andetmbo
         Mbitemop sago   eat.past.3sg.final
         'Bitemop ate sago.'

(4)B: Woyo,nekheve ndu-nde   enokmatmbo
         no,   he   sago-Focus   eat.neg.past.3sg.final
         'No, he did not eat SAGO.'

(5)B: Ande-nde   andetmbo
         banana-Focus   eat.past.3sg.final
         'He ate BANANAS.'

In (4) B rejects a piece of information received from A and in (5) B corrects A's statement by replacing that wrong piece of information and substituting the correct information.
    Another type of context in which certain constituents become informationally focal or important is what Dik et al. (1981: 66) have termed 'parallel' contexts:

(6)
Wembane   ndu-nde   takhimatbo,   Karolule   ande-nde
Wemba   sago-Focus   buy.3sg.past   Karolulu   banana-Focus

takhimatmbo
buy.3sg.past
'Wemba bought SAGO, and Kalorus BANANAS.'

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Thus by using the same expressive device (-nde) in question-word questions (1), their answers (2), rejections (4), corrections (5) and parallel contrasts (6), Wambon neutralizes the different pragmatic conditions creating notionally different focal information roles: it would be useless to distinguish Completive Focus, Corrective Focus, Contrastive Focus and so on for Wambon grammar since these differences are not coded.

When one applies the notional criteria from Dik et al. (1981) to texts in Aghem, a Grassfields Bantu language of Cameroon, it becomes evident that where Wambon uses one general expressive device throughout the notional domain of focality, Aghem uses different expressive devices in different pragmatic conditions so that (at least) three coded Focus functions should be distinguished for Aghem (Watters 1979, Dik 1989): New/Completive Focus, Replacing Focus and Restricting Focus. Dik (1989: 287) has summarized the intricate expressive devices of Aghem. I shall follow his outline.

The basic clause pattern of Aghem is as in (7):

(7) S   Aux Pb V   Pa   O   X

In (7) the Pb and Pa are two special positions, the immediate preverbal position (Pb) and the immediate postverbal position (Pa). The expressive devices of the Aghem Focus system can be summarized as follows:

(R1) Any Focus term, whether questioned or non-questioned, goes to Pa.
(R2) When the Focus term in Pa is not the Subj, then one or two Given Topic constituents (also non-Subj) may be placed in Pb. The resulting construction expresses Replacing rather than Completive Focus.
(R3) When the Focus term in Pa is the Subj, then there may be further Focus terms in X or Pb. This expresses multiple Completive Focus (*Who met who? JOHN met BILL.*). Multiple Focus is possible only if at least the Subj is in Focus.
(R4) When the Focus-bound Past marker is placed in Aux, this signals Focus on the polarity.
(R5) When in that condition all verbal complements are placed in Pb, so that the V is in final position, this signals Replacing rather than Completive Focus on the polarity (*John DID meet Bill*).
(R6) When the special Focus marker *nò* is placed after a constituent to the right of and including the verb, it adds the value "Replacing" to that constituent; if the constituent already has this value on other grounds, it adds the value "Restricting" (*Only JOHN met Bill*).
(R7) The cleft construction is used only for Restricting Focus.

Now the notional/coded distinction makes it possible to formulate both the differences and similarities between the Focus systems of Wambon and Aghem: Wambon and Aghem impose different coding grids on the same universal domain of verbal interaction. For example, the notional information roles 'completive focality' (ex. (2)) and 'replacing focality' (ex. (5)) are subsumed under one coded information role in Wambon, the pragmatic function

Focus, signalled by -nde, whereas Aghem distinguishes both Completive and Replacing Focus in clausal morphosyntax.

1.2 *Notional and coded information roles: topicality*

In Indo-European languages topics are not or only marginally coded in the grammar. In the absence of formal coding mechanisms in these languages some linguists (e.g. Givón 1988) have found topics undefinable and elusive things. However, in languages where topics receive considerable formal coding (cf. Li and Thompson 1976), the notion 'topic' as a discrete grammatical category is certainly not more elusive than the notion 'subject' in Indo-European languages.

On the basis of studies of topic-prominent languages Gundel (1988: 210) has proposed the following notional definition of topic: 'An entity, E, is the topic of a sentence, S, iff in using S the speaker intends to increase the addressee's knowledge about, request information about, or otherwise get the addressee to act with respect to E'. This definition is notional because it does not invoke criteria of overt expression of the topic in the sentence.

