

COMPLEX SENTENCE CONSTRUCTIONS
IN AUSTRALIAN LANGUAGES

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Volume 15

Peter Austin (ed.)

*COMPLEX SENTENCE CONSTRUCTIONS
IN AUSTRALIAN LANGUAGES*


COMPLEX SENTENCE CONSTRUCTIONS IN AUSTRALIAN LANGUAGES

edited by

PETER AUSTIN
La Trobe University

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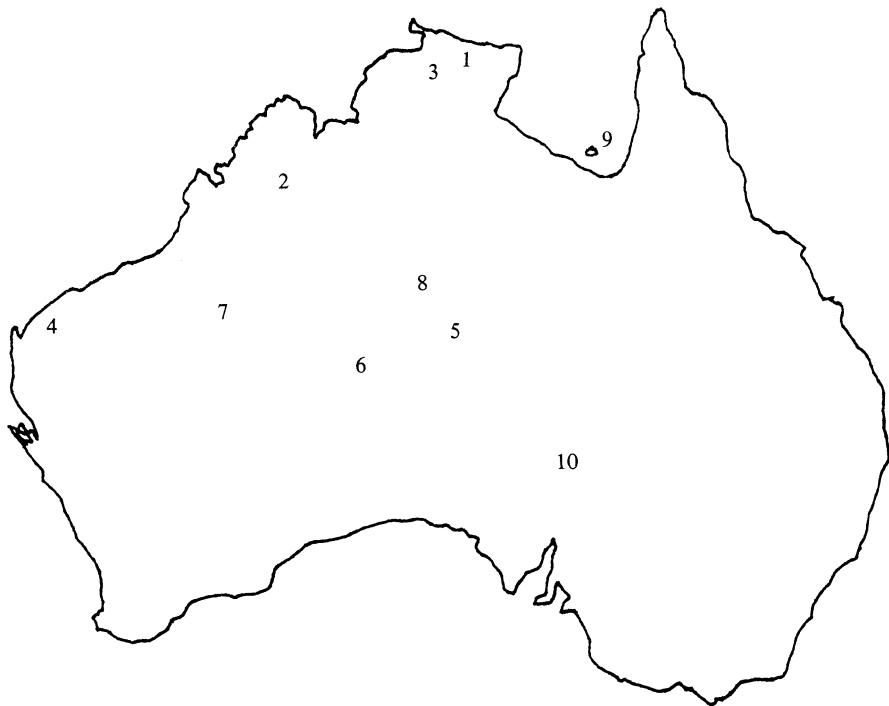
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PREFACE

The present volume grew out of a Workshop on Complex Sentence Constructions in Australian Languages held in conjunction with the Australian Linguistic Society Annual Conference at La Trobe University in 1983. As convener of the workshop, I called for short presentations on the general topic of complex sentence constructions, either from a syntactic or semantic (discourse-functional) point of view. Following the success of the workshop, it was decided to ask the presenters plus some other participants to write up their papers for publication; final versions for this volume were submitted in 1985. The papers cover a number of topics under the heading of Complex Sentence Constructions, and draw on data from widely distributed and, in some instances, previously undescribed languages. It is particularly pleasing to see the (so-far) poorly known non-Pama-Nyungan languages of northern Australia represented (in the contributions by McKay, McGregor and Cook), as well as Pama-Nyungan languages from Central and northern Australia.

Preparation of this volume would not have been possible without the untiring assistance of a number of people. The volume was prepared entirely at La Trobe University, with the papers first being typed and edited on an NBI 3000 wordprocessor and then transferred via the University's VAX 11/780 computer to an Itek typesetter at Courier Typesetters. Brigitte Carevic cheerfully typed and edited the whole of the manuscript on the NBI, never complaining when I or the authors asked for 'just one more little change'. Kay Vassilakis provided invaluable assistance in proofreading, tracking down bibliographical details and straightening out the references. Bill Bowman of Courier Typesetters oversaw the file transfer and Elaine Beckworth did a wonderful job with the typesetting. Thanks are also due to Mike Kellock whose SATIRE program enabled the NBI and Itek to talk (via the VAX). Finally, Claire Benjamins must also be thanked for her support and for allowing us to undertake the preparation of the volume, including the typesetting, on the computers at La Trobe.

Bundoora
March 1987



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| 1 | Rembarrnga | 6 | Yankunytjatjara |
| 2 | Kuniyanti | 7 | Manjiljarra |
| 3 | Wakiman | 8 | Warlpiri |
| 4 | Martuthunira | 9 | Kayardild |
| 5 | Mparntwe Arrente | 10 | Adnyamathanha |

Map 1: Australia, showing approximate location of languages discussed by authors

INTRODUCTION

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Over the past fifteen years, descriptions of Australian Aboriginal languages have provided important data for the typological study of morpho-syntactic phenomena. Among the topics of cross-linguistic study which have drawn upon Australian data are ergativity (Comrie 1978, Dixon 1979), nominal hierarchies (Silverstein 1976, 1981), transitivity (Hopper and Thompson 1980), switch-reference (Austin 1981) and word order or 'configurationality' (Hale 1981, 1983). The present volume presents descriptions of complex sentence phenomena in ten widely distributed Australian languages and provides important new material in this area of current concern in linguistics.

