SOME ASPECTS OF AUSTRALIAN COMPARATIVE LINGUISTICS

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I. INTRODUCTION

In this work, some major comparative work done on Australian languages will be reviewed. The central issue is whether O'Grady et al.'s (O'Grady, Voegelin and Voegelin 1966) genetic classification, representing the work of Hale, O'Grady and Wurm, should be followed (however, note that the first person to propose a Pama-Nyungan hypothesis was Hale (O'Grady 1990a:xiii)), or Dixon's analysis (1980) in which Australian languages constitute one single language family. The latter scholar considers the placing of the Pama-Nyungan family and the other twenty six families under the proto-Australian node to be incorrect. The other major issue is linguistic diffusion, which is prevalent in Australia and creates problems for the comparison of Australian languages. These topics will be the focus of the discussion that follows.

II. THE CLASSIFICATION OF AUSTRALIAN LANGUAGES

The two most well-known classifications of Australian languages are a typological classification done by Capell (1956) and a genetic classification by Hale, O'Grady and Wurm (O'Grady, Voegelin and Voegelin 1966). In Capell's typological classification, he has distinguished suffixing and prefixing languages, where the former group uses suffixes exclusively and the latter has prefixes as well as suffixes. The prefixing languages form a geographical bloc which is the area north of a line running from Dampier Land in Western Australia to the western coast of the Gulf of Carpentaria. The suffixing languages cover the remaining four-fifths of the continent, including the northeast corner of Arnhem Land (Blake 1990:435-436). In Hale, O'Grady and Wurm's genetic classification, a large subgrouping, the Pama-Nyungan language family, is recognized. Other languages outside this family are seen as forming another 26 phylic families (in Wurm's 1972 revision).

Interestingly enough, Capell's suffixing languages are essentially the Pama-Nyungan languages in Hale, O'Grady and Wurm's classification; the prefixing languages are languages which constitute the other 26 families.

A strong objection to Hale, O'Grady and Wurm's genetic classification comes from Dixon (1980:226) who considers the Pama-Nyungan and non-Pama-Nyungan classification to be typolog-

ical (or areal), like Capell's. His argument is that the subgrouping is not based on shared innovations and subsequent divergence and that only vocabulary comparisons are considered. However, works done on Australian comparative linguistics after this preliminary classification does support the hypothesis of a Pama-Nyungan subgrouping. Since then, O'Grady has reconstructed many more proto-forms for the Pama-Nyungan group. Alpher (1990) provides reconstruction of Pama-Nyungan verbal morphology. The work of Blake (1977, 1988, 1990) in reconstructing case systems and pronouns of Pama-Nyungan and non-Pama-Nyungan languages provides very strong supporting evidence. Even Dixon himself has provided evidence. He has reconstructed some grammatical features that he claims to be proto-Australian, but most of them are reflected only among the Pama-Nyungan languages. More detailed discussions of these works appear in the next section.

II.1. Comparative Work Supporting a Pama-Nyungan Subgrouping

The debate rests on whether there should be a subgrouping of Pama-Nyungan family. I will start my arguments for this classification with a consideration of Dixon's distinction between a typological and a genetic classification. To Dixon, a genetic classification must involve "the uncovering of systematic phonological and morphological correspondences, putting forward a hypothesis concerning structural features of the proto-language, and showing the regular ways in which each modern language has developed from the proto-system (1980:251)". The uncovering of systematic phonological correspondences has been achieved in O'Grady's work over the years which has led to the reconstruction of many proto-Pama-Nyungan roots. In fact, there is a phonological conservatism in the descent of many modern Pama-Nyungan languages which makes phonological correspondences among these languages straightforward (O'Grady 1990e:455). Systematic morphological correspondences are provided by Blake (1977) in the reconstruction of Pama-Nyungan case systems. Hale's (1964) reconstruction of the initial dropping languages from Cape York peninsula provides another systematic change that has taken place. At the same time, these supposed "unAustralian" languages are identified as not only Australian but also Pama-Nyungan. Dixon (1980:193) praises Hale's work on these initial dropping languages as "one of the most spectacular achievements of Australian historical linguistics". Alpher's (1990) comparison of inflected verb forms gives insights into Pama-Nyungan morphological reconstruction as well. On the other hand, Dixon's own reconstruction of supposed proto-Australian verbal conjugations, is assigned to "an origin (proto-Australian) much earlier than the evidence warrants" (Evans 1988:94). His reconstruction of proto-Australian nominal case markers and pronouns suffers from the same problem, that is, only the non-prefixing languages i.e., Pama-Nyungan languages, were consulted. However, these reconstructions of Dixon's are an important contribution to Australian comparative linguistics.

