# 6 *Internal subgrouping and pronominal paradigmaticity: the case of Nuclear Micronesian*

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## 1 Introduction[1]

There are at least two tree models available in the literature which depict the internal genetic relationships of the Nuclear Micronesian languages: (i) what Rehg (1995:311) calls the flat tree model; and (ii) the stratified tree model proposed by Jackson (1983:433). The former, foreshadowed in Bender (1971), is reproduced in Figure 1, and the latter in Figure 2. Note that the broken lines in the stratified tree model indicate where 'the historical relationships are not reasonably clear' (Jackson 1983:433).[2]

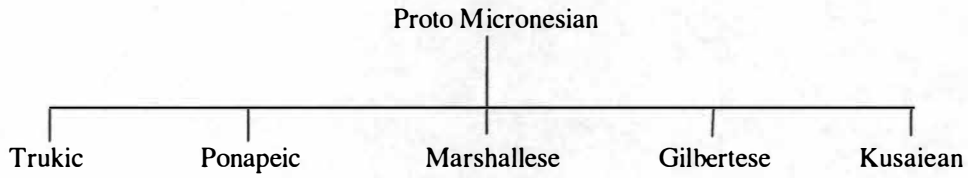


**Figure 1:** A flat tree model of the Nuclear languages of Micronesia

1 I am indebted to Barry Blake and John Bowden for their most useful comments on earlier drafts of this paper. The abbreviations used are: Kir = Gilbertese, Ksr = Kusaiean, Map = Mapian, Mc = Micronesian, Mok = Mokilese, Mrs = Marshallese, Mrt = Mortlockese, PCMc = Proto Central Micronesian, PCTk = Proto Central Trukic, PEO = Proto Eastern Oceanic, PETk= Proto Eastern Trukic, PMc = Proto Micronesian, PNTk = Proto Nuclear Trukic, POc = Proto Oceanic, Pon = Ponapean, PPp = Proto Ponapeic, PSTk = Proto Sonsorol-Trukic, PTk = Proto Trukic, PTk-Pp = Proto Trukic-Ponapeic, Pua = Pulo Annian, Pul = Puluwatese, PWMc = Proto Western Micronesian, PWTk = Proto Western Trukic, Sns = Sonsorolese, Stw-Crl = Satawalese-Carolinian, Trk = Trukese, Uli = Ulithian, Wol = Woleaian.

2 Jackson (1986:214) proposes a stratified tree model which seems to be less circumspect than the one in Figure 2 with respect to the position of Ulithian (and probably Pulo Annian), and Ponapeic (or his PPp).

John Bowden and Nikolaus Himmelmann, eds *Papers in Austronesian subgrouping and dialectology*, 111–128.
Canberra: Pacific Linguistics, 2004.

The flat tree model, in which five subgroups are recognised, is also adopted by Bender and Wang (1985:80), and Rehg and Bender (1990:2), pending further evidence for higher-level subgroups. The received view in Micronesian linguistics seems to be that the flat tree model may not be correct, especially in the light of the evidence that Jackson (1983; 1986) adduces against it (e.g. Rehg 1995:311).[3] The stratified tree model in Figure 2, on the other hand, has not yet been accepted in full by Micronesian specialists; Rehg and Bender (1990:24), for instance, point out cautiously that '[w]hether the other languages are coordinate with [Trukic and Ponapeic], or whether higher-level subgroups [as represented in Figure 2] exist within Micronesian is less certain [than whether Trukic and Ponapeic are well-defined subgroups within Micronesian]' (also see Rehg 1995:317 for a similar point of view).

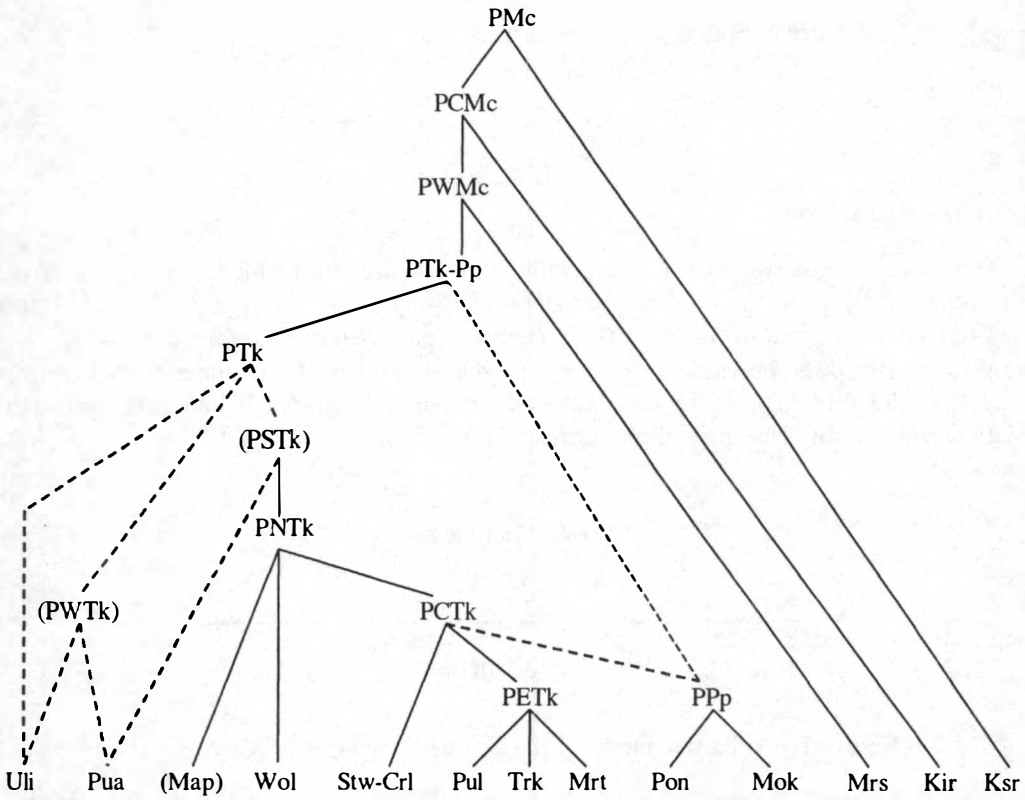


**Figure 2:** Hisorical relationships within the Micronesian subgrouping of Oceanic

In common with others who previously commented on the family tree theory (e.g. Bloomfield 1933:311–318; Southworth 1964; Grace 1986:1), Rehg (1995:313) identifies the 'use of branching trees to depict linguistic relationships' as the major drawback of such tree models as those in Figures 1 and 2, because it is totally implausible to accept 'the uniform parent languages and their sudden and clear-cut splittings as historical realities' (Bloomfield 1933:311). Apart from the question as to whether PMc was a completely uniform parent language, 'if we interpret [Jackson's tree] as a literal model of migration patterns, then we must conclude that Micronesia was settled by a series of discrete moves

