

DETERMINERS AND REFERENCE IN CLAUSES

Elaine Good
Summer Institute of Linguistics

1. INTRODUCTION

In three related¹ Micronesian languages, determiner forms which normally occur with noun phrases also occur with some clauses. Generally, it is only nouns which are considered to have definiteness of reference and hence occur with determiners. We consider 'nominals' and 'predicates' to be some kind of natural bipartite division in language. Furthermore, there is a natural division between 'arguments' and 'predicates' which is somewhat analogous to 'nominals' and 'predicates'. We expect, for example, nominalizations to possessable and to have some kind of nominal modifiers, including determiners. But we do not expect that clauses with finite verbs should have determiners.

In this paper we look at the characteristics of clauses with final determiners to see what this implies theoretically for the problem of 'reference' in syntactic theory.

In Sections 2. and 3. a general description of the occurrence of determiners in Kosraean, Ponapean and Mokilese² is given. In Section 4, the known characteristics of clauses with determiners in these three languages are summarized. Section 5 discusses the theoretical implications of the discussion presented, for both comparative syntax and for theory of syntax.

2. DETERMINERS WITH CLAUSES IN KOSRAEAN

There are two series of determiners that regularly occur with noun phrases in Kosraean³

(1) *Ah* series

- uh* 'the, near speaker'
- an* 'the, near hearer'
- oh* 'the, away from speaker and hearer'
- ah* 'the'

Sac series

- se* 'the one, near speaker'
sacn 'the one, near hearer'
soh 'the one, away from speaker and hearer'
sac 'the one'

As shown above, both series of determiners are inflected for spatial diexis and also have one form that is not inflected. The *sac* series specifies singularity of the noun phrase, while the *ah* series is unmarked for number.

- (2) *Ninac kiaci ah muhta orek losr.*
 mother his det. sit make necklace
 "His mother (was/is) sitting making necklace(s)."
- (3) *Alihk el luhngse muhta fin tuhka se.*
 Alec s.m.⁴ like stay on beach det.
 "Alec likes (to) stay on the beach."

Further detail of the use of these determiners with noun phrases will not be given except to note that one of these determiner forms is obligatory at the end of a noun phrase if the phrase indicates old (or assumed to be known) information. The forms are optional if the information indicated is assumed to be new information. This means that most subject noun phrases occur with a determiner, while other noun phrases may or may not occur with one. (For further detail on use of determiners in Kosraean, see Good, a. In Press.)

Of the determiner series listed above, only the *ah* series occurs clause-final (without an obvious association with any noun). These forms occur finally in four types of clauses:

Relative Clause

- (4) *Mwet se [RC ma ac som ah] tuhng.*
 man det. REL⁵ will go det. cry
 "The man who will go is crying."

Complement Clause

- (5) *Winio el lohng* [COMPL *ke pik tuhng ah*].
 Winio s.m. hear compl.⁵ pig cry det.
 "Winio heard that the pig is crying."

Adverbial Clause

- (6) [ADV *Ke kom ac som uh,*] *nga ac wi -kom.*
 when you will go det./ I will accompany-you
 "When you go, I will accompany you."

Interrogative Clause

- (7) *Suc kom liye ah?*
 who you see det.
 "Who did you see?"

However, clause-final determiners do not occur with all clauses of the types listed above. Their occurrence is restricted to clauses with particular features within these types, which will be described next. (See *Ibid.* for specific data and justification for these restrictions.)

For relative clauses, the following are features which are characteristic of clauses which have clause-final determiner forms:

- a. Introduced by the relative markers: *ma*, *suc ma*, and *0*. Relative clauses marked by these forms are restrictive. Relative clauses introduced by another marker, *suc*, which are nonrestrictive clauses, do not occur with a final determiner form. In addition, there is a type of relative clause that is restrictive, has a *0* relative marker, and occurs with *in* 'IRR' (see b. below) which also does not occur with final determiners.
- b. Cannot have the irrealis marker, *in*, in the pre-verbal tense-aspect position. Any of the realis tense-aspect forms, \emptyset 'present', *ac* 'future', *tuh* 'completive', etc. may occur.

The relevant features, then, for relative clauses with clause-final determiner forms are [+RES(TRICTIVE)] and [+R(EALIS)]. [+RES] is identified with particular relative markers, while [+R] is a negative correlation with the irrealis marker, *in*.

