Coordination and subordination:
On the relationship between grammar and discourse

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A dichotomy between coordinate and subordinate clauses underlies most discussion of complex sentences. A coordinate structure sees two clauses joined without any dependency relationship between them, while in a subordinate structure one of the clauses is dependent on the other. Textually, it is generally the case that foregrounded material is presented as a string of coordinate clauses, while excursions to the main storyline, backgrounded material, typically involve higher numbers of subordinate clauses. Without affecting the coordinate/subordinate grammatical structures, many languages employ subordinate structures in their foregrounded narrative materials; similarly, we occasionally find examples of coordinate constructions used in subordinate, backgrounded functions. This paper explores this mismatch of grammatical form and discourse function, drawing on data from languages of the Indonesia region, and explores the ambiguity in structure that we must deal with when the grammatical marking is non-overt, or optional. The variable discourse functions of subordinately-coded clauses, combined with the (at times) ambiguous coding of such clauses, can often lead to reanalysis of morphology from subordinate to main clause uses, as has been hypothesised to have occurred in the history of Austronesian languages.

1. Introduction

It is a general assumption that there is a contrast in text between foregrounded and backgrounded material; foregrounded material is 'what the story is about', and it contains the essential material to carry the narrative forward. Backgrounded information, on the other hand, is material that provides 'colour' to a narrative, but is not essential for the main story line. Similarly we often assume that there is a contrast between clauses linked by coordination and clauses linked by subordination; in both cases control relationships may hold, but subordinate clauses are frequently morphologically distinct from main clauses, and while coordination consists of a series of coordinated main clauses, subordination necessarily involves at least one non-main clause.[1] These four categories as informally defined in (1) – (4) (the definitions in (1) and (2) are taken from Lingualinks (Loos et al. 2003)). This is not advanced as a 'definitive' set of explanations, but the explanations are not controversial, will not differ much from those of any other authors, and are all drawn from the one source (not an easy thing to achieve).

(1)   Foreground: that part of a narrative that advances the main story line, and builds sequentially on the foreground material that precedes it.

(2)   Background: material in a narrative that adds description, but does not contribute to the process of story telling directly, and is not necessarily temporally ordered.

(3)   Coordination: a series of two or more clauses which are not syntactically dependent one on another, and are joined by means of a coordinating conjunction, a connective, or parataxis.

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[1] This represents the 'idealised' case; work such as Mithun (2008) challenges many of the assumptions presented in this paper, as will be acknowledged.

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(4)   Subordination: A subordinate clause is a clause that is embedded as a constituent of a matrix sentence and that functions like a noun, adjective, or adverb in the resultant complex sentence.

Examples (5) – (11) present concrete examples of the points made above. In (5) we see the essentials of the narrative in bold, while italics shows the material that is not directly contributing to the main narrative. We can note that all of the foregrounded material is found in main clauses, while the backgrounded material is presented in a mixture of main and subordinate clauses; this is a very common pattern for English narrative.

Foreground and background (foreground in bold, background in italics)

(5)   **Alfred left** *to reach the house. He saw many distractions, but ignored them.* Finally **he reached the house**. *Entering the house*, **he searched the kitchen and then the living room**.

In (6) the two bracketed clauses are coordinated; neither is syntactically dependent on the other, and both are fully finite independent clauses. (7) presents a variant on this, in that the subject of the second clauses is elided, being anaphorically controlled from the first clause. While the relationship can be described in terms of syntactic categories, the dependency of the second clause on the first is driven by discourse (witness the grammatical *I entered the room and I greeted him warmly*, without ellipsis). The example of subordination in (8) uses the overt complentiser *after* to signal the subordinate status of the otherwise finite clause; note that the interpretation of tense in the subordinate clause is dependent on the tense of the main clause (compare (8) with the tense interpretations in *After I enter the room, you greet me warmly* and *After I enter the room, you will greet me warmly*). English also allows morphological subordination, in (9). Here the verb is not finite, and there is a syntactic control relationship between the main clause and the subordinate clause, further emphasising the dependence of the subordinate clause.

Coordination

(6)   [I entered the room] **and** [he greeted me warmly].

(7)   [I entered the room] **and** [___ greeted him warmly].

Subordination

(8)   [**After** I entered the room], you greeted me warmly.

(9)   [___ **Entering** the room], you greeted me warmly.

Similar structures are found in other languages. In (10) – (11) we see Indonesian examples that parallel (6) – (9) in terms of demonstrating the contrast between coordination and subordination. In (10) the (optional) coordinator *terus* marks the boundary between the two coordinated clauses. In (11) the subordinate clause is introduced with the complementiser *sesudah*.[2]

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[2] Judgments of grammaticality vary from region to region in Indonesian. Those given here represent the judgments of persons from western Indonesian for whom Indonesian was learned at school from an early age, and who achieved a high degree of education. Importantly, judgments given are based on judgments of particular intonation contours and with particular readings intended.

Indonesian: coordination

(10) *Dia masuk   ke   rumah, (terus)   ___   duduk.*
      3SG enter   ALL   house   and.then   sit
      'He entered the house, and then sat down.'

Indonesian: subordination

(11) *Sesudah   (dia)   masuk ke   rumah, dia   duduk.*
      after   3SG   enter ALL   house 3SG   sit
      'After (he) entered the house, he sat down.'