Dik (1989: 266) defines topicality notionally as follows: "Topicality characterizes those entities 'about' which information is provided or requested in the discourse". In this definition Dik mentions 'aboutness' (on discourse-level) and 'entity' status as notional criteria, but not 'givenness' or 'assumed familiarity'. Similarly, Gundel (1988) regards assumed familiarity with the topical entity as a property that topics very often have but she does not include 'familiarity' or 'givenness' elements in her notional definition. This is also the line taken by Daneš (1967: 222) who, following Mathesius (1929), formulates 'aboutness' as the primary notional criterion for topics and states that "as a rule the topic contains 'old' or 'already known' elements".

Since the cognitive plausibility of the notion 'topic' is precisely that listeners need easily accessible 'addresses' in their memory to send incoming information to, I include assumed familiarity in the notional criteria for topics. Thus there are three notional criteria for topics:

(8) notional criteria for topics:

(i)   they are entities
(ii)   the speaker assumes that these entities are easily accessible for the addressee (assumed familiarity)
(iii)   the speaker intends the addressee to attache incoming information to those easily accessible entities (aboutness)

Of course, these three notional criteria of 'familiarity', 'entity-status' and 'aboutness' are themselves in need of notional explication. An excellent explication of notional criteria for 'assumed familiarity' can be found in Prince (1980). Criteria for (first order) 'entity' status can be found in Lyons (1977). Criteria for 'aboutness' are harder to formulate.

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Linguistics should look at psychological theories of cognition and information processing for help because the intuitive plausibility of the notion 'topic' lies in its cognitive and processing role. Listeners need 'addresses' in their memory to send incoming information to. It would seem that (first order) entities are easier to use as cognitive 'addresses' then, say, events or relations. 'Aboutness' in the cognitive sense focuses on the need for storage points in memory.

In topic-prominent languages there are grammatical mechanisms that speakers utilise to give clues for hearers to quickly identify the 'addresses' to which the incoming information can be sent. When one studies which type of constituents are marked as topics in such languages, the referents of the great majority of these marked constituents satisfy the three notional topic criteria: they are easily accessible first order entities (Lyons 1977) in terms of which the speaker directs the addressee to process the incoming message.

Combining distinctions from the work of Prince (1980), Gundel (1978, 1988), Hannay (1985), Chafe (1987) and Dik (1989), at least three notional subtypes of topics can be distinguished that fall under the scope of the definition of topic as an 'aboutness' relation between a familiar entity and a clause.

Given topics (givtops) are situationally or textually evoked discourse referents that the speaker assumes the addressee is attending to ('active', Chafe 1987; 'activated', Gundel 1978). Resumed topics (restops) are formerly active topics that the speaker reactivates (Dik 1989). Sub topics (subtops) are inferrable topics that the speakers assumes the addressee is peripherally conscious of (semi-active) (Prince 1980, Hannay 1985).

In several topic-prominent languages topic marking devices may occur with two types of topics that do not fully satisfy the three notional criteria for topics (viz. 'familiarity', 'entity-status', 'aboutness').

In the first place, speakers may want to indicate, when they refer to an entity for the first time in the discourse, whether that entity constitutes a future topic of the discourse (that will be referred to again) or not. In Urim (East Sepik, Papua New Guinea, Hemmilä 1989) this notional topic role 'future topic' is coded in the grammar. See examples (9) and (10): when the topic marker pa in Urim occurs with a constituent that refers to a new entity, then that constituent introduces a Future Topic or New Topic into the discourse. When new entities are introduced without pa, they will not be referred to again in the coming discourse.

(9)
Kin   ur   pa   ekg naren   ampen   tukgwan
woman   a   that two gather breadfruit ripe
'Two women were gathering ripe breadfruits.'

(10)
Kin   warimpet pa   kai karkuk
woman   young   that go   bathe
'A young woman went to have a bath.'

(11)

Mentekg	Dik	nampokgen	melnum	Maprik-en	ur	kai
1dl	Dik	with	man	Maprik-ATTR	a	go

Pakwi
Pakwi
'I and Dik and a man from Maprik went to Pakwi.'