The seminal paper on complex sentence constructions in Australian languages is Hale 1976 (written in 1973 and precirculated for the 1974 biennial conference of the Australian Institute of Aboriginal Studies), referred to by a number of authors in this volume. Hale argues, using data from Warlpiri and Kaititj (both spoke in Central Australia), that Australian languages have a single generalized subordinate or dependent clause type whose syntactic position is typically adjoined at the margins of the main clause. Unlike more familiar languages, embedding is not the norm construction type. Functionally, the adjoined clause serves to code both (modifying) relative clause and adverbial clause meanings. Hale calls these the NP-relative and T-relative interpretation respectively. Following Hale, many authors have adopted the adjunction analysis, and there has been some discussion of the functions of the clause type in the Australianist literature. Several of the papers in this volume can be seen as responses to Hale's ideas.

The paper by McKay on Rembarrnga discusses the form and functions of the generalized subordinate clause construction (termed by McKay, following

Hale, the REL clause) in that language (a prefixing non-Pama-Nyungan language of Arnhem Land). McKay argues convincingly that the discourse function of REL clauses is to present background information (or 'ground' in terms of Talmy's 1978 figure-ground distinction). The interrelationship between mood categories and subordinate clauses is the topic of McGregor's contribution on Kuniyanti, a prefixing non-Pama-Nyungan language of the Kimberleys. McGregor shows that complex sentences in Kuniyanti are not marked overtly by subordinate verb morphology (unlike Rembarrnga and many other Australian languages) but rather covertly by selection of modal categories. Kuniyanti has both subordinate and coordinate clause types. Using a model influenced by Halliday, McGregor presents a detailed discussion of the functions of the various clauses, arguing that modal meanings underly the presupposing backgrounding functions of the complex sentences. The third prefixing non-Pama-Nyungan language represented is Wakiman, the subject of Cook's paper on participles. Wakiman, like a number of northern Australian languages, has complex verbal forms consisting of an uninflected root plus an inflected element (often termed as auxiliary). Analyses of these verb complexes have been proposed in terms of multi-clause structures (sometimes employing the relational grammar concept of 'clause union') but Cook argues that this is incorrect for Wakiman, since participles and finite verbs are disjoint sets. There are also problems of transitivity and case-marking associated with advocating clause union. Cook's solution is to analyse participles as adverbial dependents of the inflected verbal element.

The remaining papers deal with various Pama-Nyungan languages. Dench presents a detailed discussion of subordinate clauses in Martuthunira (Western Australia), a language which appears to have both switch-reference and a productive passive. Dench explores the functions of these two syntactic devices (often said to be in complementary distribution for interclausal syntax) and shows that dependent verb marking of cross-clausal subject coreference can be fed by the passive. Switch-reference seems to be entering the language, perhaps through diffusion from its southern neighbours. Switch-reference is also the topic of Wilkins' paper on Mparntwe Arrernte (Central Australia). Wilkins gives a detailed discussion of switch-reference in this language showing that a narrow syntactic definition of coreference fails to account for the subtle semantic contrasts which can be expressed (meaning inclusion, part-whole relations and self-perception). Same-subject constructions in Yankunytjatjara (Western Desert) are explored by Goddard; he argues that certain complex sentence constructions are best analysed in terms of verb serialisation, rather than switch-reference. Several types of serialisation are distinguished, although Goddard's attempt to subsume similar dependent clause constructions in other Australian languages as serialisation is highly

controversial. Clendon briefly examines nominalised clauses in Manjiljarra (another Western Desert dialect) and shows that nominalisations can be marked for tense (an apparently unique feature of this dialect), and that the locative case has important backgrounding discourse functions. Hopefully, Clendon will be able to do further study on this interesting dialect.

The relationship between nominal cases and verbal complementisers in Warlpiri (Central Australia) is the topic of Simpson's paper. She argues that apparent homonymy between cases and complementisers can be seen as multi-functionality (polysemy) of a single affix type. Evans' paper on Kayardild (Mornington Island, Gulf of Carpentaria) further explores the link between nominal and verbal functions of 'case' markers. In this language, case affixes operate at several levels, coding both predicate-argument dependences and also sentence level modality. Evans shows in detail that case can also be used in complex sentences (where each word of a subordinate clause will bear an extra level of case marking) to code disruption of the discourse flow of same-subject coreference. The description illustrates how case morphology can be employed as a topical referent-tracking device. The final paper by Tunbridge discusses verb directional suffixes in Adnyamathanha (South Australia) and proposes that historically these derived from complex sentence constructions involving a serialised participle (cf. Goddard). An intermediate stage of compounding (cf. Cook) followed by truncation is proposed. Tunbridge suggests that the areally distributed verb directional suffixes in other Central Australian languages may have a similar source.