The next examples present the same introduction to a story marked up according to the four categories described. It will be immediately apparent that, as noted above, the oppositions foreground:background and coordinate:subordinate are not independent: there is a very strong correlation between the use of overt coordination and the presence of foregrounded material, and similarly a very strong correlation between the presence of backgrounded material and the use of subordinate structures. This leads to the textual association of subordination with backgrounded material, while foregrounded material is typically presented in main clauses. This is pragmatically natural; if the foreground of a narrative consists of a series of events, linked together, then coordination is an iconic way to present those events. If the backgrounded material in a narrative is a series of elaborations on participants, settings or events in a narrative, then subordinate structures of some kind are the iconic way to encode those elaborations.

(12) There was once a man who lived alone in a hut in the forest. He spent his time growing food to eat, and carving wood into tools to sell in the markets in the nearby villages. Then, one day, a tall woman dressed in a long blue dress, followed by three cats and three dogs, walked up to his hut. She greeted him, and told him why she had come....

Foreground and background (foreground in bold, background in italics)

(13) **There was once a man** who *lived alone in a hut in the forest*. **He spent his time growing food** *to eat*, **and carving wood into tools** *to sell in the markets in the nearby villages*. Then, **one day, a tall woman** *dressed in a long blue dress, followed by three cats and three dogs*, **walked up to his hut**. **She greeted him, and told him** *why she had come....*

Coordination

(14) There was once a man who lived alone in a hut in the forest. He spent his time [growing food to eat], **and** [carving wood into tools to sell in the markets in the nearby villages]. Then, one day, a tall woman dressed in a long blue dress, followed by three cats and three dogs, walked up to his hut. [She greeted him], **and** [told him why she had come]....

Subordination

(15) There was once [a man [**who lived alone in a hut in the forest**]]. He spent his time growing [food [**to eat**]], and carving wood into [tools [**to sell in the markets in the nearby villages**]]. Then, one day, [a tall woman [**dressed in a long blue dress**], [**followed by three cats and three dogs**]], walked up to his hut. She greeted him, and told him why she had come....

Trivially, we can also note that it is not grammatical to use the morphemes associated with coordination in a subordinating function, and vice versa, as shown in (16). In this

example some of the overt coordinating and subordinating morphology has been reversed, and the result is not only infelicitous discourse, it is ungrammatical in many places.

(16)   * There was once a man **and** lived alone in a hut in the forest. He spent his time growing food **and** eat, **carving** wood into tools **and** sell in the markets in the nearby villages. Then, one day, a tall woman dressed in a long blue dress, followed by three cats and three dogs, walked up to his hut. She greeted him, **telling** him why she had come....

This leads us to suppose that there is a one-to-one relationship, or at least strong preference, between foregrounding and coordination, and backgrounding and subordination, as schematised in Figure 1.

Coordinator ——————> Foregrounding

Subordinator —————> Backgrounding

Figure 1. The relationship between morphosyntax and discourse

The question we shall address in the remainder of this paper is the extent to which coordination, and the morphological representation of coordination, *is* associated with foregrounded material, and subordination (and its morphology) with backgrounded, in languages of the Indonesian area.

2. Cross-over of functions and coding

While the relationships shown in Figure 1 hold widely, within and across languages, there is not a 100% correlation between forms and functions. We have seen that backgrounded material may be presented in (independent) main clauses, and so joined by coordination. Related to this is the use of pseudo-coordination (e.g., Cullicover & Jackendoff 1997, De Vos 2005) to use coordinating morphosyntax to present subordinated material, as in (17) and (18). In these examples the coordinating complementiser *and* is used where *to* might be expected to mark the purposive clause.

(17)   Warren's going to find a way **and** get us out.
         (Andrew in 'Villains', Season 6 of *Buffy the Vampire Slayer*)

(18)   I'm going to try **and** finish on time.

Similarly syntactically subordinated material can be used as foregrounded material (that is, material which 'advances the main story line, and builds sequentially on the foreground material that precedes it'). This has been discussed in detail for a number of languages in Mithun (2008), and more generally in Evans (2007). An example is shown in (19), in which the first clause is syntactically subordinate, but contextually part of the same process of advancing the main story line that the second clause is. This contrasts with more 'prescriptive' (= conservative?) uses of the same construction, which presents two events that overlap in time, as in (20). In (20) the two verbs occur at the same time, and the sentence could be paraphrased as *While entering the room, they caught sight of the dog*, while in (19) it is clear that the two clauses must refer to two different times; note the infelicity, or at least pragmatic unlikeliness, of #*While entering the room, they sat down*.

(19)   Entering the room, they sat down.

(20)   Entering the room, they caught sight of the dog.

An example of form: function complexity from the Indonesia area can easily be found in Tetun (Van Klinken 1999). Here the multifunctional *hodi* 'and', which can introduce coordinated clauses, is used with a clearly purposive, subordinated function.

(21)   *Nia   ti'a   balu   te'in   **hodi**   haa*
        3SG   already some   cook   and   eat
        *balu   **hodi**   baa   fa'en   hola   loit.*
        some   and   go   sell   fetch   money
        'After that some is cooked to eat, some is to sell to fetch money.'

Another example of morphosyntactic and discourse complexity can be found in the simple Indonesian sentence in (22). In this example the verb *datang* is present only in a relative, subordinate clause; the syntactic structure is shown in (22)', parallel to that found in (23). This is clearly more complicated than would be expected for a simple intransitive clause with no obliques or adjuncts.

(22)   *Dia   yang   datang.*
        3SG   REL   come

        'She came.' ~ 'She is the one who came.' ~ 'The one who came is her.'

(22)'   [s [NP:SUBJ Dia] [PRED [NP Ø [RELATIVE CLAUSE yang datang]]]]

(23)   *Sufi   (adalah)   [NP *teman-ku*   [RC *yang   terlambat*]].
        Sufi   COPULAR:EMPH   friend-my   REL   late

        'Sufi is my friend who was late.'