3 Rehg (1995:311) also points out that, if the flat tree model is wrong, the explanation based on geography of the patterns of Nuclear Micronesian languages (e.g. Irwin 1992) is mistaken.

through the islands, and that at each point where we identify a subgroup, there was a pause of sufficient duration to allow a unique set of innovations to develop by which we identify the subgroup' (Rehg 1995:314). Rehg (1995:314) thinks that this is an unlikely scenario of the settlement of the entire region of Micronesia. As evidence for this, he points to Jackson's (1983:413–431) work on the Trukic/Ponapeic subgroup(s). Being well-defined subgroups within Micronesian by virtue of sharing a substantial number of unique innovations, Trukic and Ponapeic prove to be problematic in that there are several major innovations which are not due to drift or independent development, but are uniquely shared only by Ponapeic and the Central Trukic languages, e.g. spirantisation and loss of PMc **t*. This is why PPp is connected to both PTk-Pp and PCTk by broken lines in Figure 2 (see Jackson 1983:421–428 for detailed discussion).

These fundamental problems with the family tree model notwithstanding, Rehg (1995: 317–318) is of the opinion that '[t]here are ... circumstances under which family trees can be employed without distorting historical facts ... [w]hen speech communities divide from each other at a single point in time, and when they remain relatively or totally isolated, or when, if contact occurs, its effects can be discerned' (see e.g. Rehg and Bender 1990 for such contact-induced effects in Mokilese). Rehg (1995:317–318) believes that most, if not all, higher levels of linguistic relationships within Micronesia may be of this type. He also points to the insightful works of Robert Blust, Andrew Pawley, and Malcolm Ross, who all make use of trees when and where appropriate.[4]

But, as Rehg (1995:318) himself asks, the question may then be: 'How in our research do we determine when trees are appropriate?' Part of the answer is, Rehg (1995:318) suggests, that the distribution of all innovations must first meticulously be tracked 'without regard to preconceived notions of language and subgrouping boundaries', and can then perhaps be compared with available (or competing) tree models.

Rehg's suggestion is taken here to be a call for papers to identify innovations or properties which can be utilised for an understanding of the internal genetic relationships of the Nuclear Micronesian languages. The primary purpose of the present chapter is to identify and document one such property: the paradigmaticity of the focus and possessive pronoun systems.

## 2 Paradigmaticity as probative evidence

Nichols (1996) argues convincingly that demonstration of genetic relationships among languages through systematic correspondences in vocabulary is not the operating procedure for the application of the comparative method. In fact, such demonstration can only be carried out by adducing 'evidence [that] is primarily grammatical and includes morphological material with complex paradigmatic and syntagmatic organization' (Nichols 1996:41). For example, the segment of adjectival morphology of Latin and Greek in Table 1 is regarded as such evidence in that it has what Nichols (1996:46) calls 'multidimensional paradigmaticity'.

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4 Ross (1988:9–11), in an attempt to make a distinction between language separation and dialect differentiation in genetic trees, adopts both standard branching nodes, and innovative double horizontal lines, the latter intended to capture dialectal linkages. Rehg (1995:317) indeed makes use of Ross's double horizontal lines in order to represent in his genetic tree such problematic innovations as the spirantisation and loss of PMc **t* discussed earlier.

**Table 1:** Partial adjectival morphology of Latin and Greek

| | Masculine | Feminine | Neuter |
|---|---|---|---|
| **Latin:** | | | |
| Nominative | *-us* | *-a* | *-um* |
| Accusative | *-um* | *-am* | *-um* |
| **Greek:** | | | |
| Nominative | *-os* | *(*)-ā* | *-on* |
| Accusative | *-on* | *(*)-ān* | *-on* |

Table 1 involves two dimensions of paradigmaticity: (i) case (nominative and accusative); and (ii) gender (masculine, feminine, and neuter). Number, if also included in Table 1, would be a third dimension. Moreover, in both Latin and Greek the masculine and neuter adjectival endings are identical to **o*-stem noun endings, and the feminine adjectival endings to **a*-stem noun endings. This can be taken to be a fourth dimension of paradigmaticity (Nichols 1996:46). There are, in addition to the abstract paradigmaticity, phonologically specific or concrete fillers (or forms) and grammatically specific (or designated) functions for the slots in the paradigm in Table 1. This entire system with multiple paradigmaticity and a degree of phonological and functional specificity can thus be understood to constitute a piece of probative evidence for the genetic relatedness of Latin and Greek.[5]

At first glance, 'personal pronouns offer a good example of a systematically structured and phonologically filled lexical field' (Nichols 1996:54), because they may involve persons (first, second, and third), numbers (singular, dual, plural etc.), functions (focus, subject, object, possessive etc.) and even genders (animate, inanimate, human, nonhuman etc.). But Nichols (1996:54) hastens to sound a warning that they do not constitute probative evidence for genetic relatedness, because 'the forms of first and second persons, and of singular and plural numbers, are not independent; that is, in a personal pronoun system the relation of paradigmaticity to coding phonological form is nonarbitrary'. In other words, personal pronouns are very likely to exhibit 'their paradigmatic relationships and their deictic semantics' by means of consonant symbolism or 'phonosymbolism'.[6] Thus, 'the presence of a nasal in at least one of the personal pronoun forms is to be expected and the presence of a labial in one of the forms makes it quite likely that the other person or number form (or both) will contain a dental' (Nichols 1996:54). For this reason, personal pronouns may not freely be accepted as probative evidence of genetic relatedness (also see Meillet 1958:89–90).[7]

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5 For instance, Meillet (1958:91, 97) is quoted by Nichols (1996:47) as saying (Nichols's own translation of both quotations):

> Grammatical correspondences are proof, and rigorous proof, provided one makes use of the material detail of the forms and that it is established that particular grammatical forms used in the languages under consideration go back to a common source.
>
> While one can initially establish vocabulary resemblances between two or several languages as an indication of where to do further research, this cannot furnish a definitive demonstration; vocabulary can only orient the research, and proof comes from elsewhere.