In (9) and (10) the use of the topic marker *pa* implies that the newly introduced entities will be referred to again in the following discourse: they are New Topics. In (11) 'a man from Maprik' is introduced without *pa* and this man is not mentioned again in what follows. The topic marker *pa* is glossed as 'that/there' in these examples from Hemmilä (1989) because *pa* functions also as a demonstrative in Urim.[2]

These New Topics satisfy the 'entity' criterion but they violate the 'familiarity' criterion: the addressee is not assumed to be familiar (in any sense) with the new topic entities. New Topics satisfy the 'aboutness' criterion at discourse-level but not or marginally at clause-level. In Dik (1989) the 'aboutness' criterion is applied at the discourse-level: "If a discourse is to be about a certain D-Topic, that D-Topic will, at some point, have to be introduced for the first time. Such a first presentation of a D-Topic will be called a New Topic (NewTop)."

Notice that New Topics or Future Topics receive the same topic marker *pa* that also occurs with types of topics in Urim that fully satisfy the criteria for topics given in (8). In the following example the topic marker *pa* marks a Given Topic:

(12) Wampung   pa   tarkgim   la[3]   nam-pel.
     opossum   that turn   say   bite-3sg
     'The opossum turned and tried to bite him.'

(The oppossum (GivTop) has already been mentioned in the story.)

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[2]The fact that in Urim *pa* can be combined with indefiniteness markers is evidence for the hypothesis that in at least some Papuan languages there are demonstrative forms which have two functions: they express the pragmatic function Topic and they express demonstrative operators like 'close to the addressee'. In Wambon, another Papuan language (De Vries 1989), demonstrative elements show formal differences depending on whether they function as topic marker or as demonstrative operator: when functioning as topic marker, they cliticize and may form compounds of proximate and non-proximate forms. In Korowai, related to Wambon, the cognate of the Wambon demonstrative has lost its demonstrative operator function and functions solely as a topic marker. In De Vries (1993b) evidence is presented for a diachronic hypothesis about the development from demonstrative to topic marker in Awyu-family languages.

[3]Verbs of saying occur in very many Papuan languages in intentional and purposive contexts because these languages tend to express intention as quoted thought (cf. De Vries 1990).

Urim is not the only Papuan language in which the introduction of a new topic and its subsequent being maintained as a given topic are expressed with the same device. Another example of a Papuan language using the same topic marker with NewTops and GivTops is Berik (Westrum 1987, Jones 1988). Jones (1988: 26) writes: "Following a subject or object noun phrase, *ga* indicates progression in topic. (By TOPIC is meant the roughly sentential or intersentential notion of 'what is being talked about')." It is very commonly used to signal a new topic, such as introducing an important new participant in a story, and also is commonly used for switching the spotlight back and forth between participants already on stage." Consider the following Berik discourse (Westrum 1987: 62):

(13) a. Angtane bosna   Usafe   je   ga   tas
        person   name   Usafe   he   c.t. sago

    tarna-p   ge   nuin.
    place-at dual live
    'There was once a person named Usafe who lived near the sago acreages.'

    b. Tesa   ga   belim   taban,   ga   jes
       sago   c.t. cut.down finished then it

    talebowel.
    pounded
    'Whenever he finished cutting down a sago tree, he pounded it.'

    c. Ofona   ga   Jaume-mana,   bosna   ga   Sebaf.
       pig   c.t. Jaume-poss.   name   c.t. Sebaf
    'There was also a pig belonging to Jaume, whose name was Sebaf.'

    d. Ofo   aiserem   je   ga   tesa   ga   jes   tumawel.
       pig   this   it   c.t. sago   c.t. it   ate
    'This pig always ate the sago.'

    e. Usafe   ga   wini   naura   gam   tet.
       Usafe   c.t. woman   two   had   married
    'Usafe had married two women.'

The examples (13a-e) are the first utterances of a story. Notice that e.g. *ofona* 'pig' is marked with *ga* in both (13c), where it is introduced, and in (13d), where it is maintained as a GivTop. Westrum (1987) glosses the topic marker *ga* as 'c.t.', change of topic, since *ga*, which is optional, occurs especially when there is a change of topic between clauses. When *ga* occurs with verbs it functions as a marker of temporal sequence of events ('then'). To generalise over the functions of *ga* with NPs and verbs, Jones (1988: 27) proposes to analyse *ga* as marking a succession relationship: "It is a relatively low-level particle which marks a *succession* relationship between a pair of clauses (preceding and following). For example, the participant in the second clause or sentence succeeds the participant in the preceding one as

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being the topic ('what is being talked about') and/or the event described in the second one succeeds chronologically the event in the preceding one."