While the structure in (22)' represents a direct syntactic translation of that in (23), in which all the elements are overt, is it still accurate to state that a sentence like (22) uses *yang* as a relativiser, or has a second, discourse-level focus-marking function developed? This is far from being a simple question, for the same reason that (22) does not immediately appear parallel to (23): overt morphosyntax gives us overt clues about the structures involved, both syntactic and pragmatic, but covert morphology leaves much ambiguous, and open to (re)interpretation. In (22) the possibility of *yang* having been reinterpreted as a discourse marker of some sort is only there because the NP in which the putative relative clause occurs is not overtly headed.

In other contexts we find that the coordinators or subordinators are optional. (24) and (25) show narrative in English in which the coordinators are overt, or covert. In both cases foregrounded main clauses are linked, with different morphological (and intonational) marking.

        Overt and covert coordinators

(24)   I came home, then made dinner and watched some TV.

(25)   I came home, made dinner; watched some TV.

Sentences (26) and (27) are parallel to those in (24) and (25), but with subordinated, backgrounded clauses. Here the subordinator *while* is optional, though the verbal morphology is obligatory in English.

        Overt and covert subordinators

(26)   While whistling, I took the letter that you wrote to post.

(27)   Whistling, I took the letter you wrote to post.

Similar patterns are found in Indonesian. In (28) – (29) we can see that the coordinator is optional in Indonesian coordination (this is also true in English, in informal speech). In (30) and (31) we can see that attempts to do away with the subordinator are less felicitous in Indonesian than in English   (probably related to the lack of specific verbal morphology), but are still marginally possible in speech, with the right intonation, though (30) is more easily interpretable than is (31). Note that the control relationship in the subordinated clause is set from the main clause, as demonstrated in (31) – (32) in which, if the clauses are interpreted as involving a subordinate clause embedded inside a main clause, the subject of the subordinate clause must be coreferential with the subject of the main clause, even when it has undergone ellipsis in one or the other of the clauses. Furthermore, the use of a main clause coordinator is not felicitous when one clause is clearly marked as subordinate, shown in (33), which can only be interpreted felicitously as a sequence of coordinate clauses ('After he had entered the room, then he sat down.'). Clearly the contrast between main and subordinate clauses is strongly reified in Indonesian grammar.

Overt and covert coordinators

(28)   *Dia   masuk   ke   rumah, terus   (dia)   duduk.*
         3SG   enter   ALL   house then   (3SG)   sit
         'He entered the house and sat down.'

(29)   *Dia   masuk   ke   rumah, duduk.*
         3SG   enter   ALL   house sit
         'He entered the house (and) sat down.'

Overt and covert subordinators

(30)   *Sesudah   (dia)   masuk   ke   rumah, dia   duduk.*
         after   3SG   enter   ALL   house 3SG   sit
         'After he entered the house, he sat down.'
         'After entering the house, he sat down.'

(31)   *# Masuk   ke   rumah, dia   duduk.*
           enter   ALL   house 3SG   sit
         'After entering the house, he sat down.'

(32)   *# Sesudah   dia   masuk   ke   rumah,   ___   duduk.*
           after   3SG   enter   ALL   house   sit
         'After entering the house, he sat down.'

(33)   * Sesudah dia masuk ke rumah, terus (dia) duduk.

We see a similar use of subordinators in NP-internal position, (34). Here the other complementiser options are completely ungrammatical, shown in (35) – (36). The relative clause, in other words, cannot be introduced with the same complementiser that was seen in (30) – (33). This is not syntactically mysterious; but it does make the point that different complementisers behave differently, since we have seen that *yang* displays a range of different functions, not simply relativisation.

(34)   *perempuan   tinggi* [RC *yang   pakai gaun   panjang*]
         woman   tall   REL   use   dress long
         'A tall woman wearing a long dress'

(35)   * perempuan tinggi sesudah pakai gaun panjang

(36)   * perempuan tinggi terus pakai gaun panjang

We have seen that the use of coordinated main clauses to advance a narrative is often associated with coordinating morphology, and that subordinated clauses, which typically present backgrounded materials, are perhaps even more strongly associated with subordinating morphology. Both morphological options are, however, options, and not invariable associations, as schematised in Figure 2 (compare with Figure 1).

Coordinator ←————————→ Foregrounding

Subordinator ————————→ Backgrounding
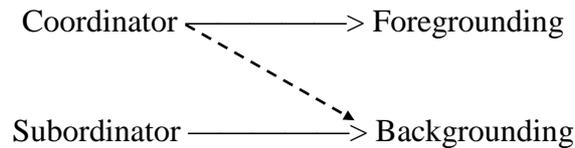
Figure 2. Typical relationships between complementisers and discourse

3. Ambiguity of status.

Consider the sentence in (37). Here the subordinate clause *kalau dia tidak datang* is subordinate to the main clause *saya tidak ikut*. As with examples of optional complementisers seen in the previous section, the *kalau* is optional here, perhaps even more readily omissible than *sesudah* earlier, provided the intonational cue to the incomplete status of *dia tidak datang* are present (that is, not falling with a L% boundary tone, but staying high at the end of *datang*).[3]

(37)   *Kalau dia   tidak   datang, saya   tidak   ikut.*
        if   3SG   not   come   1SG   not   accompany
        'If he's not coming, I'm not going.'

(38)   *Dia   tidak   datang, saya   tidak   ikut.*
        3SG   not   come   1SG   not   accompany
        'If he's not coming, I'm not going.'

Given the general use of non-verbal clauses without copular verbs, it is quite possible to interpret (37) as having the same structure as (39). A parallel example is shown in (40). Indeed, (39) might be interpreted as being parallel to (40), with an overt locational-copular verb, shown in (41).