6 In the present chapter, I will not be concerned with determining whether or not phonosymbolism really is inherent in personal pronouns. Nonetheless, one cannot be too careful to be mindful of such phonosymbolism.

7 In order to strengthen her argument in support of phonosymbolism in personal pronouns, Nichols (1996:56) also quotes Meillet (1958:89–90) as saying (Nichols's translation):

Personal pronoun systems, however, can contribute to the establishing of internal genetic relationships where phonosymbolism can be kept at bay, as it were. Suppose a given group of languages are taken on the basis of other evidence to form a genetic group, but their internal-subgrouping details are yet to be worked out or are not well understood. Under these circumstances, since it is established at least that these languages all come from a single source, there is no need to be overly wary of phonosymbolism in their personal pronoun systems. The languages in question are expected to have more or less inherited the pronoun system of their parent language. If form/function relationships in the personal pronoun system of any of these languages cannot be traced back to the parent language (i.e. abstract paradigmaticity, phonologically specific fillers, and grammatically specific functions), these can then be analysed as innovations for purposes of internal subgrouping. In other words, the phonosymbolism residual in personal pronoun systems can be ignored in the context of an already established genetic group, and the paradigmaticity of personal pronoun systems can reliably be employed for purposes of internal subgrouping. Indeed, linguists (e.g. Blake 1989, 1990; Ross 1996) have successfully made use of personal pronouns in carrying out comparative work without being too much concerned about phonosymbolism in personal pronoun systems.

With phonosymbolism being 'controlled' in this way, one can proceed to establish systematic form/function correspondences that may be embodied in the equivalent personal pronoun systems across the languages in question. This can be called an 'intrasystemic' comparison. For instance, the pronoun system X (e.g. third person singular) in Language A will be compared with the corresponding pronoun system X (e.g. third person singular) in Language B in terms of both form and function, and so on, as schematised in Figure 3, where double-headed arrows represent the 'loci' of comparison. The pronoun system X here can be one of the pronoun systems that may exist in both Language A and Language B, e.g. focus, subject, object, or possessive.

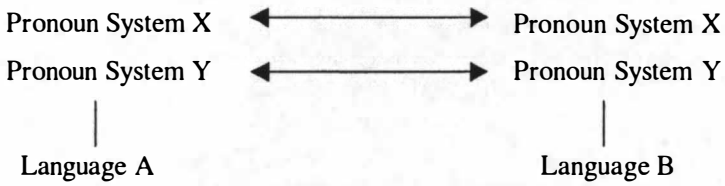


**Figure 3:** Intrasystemic comparison

Systematic form/function correspondences cannot only be sought in the equivalent personal pronoun systems across different languages as in an intrasystemic comparison, but also across the different personal pronoun systems in one and the same language. In what may be called an 'intersystemic' comparison, the different personal pronoun systems in a single language will be compared. For example, the focus pronoun system of Language A

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It goes without saying that in order to establish genetic relatedness of languages one must disregard everything that can be explained by general conditions common to all languages. For instance, pronouns must be short words, clearly composed of easily pronounced sounds, generally without consonant clusters. The consequence is that pronouns are similar in almost all languages, though this does not imply a common origin. On the other hand, pronouns often show little resemblance in languages that are otherwise quite similar [...] Therefore, pronouns must be used with caution in establishing relatedness of languages.

will be compared with the subject pronoun system of the same language in terms of both form and function, and so on, as schematised in Figure 4 (where double-headed arrows represent the 'loci' of comparison).

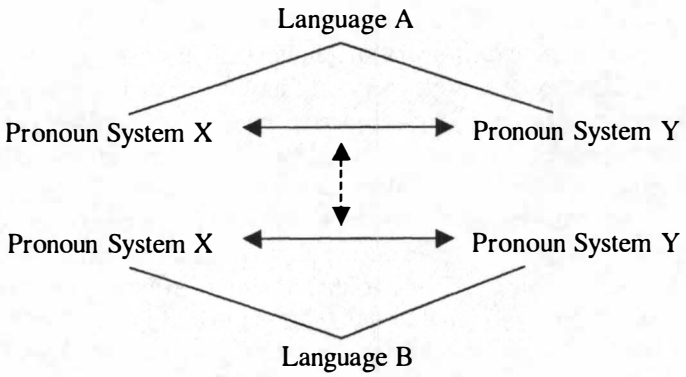


**Figure 4**: Intersystemic comparison

Once this type of investigation has been carried out for each and every one of the languages in a genetic group, it will in turn be compared across the languages. This explains why there is also a broken double-headed arrow connecting the intersystemic comparison of Language A and that of Language B in Figure 4. For instance, suppose the third person singular focus and subject pronouns in Language A and Language B have a sequence of a consonant and a vowel in common, whereas the third person singular focus and subject pronouns in Language C and Language D share a completely different sequence of a consonant and a vowel. This information may then be interpreted to be suggestive of A and B being closer to each other as opposed to C and D, or C and D being closer to each other as opposed to A and B, within the given genetic group.

Evidence has over the past decades been accumulated to the effect that the Nuclear Micronesian languages are recognised as a well-demarcated subgroup within Oceanic (Bender 1971; Bender 1984; Bender & Wang 1985; Jackson 1983, 1986; Pawley & Ross 1995), although the exact higher-level subgrouping of these languages has not yet been arrived at. Thus, it will be interesting to ascertain whether or not the personal pronoun system can be (re)scrutinised with a view to throwing some light on the internal genetic relationships of the languages, which possess as many as four different personal pronoun systems: (i) focus (also known as absolute or independent), (ii) subject, (iii) object, and (iv) possessive.[8] This is not to say, of course, that the personal pronoun system has never been utilised in Micronesian comparative linguistics for subgrouping purposes. Quite the contrary. Jackson (1983:357–363, 1986:205–207) examines the personal pronoun systems of a sizeable number of Nuclear Micronesian languages with this very goal in mind.