From the texts in Westrum (1987) it is clear that *ga* is a topic marker occurring with at least the following types of topics: New Topics, Given Topics, Resumed Topics.

These data from Papuan languages like Urim and Berik point to the fact that New or Future Topics are treated in the coding system of these languages as Topics although they violate the familiarity criterion. However, since New Topics satisfy two of the three notional topic criteria of (8) (they are 'entities' 'about' which the discourse communicates something), they receive Topic treatment in several Papuan languages.

The second type of topics that only partially fullfills the notional criteria for topics and nevertheless gets Topic treatment in very many (if not all) topic-prominent languages is the type of topic which is called Theme by Halliday (1970), and Frame by Clark and Clark (1977). Frames present information that the speaker wants the addressee to take for granted, to accept as a given framework for the rest of the clause. Frames often have both a forward cohesive role and a backward cohesive role. The forward cohesive role is to serve as a frame in which the rest of the clause forms the insert, or as a peg on which the message is hung (Halliday 1970). The backward role is to link the present utterance to the preceding discourse. The most common expressive devices for the pragmatic function Frame in Papuan languages are tail-head linkage clauses, adverbial clauses and phrases, all clause-initial (cf. De Vries 1993). Very often topic markers occur on these clauses and phrases to signal the topical frame status of the constituent. Consider the following examples. In (14) we see the Wambon topic marker *-eve* with a Time phrase that provides the temporal frame within which the information of (14) is presented:

(14) Sanopkuniv-eve   ilo
     on.tuesday-that   descend.SS

     nggapmokndevan-o...
     cut.supp.1pl.pres.tr-coord
     'On Tuesday we went down and cut (trees) and ...'

Several types of subordinate clauses in Wambon function as topical frames and also take *-eve*:

(15) Kikhuve   ndetkhekhel-eve   eve Manggelum
     Digul   rise.3sg.condit-that   that Manggelum

     konoksiva
     go.neg.1pl.Intent
     'If the Digul rises, then we do not want to go to Manggelum.'

In (15) the conditional subordinate clause takes *eve* 'that' (which has cliticized); the second *eve* functions as a resumptive element 'in that case'/'then', pointing back to the conditional clause. Example (15) could be paraphrased as: 'Given that the

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Digul rises..' The subordinate clause presents the topical frame in which the main clause forms the insert.

The topic marker -eve also occurs in Wambon with so-called tail-head linkage frames. Tail-head linkage is the term for the phenomenon that, especially in narratives, sentences or paragraphs are linked by recapitulating the final clause or final verb of the preceding sentence in the first clause of the next sentence (Longacre 1972, Thurman 1975). For example the last clause of (16) is recapitulated in the first clause of (17):

```
(16) Koiv-o      talom-o     mben-o          wakhol-eve
     last-conn   year-conn   seven-conn      month-that

Tuve-n-o          Titul-o
Tuve-tr-coord     Titus-coord

nokhov-a  ilumtakhemo       ndakono
we-conn   three             and

jakho-salip     sakmo.... lavilo         kono...(pause)....
their-wife      follow.SS go.down.SS     and

Mbonop-nggambun-ka     mbakhe-mbel-o         nggerkaji
Mbonop-whirlpool-at    stay-SS.seq-coord     saw

lavo-va             ne-mbel-o            ep-ka
take-1pl.Intent     say-SS.seq-coord     there-Loc

mba-levambo
stay-1pl.past
```
'July of last year Tuve and Titus, the three of us.. their wives also... we went down and stayed at the Mbonop whirlpool to saw.'