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FIGURE AND GROUND IN REMBARRNGA COMPLEX SENTENCES

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1. Introduction

Subordinate clauses provide a great deal of material for analytical and theoretical work in linguistics. In some Australian Aboriginal languages the range of subordinate clause types is greatly reduced by the existence of a generalised subordination type which assumes the functions carried out by several different types of clause in many other languages. Hale 1975, 1976 proposed an adjunction analysis of such clauses with semantic interpretation rules for material from two Central Australian languages. Klokeid 1970, McKay 1975 and Merlan 1981 have also presented discussions of similar clauses in a variety of Australian languages. This type of clause appears not to be restricted to Australian languages. O'Neil 1977 has found Old English evidence for a similar phenomenon, though his suggestion that widespread literacy is to be blamed for its demise in English may be somewhat speculative.

The present paper¹ examines the generalised subordinate clause type which is found in the Rembarrnga language of central Arnhem Land, north Australia. This Rembarrnga clause type performs the functions of a range of subordinate clause types in languages such as English, though with some significant exceptions.

The underlying factors which characterise the varied uses of this type of subordinate clause, which I will refer to as the REL clause, prove to relate not to logical presupposition or entailment, but rather to a pragmatic distinction between **figure** and **ground** or **foreground** and **background**, the subordinate clauses forming the **ground** or **background**. This analysis is supported by the fact that certain types of subordinate clauses which cannot be considered **ground** or **background** do not take the REL form.

2. Outline of Data

2.1 Morphology

Rembarrnga verbs, like those of most neighbouring languages, are marked by a set of pronominal prefixes which specify person and number of subject and object or indirect object as appropriate. These prefixes in their regular forms are characterised by the vowel *a* (e.g. *nga-* 'I', *nganba-* 'me + they', *banga-* 'them + I', *ngan-* 'me + he', *barranba-* 'them + they').² In REL subordinate clauses these vowels are modified in the following ways:

- (i) where the prefix consists of a single closed syllable an epenthetic vowel is added to it producing a sequence of two open syllables;
- (ii) all vowels of the pronominal prefix (including those introduced by (i) above) are changed to *i* (or *e* in the Kalduyh dialect).

Thus the prefix forms used as examples above become in their REL forms respectively *ngi-*, *nginbi-*, *bingi-*, *ngini-*, *birrinbi-*.³

In all other respects the subordinate clauses under discussion here have exactly the same form as main clauses or simple sentences. There is another group of REL marked clauses which are marked (on the verb) by the case suffix appropriate to their role in the main clause. These will be exemplified briefly in 5.6. Two other types of subordinate clause which do not use REL marking on the verb will also be discussed (4.2, 5.4, 5.5).

2.2 Use of REL subordinate clauses

The examples which follow simply catalogue the range of uses to which the REL type of subordinate clauses can be put. In these examples REL subordinate clauses are enclosed in square brackets. All examples in this section, with the exception of (8) are taken from tape-recorded text material.

It is important to note that the separation of different 'types' or 'uses' of these subordinate clauses should be seen as an artefact of the English translation. In Rembarrnga the various 'uses' are not differentiated at all from one another. Nevertheless for the purpose of exposition it is useful to distinguish the 'uses' from the English perspective, in order to attempt to discover the unifying feature(s) of these clauses (even in English) which underlies the morphological and syntactic uniformity of this broad-based Rembarrnga clause type.

- (i) conditional clauses, both counterfactual (CF) (1) and non-counterfactual (2):

(1)

[*Yerre-yabbah-ban~~u~~ma* *nunda*]
 her+we+REL-two-leave+PAST CF her
yarranba-yabbah-bun~~u~~.
 us+they-kill+PAST CF
 'If we two had left her, they would have killed us.'

(2)

[*Kurrahma yubehma nerre-yabbah-bolhra*]
 that way north you+REL-two-will emerge
nanda-buh-yabbah-marra.
 you+they-might-two-spear
 'If you leave the house that way, they might spear you.'

(ii) temporal adverbial clauses:

(3)

[*Bud birri-yabbah-manjma*] *bi barr-yabbah-na*.
 climb they+REL-two-went people they-two-saw
 'When they went up the hill they saw people.'

See also the first REL subordinate clause of example (11) below.

(iii) relative clauses, both restrictive (4) and non-restrictive (5):

(4)

Da-yiminjdjibun nanh rudna [ki-yurdyurd bodkarri-wala]?
 you-know that road it+REL-runs (place)-ABL
 'Do you know that road which runs from Bodkarri?'