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8 For the sake of convenience and comparability, I ignore here the issue as to whether the subject and object pronouns in the Nuclear Micronesian languages are referential pronouns or 'functionally ambiguous agreement markers' (Bresnan & Mchombo 1987). For detailed discussion, see Song (1994:523–547).

## 3 Internal subgrouping of Nuclear Micronesian and pronoun systems

The PMc personal pronoun system reconstructed by Jackson (1983:358–359; 1986: 205–207) is reproduced in Table 2, along with the supporting data from a number of Nuclear Micronesian languages.[9]

**Table 2:** Micronesian personal pronoun systems in Jackson (1986)

| | | *PMc | Ksr | Kir | Mrs | Pon | Mok | *PTk |
|---|---|---|---|---|---|---|---|---|
| **Focus** | | | | | | | | |
| | 1sg | **ŋau* | *nga* | *ngngai* | *ña* | *ngehi* | *ngoahi* | **ŋaŋu* |
| | 2sg | **koe* | *kom* | *ngkoe* | *kwe* | *kowe* | *koawoa* | **koe-ña* |
| | 3sg | **ia* | *el* | *ngaia* | *e* | *ih* | *ih* | **ia* |
| | 1pl.incl | **ki(t,c)a* | *kuht* | *ngaira* | *kōj* | *kit-* | *kihs* | **kica* |
| | 1pl.excl | **kamami* | *kitacl* | – | *kōmmem* | *kiht* | – | **kaamami* |
| | | **kami* | – | – | *kōm* | – | *kam-* | **kami* |
| | 2pl | **kamii* | – | *ngkamii* | *komi* | – | – | **kamii* |
| | | **kamwu* | *komtacl* | – | *kom* | *kumw-* | *kamw-* | – |
| | 3pl | **ira* | *eltahl* | *ngaiia* | *er* | *ir-, ihr* | *ihr* | **ira* |
| **Subject** | | | | | | | | |
| | 1sg | **ú* | @ | *i* | *i-* | *i* | @ | **ú* |
| | 2sg | **ko* | @ | *ko* | *ko-* | *ke* | @ | **ko* |
| | 3sg | **e* | @ | *e* | *e-* | *e* | @ | **e* |
| | 1pl.incl | **t(i,e)* | @ | *ti* | *je* | @ | @ | **Ti* |
| | 1pl.excl | **kami* | @ | – | @ | *se* | @ | **kami* |
| | 2pl | **kamwu* | @ | *kam'* | @ | @ | @ | **kamwu* |
| | 3pl | **ra* | @ | *a* | *re-* | @, *re* | @ | **re* |

9 As can be seen in Table 2, Jackson sets up doublets for the first person plural inclusive focus and object pronouns (**ki(t,c)a*), the first person plural exclusive focus and object pronouns (**kamami* and **kami*), and the second person plural focus pronoun (**kamii* and **kamwu*). He first points out that in the case of the first person plural inclusive pronoun **ki(t,c)a* the difference in the grade of the medial consonant is also reflected in other Oceanic languages (e.g. Fijian) (also see below). He (1986:205) argues, then, that the postulation of the doublets for the second person plural focus pronoun, and the first person plural exclusive focus and object pronouns is only confined to the focus pronoun system, because in PMc focus and object pronouns were not distinct in the plural, and because the PMc plural focus pronouns in fact functioned as object pronouns (Harrison 1978:1082). Jackson (1986:205) also draws attention to the fact that one member of each of the doublets is identical to the corresponding reconstructed subject pronoun. He interprets this to be suggestive of there having been a confusion in pre-PMc between focus and subject pronouns with the effect that subject pronouns were conscripted into service as focus pronouns by the time of PMc. In pre-PMc, then, **kami* and **kamwu* were subject pronouns, whereas the other members of the doublets, **kamami* and **kamii*, were focus pronouns (Jackson 1986:205).

| | *PMc | Ksr | Kir | Mrs | Pon | Mok | *PTk |
|---|---|---|---|---|---|---|---|
| **Object** | | | | | | | |
| 1sg | *-*ai* | -*yuh* | -*ai* | -*eō* | -*ie* | @ | *-*ai* |
| 2sg | *-*ko* | @ | -*ko* | -*eok* | -*uhk* | @ | *-*ko* |
| 3sg | *-*a* | @ | -*a* | -*e* | -*Ø* | @ | *-*a* |
| 1pl.incl | **ki(t,c)a* | @ | -*(i)ra* | @ | @ | @ | **kica* |
| 1pl.excl | **kamami* | @ | – | @ | @ | @ | **kamami* |
| | **kami* | @ | – | @ | @ | @ | **kami* |
| 2pl | **kamii* | @ | @ | @ | @ | @ | **kamii* |
| 3pl.HUM | **ira* | @ | -*ia* | @ | @ | @ | **ira* |
| 3pl.INA | *-*ni* | – | – | – | – | – | **nini* |
| 3pl.BNP | *-*xi* | – | -*i* | – | – | – | *-*i* |
| **Possessive** | | | | | | | |
| 1sg | *-*xu* | -*k* | -*u* | -*/h/* | -*i* | -*i* | *-*i* |
| 2sg | *-*mwu* | -*m* | -*m'* | -*m*, | -*mw* | -*mw* | *-*mwu* |
| 3sg | *-*ña* | -*Ø*, -*l* | -*na* | -*n* | -*Ø* | -*Ø*, -*n* | *-*ña* |
| 1pl.incl | *-*ca* | -*sr* | -*ra* | -*d* | -*t*- | -*s*- | *-*ca* |
| 1pl.excl | *-*mi* | -*ktacl* | – | -*m* | -*t* | -*m* | *-*mi* |
| | *-*mami* | – | – | – | – | – | *-*mami* |
| 2pl | *-*mii* | -*mtacl* | -*mii* | -*mi* | -*mw*- | -*mw*- | *-*mii* |
| 3pl | *-*(i)ra* | -*ltacl* | -*ia* | -*er* | -*Vr*- | -*Vr*- | *-*ira* |

**Note:** @ = the focus pronoun used for this function, BNP = before NPs, excl = exclusive, HUM = human, INA = inanimate, incl = inclusive, pl = plural, sg = singular

Jackson (1983:357–363) draws only one conclusion from the data in Table 2 for purposes of internal subgrouping, however. He points out that the Gilbertese third person plural subject pronoun reflects PEO **da* (Pawley 1972:67), whereas Proto Trukic, Ponapean, and Marshallese all reflect **re*. He then takes the form **re* to be a shared innovation (Jackson 1983:362, 435), whereby the Trukic and Ponapeic languages, and Marshallese are subsumed under PWMc, as opposed to Gilbertese and Kusaiean (see Figure 2).