With final determiner forms

- (8) *Mwet se [RC ma tuh som uh] tuhng.*
 man det. REL past go det. cry
 "The man who has gone is crying."
- (9) *Mukul ah oruh -lah ma se [RC suc ma kuht luhnge ah].*
 man det. make-perf. thing det. REL we like det.
 "The man made something that we like."
- (10) *Nga fohlohkuhn-lah puk se [RC 0 nga riti ekweyah ah].*
 I return -perf. book det. I read yesterday det.
 "I returned the book (that) I read yesterday."⁶ (Lee, 1975:350)

Without final determiner forms

- (11) *Mwet se⁷ [RC suc som,] isracsr.*
 man det. REL go laugh
 "The man, who is going, is laughing."
- (12) *Mukul sac isracsr, [RC suc som].*
 man det. laugh REL go
 "The man is laughing, who is going."⁸
- (13) *Mukul ah oruh -lah ma se [RC 0 kuht in s ritact-kihn].*
 man det. make-perf. thing det. REL we IRR play-with
 "The man made something for us to play with."

The following are the features of complement clauses which occur with a final *ah* form:

- a. Cannot have the irrealis marker, *in*, in the pre-verrbal tense-aspect position. (Thus, the complement clauses must be +R.) All others are acceptable. In this case, this feature rules out any type of complement which may have *in*, namely those introduced by *muh*, the

reportive complementizer, and by *lah*, which is the non-reportive complementizer.

b. Must be introduced by the complementizer, *ke*. It is not enough to give the specification in a. above. Serial verbs, for instance, fulfill the requirement in a., but cannot occur with a final determiner form. It can be shown (Good a., In Press) that this *ke* form may be prepositional or nominal in nature.

With final determiner forms

- (14) *Winio el lohng [COMPL ke pik ac tuhng ah].*
 Winio s.m. hear compl. pig det. cry dett.
 "Winio heard that the pig is crying."
- (15) *El etuh [COMPL ke el moli susu sac ah].*
 he know compl. he buy mild det. det.
 "He knows that he bought (is buying) the milk."
- (16) *Nga etuh [COMPL ke mahk ah arulacna srihk ah].*
 I know compl. ant det. very small det.
 "I know that ants are very small."

Without final determiner forms

- (17) *El srihke [COMPL 0 ela-n kahsruhr].*
 he try compl. he -IRR run
 "He tried to run."
- (18) *Nga etuh [COMPL lah el ac som].*
 I know compl. he will go
 "I know that he will go."
- (19) *Tuhlihk sac fah [COMPL muh eltahl pac som-lah Pohnepe].*
 child det. said compl. they also go -away Ponape
 "The child said that they also went. (to) Ponape."

Thus for complement clauses, the relevant clause features are +R(EALIS) (on the same basis as relative clauses, namely, the non-occurrence of the irrelais *in*) and the occurrence of the prepositional complementizer, *ke*.

Adverbial clauses that occur with final determiners have the following feature:

- a. If the adverbial clause is one that is classed as 'conditional', no final determiner occurs.⁹

In the case of adverbial clauses, the conditional clauses are clearly marked by introducers that could be characterized as a morphological class of conditionals:

- (20) *fin* 'if'
fuhnuh 'if, past'
finnwe 'even if'
fintwe 'only if'¹⁰

All other adverbial clauses may occur regularly with final determiners. It is instructive to look at the introducers for these clauses:

- (21) *ke* 'when, at the same time'
nwe ke 'until'
met liki 'before'
ke srihpen 'for the reason of'
mweyen 'because'
tukun 'after'

It can be shown (Ibid.) that these forms are either prepositional in nature or nominal.¹¹

In adverbial clauses the *ah* determiner incorporates temporal deixis rather than spatial deixis:

- (22) *ah* 'past action'
uh 'present and future action'
an 'future action'
ac 'potential action'

With final determiner forms

- (23) [*ADV Ke kom ac som uh,*] *nga ac wi -kom.*
 when you will go det. I will accompany-you
 "When you go, I will accompany you."

- (24) [*ADV Nwe ke tuhlihk ah tuhkuh an,*] *el tiac som.*
 until child det. come det. he not go
 "Until the child comes, he won't go."