(5)

Nihdanda karlina-yih kuhna kuh-miya,
 he big brother-ERG dead one he+dead one-got
kuh karda [karnd~~u~~k~~u~~n-yih yi-buwa].
 carcass old dingo-ERG it+it+REL-killed
 'The elder brother got a dead kangaroo, an old carcass, which a dingo had killed.'

(iv) Locational adverbial clauses

(6)

B~~u~~nda-djja krodjin ngarr-marninjhja [kalhna]
 there-LOC crossing it+we-will make base

naddu-nda ki-kalh-yuru mabbun].
 there it+REL-base-lies (fly)

‘We’ll make a crossing place there, where the bottom of the *mabbun* fly dreaming place is.’

(v) focus construction (cf. English cleft sentence):

(7)

Yarrabbah-warnhminj murdulngu-kanjakanjangh... Ken,
 we two-saw saratoga-small woops

murdulngu-kanjakanjangh? ... Djirrmarr-kanjakanjangh
 saratoga-small barramundi-small

[*birri-rdorlhminj*].

they+REL-floated to surface

‘We saw a lot of little saratogas... Woops! Little saratogas? It was little barramundis which were floating to the surface.’

(vi) reason clauses:

(8)

[*Dakkudakku birri-ngulbidjminj nga-bal-mangara.*

children they+REL-are cold it+I-firewood-will-get.

‘Since all the children are cold I will collect some firewood.’

(vii) Negative sentences with the particle *m-u-lak*. In example (9) the negative particle is not included within the REL clause since a single occurrence of the negative particle appears to mark the negation of two separate clauses:

(9)

Manj m-u-lak [yerre-ro-ng-u]

still NEG we+REL-go-PAST CF

[*yerre-djuyhm-u-dd-u-n-u*]

we+REL-send-reciprocal-PAST CF

‘We still did not go, we still did not split up.’

(viii) some complements, as in (10) and the second REL subordinate clause of (11):

(10)

Yarra-bak-yabbah-ngedjangara [munanga-yih
 us+you-IMPLIC-two-will tell a story white man-ERG

berren-yi-kurhwarr-kurhwarrminj midjdjindah]?

them+he+REL-yi-REDUPL-shot long ago.

‘Can you tell us two about when the white man shot a lot of people long ago?’

(11)

Nga-ngawa n#nda [*Maynorru ngi-workm#rn*]
 it+I-heard that Mainoru I+REL-was working
 [*Namorarra ki-ngarrm#rn*].
 (name) he+REL-was sick
 'I heard that while I was working at Mainoru, that Namorarra was sick.'

Two types of subordinate clauses are not marked with REL prefix forms. These are some complements of perception verbs (12) (contrast example (11)) and purposive clauses (13):

(12)

Dakku barr-ngawa [*barra-kawh*].
 children it+they-heard they-cry out
 'They heard the children crying out.'

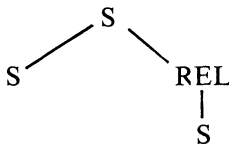
(13)

Djok-ngerreh nga-diya
 socks-only it+I-wore
 [*nganba-m#n#h-djanga-na-n#kan*]
 me+they-lest-foot/track-see-PAST CF-PURP
 'I wore only socks so that they would not be able to see my tracks.'

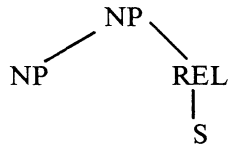
3. Hale's Adjunction Analysis

A very similar set of constructions in Warlpiri (central Australia) is discussed by Hale 1976 which attempts to suggest some productive areas of further research into a relative clause phenomenon which is quite widespread in Australian languages.⁴ Hale argues that it is plausible to generate relative clauses of this type adjoined to the main S node as in (14) rather than embedded within a constituent of the main clause as in (15).

(14)



(15)



He argues that:

- (i) relative clauses in Warlpiri always occur at the margins of sentences, never embedded;

- (ii) while there is clear evidence in Warlpiri that noun plus adjective or determiner forms a single constituent, there is no comparable evidence for the constituency of NP plus relative clause; and
- (iii) a relative clause with split antecedents would provide evidence favouring adjunction over embedding since it would require embedding under more than one constituent of the main clause simultaneously.

Hale (1976:84) proposes a dual classification of the interpretations of these adjoined relative clauses: "... one in which the dependent clause is construed with a noun phrase in the main clause (the NP-relative interpretation), and another in which the dependent clause is construed with the modality of the main clause (the T-relative interpretation)." He notes that this classification does not encompass some occurring types of dependent clauses (e.g. whereas..., since...) and that there are clauses where both NP-relative and T-relative interpretations are appropriate. Thus a single dependent clause may function simultaneously as a restrictive relative clause and a temporal adverbial clause if both tense identity and NP co-reference conditions are met.