The Nuclear Micronesian languages have as many as four pronoun systems, thereby exhibiting a very high degree of multiple paradigmaticity. Even if the distinction between inclusive and exclusive in the first person plural is ignored, the four pronoun systems (focus, subject, object, and possessive) will each have at least two dimensions of paradigmaticity: (i) person (first, second, and third); and (ii) number (singular, and plural).[10] But, as has been shown above, the personal pronoun systems have been little used in Nuclear Micronesian comparative linguistics. Why could this be so?

This question may perhaps best be answered by Harrison's (1978) diachronic scenario about the Micronesian personal pronoun system. He postulates that in pre-PMc the focus pronouns all functioned as object pronouns, and that the object pronouns gradually became fused with the verb to varying degrees (i.e. so-called verb–object attraction; cf. Song 1994). Thus, 'the reconstructed PMc pronoun system reflects an early stage of verb–object attraction, having begun in the singular without affecting the plural forms and moving from

10 The personal pronoun system of the Ponapeic languages has an additional number, namely dual.

third person to first person (Harrison 1978:1095).'[11] He (1978:1098) is also of the opinion that the verb–object attraction process, in full swing in PMc, went to completion 'at the peripheries of geographic Micronesia', i.e. Gilbertese, and Trukic.[12] 'Closer to the geographic core', i.e. Kusaiean, Ponapean, Marshallese, and Mokilese, on the other hand, there seem to have been 'moves in the opposite direction', i.e. some replacement of object pronouns by focus pronouns, 'along with moves in the direction of closer morpho-syntactic binding of verb and object pronoun'. He (1978:1099) suggests that what interfered with the verb–object attraction process in the core of Micronesia was the spread of final-vowel deletion, which gave rise to 'canonical shapes not amenable to the suffixation [or fusion] of object pronouns' to the verb. Said differently, in the core of Micronesia final-vowel deletion caught up with verb–object attraction, thereby not only blocking further development of verb–object attraction but perhaps also setting in motion the replacement of object pronouns by focus pronouns, whereas final-vowel deletion entered the peripheries of Micronesia (i.e. Trukic and Gilbertese) only after the verb–object attraction process had run its full course.[13]

What is intriguing about Harrison's scenario is that the process of final-vowel deletion 'pursued' that of verb–object attraction, both beginning in the geographic core of Micronesia, the eastern Carolines, and subsequently spreading outwards towards the geographic peripheries of Micronesia, and that the interaction of these two processes is claimed to have had a direct bearing on the extent of the replacement of object pronouns by focus pronouns. If this is a correct depiction of what happened in Micronesian linguistic history, then it may not come as a total surprise that the object pronoun system has not provided much insight into the internal genetic relationships of the Nuclear Micronesian languages, because the replacement of object pronouns by focus pronouns may, if anything, be regarded as more of an areal trait than a genetic one.

What about the paradigmaticity of the subject-pronoun system? As with object pronouns, 'the replacement of earlier subject pronouns by focus pronouns has occurred to various extents in all M|c| languages except for |Gilbertese| and the Trukic languages' (Jackson 1986:205). In Kusaiean and Mokilese, for example, the focus-pronoun system is used in full for subject function. As a matter of fact, such a replacement is not unheard of in the context of Oceanic languages; Ross (1988:366) points out that 'it is probable that this

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11 Harrison's (1978:1081) reconstructed PMc focus and object pronouns, as reproduced below, are more or less similar to those reconstructed by Jackson (in Table 2) (but see Evans 1995:136–152, especially for lack of the first person plural and second person plural in POc).

| | Focus | Object |
|---|---|---|
| 1sg | **ngai* | **ai* |
| 2sg | **koe* | **ko* |
| 3sg | **ai* | **a* |
| 1pl.incl | **ki(t',t)a* | **ki(t',t)a* |
| 1pl.excl | **ka(ma)mi* | **ka(ma)mi* |
| 2pl | **kamiu* | **kamiu* |
| 3pl | **ira* | **ira* |

12 In this chapter, I assume that the Trukic languages are taken to have undergone no replacement of object pronouns by focus pronouns, as indicated in Table 2. This is not entirely correct, because it seems, for example, that in Pulo Annian the plural object pronouns have been replaced by the corresponding plural focus pronouns, whereas in Woleaian the first and second person plural object pronouns have been replaced by the corresponding focus pronouns. But it is clear from a comparison of the Trukic languages that lack of formal identity between the focus and object pronoun systems is the norm.

13 Harrison (1978:1099) thinks that some pressure to re-establish the earlier system is responsible for 'the drift back towards an absolute object pronoun system', although he is not sure as to what the source of this pressure is.

replacement process has occurred many times in the history of Central and Eastern Malayo-Polynesian languages, including those of Oceania'. But, more importantly, it seems to be confined geographically to what Harrison (1978:1098) refers to as the core area of Micronesia (e.g. the replacement being complete in Mokilese, almost complete in Kusaiean, and partial in Marshallese and Ponapean). In Gilbertese and the Trukic languages (or the geographic peripheries of Micronesia), on the other hand, there is no replacement of subject pronouns by focus pronouns in evidence. In other words, the make-up and distribution of subject pronouns in the Nuclear Micronesian languages may also not be as genetic as areal, thereby suggesting strongly that it may be injudicious to utilise the paradigmaticity of the subject pronoun system for the investigating of the internal genetic relationships of the Nuclear Micronesian languages.