- (25) [ADV *Met liki pahkah ah tuhkuh ai:*] *eltahl oracni.*
 before typhoon det. come det. they work
 "Before the typhoon came, they worked."

Without final determiner forms

- (26) [ADV *Kom fin ac tuhkuh,*] *nga ac soanwe-kom.*
 you if will come I will wait -you
 "If you will come, I will wait (for) you."

or

[ADV *Fin kom ac tuhkuh,*] *nga ac soanwe-kom.*
 if you will come I will wait -you

- (27) [ADV *Fintwe el mas,*] *el tuh fah muhta lohm ah.*¹²
 only/if he sick he past indef. stay house det.
 "Only if he is sick, he used to stay (in) the house."

- (28) [ADV *Finnwe elos fahk nga-n tuhkuh, nga ac tiac.*
 even/if they say I -IRR come I will not
 "Even if they say I should come, I will not."

Thus, we may describe the features of adverbial clauses with final determiners in either of the following ways:

- a. Non-conditional, i.e., no occurrence of one of the 'conditional' introducers.¹⁴

or

- b. Introduced by nominal and/or prepositional forms.

Interrogatives differ from the previously described clauses in two ways:

- a. Clause-final determiners occur with independent interrogative clauses, while all the others occur with dependent or subordinate clauses.
 b. The irrealis form, *in* may freely occur in clauses with final determiner forms.

And so, the question arises as to what features of interrogatives are correlated with the occurrence of clause-final determiners, since determiner forms cannot occur with all interrogatives.

In the case of interrogatives, the clear correlation of clause-final determiners is with the WH word (or phrase) which introduces clause. The following Wh words (or phrases) introduce interrogatives which may occur with final *ah* forms:

(29) meac	'what'
suc	'who'
N ekahsr	'how many N'
N fuhkah	'which N'
ma ngac	'how old (i.e., thing when)'

The following Wh words (or phrases) introduce interrogatives which never occur with final *ah* forms:

(30) efuh	'why'
fuhkah	'how'
ngac	'when'
oyac	'where'
efuh kuh	'why'
fuhkah tuh	'how come'
piyac	'where'

Considering the introducers listed in (29) and (30), we list two differences between the groups:

- a. The introducers in (29) are nominal or contain a nominal.
- b. The introducers in (29) always occur in initial position in the question, which some of those in (30) occur in a non-initial position (as shown below).

With final determiners

(31) *Suc ollah nuknuk ah ah?* (Lee 1975:157)
 who wash clothes det.det.
 "Who washed the clothes?"

(32) *Mongo meac se orek pacl se uh?* (Lee 1975:157)
 food what det. made time det.det.
 "What food is made at this time?"

(33) *Imac fuhkah se el molelah ah?*
 field which det.he buy det.
 "Which field did he buy?"

Without final determiners

- (34) *Kom srem -lah fuhkah?*
 you stuck-perf. how
 "How did you get stuck?"
- (35) *Efuh nga enenuh?*
 why I need
 "Why do I need to?"
- (36) *Kom tuhkuh ngac nuh Kosrae?* (Lee 1975:161)
 you come when to Kosrae
 "When are you coming to Kosrae?"

In Good (a., In Press) I show that a reasonable description for the interrogatives with clause-final determiners is to say that they are equational sentences with the WH nominal question word (or phrase) the nominal that occurs first and the rest of the clause a nominal that is considered to be equational with the question word.

This occurrence, then, of clause-final determiners would not be an occurrence of the forms with dependent sentences, as the others are. However, these are added evidence for the claim that will be made in Section 5 concerning reference for the use of determiners with clauses.

These, then, are the characteristics of clauses with final determiners in Kosraean which are relevant to this discussion. (For further description and justification of the data presented, see Good, a., In Press.)

3. CLAUSES IN PONAPEAN AND MOKILESE WITH CLAUSE-FINAL DETERMINERS¹⁴

Ponapean and Mokilese also have clause-final determiners, but only with relative clauses.