In Rembarrnga similar points can be made. REL subordinate clauses occur usually, but not exclusively, at the margins of the main clause. No evidence is known for the constituency of noun phrases which would include or exclude relative clauses. Some of the case marked REL clauses mentioned in passing above may be considered to constitute noun phrase constituents in view of their case marking, but it is not clear at present how to deal with these. Clear examples of relative clauses with split antecedents do occur in Rembarrnga, such as:

(16)

Nanh kuyalah nga-minjdji [Dawin *yirri-workm-rn*].

that I think him+I-know Darwin we+REL-work-PAST CONTIN
'I think I know that man from when we were working together in Darwin.'

In (16) the antecedents of the subject of the dependent clause include the subject and the object of the main clause. This does not exhaust the reference of the subject NP of the relativised clause since it is plural not dual in number. In an embedding analysis one would face the problem of how to embed the REL clause under both main clause NPs simultaneously under satisfactory conditions of coreference. This points to the suitability of the adjunction analysis in which interpretive rules can handle the multiple coreference.

Further support for the adjunction analysis comes from sentences such as (17), in which more than one interpretation may be needed:

(17)

Ngalward barran-rdiyh-m~~u~~rn
 stone them-it-hit-PAST CONTIN
 [*birri-yud-minj*].
 they+REL-run-PAST PUNCT

‘The stone hit them as they ran’. or ‘The stone hit those who ran away.’

In (17) we have instances of both NP coreference and tense identity so that NP-relative and T-relative (i.e. relative and temporal adverbial) interpretations are equally appropriate. At which point in the matrix sentence would this clause be embedded to give equal weight to both interpretations? There seems to be no reason to choose between the two in Rembarrnga. The English structures force a distinction to be made in translation, but in Rembarrnga this appears to be a false distinction - the whole subordinate clause provides background to the whole main clause.

In the following example there is a similar problem.

(18)

Yarrabbah-warnh-minj Karlbuma ka-morlo-yuru
 we two-look-PAST (name) his-track-lie(s)
 [*ki-rdidj-minj Ngarradj-kah*].
 he+REL-return-PAST (place)-ALL

‘We saw Karlbuma’s tracks there, from when he went back to Ngarradj.’

In this sentence we have to capture the fact that not only was it Karlbuma who went back to Ngarradj, but also that it was on just that occasion that this particular set of tracks was left.

Hale’s adjunction analysis has much to commend it in application to Rembarrnga REL clauses, but will not be elaborated further here. The set of case-marked REL subordinate clauses mentioned in passing above should perhaps, in contrast, be analysed as embedded on account of their case marking. They occur primarily in marginal positions, with or without heads. For further detail see 5.6 below and McKay (1975:358-60).

4. Logical Features of REL Subordination

It appears appropriate to ask whether or not the unitary morphological marking of REL subordinate clauses in Rembarrnga reflects some unitary logico-semantic feature of these clauses. This section will examine whether the logical notion of entailment is useful in this connection. Section 5 will show

that the pragmatic contrast between figure and ground is much more useful and appropriate in analysing this phenomenon. The REL clauses will be seen to be backgrounded rather than entailed.

4.1 Entailment

Keenan 1971 lists examples of a number of sentence types which he claims involve presuppositions. He uses a negation test to determine relationships of presupposition between sentences, defining presupposition as follows: "A sentence S logically presupposes a sentence S' just in case S logically implies S' and the negation of S, $\sim S$, also logically implies S'. In other words, the truth of S' is a necessary condition on the truth or falsity of S. Thus if S' is not true then S can be neither true nor false (and must in the formal logic be assigned a third or "nonsense" value - see Keenan (1971:45-6)). Keenan's examples include (19) a to d, to which I have added an apparently parallel e:

- (19) a. John left (did not leave) when Mary called.
 Presupposes: Mary called
- b. Mary loves (does not love) the puppy she found.
 Presupposes: Mary found a puppy
- c. The Tiv, who respected Bohannon, are (are not) a generous people.
 Presupposes: The Tiv respected Bohannon.
- d. It was (wasn't) John who caught the thief.
 Presupposes: Someone caught the thief.
- e. We crossed (didn't cross) the river where you saw the crocodile.
 Presupposes: You saw a crocodile.

Kempson 1975, Wilson 1975 and Boer and Lycan 1976 argue persuasively that many of the cases of logical presupposition discussed by linguists in connection with natural language are, in fact, in conformity with the definition of entailment. One of the crucial areas of their argument relates to the nature of presupposition failure and the nature of negation.

Note first that Boer and Lycan (1976:78-86) as well as Givón (1975a:82) appear to have a point when they question the ability of language users other than linguists and philosophers to have natural and consistent intuitions about truth valuelessness as opposed to falsity, though Kiefer (1977:250) is also right in claiming that some intuitions are straightforward while others are much less so. Some of Kempson's argumentation (for example (1975:55-56, 78, 85-95)) echoes this doubt of Boer and Lycan.