(39)   *Kalau dia,   saya   tidak   ikut.*
        if   3SG   1SG   not   accompany
        'If it's *him*, I'm not going.'

(39)'   [CLAUSE [SUBORDINATE kalau   [CLAUSE dia Ø'verb']] saya tidak ikut]

(40)   *Kalau berat, saya   tidak   angkat.*
        if   heavy   1SG   not   carry
        'If it's heavy, I'm not going to carry (it).'

(40)'   [CLAUSE [SUBORDINATE kalau   [CLAUSE Ø'verb' berat]] saya tidak angkat]

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[3] With a low boundary tone at the end of *dia tidak datang* the sentence is more likely to be interpreted as a coordinate pair of clauses: 'He's not coming, and I'm not going.', without any implied relationship between the two clauses.

(41)   *Kalau dia   hadir,   saya   tidak ikut.*
        if   3SG   be.present   1SG   not   accompany

        'If he's (going to be there), I'm not going.'

(41)'   [CLAUSE [SUBORDINATE kalau   [CLAUSEdia hadir]] saya tidak ikut]

While it is possible for (39) to be interpreted as structurally parallel to (40) and (41), we cannot escape the fact that in functional terms *kalau* serves as a preposed NP-marker, indicating the over-arching topic status of *dia*, and is not presenting material that is backgrounded in the narrative, but rather essential material that advances and alters the flow of discourse. Rather than being subordinate to the main clause, *kalau dia* is in fact *superordinate*, as shown in (43) (analogous to the higher discourse function posited earlier in the discussion about (22) earlier, and for (42)) and (52)).

        Subordinate and Superordinate interpretations of (39)

(42)   [s [SCOMP COMP [s   Pro PRED∅]]   Pro NEG   PRED]

(43)   [s' [TOPIC CASE   Pro]   [s Pro NEG   PRED]]

Evidence suggesting the superordinate function of *kalau dia* can be found in anaphoric relations; we saw earlier that there is no backwards control in the Indonesian structures discussed here. Additional evidence is given in (44); here *Amir* in the subordinate clause cannot control zero anaphoric reference in the main clause without a pronoun (compare with (11), (30), and (32)). By contrast, the topical *kalau dia* in (45) allows for anaphoric reference in what might falsely be described as a parallel case, as well as extended anaphoric reference, shown in (46).

(44)   *Kalau Amir   datang, periksa   *(dia).*
        if   Amir   come   examine   3SG

        'If Amir comes, examine him.'

(45)   *Kalau dia,   periksakan   _____ .*
        'if'   3SG   examine

        'If it's him$_i$, examine him$_{i; *j}$.'

(46)   *Kalau dia,   saya   tidak ikut,   banyak orang tidak senang.*
        if   3SG   1SG   not   accompany   many people not   happy

        'If it's *him*, I'm not going, (and) lots of (other) people aren't happy (with him).'

Similar uses of *kalau* in other contexts are also more amenable to a superordinate analysis than a subordinate one. We could construct an analysis that more literally translates as (47)', representing the subordinating analysis (shown earlier in (45)), but then we have the problem of zero-anaphora. The topic analysis, more directly translated in (47)", has none of these problems. The chain of zero anaphora seen in (48) is unsurprising if the first use of *kalau* is in fact a topic marker, not a subordinator.

(47)   *Kalau nasi,   saya   lebih suka.*
        'if'   rice   1SG   more   like

        'I prefer rice.'

(47)'   "If it is rice, I prefer (it) more."

(47)"   'As for rice, I like it more.'

(48) *Kalau nasi, saya lebih suka, kalau di-goreng paling enak.*[4]
    'if' rice 1SG more like if PASS-fry most tasty

    'Rice, I prefer (it), if (it)'s fried (it's) the best.'

What is most interesting is that it is at times impossible to determine which structure we are dealing with. In (49) *hujan* can be interpreted nominally or verbally, with similar pragmatic inferences. The morphology does *not* give us a clue to the syntactic structure (that is, the nominal or verbal interpretation of *hujan*). Despite the ambiguity of interpretation syntactically, the subordinated structure does correspond well to the narrative structure (in which *hujan* can unambiguously be interpreted as a backgrounded setting for the main clause *saya tidak ikut*).

(49) *Kalau hujan, saya tidak ikut.*
    if rain 1SG not accompany

    'If it rains, I'm not going.'
    'If it's rain (that's coming), I'm not going.'

In section 2 I alluded to the role played by *yang* in sentences with headless relative clauses. Clearly NP-internal relative clauses are shown in (50) and (50)'; the analysis of (51), shown in (51)', treats it as structurally identical to (50), but with a relative clause in an otherwise empty NP.

(50) *Saya makan nasi yang di-masak ibu.*
    1SG eat rice REL PASS-cook mother

    'I'm eating the rice that mother cooked.'

(50)' [s saya makan [NP nasi [RC yang dimasak ibu]]].

(51) *Saya makan yang di-masak ibu.*
    1SG eat REL PASS-cook mother

    'I'm eating what mother cooked.'

(51)' [s saya makan [NP Ø [RC yang dimasak ibu]]].

While it is clear that the fully NP-internal uses of *yang* are subordinators, it is less clear that sentences such as (52) do have a parallel structure (as shown in (52)'). The drop in grammaticality when *yang* is not used (in (53)) implies that there is a different structure involved. Just as *kalau* can be a subordinator or an information-structure marker (for topic), it appears that *yang* can be a subordinator, or an information-structure marker, for focus.