The foregoing can easily be double-checked by scanning the subject and object systems across the languages in Table 2. There is a symmetry of varying degrees between the distribution of the symbol '@' (which represents the focus pronoun being used for subject or object function) in the subject pronoun system, and that in the object-pronoun system. Mokilese exhibits a complete symmetry between the two systems, Kusaiean an almost complete symmetry, and both Ponapean and Marshallese a partial symmetry.

The paradigmaticity of the subject-pronoun and object-pronoun systems, whether examined intrasystemically or intersystemically, will yield little valuable information for possible subgroupings, because the replacement of subject and object pronouns by focus pronouns in Kusaiean, Mokilese and, to a lesser extent, Marshallese and Ponapean, is more of an areal phenomenon than a genetic one.

## 4 The focus and possessive pronoun systems

The preceding discussion leaves the focus and possessive pronoun systems to be assessed for their usefulness in the understanding of the genetic relationships within Nuclear Micronesian. These systems also seem to provide little information for possible subgroupings, when studied intrasystemically, however (see Table 2).[14] From the possessive pronoun system, one may notice (i) that in the Ponapeic languages the same form *-mw(-)* is used for the second person both singular and plural; and (ii) that in Gilbertese all members of the focus-pronoun system occur with *ng-* (i.e. accretion of a velar nasal). Perhaps the first piece of information may be used in support of Ponapean and Mokilese forming the Ponapeic subgroup, which has already been well established in Micronesian comparative linguistics (e.g. Rehg & Bender 1990:24). The second point hardly bears mention as it concerns only one language. Not unexpectedly, Jackson (1983:357–363, 1986:205–207) also makes little use of these systems in his subgrouping attempt. Therefore, the focus and possessive pronoun systems seem to be as inefficacious as the other two systems.

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14 Ponapean has second and third person singular honorific personal pronouns as well. The second person singular honorific pronouns are *komwi* (focus) and *komw* (subject) (Rehg 1981:368). These, however, bear much resemblance to the second person focus and subject pronoun *kom* in Kusaiean. It is not clear at the moment how this similarity can be explained.

However, there are three observations about the focus and possessive pronoun systems that may defy this less than positive impression. First, all possessive pronouns are suffixes, over half of them consisting of only a single consonant. This suggests strongly that the possessive pronoun system of Nuclear Micronesian is of some antiquity. It was most likely inherited from POc. Indeed, the PMc possessive pronoun system in Table 2 bears a very strong resemblance to Ross's (1988:112) POc possessive pronoun system in Table 3 (cf. Pawley 1972:61–75; Lichtenberk 1985:113).

**Table 3**: POc focus and possessive pronoun systems (Ross 1988)

| | Focus | Possessive |
|---|---|---|
| 1sg | **iau, *au* | **-gu* |
| 2sg | **iko[e], *ko[e]* | **-mu* |
| 3sg | **ia,* (?) **a* | **-ña* |
| 1pl.incl | **kita* | **-da* |
| 1pl.excl | **kami, *kai,* (?) *kamami* | **-ma[m]i* |
| 2pl | **kamu, *kau, *kamiu* | **-m[i]u* |
| 3pl | **(k)ira* | **-di[a]* |

It may thus be fair to say at least that the possessive pronoun system is much older than the subject- or object-pronoun system, which is known to have been, to varying extents, replenished with focus pronouns. Second, there is no suggestion to the best of my knowledge that the possessive pronoun system has ever been replaced by the focus or any other pronoun system (see Lichtenberk 1986:62–68; Ross 1988:208; and Evans 1995: *passim* for the opposite direction of replacement in other Oceanic languages). Finally, Jackson's PMc focus pronoun system in Table 2 bears a transparent similarity to Ross's (1988:367) reconstructed POc focus pronoun system in Table 3, thereby suggesting that there is also continuity between the focus pronoun system in POc, and those in contemporary Nuclear Micronesian languages.

The preceding observations call for an intersystemic comparison of the focus and possessive pronoun systems. To this end, two more tables are presented below. Table 4 contains the focus and possessive pronoun systems in Kusaiean (Lee 1975), Gilbertese (Groves et al. 1985), Marshallese (Bender 1969; Zewen 1977; Pagotto 1987), Ponapean (Rehg 1981), Mokilese (Harrison 1976), Trukese (Dyen 1965), Puluwat (Elbert 1974), Sonsorolese (Capell 1969), Woleaian (Sohn 1975), Pulo Annian (Oda 1977) and Ulithian (Sohn and Bender 1973) — at the risk of repeating some of the information contained in Table 2.

**Table 4:** Focus and possessive systems in Nuclear Micronesian

| | Ksr | Kir | Mrs | Pon | Mok | Trk | Pul | Sns | Wol | Pua | Uli |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Focus** | | | | | | | | | | | |
| 1 sg | *nga* | *ngngai* | *ña* | *ngehi* | *ngoahi* | *gaag* | *nga(ang)* | *ŋa:ŋ* | *gaang* | *ngangi* | *gaag* |
| 2sg | *kom* | *ngkoe* | *kwe* | *kowe* | *koawoa* | *jeen* | *yeen* | *xe̲re̲* | *geel* | *kena* | *xeel* |
| 3sg | *el* | *ngaia* | *e* | *ih* | *ih* | *jiij* | *yiiy* | *i:e̲* | *iiy* | *ia* | *yiiy* |
| 1 pl.incl | *kuht* | *ngaira* | *kōj* | *kit-* | *kihs* | *kiic* | *kiir* | *kis* | *giish* | *kisa* | *xiic, xa* |
| 1 pl.excl | *kitacl* | – | *kōmmem kōm* | *kiht* | *kam-* | *jääm* | *yææmem* | *xame̲m* | *gaamam* | *kamami* | *xaamami* |
| 2pl | *komtacl* | *ngkamii* | *komi kōm¸* | *kumw-* | *kamw-* | *jäämi* | *yææmi* | *xami* | *gaami* | *kaamii* | *xaamiyi* |
| 3pl | *eltahl* | *ngaiia* | *er* | *ir-, ihr* | *ihr* | *jiir* | *yiiŕ* | *ile* | *iir* | *ila* | *yiir* |
| **Possessive** | | | | | | | | | | | |
| 1 sg | *-k* | *-u* | *-/h/* | *-i* | *-i* | *-i, -j* | *-y(i)* | *-i* | *-i* | *-i* | *-yi* |
| 2sg | *-m* | *-m'* | *-m¸* | *-mw* | *-mw* | *-(V)b* | *-mw* | *-m* | *-mw* | *-mwu* | *-mu* |
| 3sg | *-Ø, -l* | *-na* | *-n* | *-Ø* | *-Ø, -n* | *-n* | *-n, -y* | *-r$^a$* | *-l* | *-na* | *-la* |
| 1 pl.incl | *-sr* | *-ra* | *-d* | *-t-* | *-s-* | *-c* | *-r* | *-s* | *-sh* | *-sa* | *-ca* |
| 1 pl.excl | *-ktacl* | – | *-m* | *-t* | *-m* | *-m* | *-mem -mám* | *-memi* | *-mam* | *-mami* | *-mami* |
| 2pl | *-mtacl* | *-mii* | *-mi* | *-mw-* | *-mw-* | *-mi* | *-mi* | *-mi* | *-mi* | *-mii* | *-miyi* |
| 3pl | *-ltacl* | *-ia* | *-er* | *-Vr-* | *-Vr-* | *-r* | *-ŕ* | *-l* | *-r, -l* | *-ila* | *-yire* |