The difference between presupposition and entailment is summarised in the following tables for S_1 entails/presupposes S_2 (T=True, F=False, \longrightarrow indicates direction of implication). The tables are quoted from Kempson (1975:49), see also her discussion; cf. Boer and Lycan (1976:9-10), Wilson (1975:4, 16).

(20)	Entailment	Presupposition
	S1 S2	S1 S2
	T \longrightarrow T	T \longrightarrow T
	F \longleftarrow F	$\neg(T \vee F)$ \longleftarrow F
	F \longrightarrow T \vee F	F \longrightarrow T

In the entailment column, $T \longrightarrow T$ means 'if S_1 is true, S_2 is also true', $F \longleftarrow F$ means 'if S_2 is false, S_1 is also false', and so on. S_1 in each case is the whole sentence, including the embedded clause, while S_2 is just the embedded clause. Thus:

(John left (when Mary called))			
S_1	S_2	S_2	S_1

In the case of both presupposition and entailment, if, for instance, S_1 is true then S_2 is also true (i.e. $T \longrightarrow T$). That is, if 'John left when Mary called' is true then 'Mary called' is also true. For entailment, if it is not true that 'Mary called' (S_2) then the sentence 'John left when Mary called' (S_1) is also false ($F \longleftarrow F$). Kempson, Boer and Lycan, and Wilson all argue in the discussions of presupposition and entailment referred to above that while so-called internal negation (in which the 'presuppositions' remain true under negation) is the normal interpretation in natural language (cf. Givon (1975a:81-84)), nevertheless most, if not all, the presuppositional sentences can be negated or denied externally (in which the falsity of the sentence or the truth of the denial may be due to the falsity of the 'presupposition'). For instance, if (21a) is true then its S_2 is always true. If it is internally negated as in (21b), in which the scope of the negation is underlined, then the S_2 also remains true. If, however, it is externally negated as in (21c), in which the scope of the negation is again underlined, then the S_2 may or may not be true:

- (21) a. John left when Mary called.
 b. John didn't leave when Mary called.
 c. John didn't leave when Mary called.

The external type of denial is most clearly introduced in a form such as 'it is not true that...' but, adequately contextualised, even regular negation can bear this sense. This applies, as in (22a-e), to Keenan's examples of (19) above, as

well as to other well-known examples of presuppositions, such as referential expressions (22f,g), lexical presuppositions (22h), and factives (22i).⁵

- (22) a. John didn't leave when Mary called. Mary never called.
 b. Mary doesn't love the puppy she found. How could she? She didn't find one.
 c. It is not true that the Tiv, who respected Bohannon, are a generous people. They did not respect Bohannon, though they are generous.
 d. It wasn't John who caught the thief, since the thief got clean away.
 e. We didn't cross the river where you saw the crocodile. You didn't see any crocodile.
 f. The King of France didn't visit the exhibition. France hasn't got a king.
 g. My husband didn't come to meet me. I'm not married.
 h. It wasn't a bachelor that frightened Mary-Ann. It was a scarecrow.
 i. Bill didn't regret that his sister had caused a lot of trouble. How can he have done. She didn't.

Under an entailment analysis, the distinction between external and internal negation is not required. Essentially, natural language negation or denial is of an external type with indeterminate or variable scope. It thus may or may not encompass the 'presuppositions' or entailments of the sentence. The preference for internal negation interpretations of these sentences in isolation is due to pragmatic rather than logical factors (Wilson (1975:132-35, 59-61); Kempson (1975:11-17, 95-112); Boer and Lycan (1976:76-86)).

It will be noted that Keenan's examples, quoted in (19) above, represent several of the types of REL subordinate clauses in Rembarrnga, namely those in examples (3) to (7). I propose, as in McKay 1975, that we might take the notion of entailment as the common semantic feature of Rembarrnga REL subordination. I use entailment rather than presupposition in the light of the discussion of Kempson, Wilson, and Boer and Lycan. Let us examine a Rembarrnga example such as:

(23)

Kuwenj nga-kurrhwarr-minj [ngi-na].
 kangaroo it+I-shoot-PAST PUNCT it+I+REL-see+PAST PUNCT
 'I shot the kangaroo I saw'. or 'I shot the kangaroo when I saw it.'

The morphology specifies a number of modalities which we can factor out and mark as separate features, leaving arguments and predicates of the two clauses

with their internal syntactic relationships as two separate propositions. This is set out in (24) where the two propositions are also marked for the entailment relationship. The elements within each proposition are in the order subject, object, verb:

(24)

Propositions	[<i>nginda kuwenj kurrhwarr</i>]	[<i>nginda kuwenj na</i>]
	I kangaroo shoot	I kangaroo see
Entailed	—	+
Tense	PAST	PAST
Continuous	—	—
Factual	+	+

It is now possible to vary the modalities independently, giving a variety of surface structures, as in the following examples, in which the feature ‘Continuous’ is omitted as not essential to the present argument.