(52) *Apa yang di-masak ibu?*
    what REL PASS-cook mother

    'What did mother cook?'

(52)' [s [NP apa] [NP yang [RC dimasak ibu]]]

    ~ "What mother cooked is what?" ?

(53) #/? Apa dimasak ibu?

Both *kalau* and *yang* have clear subordinating uses; and both *kalau* and *yang* function in main clauses in ways that have foregrounding, main clause uses, while retaining

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[4] In fact, the prefix *di-* here is ambiguous in usage. Since the contrast between the passive or more general non-active (eg., Cole et al. 2008, Donohue 2007, 2008) is not relevant to the points being made here, I shall gloss the prefix *di-* as 'PASS'.

subordinate clause structures. In both cases, we have ambiguous structures evolving at the main clause, foregrounded level from subordinating, backgrounded material.

4. Further mismatches of categories: foregrounding dependent-clause morphology?

We have seen that the simple association of morphology, syntax, and discourse that was presented at the beginning of this paper has a strong statistical basis, but does not hold in all cases. We have seen examples of subordinating complementisers (or, at least, forms that include amongst their uses one of subordinating complementiser) being used to present foregrounded material in roles that are syntactically not subordinate. We have seen that many structures are structurally ambiguous, implying that we are not dealing with grammaticalisation, but a genuine underspecification of function. In this section I shall present additional examples from the greater Indonesian area that demonstrate the lack of clear contrast between different functions.[5]

In Palu'e, a language of central Flores, a largely isolating profile holds in clauses, but there is some bound morphology. Despite (54) – (56) showing almost no bound morphemes, in (57) we can see that there is some encliticisation on syntactic constituents.

(54)   *Aku   phana nua.*
        1SG   go   village

        'I went to the village.'

(55)   *Aku   lie   ia   nua-ne.*
        1SG   see   3SG   village-3GEN

        'I saw his village.'

(56)   *Aku   lie   ia   phana nua.*
        1SG   see   3SG   go   village

        'I saw him go to the village.'

(57)   *Aku-pli   phana-'u.*
        1SG-also   go-PERF

        'I too have gone.'

Some subordinating conjunctions can optionally be marked for this function by the use of a complementising clitic *-jo*. In (58) the use of *-jo* is not obligatory, but is preferred. In (59) the use of *-jo* is obligatory.

(58)   *Koko(-jo)   ia   phana, aku-pli   phana.*
        if-COMP   3SG   go   1SG-also   goes

        'If she's going, I'll go too.'

(59)   *Aku   cu'u *(-jo)   ia   ka'a   phana.*
        1SG   know-COMP   3SG   NEG   go

        'I know that she's not going.'

While the use of *-jo* is obligatory in (59), we saw in (58) that it is not required for a perception complement. This implies some level of subcategorisation, which must be

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[5] This is different from the kind of dependent clause morphology being used in main clauses that is discussed in Mithun (2008).

stipulated at the lexical level, associated with –*jo*. This stipulation can be linked to some semantic features of the verb, but it is nonetheless stipulated.

The problem is only exacerbated when we consider the data in (60) – (61). The verb *nra* allows a simple transitive interpretation, but also allows a complement-taking subcategorisation frame, shown in (61)'. (From the two sentences we can conclude that the meaning of *nra* is something like 'feel(ing)'.) We also conclude that when *nra* takes a complement clause, it behaves like *cu'u*, in (59), and not like *lie*, in that it takes -*jo* as a complementiser.

(60)   *Aku   nra   ia.*
       1SG   feel   3SG

       'I love her/him.'

(60)' '*nra* <SUBJ, OBJ>'

(61)   *Aku   nra* [COMP -*jo* [S   *ia   ka'a   phana*]].
       1SG   feel   -COMP   3SG   NEG   go

       'I remember that she's not going.'

(61)' '*nra* <SUBJ, COMP: -*jo*>'

The problem with our analysis is that *nra*, unlike *cu'u*, does allow for a complement clause without -*jo*. This might simply mean a new frame (*cu'u*: obligatory complementiser; *lie*: no complementiser possible; *nra*: optional complementiser). The fact that the semantics of the main predicate differ according to the presence or absence of the complementiser means that we have to analyse two related verbs, differing as to whether or not they take a complementiser.

(62)   *Aku   nra* [COMP [S   *ia   ka'a   phana*]].
       1SG   feel   3SG   NEG   go

       'I think/feel (that) she's not going.'
       * 'I remember that she's not going.'

This means that -*jo* is an overt complementiser, optionally used to mark conditional subordination (58); and that it can also be used with some complement-taking verbs. Moreover, and more challenging to our analysis of -*jo* as a simple subordinator, the presence or absence of this complementiser is used to show lexical meaning differences (*nra-jo* in (61) and *nra* in (62)). The verb *nra* that means 'remember' requires a complementiser, and the verb *nra* that does not use a complementiser means 'think/feel/reckon'. The question is, if a morpheme is subcategorised for by a verb, can it still be subordinate? Is there a single analysis that allows us to uniformly categorise the uses of -*jo*? The lesson to learn from the Palu'e data is that the morphology and syntax that are used for subordination can also be used in discourse functions that are more typical of non-subordinate clause combinations. These new discourse functions do not affect the subordinate nature of the morphosyntax.

5. Further mismatches of categories: backgrounding independent-clause morphology?

We have seen examples in English of pseudo-coordination, in which *and* is used in a subordinating function in (17) – (18); additional examples are shown in (63) – (64), in which (63) might possibly be interpreted as an example of genuine coordination, but (64) cannot easily fit into that kind of analysis.

(63)   Go **and** have a good time!

(64)   We're going into town **and** have a good time!