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(17)Ep-ka           mba-levambo-n-eve          sanov-e
    there-Loc       stay-1pl.past-tr-that      monday-conn

ilo              ka-levambo.
go.down.SS       go-1pl.past
```
'Given that we stayed there, on Monday we went down.'

The recapitulated first clause in (17) functions as the topical frame for the new information in (17) and links the new sentence to the preceding one. The topic marker -eve may occur on such recapitulated initial clauses.

The next example is from Kombai (De Vries 1993) where subordinate clauses that provide frames for the incoming message are marked with the topic marker *mene* and *mofene*:

```
(18) Amakhalo  khumolei         ro        mene,
     Amakhalo  die.3sg.NF       thing     Top

     dadagu     khe bokhugi-n-o
     beginning  he  dur.be.ill.3sg.NF-tr-conn

     ro         mofene
     thing      Top
```

```
khwaimigi        waluwano:            Foro      mojamonone.
foreigners       perf.say.3pl.NF      bring.SS  descend.imp.pl
'As for the death of Amakhalo, when he was ill in the
beginning, the foreigners had said : "Bring him down (to
us)!".
```

As in Wambon and Kombai, the Urim topic marker *pa* occurs also on
adverbial subordinate clauses (19), adverbial time phrases (20)
and recapitulative clauses (21) that serve as frames:

```
(19) Hu         wei       pa, mentepm   irki       wan
     water      fall:IRR  that 1in      stay:IRR   house
     'If it rains we will stay at home.'
     or: 'Given that it rains, we will stay at home.'
```

```
(20)
Ak   Trinde     kong      pa,   poliskar     awi-yo     aye
PR   Wednesday  morning   that  police.car   take-1pl   carry

kawor           Borom     ese.
enter           Borom     CMP
'Wednesday morning the police car took us to Borom'
```

```
(21)
..kil    karpo     wunei.    Kil karpo     wunei    pa,
..3sg    grab      wunei     3sg grab      wunei    that


kupm no       alm.
1sg  come.up  shoot
'It went to the Wunei-tree; given that it went to the Wunei tree,
I shot it.'
```

All types of information, entities, events, places, times, can
be used as Frames with respect to which the following information
is presented as a relevant insert. The criterion of 'entity'
status is not relevant for their specific type of topicality.
    The 'aboutness' criterion is also violated by Frames.
Conditional clauses, very often topical frames in Papuan
languages and often obligatorily taking topic markers, can rarely
be seen as entities about which the rest of the clause
communicates something.
    The reason that topic-prominent languages employing topic
markers very often treat conditional, temporal and other frames
as topics is that they satisfy the 'familiarity' criterion but
it is not the kind of (referential) familiarity which results
from textual or situational givenness or from inferrability.
Rather, by using the topic marker the speaker indicates: treat
this information as familiar, as a peg to hang the coming message
on, as a universe of discourse with respect to which the coming

message is relevant.[4]

If we compare New Topics and Frames, we can say that NewTops violate the 'familiarity' criterion but satisfy the 'aboutness' criterion (in an adapted sense: on discourse-level) whereas Frames violate the 'aboutness' criterion but satisfy the 'familiarity' criterion (in an adapted sense: not necessarily referentially given, but presented as a starting point for the message).

In a framework which distinguishes notional information roles from coded information roles, we can say that Papuan languages like Wambon and Urim code new topics and frames as Topics although they are notionally 'semi-topics'.

1.3 *Notional and coded information roles: the overlap area between focality and topicality*

The difference between notional and coded pragmatics can be further illustrated with data from Papuan languages concerning constituents which have notionally an information role that combines topical and focal elements. This is a marked situation since focal information is the information the speaker considers to be the most essential for the addressee to integrate into his pragmatic information and topics are the easily accessible points at which the speaker intends the addressee to integrate that essential information.

But in verbal interaction there are marked context-types in which topicality and focality overlap. It is those marked overlap contexts that make a strict dichotomous distinction between topic and (focal) comment too strong to capture all the facts of natural languages.

Take contrasted topical entities: usually two entities are first introduced into the discourse and then contrasted. Contrastive contexts tend to presuppose that the contrasted items are given. Now from a notional point of view, the contrasted elements are given topics on the basis of prior mention (Dik 1989: 267) but at the same time they are focal on the basis of the contrast (Dik 1989: 282). From a coding point of view contrasted topics are Focus in the Papuan language Wambon but they are Topic in another Papuan language, Urim. In Wambon it is the Focus marker *-nde* which appears on contrasted topics (e.g. (22)) but in Urim the Topic marker *pa* appears in contrasts (e.g. (23):

Wambon (De Vries 1985: 174):

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[4]Dik (1978) defines his Theme function in terms of the presentation by the speaker of a universe of discourse with which the coming predication has a pragmatic relevance relation, not a syntactic relation, i.e. Themes are always predication-external constituents in Dik (1978). In this paper predication-externality is not used as a criterion for Theme (or Frame) status.

(22)
a. first speaker:

```
Nombone    ndu-ngup   ande-ngup?
this/TOP    sago-and   banana-and
'What about this sago and bananas?'
```

b. second speaker:

```
Wemban-e        ndu-nde     takhima-tbo,
Wemba-conn      sago-FOC    buy-past.3sg

Karolul-e       ande-nde        takhima-tbo
Karolus-conn    banana-FOC      buy-past.3sg
'Wemba bought the sago, and Kalorus the bananas.'
```

Urim (Hemmilä 1989: 49):

```
(23)
Kinyom    pa    ma         wor   pake  Kinyipan
Kinyom    TOP   breast     good  EMP   Kinyipan

ma        pa    horen
breast    TOP   swollen
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'Kinyom's breasts were good, but Kinyipan's were swollen.'

These examples show that it is important to distinguish the pragmatics of verbal interaction from the pragmatic component of the language system (coded pragmatics).

Another pragmatic condition which causes constituents in texts to be both topical and focal is the introduction of a new topic into the discourse. In the words of Dik (1989: 269): 'NewTops combine properties from the dimensions of topicality and focality. They are topical in that they introduce a topical entity into the discourse; and they are focal in that they introduce this entity into the discourse.' Now when we look at the way language systems treat new topics, we find languages that treat them as a type of Focus (English, according to Mackenzie and Keizer 1990: 18) and languages like the Papuan languages Wambon and Urim that treat them in their grammatical articulation as Topics. In Urim there are special expressive devices to introduce an entity into the discourse with which the speaker informs the listener: this is an entity I am going to talk about in the coming piece of discourse. When an entity is introduced into the discourse without New Topic markings, it will not be mentioned again. Thus a New Topic always has a certain discourse importance or saliency. Compare examples (9)-(11) above and the discussion there.

Although New Topics usually take *pa,* Urim also has other ways to express this function, e.g. by presentative constructions consisting of the topical NP only (Hemmilä 1989: 47), as in (24) and (25):

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(24)

Man	warim	wekg.	Man	pa	kai..
mother	child	two	mother	that	go

'There was a mother and a child. The mother went..'

(25)

Tokor.	Tokor	pa	ak	eng	ulikg
Tokor	Tokor	that	do	PR	spit

'Tokor it was who abused him.'

Notice that the topic marker *pa* also occurs on the Given Topics *man* 'the mother' in (24) and *Tokor* in (25) (second occurrences of these discourse entities). This is because *pa* marks several types of Topics in Urim including New Topics. This points to the fact that although New Topics present focal information (since they present new entities that play an important role in the text and will be referred to again), they are treated in Papuan languages like Urim and Berik as Topic constituents and not as Focus constituents.

When we consider the development of the approach to pragmatic functions in the Functional Grammar framework, it is clear that pragmatic functions were defined notionally in the initial presentation of the FG framework in Dik 1978 (cf. Siewierska 1991: 148). However, as soon as this initial framework was applied to typologically diverse languages like Aghem (Watters 1979), Vute (Thwing and Watters 1987), Wambon (De Vries 1985) and Kombai (De Vries 1993a), it became clear that (i) the unitary notions of Topic and Focus had to be subdivided into types of Topic and Focus, (ii) that not all languages distinguish grammatically the same subtypes of pragmatic functions. To account for the facts sub (i) and (ii) the methodological distinction between 'emics' and 'etics' was introduced (in Dik et al. 1981: 59) and with this distinction formal oppositions (morphosyntactic/phonological criteria) became crucial.

When only notional criteria are used, there are serious risks of imposing language-independent notional roles on languages in which those roles are not distinguished in the grammar. When only language-specific formal criteria are used, there are serious risks of circularity and infalsifiability. Bolkestein (1987: 167) for example reviews studies that correlate clause-types with the background/foreground distinction and concludes that 'the pragmatic distinction involved is rarely supported by independent criteria'.