(25)

Propositions	[<i>nginda kuwenj kurrhwarr</i>]	[<i>nginda kuwenj na</i>]
	I kangaroo shoot	I kangaroo see
Entailed	—	+
Tense	FUTURE	FUTURE
Factual	(unspecified for non-PAST tenses)	

The sentence corresponding to (25) is:

(26)

Kuwenj nga-kurrhwarr-ra [ngi-na-na].
 kangaroo it+I-shoot-FUTURE it+I+REL-see-FUTURE
 ‘I will shoot the kangaroo if/when I see it’. or ‘I will shoot the kangaroo I (will) see.’

(27)

Propositions	[<i>nginda kuwenj kurrhwarr</i>]	[<i>nginda kuwenj na</i>]
	I kangaroo shoot	I kangaroo see
Entailed	—	+
Tense	FUTURE	PAST
Factual		+

(28)

Kuwenj nga-kurrhwarr-ra [ngi-na].
 kangaroo it+I-shoot-FUTURE it+I+REL-see+PAST PUNCT
 ‘I will shoot the kangaroo I saw.’

Note that in (28) the T-relative interpretation is not available because of lack of tense identity between the two clauses.

(29)

Propositions	[<i>nginda kuwenj kurrhwarr</i>]	[<i>nginda kuwenj na</i>]
	I kangaroo shoot	I kangaroo see
Entailed	—	+
Tense	PAST	PAST
Factual	—	+

(30)

Kuwenj nga-kurrhwarr-ra [ngi-na]
 kangaroo it+I-shoot-PAST CF it+I+REL-see+PAST PUNCT
 'I would have shot the kangaroo I saw'. or 'I was going to shoot the kangaroo when I saw it.'

In a sentence like (32) we find the same entailment relationship obtaining between propositions which are both marked non-factual, or in Hale's terms (1976:80) 'uninstantiated'. This yields a counterfactual conditional sentence:

(31)

Propositions	[<i>nginda kuwenj kurrhwarr</i>]	[<i>nginda kuwenj na</i>]
	I kangaroo shoot	I kangaroo see
Entailed	—	+
Tense	PAST	PAST
Factual	—	—

(32)

Kuwenj nga-kurrhwarr-m# [ngi-na-n#]
 kangaroo it+I-shoot-PAST CF it+I+REL-see-PAST CF
 'I would have shot the kangaroo if I had seen it.'

Since both clauses present uninstantiated propositions it might appear that the truth value relationships presented above for entailment do not apply here. It is claimed however that the same relationship obtains between the two propositions as that between the two propositions of (23)-(24), but that this relationship is marked by the verb suffixes as pertaining in an unreal or imaginary world or situation, not in the real world. This analysis of counterfactual conditions as a special case of T-relative interpretation involving irrealis or counterfactual mode is adopted by Hale (1976:79-80). (See also discussions by Ducrot (1972:167-90), Haiman (1978:29-31), and Postal (1974:391-392)). Note that this emphasises that entailment as used here is a relation between clauses or propositions, and not between sentences and the real world.

Of course the entailment relationship itself can also be reversed as in (33), to be compared with (23)-(24):

(33)

Propositions	[<i>nginda kuwenj kurrhwarr</i>]	[<i>nginda kuwenj na</i>]
	I kangaroo shoot	I kangaroo see
Entailed	+	—
Tense	PAST	PAST
Factual	+	+

(34)

[*Kuwenj ngi-kurrhwarr-minj*]
 kangaroo it+I+REL-shoot-PAST PUNCT
nga-na.

it+I-see+PAST PUNCT

‘I saw the kangaroo which I (had) shot’. or ‘I saw the kangaroo when I (had) shot it.’

Examples (23) to (34) all involve NP coreference between the two propositions, thus allowing NP-relative interpretation. This coreference can be dropped, as in:

(35)

Propositions	[<i>nginda kuwenj kurrhwarr</i>]	[<i>danda wurrbarn na</i>]
	I kangaroo shoot	you emu see
Entailed	—	+
Tense	PAST	PAST
Factual	—	+

(36)

Kuwenj nga-kurrhwarr-m# [*wurrbarn*
 kangaroo it+I-shoot-PAST CF emu
di-na].

it+you+REL-see+PAST PUNCT

‘I was going to shoot the kangaroo when you saw the emu.’

Finally the structure of focus constructions such as (7) requires comment. In this case part of a single clause can be interpreted as entailed by the whole. The subject is placed in focus position and the rest of the clause is marked as entailed. This might be set out as in (37). Modalities are marked only once in a single clause:

(37)

Proposition	[<i>djirrmarr-kanjakanjangh</i>]	[<i>rdorlh</i>]
	barramundi-small	float to surface
Entailed	—	+
Tense		PAST
Factual		+

(38)

Djirrmarr-kanjakanjangh [*birri-rdorlh-minj*].
 barramundi-small they+REL-float to surface-PAST PUNCT
 'It was little barramundis which were floating to the surface.'