One strategy found in Indonesia irrealis clauses is to use *mau* as a subordinator. Of course, a familiar use of *mau* is to indicate desire, as in (65). Further uses of *mau* are not compatible with 'desire', but represent a more general irrealis mood.

(65)   *Saya rasa haus,   mau minum air.*
        1SG feel thirsty want drink   water

        'I'm thirsty, (and (so) I) want to drink water.'

(66)   *Hari   mau   hujan.*
        day   'want' rain

        'It's going to rain.'

In (67) it is possible to interpret *mau* as a general irrealis marker; but the semantics of the clause are much more compatible with the second clause being a purposive dependent clause, with *mau* as a subordinator. The syntax also shows evidence of subordination, not coordination: with the same generally falling intonation pattern found in (67), (68) does not allow a pronoun coreferential with the subject of the first clause (the string of words in (68) is acceptable as a sequence of two independent clauses). All indications are that (69) is a structural, as well as a semantic, copy of (67), such that both (67) and (69) represent complement clauses with the subject controlled from the main clause, as shown in (69)' and (69)".

(67)   *Saya jalan ke   pasar mau beli   beras.*
        1SG   go   ALL   market 'want' buy   rice

        'I'm going to the market to buy rice.'

(68)   * Saya jalan ke pasar saya mau beli beras

(69)   Saya jalan ke pasar untuk membeli beras.
                                    in.order

(69)'   Saya jalan ke pasar [mau ~~saya~~ beli beras].

(69)"   Saya jalan ke pasar [untuk ~~saya~~ membeli beras].

In Tetun there is another way in which coordination is complicated. Sentences such as (70) show that coordination is marked with *hodi*, and that it can optionally be marked with the same prefixes that are used for verbal agreement.

        Clausal conjunction with *hodi*:

(70)   *Feto   Ikun ksotir   di'ak n-**odi**   matenek.*
        woman   tail   fortune good   3SG-and   clever
        *Ami   ksotir   lalek **hodi** beik.*
        1PL   fortune   lack   and   stupid

        'Youngest sister was fortunate and clever. We are unfortunate and stupid.'

In (71) an interpretation involving coordination is possible, but it is also possible to interpret *hodi* as marking an instrument, as in the second translation offered.

Clausal conjunction with *hodi*:

(71)　*Ha'u*　*k-mama*　　*ai-kakaluk*　　*k-odi*
　　　 1SG　　1SG-chew　　wood-power　　1SG-and
　　　 taka　 *nia-kan*　　*ain*　　*tohar*　*ne'e.*
　　　 cover　 3SG-POSS　　leg　　broken　this

'I chew medicine, and cover his broken leg (with it).'
'I chew medicine, and use it to cover his broken leg.'

In (72) and (73) *hodi* is used to mark subordination, not coordination. (72) clearly marks a temporal adverbial clause, and (73) indicates a purposive clause. Even if we were to argue that (72) is simply two coordinate clauses, the second clause ((*ita*) *dakar sira*) can (given the translation) only be interpreted as backgrounded, and in (73) there is no question (again, following the translation) that *nato'o nah aba uma laran* is subordinated and backgrounded. With the same morphological marker a clause can be dependent or independent, foregrounded or backgrounded.

Clausal **subordination** with *hodi*:

(72)　*Ita*　　*soru*　**hodi**　*dakar*　　　*sira.*
　　　 1PL　　weave　'and'　look.after　　3PL

'We weave while looking after them.'

(73)　*Nia*　　*karian*　*n-odi*　　 *n-a-to'o*
　　　 3SG　　work　　3SG-'and'　 3SG-CAUS-enough
　　　 naha　　*ba*　*uma*　*laran.*
　　　 baggage　go　house　inside

'He works to supply things for in the house.'

The Tetun data shows us that there are morphemes with (at least some) characteristics of verbs, that sometimes have main-clause, foregrounding functions, and sometimes are used to mark dependent clauses. The morphology and the overt string of words is in both cases identical, and we do not have any simple, obvious way of discriminating between the different functions displayed by the same form.

6. No clues to categories: a lack of morphology?

The ultimate question to ask when trying to discern the syntactic and discoursal functions of morphological markers is how we analyse the *lack* of such marking. In (67) – (69) we saw that dedicated subordinating morphology may interchange with an irrealis mood marker to indicate a subordinate purposive clause in Indonesian. In (74) – (75) we can see that it is also possible to 'mark' such a clause without any morphological exponent.

Purposive complement clause:

(74)　*Saya pergi untuk beli nasi.*
　　　 1SG　go　 COMP　buy　rice

'I'm going to buy rice.'
[s Saya pergi [COMP untuk makan nasi]].

Purposive complement clause:

(75)   *Saya pergi   beli   beras.*
       1SG   go   buy   rice

       'I'm going to buy rice.'
       [s Saya pergi [COMP Ø makan nasi]].

The same optionality of marking is possible with quoted speech in Indonesian; while a dedicated complementiser exists, its use is not obligatory.

Quoted speech:

(76)   *Saya   tahu   bahwa dia   sudah   masuk.*
       1SG   know   that 3SG   already   enter

       'I know that s/he's already entered.'

(77)   *Saya tahu ___ dia sudah masuk.*

       'I know s/he's already entered.'