Table 5 provides a schematic summary of the intersystemic comparison of the focus and possessive pronoun systems in each of these Nuclear Micronesian languages.[15]

**Table 5:** Intersystemic comparison of focus and possessive pronoun systems

| | | |
|---|---|---|
| KUSAIEAN: | | <[F] SG ⊇ [P] SG, except [F] 1SG ≠ [P] 1SG> & <[F] PL ⊇ [P] PL, except [F] 1PL.INC ≠ [P] 1PL.INC> |
| MARSHALLESE: | | <[F] SG ≠ [P] SG> & <[F] PL ⊇ [P] PL, except [F] 1PL.INC ≠ [P] 1PL.INC> |
| GILBERTESE: | | <[F] SG ≠ [P] SG> & <[F] PL ⊇ [P] PL, but no distinction between INC and EXC in 1PL> |
| PONAPEIC: | | <[F] SG ≠ [P] SG> & <[F] PL ⊇ [P] PL> |
| TRUKIC: | Trukese: | <[F] SG ≠ [P] SG> & <[F] PL ⊇ [P] PL> |
| | Puluwat: | <[F] SG ≠ [P] SG> & <[F] PL ⊇ [P] PL> |
| | Sonsorolese: | <[F] SG ≠ [P] SG> & <[F] PL ⊇ [P] PL> |
| | Woleaian: | <[F] SG ≠ [P] SG> & <[F] PL ⊇ [P] PL> |
| | Pulo Annian: | <[F] SG ≠ [P] SG> & <[F] PL ⊇ [P] PL> |
| | Ulithian: | <[F] SG ≠ [P] SG> & <[F] PL ⊇ [P] PL> |

**Note:** 'X ⊇ Y' means that Y is contained within X to varying degrees ranging from partial formal similarity to complete formal identity; 'X ≠ Y' means 'X is dissimilar formally to Y'; '[F]' focus pronoun system; '[P]' possessive pronoun system; EXC = exclusive; INC = inclusive; SG = singular; PL = plural.

There are three points emerging from Table 5 that merit discussion. First, in Gilbertese, and also the Ponapeic and Trukic languages, the paradigmatic members of the plural focus pronoun system have something in common with the corresponding paradigmatic members of the plural possessive pronoun system. In Mokilese, for example, the plural focus pronouns 'contain' the plural possessive pronouns on a one-to-one basis, i.e. focus 1PL.INC *kihs* ~ possessive 1PL.INC *-s-*; focus 1PL.EXC *kam-* ~ possessive 1PL.EXC *-m-*; focus 2PL *kamw-* ~ possessive 2PL *-mw-*; focus 3PL *ihr* ~ possessive 3PL *-r-*. Although Gilbertese differs from the other Nuclear Micronesian languages in that it lacks the inclusive–exclusive distinction in the first person plural throughout the personal pronoun systems,[16] it does also maintain the property of <[F] PL ⊇ [P] PL>.[17] This particular property, however, is not fully exhibited by Kusaiean and Marshallese, because in these two languages there is lack of a formal similarity between the first person plural inclusive focus and possessive pronouns (i.e. <[F] 1PL.INC ≠ [P] 1PL.INC>), although the remainder of the focus and possessive pronoun systems do display a formal similarity. This raises the question as to which of the two, <[F] 1PL.INC ⊇

15 The third person singular possessive pronoun *-n* in Puluwat is in free variation with *-y* (Elbert 1974:35). Thus, it may be said that Puluwat is different from the other Trukic languages in that there is a formal similarity between the pronoun in question and the corresponding third person singular focus pronoun, *yiiy*. But Elbert (1974:35) points out that *-n* is more common in citation forms. I will thus take *-n*, not *-y*, to be the basic form for the third person singular possessive pronoun in Puluwat.

16 Harrison (1978:1100–1101) points out that the inclusive, not exclusive, forms have been retained in the Gilbertese first person plural. This also seems to be the position of Jackson (1983, 1986).

17 Also note that most of the focus pronouns in Gilbertese, minus the initial *ng-*, can without difficulty be related to the corresponding forms in the Ponapeic and Trukic languages via regular sound correspondences (Jackson 1983:202–203).