3.1 Relative Clauses and determiners in Ponapean

Rehg (1981:144) lists a set of 'non-emphatic forms of demonstrative modifiers':

(37) Singular

- | | |
|---------------------|------------------------------|
| -e(t) ¹⁵ | 'this, by me' |
| -en | 'that, by you' |
| -o | 'that, away from you and me' |

Plural

<i>-ka(t)</i>	'these, by me'
<i>-kan</i>	'those, by you'
<i>-kau, -koa,</i> or <i>-ko</i>	'those, away from you and me'

Like Kosraean, this set of demonstrative modifiers (determiners, henceforth, for uniformity of terms) is inflected for spatial diexis.

The only form of determiner that Rehg (1981:343-349) shows as occurring finally in relative clauses is *-o* 'that, away from you and me'.

- (38) *I kanga-la rais [RC me ke pehleh-o].*¹⁶ (Rehg 1981:343)
 I eat -perf. rice REL you rehear-det.
 "I ate up the rice that you reheated."

- (39) *Ohl [RC (me) kohdo aio -o¹⁷] sareke-do sakau pwoat.*
 (Ibid.:346)
 man REL came yesterday-det. dug -up kava num./cl.¹⁸
 "The man that came yesterday dug up a kava plant."

In both (38) and (39) the final determiner form occurs on words, e.g. *pehleh-* 'reheat', and in places e.g. after *aio* 'yesterday' as an adverbial time word, that show that it is not a determiner occurring with a noun phrase.

In Kosraean, clause-final determiners occurring at the end of relative clauses occur after the determiner that was at the end of a noun phrase:

- (40) *Kuht lohng sramsram. sac sin mukul se [RC ma*
 we heard story det. from man det. REL
liye e sac ah].
 saw fire det. det.
 "We heard the story from the man who saw the fire."

In Good (a. In Press) it is pointed out that noun phrases never take two determiners from any of the series of determiners.

Does this occur in Ponapean? Rehg (1981:346) states that many speakers reject two of these determiner suffix forms at the end of relative clauses. For example, the following is not generally acceptable:

- (41) *Kidi [RC me ngalis seri -et -o] pahn kamala.*
 dog REL bit child-this-det will killed
 "The dog that bit the child will (be) killed."

However, he also points out that not all speakers reject this form with two suffixes. It seems from Rehg's discussion of relative clauses that:

- 1) the determiner suffix *-o* may occur on any relative clause and, in fact, may be obligatory. He gives no examples of relative clauses without this final suffix.
- 2) there is only one type of relative clause, though, as shown in Example (39) the relative marker is optional (what I will choose to call a 0 relative marker for consistency).

If Ponapean relative clauses cannot be moved (and Rehg gives no mention of the possibility) and the suffix *-o* is always present clause-final, we may, as in Kosraean, have some evidence that the relative clauses in Ponapean are at least +RES(TRICTIVE).

There is also some evidence of an irrealis (-R(EALIS)) form such as that found in Kosraean. A possible form occurs in some infinitive clauses, purpose clauses and at least some complement clauses:

- (42) *I mweidehng Soulik en sumwoak.* (Rehg, 1981:355)
 I permitted Soulik IRR? smoke
 "I permitted Soulik to smoke."
- (43) *Menpihro pihr-do [PURPOSE pwe en kang sehu].* (Ibid. 341)
 bird flew-here so/that IRR? eat sugarcane
 "The bird flew here so that (it) could eat sugarcane."
- (44) *I men [COMPL Soulik en pwurala].*
 I want Soulik IRR? return
 "I want Soulik (to) return."

If this form is an IRR form, and if it occurs only in these two kinds of clauses and never in the relative clauses, then we might be able to call the relative clauses +R(EALIS). This possibility seems a good one as Rehg specifically lists this form as only occurring in these clauses. That the form is IRR remains a topic for further research. However, the data of the types of clauses suggests that this is a good possibility.

It is clear, then, that in Ponapean, which is perhaps a closely related language to Kosraean, there is a final determiner form in relative clauses and that

there are possibly similar clause characteristics for the relative clauses, i.e., [+RES] and [+R].

How about Mokilese, which is more closely related to Ponapean? The next section gives details of clause-final determiners in Mokilese.