With perception verbs we have quite a degree of confusion. A sentence such as (78) consists of a subject, a verb, and an object, in which the head noun is modified by a relative clause. In (79) we see that the relativiser is not obligatory with the relative clause; but as we have seen headless NPs before, this is not too surprising. Problematically, however, (79) is identical to (80), in which *lari* is not modifying the noun *orang*, but is a complement clause in the VP. It is still subordinate, but it is no longer NP-internal, and has a different interpretation. What is worse, given that the sentence in (81) is also possible for at least some speakers, and that we have already seen that *bahwa* is optional, ((76) – (77)), how can we exclude the interpretation of (79) that is not represented in (82)? The optionality of morphology means that there is an interpretive confusion between levels of subordination and dependency, and there is no obvious way to resolve the ambiguities that arise.

Perception complements (and more):

(78)   *Saya   lihat   orang yang   lari.*
       1SG   see   person REL   run

       'I saw the person who was running.'
       [NP Pro]   [VP V   [NP N   [RC REL V]]]

(79)   *Saya   lihat   orang   lari.*
       1SG   see   person   run

       'I saw the running person.'
       [NP Pro]   [VP V   [NP N] [RC ___ V]]]

(80)   *Saya   lihat   orang   lari.*
       1SG   see   person   run

       'I saw the person running.'
       [NP Pro]   [VP V   [NP N] [XCOMP ___   V]]]

(81)   *Saya   lihat   bahwa orang   lari.*
       1SG   see   that person   run

       'I saw that the person was running.'
       [NP Pro]   [VP V   [SCOMP COMP   [NP N] [VP V]]]

(82)   [NP Pro]   [VP V   [NP N] [XCOMP ___   V]]]
       ('I saw (that) the person (who) was running.')

A real-life example of this sort of ambiguity is given in (83), represent a actual discourse event. Overheard in Hasanuddin airport, Makassar, this was the total discourse (other than those of us queuing up observing the very rushed arrival of a passenger to the next counter, and laughing), and it is completely ambiguous, both in terms of interpretation and (given the optionality of the complementisers) structurally.

(83)   *Sudah boarding,   masih check-in!*
        alreadyboarding   still   check-in

        '(They're) already boarding (the aircraft) (and he's) still checking in!'
        '(Even though they're) already boarding, (he's) still checking in!'

Similar morphological confusion between different layers of clauses can be seen in Skou, a language from the far north-east of Indonesia, close to the border with Papua New Guinea. Simple clauses are shown in (84) and (85). The word order is SOV, and the subject in both clauses is marked as feminine by proclitic, and definite by enclitic. (Verbs in Skou display agreement for their subject at least once, and generally more than once, but that is not relevant for the exposition here.)

        Simple clauses in Skou:

(84)   *Pe=ueme=inga   pe=ti   pá.*
        3SG.F=woman=the   3SG.F=go.3SG.F   house

        'The woman went to the house.'

(85)   *Pe=ueme=inga   hóe   pe=p-ang.*
        3SG.F=woman=the   sago   3SG.F=3SG.F-eat

        'The woman ate sago.'

Relative clauses follow the head noun, and are obligatorily followed by definite marking. Note that apart from the position of this definite marking, the sentences in (84) and (85) and the phrases in (86) and (87) are identical.

        Relative clauses in Skou:

(86)   [NP *pe=ueme*   [RC *pe=ti*   *pá*]=*inga*]
        3SG.F=woman 3SG.F=go.3SG.F   house=the

        'The woman who went to the house'

(87)   [NP *pe=ueme*   [RC *hóe*   *pe=p-ang*]=*inga*]
        3SG.F=woman   sago   3SG.F=3SG.F-eat=the

        'The woman who ate sago'

When clauses are coordinated the first clause typically takes an enclitic; the proximal *=pa* marks same reference, either in subject or in time; the obviative *=ko* shows that there is a different reference; *=te* (a grammaticalisation of the verb 'come') marks events with a significant delay between them, and the absence of any clitic, while not a preferred strategy, is possible, provided that either temporal reference or participant reference of the two clauses match.[6]

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[6] In the examples shown here the clitic appears consistently on the post-verbal locative *pá* 'house'. A clause that is verb-final, such as (85), will show the clitic on the verb. Coordinating (85) with (84) in that order (the reverse of (88)) will result in (i):

Coordinate clauses:

(88)   *Pe=ueme=inga*   *pe=ti*   *pá=**pa***
       3SG.F=woman=the   3SG.F=go.3SG.F   house=PROX
       hóe   pe=p-ang.
       sago   3SG.F=3SG.F-eat
       'The woman went to the house and then ate sago.'

(89)   *Pe=ueme=inga pe=ti pá=**ko** hóe pe=p-ang.*
       'The woman went to the house and later ate sago.'
       'The woman went to the house and someone else ate sago.'

(90)   *Pe=ueme=inga pe=ti pá=**te** hóe pe=p-ang.*
       'The woman went to the house and afterwards away ate sago.'

(91)   *Pe=ueme=inga pe=ti pá hóe pe=p-ang.*
       'The woman went to the house (and) ate sago.'
       'The woman went to the house while eating sago.'

While it may seem that the different enclitic choices represent a simple morphological mapping of the semantics encoded in the sentence, there are two problems. Firstly, we should also note that some predicates, such as 'hit & die' (one way of expressing the meaning 'kill', though this is no more lexicalised than any other pairing of verbs: 'shoot & die', 'cut & die', are also possible predicates), require the use of the obviative. The ungrammaticality of *=te* follows from the semantics of that option, but the ungrammaticality of *=pa* or zero-marking is not so easily explained. We must appeal to the erstwhile coordinator being subcategorised for by the predicate, or force an unnatural and (to native speakers, unintuitive) interpretation of (92) as 'The woman hit the rat to death.'[7]

(92)   *Pe=ueme=inga=pe*   *pú*   *pe=w-á=**ko***   *ke-wung.*
       3SG.F=woman=the=3SG.F   rat   3SG.F=3SG.F-hit=OBV   3SG.M-die
       'The woman killed the rat.'