2. *Two characteristics of coded informational roles*

2.1 *Grammatical categories as generalised clues*

In Relevance theory (Sperber and Wilson 1986, Blakemore 1992) a central idea is that understanding utterances is a matter of combining linguistic clues in the form of the utterance with contextual clues to derive "contextual effects" in a proces of inferential computation. Addressees assume that an utterance has contextual effects (=is relevant) and they look for contexts in which the utterance triggers maximal contextual effects. The

grammatical organization of a language has been devised so as to function in this inferential process of verbal interaction: this means that the grammatically encoded distinctions only point out *general directions* or give very general instructions which are meant to be combined with contextual clues in order to arrive at interpretations. For example, in the grammars of many languages the whole verbal interaction domain of speech acts is reflected in the grammar in only three grammatical mood distinctions, declarative, interrogative, imperative. In this way the domain of speech acts is cut up into three parts in the grammatical organization. Now, for example, declarative as a grammatical category does not directly reflect a (basic) speech act type (assertion) but rather gives a very general clue to the 'illocutionary force potential' of the utterance (Blakemore 1992: 103). In the words of Sperber and Wilson (1986: 254): 'With the principle (of relevance, LDV), all that is required is that the properties of the ostensive stimulus should set the inferential process on the right track; to do this they need not represent or encode the communicator's informative intention in any great detail. Thus,
illocutionary-force indicators such as declarative or imperative mood or interrogative word order merely have to make manifest a rather abstract property of the speaker's informative intention: the direction in which the relevance of the utterance is to be sought.'

What concerns us here is not so much the merits and flaws in the Relevance theory account of speech acts but rather the idea that the grammatical organization of natural languages reflects the strategies and processes taking place in verbal interaction in a neutralizing fashion in abstract grammatical categories.

Dik (1989: 9, 11) also considers linguistic expressions as instruments in the inferential process of verbal interaction. Communicative intentions are *mediated* by linguistic expressions (Dik 1989: 9, 11). Dik (1989), following Reichling (1963), wants to reserve the term 'semantic content' for *coded meaning*, to be accounted for in the grammar as a feature determined by the *language system*. This 'semantic content' is to be distinguished from the final interpretation which the addressee derives by combining coded clues in the utterance with contextual clues: 'On this view the semantic content of a linguistic expression can be defined as that information which it is necessary and sufficient to attribute to that expression in order to explain how it can be systematically used in relating given intentions to given interpretations, within the framework defined by the pragmatic information available to S and A' (Dik 1989: 12). Pragmatic functions like Topic and Focus similarly are coded roles determined by the language system and they belong to what could be called the 'pragmatic content' of the expression.

It is precisely the 'vague' (neutralized) nature of the coded clues in the grammatical forms of utterances which makes them fit to be used in combination with contextual clues in inferential processes through which an endless range of messages can be communicated by language. Take the examples (1)-(6) from Wambon. The Wambon language user combines the general coded clue *nde-* in the form of the utterance ('this constituent presents

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focal information') with contextual clues to deduce the specific informational role of the constituent. We may assume that the Wambon language user not only has a grammar module specifying the type of general pragmatic direction or warning given by *nde-* but also a verbal interaction module where types of focality-inducing contexts are stored so that the language user easily recognizes and interprets, say, example (4/5) as a correction-context.

Notice that the insights from Relevance theory used in this paper are logically independent of the coded/notional methodology. I use the Relevance views on the use of grammatical categories in the inferential process of verbal interaction to formulate what I take to be the functionality of the neutralizing coding grids of grammatical organization.

2.2 *Discretization and scalarity*

Givón (1988) points out that pragmatic parameters constraining communication are neither discrete nor language-specific. Examples of such graded universal parameters are ease of recall, amount of attention, degrees of activation, degrees of processing effort, degrees of informational predictability.

Some of these mental or cognitive pragmatic factors have correlates in texts that can be counted. Take degrees of predictability: if a phrase refers to an entity that has been referred to earlier in a text, then obviously the number of clauses to the previous occurrence in the text may be seen as some sort of indication of the cognitive dimension of predictability. Since, trivially but factually, speakers tend to spend fewer words on more predictable information and more words on less predictable information, one can formulate quantitative generalizations correlating predictability of a referent and amount of phonological material used to code that referent (cf. Givón 1988: 249).