3.2 Clause-final determiners in Mokilese

In Mokilese there are a set of demonstratives, which we list below (Harrison 1976:78):

(45) Singular

- e, -i²⁰ 'this'
 -en, -n 'that (near you)'
 -o, -u 'that'

Plural

- kai 'these'
 -kan 'those (near you)'
 -ok, -k 'those'

Sohn (1973) states that it is possible for a demonstrative (henceforth determiner or det., in this paper) to be clause-final for a relative clause, giving the following example:

- (46) *Ioar woal [RC ma ngoah²¹ kapangg-e].* (Sohn 1973:381)
 behold man REL I saw -det.
 "It was this man that I saw."

- (47) *Ngoah kijradki jeripein [RC o kin nimen lallal-ok].* (Ibid.)
 I hate girl REL habit. like talk -det.
 "I hate the girl (who) likes to talk."

From Sohn's examples, it can be seen that in Mokilese, unlike Ponapean where only the determiner form -o 'that, away from you and me' can occur finally in relative clauses, any of the above determiner forms may occur clause-final in relative clauses.

Sohn attributes this occurrence of clause-final determiner forms to the geographical closeness of the island of Mokil and the island of Kosrae (which, as I have shown, makes extensive use of this type of construction).

However, it can be pointed out that the Ponapeic language, Pingilapese, spoken by the people of the island of Pingilap, which is situated about half-way between Mokil and Kosrae, shows no such use of demonstrative (or determiner) forms.

There is a general set of demonstratives which seem to be morphologically related to the demonstratives (henceforth, called determiners) in Ponapean and Mokilese (Gooch b., In Press):

- | | | |
|------|--------------------------------|--|
| (48) | <i>mae</i> ²² | 'this, close to speaker' |
| | <i>men, maen</i> ²³ | 'that, by listener' |
| | <i>mwo, mwoa</i> | 'that, away from speaker and listener' |
| | <i>pwi</i> | 'the, plural' |

These are the only determiners that occur with noun phrases in Pingilapese, though, of course, they are not obligatory.

However, they never occur finally in relative clauses:

- (49) *Rahn eu [RC mae kae ahdoa Uh] ae kaesaeu.*
 day one REL you came Uh it rain
 "The day that you came to Uh, it rained."

not

*Rahn eu mae kae ahdoa Uh *men] ae kaesaeu.*
 *mae
 *mwoa

- (50) *Ngaei en kukihda kaehp eu [RC (me) ke*
 I compl. cook yam one REL you

weirida ahiyoahwah].

dug yesterday

"I cooked the yam which you dug yesterday."

not

*ke weirida ahiyoahwah *men].*
 *mae
 *mwoa

It seems, then, that geographical distance is not the key factor in the occurrence of the phenomena of clause-final determiners in relative clauses in Mokilese²⁴

4. HISTORICAL SYNTAX AND CLAUSE-FINAL DETERMINERS AND CLAUSE FEATURES

Let us review, then, the data concerning clause-final determiners and clause features in the languages we have looked at.

The most extensive use of clause-final determiners occurs in Kosraean and the correlation of the forms with clause features can be easily seen in the following chart:

RC'	COMPL	ADV	INTER R
+R	+R	+R	Nominal Introducers
+RES	Prepositional Introducers	Prepositional and Nominal Introducers (or conditional introducers]	

In both Ponapean and Mokilese there were clause-final determiners with relative clauses. For Ponapean, the material available is sufficient to speculate that the relative clauses are perhaps both +R and +RES, as in Kosraean. I do not have sufficient data from Mokilese to say anything concerning clause features.

I add here, that, as Lee (1975) states, there is a possibility that the use of clause-final determiners in complements and in adverbials, at least, come from historical relative clauses. If they do, this adds weight to my argument concerning 'reference' in Section 5.

As I have stated above, the fact that Pingilapese is closer to Kosraean than Mokil and yet does not have clause-final determiners, makes it more unlikely that Mokilese borrowed this phenomena from Kosraean because of closeness geographically. Instead, it seems more likely that both Ponapean and Mokilese have either inovated this separately or both retained it. When we add to it the fact of Kosraean making extensive use of clause-final determiners, it seems unreasonable to me that all three languages have inovated such a phenomena. (I return to this topic in Section 5.)

5. THEORETICAL IMPLICATIONS

In this section we briefly discuss implications of the data in this paper for comparative syntax in Micronesian languages and also discuss implications of the discussion for theory of syntax.