It appears possible, then, that in the various types of REL subordinate clauses exemplified in (1) to (7) above it could be the relationship of entailment which is marked by the REL prefix, the entailed clause or part of a clause being so marked. It appears that the reason clause of example (8) is very similar in this respect to the conditional clauses. Nevertheless there remain some problems for this analysis.

4.2 Problems for the entailment analysis

Problems for the entailment analysis of Rembarrnga REL subordinate clauses are of two types:

- (i) REL clause types which are not amenable to the entailment analysis; and
- (ii) entailed subordinate clause types which are not marked by REL prefixes.

Two main classes of clause types marked by REL prefixes are not amenable to the entailment analysis. These are negative sentences (such as (9)) and complement sentences, as exemplified by (10) and (11). It is clear that in a sentence like (9), the first part of which is repeated here as (39), the REL-marked section of the sentence, (excluding the negative particle *mɹ-lak*) cannot be entailed by the whole sentence. If it were to be entailed, this would mean that a clause must be true if its negation is true, which is a contradiction in terms, given the meaning of *mɹ-lak*. That is, an analysis as in (40) is out of the question:

(39)

Mɹ-lak [*yerre-ro-ngu*].
 NEGATIVE we+REL-go-PAST CF
 'We did not go.'

(40)

Proposition	[[<i>m</i> + <i>lak</i>]	[<i>yanda ra</i>]
	NEGATIVE	we go
Entailed	—	+
Tense		PAST
Factual		—

Again in the case of complements such as those in (10) and (11) above we cannot call upon the relationship of entailment to describe or explain the REL subordination of the subordinate clause. Such a complement is simply not logically entailed by the sentence as a whole. Note that a more pragmatic definition of 'presupposition' as that 'already given within the universe of discourse' or what 'speaker assumes hearer knows or admits' would be applicable in these complement cases. In both (10) and (11), the matter contained in the complement clauses is shared knowledge of speaker and hearer within the particular discourse situation.

The entailment relation (as defined here and tested using the truth table (20)) appears to hold for the complement of a sentence such as (12), repeated here as (41), and yet no REL subordination is marked:

(41)

Dakku barr-ngawa barra-kawh.
 children it+they-heard they-cry out
 'They heard the children crying out.'

In this connection, compare the two different types of complements which may appear after the verb *ngawa* 'to hear'; a main clause, as in (41), or a REL clause, as in (42). This clearly shows the inadequacy of the entailment analysis.

(42)

Nga-ngawa n+nda [Maynorru ngi-workm+r] [Namorarra
it+I-heard that Mainoru I+REL-worked (name)
ki-ngarrm+r].
 he+REL-was sick
 'I heard that while I was working at Mainoru, that Namorarra was sick.'

In just the case where entailment holds (i.e. (41)) the REL form is not used, while in those cases where entailment does not hold the REL form occurs.

One final type of subordination which does not take REL marking is purpose clauses such as (13) above, including also jussive complements. The truth values for entailment do not, however, hold for subordinate clauses of

this type so that their lack of REL marking is fully consistent with the entailment analysis. If, as appears from the examination of perception verb complements, the entailment analysis is not justified, some other explanation must be sought for the failure of purpose clauses and jussive complements to take REL marking.

A set of case-marked temporal clauses, which may be best analysed as embedded rather than adjoined, present another problem in that many of them are not marked with REL prefixes. It has not yet been possible to determine the basis of this alteration between the use and non-use of the REL prefixes in these temporal clauses.

Although some of these problem cases still require further study we can nevertheless conclude from our discussion that logical entailment is not an appropriate characterisation of the common semantic denominator of Rembarrnga REL subordinate clauses, if, indeed, such a semantic common denominator exists at all.

5. The Figure and Ground Analysis

5.1 Figure and ground

This section will examine the various REL clause types exemplified in (1) to (11) above in relation to the figure/ground dichotomy which derives originally from studies of visual perception, but has numerous parallels in language.

Let us enter the discussion in the domain of position and motion. Talmy (1978:627) defines figure and ground (in this context) as follows:

“the Figure is a moving or *conceptually movable* point whose path or site is conceived as a variable the particular value of which is the salient issue”

“the Ground object is a reference-point having a stationary setting within a reference-frame, with respect to which the Figure’s path or site receives characterization”

In a simple positional sentence such as (43) (Talmy (1978:628)) the relationship between *bike* and *house* is not simply symmetrical as it would be if relative distance were all that was at issue. Rather, *house*, as the relatively more fixed reference point, is the ground, while *bike* as the relatively more moveable variable represents the figure. Within a sentence of this type the object of the preposition is the ground.

(43) The bike is near the house.