(93)   * *Pe=ueme=inga=pe*   *pú*   *pe=w-á=**pa***   *ke-wung.*
                                          3SG.F=3SG.F-hit=PROX

(94)   * *Pe=ueme=inga=pe*   *pú*   *pe=w-á=**te***   *ke-wung.*
                                          3SG.F=3SG.F-hit=3.come

(95)   * *Pe=ueme=inga=pe*   *pú*   *pe=w-á*   *ke-wung.*
                                          3SG.F=3SG.F-hit

The second problem we have is that the absence of morphological marking can be interpreted as the marking of a dependent, subordinate clause. In (96) (= (91)) an additional interpretation of the sentence is given. The simple (and overt) coordinate structure that was seen in (88) is illustrated in (88)'. In (91)' we can see the possibility of

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(i)   *Pe=ueme=inga*   *hóe   pe=p-ang=te*   *pe=ti*   *pá*
       3SG.F=woman=the   sago   3SG.F=3SG.F-eat=PROX   3SG.F=go.3SG.F   house
       'The woman ate sago and then went to the house.'

[7] Asked to translate *Peuemeinga pe pú pewako kewung*, Skou speakers invariably choose something like *Perempuan bunuh tikus*, or *Perempuan kas-mati tikus* (woman kill rat / woman CAUS-die rat), and never a sentence involving the Indonesian verb *pukul* 'hit', translating *ká* in the sentence, with something like: **Perempuan pukul tikus sampai mati* (woman hit rat until dead).

covert coordination: the same structure, minus the enclitic =*pa* is offered as at least a possibility for the representation of the coordinate interpretation. The zero marking in (91) could have a possibly serial verb interpretation, also shown schematically in (91)', as well as an adjunct possibility (following the second reading offered for (91)), shown in (91)". Similarly, we have to also allow the possibility that *hóe pepang* is a purposive subordinate clause, presumably embedded in the same VP as *peti pá*. Even though there is coordinating/subordinating morphology in Skou, the absence of morphology is a constant possibility that makes the unambiguous interpretation and delineation of syntactic categories at times impossible.

Subordinate clauses

(96)   *Pe=ueme=inga   pe=ti   pá   hóe   pe=p-ang.*
        3SG.F=woman=the   3SG.F=go   house   sago   3SG.F=3SG.F-eat

        'The woman went to the house (in order) **to eat** sago.'

Structural possibilities

Overt coordination with =*pa*

(88)'   [s [NP pe=ueme=inga] [VP pe=ti [NP pá]] =pa   [VP [NP hóe] pe=p-ang]]

        Covert association of two clauses, coordinate or serial verb analysis

(91)'   [s [NP pe=ueme=inga] [VP pe=ti [NP pá]]   [VP [NP hóe] pe=p-ang]]

        Covert association of two clauses, subordinate analysis

(91)"   [s [NP pe=ueme=inga] [VP pe=ti [NP pá]] [ADJUNCT   [VP [NP hóe] pe=p-ang]]]

        Second clause subordinate to the first clause as purposive

(96)'   [s [NP pe=ueme=inga] [VP pe=ti [NP pá]   [PURPOSE   [VP [NP hóe] pe=p-ang]]]

7. Conclusions

I hope to have shown that there are no inviolable necessary relationships between forms and functions. We assume that a relationship such as that in (97) is normal in our analysis of morphology and syntax. Certainly this is the easiest way to analyse data, and certainly it must be true for at the least *most* of the linguistic material we are presented with, as well as underlying the methodology and philosophy of linguistics. At the same time, we have seen that a relationship such as that in (98) appears to be true for some cases. We know that morphemes can change functions over time, either shifting to new functions or extending their range of meanings or syntactic restrictions. Are these cases in which there is not a one-to-one relationship between structure and function merely instances of morphemes that are caught along grammaticalisation pathways? If so, are these situations stable in the long-term?

(97) $Structure_\alpha = Function_\alpha, Structure_\beta = Function_\beta$

(98) $Structure_\alpha = Function_\alpha, Structure_\alpha = Function_\beta$

Our problem is yet more intractable when there is no overt morphology involved, or the use of what morphology there is, is optional. Not only is the morphology indeterminate in function, but the discourse functions of the structures in which the dependent- or independent-clause marking morphology are embedded are not fixed. It is quite plausible for a syntactic structure that is generally associated with foregrounded material, presented in main clauses, to be used for backgrounded material, just as it is possible for the

morphology used in subordinate clauses to refunctionalise as a morpheme that can be used in main clauses. Without a diachronic perspective, however, all we can resort to is the relationship shown in (99).

(99)   Structure$_\alpha$ = Function$_\alpha$, Structure$_\alpha$ = Function$_\beta$
        Structure$_\beta$ = Function$_\alpha$, Structure$_\beta$ = Function$_\beta$, maybe

The complex relationship between discourse and syntax is not consistently signaled by morphology, partly due to the multi-functional directions that most morphemes tend to go in, and partly due to the shifting discourse needs that speakers enact through their linguistic tools.

There is a relationship between grammar and discourse, but the relationship is not a simple, straight-forward, invariant one. But then, nothing about discourse is.

Abbreviations

The following abbreviations have been used:

1	first person	2	second person
3	third person	ALL	allative
CAUS	causative	COMP	complementiser
EMPH	emphatic	F	feminine
M	masculine	NEG	negative
OBV	Obviative	PASS	passive
PERF	Perfective	PL	plural
POSS	Possessive	PROX	proximate
REL	Relativiser	SG	singular

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