5.1 Clause-final determiners and comparative syntax

As stated in Section 4, we have a spread of the use of clause-final determiners in Micronesian languages.²⁵ There are two Ponapeic languages, Mokilese and Ponapean, which have clause-final determiners, but only in relative clauses. The third language, Kosraean has extensive use of clause-final determiners including relative clauses, complement clauses and adverbial clauses. The language of the island situated geographically between Mokil and Kosrae, Pingilapese, has *no* clause-final determiners.

Though Pingilapese requires more careful research in the area of relative clauses and comparison with the Ponapean and Mokilese, it seems that, on the surface, we can put forth the theory that perhaps clause-final determiners in the languages described may be an older syntactic form, not an innovation in the three languages. As such, it may imply a closer relationship between the Ponapeic languages and Kosraean than has been found thus far.

I leave further research on this possibility to those who are working more closely with comparative syntax.

5.2 Clause-final determiners and syntactic theory

Commonly, determiners are thought of in two ways: 1) as indicating that a noun phrase is specific and 2) in terms of reference.

However, when we consider that determiners can occur finally in clauses and with at least some evidence synchronically (see Examples (5) and (6) and Good a., In Press) of no nominal to which they are related at all, we might ask how this relates to what is known of determiners.

I will not here go into a discussion of previous works on determiners. Rather, I will attempt to 'open a window' on dependent clauses which can be further explored. I will first suggest that since restricted realis relative clauses obviously refer to a head noun and are probably definite, too, we would expect that they

would be the dependent clauses which would be likely to have clause-final determiners.

Sohn (1973) theorizes that these determiners in Mokilese are moved by some type of movement transformation. Since both Ponapean and Mokilese have no separate determiner with the head noun, this is, of course, a possibility. But, Kosraean can also have a determiner with the head noun (see Good a, In Press). Theoretically, at least, then such a movement transformation does not cover the occurrences of the data given.

If specificity and referring are the key functions of determiners, then the Kosraean data suggests that not only may relative clauses be specific and refer, but that some complement clauses and some adverbial clauses may have at least one of these characteristics so that they may also retain a clause-final determiner, perhaps when other relative clause features are lost.

Thus, I think that we may assume that either specificity or reference is present in the complement and adverbial clauses. Since I am not quite sure what would be specific in clauses without any obvious head noun, it seems more likely that reference is the function of the determiners in clauses. For complements, they might be considered 'factive' in some sense. For adverbial clauses, it is obvious that the adverbial clauses with clause-final determiners in function denote time, location, purpose, and reason (Example (21)). These concepts in Micronesian languages are encoded morphologically in words and it is no surprise that they are also encoded in clauses.

For interrogatives, it is reasonable to suggest that, if our description of them as equational is correct, the clause with the determiner refers to the nominal WH word (or phrase). This area needs further research in this particular, but it lends some weight to my contention that 'reference' is the function of the determiners in clauses.

But, then, also, we need to say that a feature of 'reference' is not only a property of noun phrases, but of clauses. Furthermore, 'reference' may include not only explicitly stated concepts, but perhaps concepts not stated within the clause, but perhaps encoded in other words in the language. The idea that the concepts are encoded elsewhere may not be important but it is true for the occurrences of

determiners in at least Kosraean. In some sense, then, 'reference' can also be 'implied' by the clause.

It is obvious that further research is needed in other languages where similar phenomena occur to see if perhaps 'reference' as a concept is not restricted to nominals. But perhaps this paper will encourage someone who knows of other instances to investigate further.

NOTES

1. Marshallese, Ponapean, Kosraean and Trukese are considered to be nuclear Micronesian languages in the sense that the other languages are closely related to one of these. The group of languages (dialects?) which are considered to be Ponapeic are Ponapean (Northern and Southern dialects), Mokilese, Pingilapese, and Ngatikese.
2. Of the Ponapeic languages (dialects), only Ponapean and Mokilese exhibit determiners occurring with clauses. These are compared with Kosraean, though it is not known which of the nuclear Micronesian languages Kosraean is most closely related to. However, Kosraean has the most extensive occurrence of clause-final determiners and thus lends the most to the discussion in this paper.
3. The orthographic symbols that need explanation are the following:

<i>ah</i>	-	low front vowel
<i>ih</i>	-	high central vowel
<i>oh</i>	-	low-mid back vowel
<i>uh</i>	-	low-mid central vowel
<i>uc</i>	-	mid central vowel
<i>ac</i>	-	low-mid front vowel
<i>sr</i>	-	palatal fricative
<i>w</i> after a consonant	-	velarization
<i>y</i> after a consonant	-	palatalization

The remaining orthography is sufficiently close to the English equivalent for the purposes of this paper.