The topicality dimension of verbal interaction can be fruitfully studied along these quantitative text-based lines, especially in languages that are not topic-prominent in the sense that the language system does not formally code topics to a great extent. For example, in Indo-European languages where, on the level of the language system, not much morphosyntactic coding seems to be invested in the topicality dimension, the topic as a qualitative, more or less discrete, grammatical category is elusive.

However, in topic-prominent languages (Li and Thompson 1976) where the cognitive-pragmatic dimension of topicality is much more grammaticalised, one can observe a process of what Givón (1988: 278) has termed *discretization*: "Syntax tends to *discretize* the scalar cognitive dimensions that underlie it. Out of graded mental parameters such as ease of *recall*, amount of *attention* or degree of *mental effort* syntax fashions formal-looking networks of discrete, Platonic features or structures."

Take for example topic markers. The overwhelming majority of languages with topic markers are S O V languages with no dummy subjects, no passives and no syntactic restrictions on zero-anaphora (Gundel 1988: 221). Topic markers in these languages are optional but frequently present postpositions, typically

occurring once per clause and typically following the clause-initial constituent. Topic markers furthermore tend to occur freely with constituents of various categorial and functional specifications (clausal, nominal, pronominal; subjects, objects, agents, beneficiaries, instruments, etc.). Examples of languages with topic-markers are: Japanese, Korean and several Papuan languages. The use of these topic markers has a discretizing effect, separating the topic constituent from the rest of the clause as referring to an entity to which Gundel's (1988: 210) topic definition applies: 'An entity, E, is the topic of a sentence, S, iff, in using S the speaker intends to increase the addressee's knowledge about, requests information about, or otherwise get the addressee to act with respect to E.' Consider the following Urim example:

(26) Wampung   pa   tarkgim   la   nam-pel.
     opossum   Top   turn   say   bite-3sg
     'The opossum turned and tried to bite him.'

In (26) the constituent referring to the opossum is separated from the rest of the sentence as a discrete topic. Such discretization effects of topic markers are also present with frames. Consider the following Urim example:

(27)
..kil   karpo   wunei.   Kil   karpo   wunei   pa,
..3sg   grab   wunei   3sg   grab   wunei   frm

kupm no   alm.
1sg come.up   shoot
'It went to the Wunei-tree; given that it went to the Wunei tree, I shot it.'

The *pa*-marked recapitulative frame in (27) is set off from the rest of the sentence as a discrete frame.

Pragmatic functions (coded informational roles) as part of the language system reflect both characteristics of formal grammatical categories discussed in 2.1 and 2.2: they neutralize in various degrees the qualitative distinctions of context-types in verbal interaction (e.g. the opposition between contrastive and completive saliency is neutralized in the Wambon Focus system) and they tend to discretize the scalar nature of cognitive-pragmatic dimensions in verbal interaction.

4. *Summary*

I first distinguished between notional, language-independent information roles and coded, language-specific information roles. Then I illustrated that distinction by contrasting Aghem and Wambon, which cut up the domain of focality into different coded pieces. The distinction between coded and notional roles was seen also to be useful in the domain of topicality. Notionally, topics are easily accessible entities that the speaker intends the addressee to use as addresses where information can be sent and stored. In the coding systems for topicality in several Papuan

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languages, the coded role Topic also covers two types of topics, new topics and frames, that violate either the 'aboutness' or the 'familiarity' criterion.

Pragmatic functions are coded information roles to be defined in terms of the coded role and the expressive devices associated with that role in a specific language. Pragmatic functions, as categories of the language system, (coded information roles), have two characteristics: they *neutralize* in various degrees the qualitative distinctions of context-types in verbal interaction (e.g. the opposition between contrastive and completive saliency is neutralized in the Wambon Focus system) and they tend to *discretize* the scalar nature of cognitive-pragmatic dimensions in verbal interaction.

5. *Abbreviations*

3	:	third person
ATTR	:	attributive
CMP	:	completive
c.t.	:	change of topic
conn	:	connective
dl	:	dual
EMP	:	emphasis
FG	:	Functional Grammar
FOC	:	Focus
neg	:	negative
NF	:	Non-Future
NP	:	noun phrase
PR	:	preposition
pres	:	present tense
seq	:	sequence
sg	:	singular
SS	:	same Subject
Subj	:	Subject
supp	:	support verb
TOP	:	Topic
tr	:	transitional sound

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