[P] 1PL.INC> or <[F] 1PL.INC ≠ [P] 1PL.INC>, is an innovation (or a retention). In Jackson's PMc focus pronoun system in Table 2, there is a variation between **kita* and **kica* in the first person plural inclusive focus pronoun (i.e. **ki(t,c)a*). Thus, the reconstructed PMc first person plural inclusive possessive pronoun **-ca* may or may not bear resemblance to the corresponding PMc focus pronoun, depending upon which of the two, **kita* or **kica*, is taken as the PMc form. In Ross's (1988:367) reconstructed POc focus and possessive pronoun systems in Table 3, however, there is no such variation, i.e. **kita*; there is lack of a formal similarity between the first person plural inclusive focus and possessive pronouns (i.e. **kita* vs **-da*). If Ross's POc reconstruction is correct, then there is a strong possibility that the PMc form should only be **kita*, not both **kita* and **kica*. This in turn suggests that between PMc and present-day Nuclear Micronesian there may have occurred a change from <[F] 1PL.INC ≠ [P] 1PL.INC> to <[F] 1PL.INC ⊇ [P] 1PL.INC> in some Nuclear Micronesian languages, but not in others. Thus, the property of <[F] 1PL.INC ⊇ [P] 1PL.INC> may well be a post-PMc innovation shared by Gilbertese, and the Ponapeic and Trukic languages, whereas Kusaiean and Marshallese may have retained the POc property of <[F] 1PL.INC ≠ [P] 1PL.INC>. (Indeed, Kusaiean *kuht* ([F] 1PL.INC) and *-sr* ([P] 1PL.INC), and Marshallese *kōj* ([F] 1PL.INC) and *-d* ([P] 1PL.INC) seem to have descended from the respective POc forms (see Table 3) via regular sound correspondences (Jackson 1986:202–203).) This innovation, however, does not fit in comfortably with Jackson's tree model, wherein Marshallese is interposed between Gilbertese on the one hand, and Ponapeic and Trukic on the other. In view of the innovation, Gilbertese, Ponapeic and Trukic are expected to be much closer to one another than they are represented in the tree model.

The difference between Jackson's (1986) PMc **kita* and **kica* actually is the alternation between the oral (PMc **t* < POc **t*) and nasal (PMc **c* < POc **nt*) grade, which is a long-standing issue in Oceanic linguistics (see Grace 1959, 1990; Biggs 1965; Lynch 1975 and Geraghty 1983 and Ross 1988 *inter alia*). The oral grade is reflected in Kusaiean and Marshallese, whereas the nasal grade is manifested in the other Nuclear Micronesian languages. This variation in grade also happens to be witnessed elsewhere in Oceanic (Jackson 1986:205). Thus, one may argue that not much subgrouping significance can be imputed to it. In fact, if Jackson's PMc alternation between **kita* and **kica* is correct, it may be possible to say, contrary to Ross (1988:367), that the same alternation may have been present also in the POc first person plural inclusive focus pronoun (cf. Grace 1990). However, the oral/nasal alternation evident in the first person plural inclusive focus pronoun in present-day Nuclear Micronesian may well be a secondary development, thereby not reflecting a continuation of the POc alternation at all. There is some evidence in favour of this view. First, the environment in which the oral-to-nasal change in Gilbertese, Ponapeic and Trukic has occurred is very limited. This suggests that it is within the realm of possibilities that in Gilbertese, Ponapeic and Trukic the first person plural inclusive focus pronoun may have substituted the nasal grade for the oral one by analogy with the first person plural inclusive possessive pronoun. This scenario of analogical levelling also seems to be well motivated in view of the fact that in Oceanic replacement of non-possessive pronouns by possessive pronouns is known to be relatively common (e.g. Ross 1988:208, 277–278; Evans 1995). The innovation shared by Gilbertese, Ponapeic and Trukic, as opposed to Kusaiean and Marshallese, can thus be characterised by the 'spreading' of the nasal grade from the first person plural inclusive possessive pronoun to the corresponding focus pronoun. Similar secondary changes have been attested in other Oceanic languages. For instance, Ross (1988:35) is of the view that acquisition of the nasal grade reflex *g-*, rather than the expected **k* or zero, in the three disjunctive pronouns in Tabar, Notsi and

Lihir (all central New Ireland languages) 'involves some kind of analogical levelling in the pronoun paradigm, and has nothing to do with POc'. The basis of this conclusion is also the limited environment of the change from the oral to the nasal grade. Moreover, Lynch (1975:87–88) discusses a very different secondary source of the oral/nasal alternation in other Oceanic languages, namely the fusion of a preposed article consisting of a nasal consonant and a vowel with the following verb. Also see Geraghty (1983:72–96) for a phonetically motivated secondary development of the oral/nasal alternation in Eastern Fijian. Thus, the post-PMc change from the oral to the nasal grade in Gilbertese, Ponapeic and Trukic does not seem to be implausible.

Second, Kusaiean stands out from the rest, because in this language the second or third person singular possessive pronoun is identical to the final consonant of the second or third person singular focus pronoun respectively. This may be a post-PMc innovation confined to Kusaiean. The first person singular possessive pronoun in the Ponapeic languages, *-i*, may perhaps also be related formally to the corresponding first person singular focus pronoun. But I am more inclined to think that it is a reflex of the PMc first person singular possessive pronoun **-xu*, as in the case of Trukic. Thus, it may well have derived from the vowel of PMc **-xu*, rather than being identical formally to the final vowel of the first person singular focus pronoun (*ngehi* and *ngoahi* in Ponapean and Mokilese, respectively).

Finally, the lack of the first person plural inclusive–exclusive distinction in Gilbertese also seems to be a post-PMc innovation. This and the property of <[F] non-1SG $\supseteq$ [P] non-1SG> in Kusaiean, however, contribute little to internal subgrouping, because they are shared by no other language(s).

## 5 Conclusion

I have attempted to address two important points which have recently been raised in the literature on (Micronesian) comparative linguistics. The first is Rehg's (1995) observation that adequacy of tree models for an understanding of genetic relationships can perhaps be determined on the basis of the careful tracking of the distribution of all innovations 'without regard to preconceived notions of language and subgrouping boundaries'. The second is Nichols's (1996) demonstration of the role of paradigmaticity as probative evidence for genetic relatedness. Nichols's (and Meillet's) scepticism of personal pronouns being such evidence notwithstanding, I have suggested that phonosymbolism of personal pronouns can be 'checked' if and when comparative work is carried out on a given group of languages which are already known — on the basis of other probative evidence — to have emerged from a common source (although their internal relationships may be far from established). With these points in mind, I have carried out an intersystemic examination of the focus and possessive personal pronoun systems of the Nuclear Micronesian languages. The conclusion turns out to be somewhat at odds with Jackson's (1983, 1986) stratified tree model of Nuclear Micronesian, because, although it forms PCMc with Gilbertese, Ponapeic and Trukic, Marshallese does not share the innovation, namely the formal similarity between the first person plural inclusive focus and possessive pronouns, with those languages.

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