4. S.m. refers to the term 'subject marker'. If a proper name occurs as a subject in Kosraean, the third person singular pronoun occurs after the proper name.
5. REL stands for 'relative marker'.

6. Compl. is the complementizer.
7. Lee (1975:350) says that the 0 relative marker occurs only if the head noun is not the subject of the clause. My own data does not bear this out since I have subject nouns with relative clauses with a 0 relative marker.
8. There are further characteristics of relative clauses with and without final determiners that concern the determiners which can occur with the head noun phrase. For details of these, see Good a. In Press.
9. Nonrestrictive relative clauses may be extraposed, but not restrictive relative clauses.
10. The irrealis *in* never occurs in an independent adverbial clauses at all, though it may occur in a clause dependent on the main adverbial clause, e.g. Example (28).
11. These forms seem to all include a form of *fin*, i.e., *fin-nwe*, *fin-twe*, and perhaps the assimilated form, *fuh-nuh*. The forms *nwe*, *twe*, and *nuh* are well-attested forms of pre-verbal tense-aspect forms. In Kosraean, tense-aspect forms may be combinations of one or more of the simple forms. Thus, it is not unreasonable to suppose that these introducers are also formed in this manner. In addition, we note that these conditional introducers, in opposition to the other introducers of adverbial clauses, may also occur in the pre-verbal position in the clause.
12. Some are clearly nominal and others either include the prepositional *ke* or other prepositions in the language. In Good, In publication, extensive defense of this is given.
13. In this example and the other examples of 'conditional' adverbials, the introducer may also occur in the pre-verbal position.
14. It is possible to make a case for a description of these introducers and *in* 'IRR' as a morphological set of 'irrealis forms' (Good, a., In Press). It seems logical that forms that indicate conditional can be said to be irrelais.
15. This data is more limited as this area has not as yet been researched carefully in the languages described.
16. The final *t* is optional (Rehg 1981:144).
17. In Ponapean the following symbols need some explanation:

ng	-	velar nasal
t	-	retroflexed affricate (maybe palato-alveolar)

pw	-	velarized labial stop
mw	-	velarized labial nasal
oa	-	lower-mid back vowel
h after a vowel	-	vowel length

18. I've written this as double *o* merely so that the morpheme break can be indicated.
19. This is a numeral classifier form used for long objects.
20. We leave for further research the question of whether *Soulik* is a raised object in the main clause or the subject of the complement clause. It is not relevant to this paper.
21. The differing forms are used for stems that end with consonants (the first one of each pair) and those that end with vowels.
22. In Mokilese, the following sounds need explanation:
- | | | |
|----|---|---|
| ng | - | velar nasal |
| pw | - | velarized labial stop |
| mw | - | velarized labial nasal |
| j | - | palatal stop (sometimes affricate or fricative) |
| oa | - | lower-mid back vowel |
23. Some symbols for Pingilapese:
- | | | |
|----|---|--|
| ae | - | upper-mid front vowel |
| pw | - | labialized labial stop |
| mw | - | labialized labial nasal |
| oa | - | lower-mid back vowel |
| d | - | voiceless alveolar stop, varying to dental, sometimes voice, sometimes voiceless |
| h | - | after a vowel specifies a long vowel |
24. In Pingilapese, not enough phonological research has as yet been done to decide on alternations in vowels. And so I have listed the variations as they occur in my data.
25. However, we note that relative clauses in Pingilapese need further study. In Good (b. In Press) there is a short discussion of relative clauses in Pingilapese.
26. Sohn (1973) lists no other Micronesian languages as having occurrences of clause-final determiners in relative clauses. It seems unlikely, if I am correct in

this paper, that a language will have clause-final determiners in complements or in adverbials if there are none in relative clauses. Thus, it seems these are the only Micronesian languages with clause-final determiners.

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