O'Grady (1990d:209) describes the search for proto-Pama-Nyungan roots so far as revealing only "the tip of the lexical iceberg". His estimate is that the roster of proto-Pama-Nyungan and sub-proto-Pama-Nyungan (meaning reconstructions at the levels below proto-Pama-Nyungan) reconstructions will run to a four-digit figure, probably over two thousand. This figure would make

Pama-Nyungan comparable to families such as Austronesian, Indo-European, and Algonkian in so far as "the breadth and depth of coverage of the ancestral lexicon" are concerned.

Drawing from varying numbers of languages within Pama-Nyungan, from as few as two to as many as thirty, O'Grady (1990c, d) provides reconstructions of forms with initial *m, *j, *k, and *pa in Pama-Nyungan. He has also been systematically doing further lexical comparison among Pama-Nyungan languages. Many cognate sets compiled from languages that are geographically far apart constitute very strong evidence for a genetic relationship.

O'Grady's (1966) reconstruction of proto-Ngayarda phonology uncovers a number of sound changes that took place in this subgroup and particularly in Yindjibarndi.

Hendrie (1990) has reconstructed 96 proto-Pama-Nyungan roots with initial apical consonants from nine geographically spread-out languages. Based on twenty geographically widespread Pama-Nyungan languages, Fitzgerald (1991) has reconstructed 168 initial *ng forms in proto-Pama-Nyungan and sub-proto-Pama-Nyungan. Most of them are reconstructed at the Pama-Nyungan level. Based on the same 20 languages, and focusing only on initial *w forms, I have reconstructed 101 proto-Pama-Nyungan roots and 91 sub-proto-Pama-Nyungan roots (Chen 1992 M.A. thesis). The comparison of these proto-Pama-Nyungan roots with forms in the lexicons of non-Pama-Nyungan languages will be the next stage of work to determine the role these reconstructions play within the Australian language phylum as a whole. If there are very few or no true cognates found in languages of the non-Pama-Nyungan families, these reconstructions will be uniquely Pama-Nyungan and can serve as proof of the existence of a Pama-Nyungan language family.

Alpher (1990) gives reconstructions of certain inflected verb forms in proto-Pama-Nyungan. He follows the heuristic assumption that sound change is regular and phonologically conditioned in his application of the comparative method. The most significant aspect of his work is his comparison of the inflectional endings together with verb stems in modern Pama-Nyungan languages. His concern is that "reconstructing endings alone, disembodied from stems, gives no confidence that the result is in fact a proto-paradigm" (Alpher 1990:167). This is especially important because verb roots fall into different conjugation classes. For example, a root can take a certain past tense form and a certain imperative form. A root that takes a different form in the past tense will also take a different form in the imperative (Dixon 1980:279). Examples (O'Grady, p.c.) follow:

Western Desert	patja+rnu	*bite+PAST*
	patja+la	*bite+IMPERATIVE*
	nya+ngu	*see+PAST*
	nya+wa	*see+IMPERATIVE*

Alpher's comparisons are mostly limited to Pama-Nyungan. He does find a few reconstructions that are attested in non-Pama-Nyungan languages. The aim and end results, according to Alpher,

do "support the findings of Evans (1986) and Blake (1988) that Pama-Nyungan languages comprise a genetic subgroup within the larger Australian phylum" (1990:166).

In the same work, Alpher points out two questionable theoretical assumptions held by Dixon (1980). One is "an extreme position on the nonregularity of phonological change, which is held to be conditioned by the semantic nature of inflections and by the presence of inflectional morpheme boundaries" (Dixon 1980:412). Alpher takes this position to be incompatible with the neogrammarian theory of the regularity of sound change and at the same time going against "certain important and very commonsense varieties of generativist theory". As a result, this position "licenses all kinds of mischief". The other concerns the degree to which borrowing can be held responsible for lexical replacement in Australia. This point is discussed further in the next section concerning Dixon's 50% equilibrium hypothesis.

Evans (1988:91) sees Blake's work, "Redefining Pama-Nyungan" (1988), as a landmark in Australian historical linguistics. The redefined Pama-Nyungan appears as a "much more promising candidate for a genuine mid-level genetic subgroup, clearly distinct from typological and areal groupings" (Evans, 1988:91). Blake (1988:3) points out that lexical comparison can establish genetic distance and in particular, Pama-Nyungan is shown to form a homogeneous group in comparison with the other mainland languages. The pieces of evidence that Blake provides are the following:

1. The comparison of function words: the basis of this practice is that "functions are peculiar to particular languages" and "function roots are relatively unborrowable".

   Cognate reflexes for case markers constitute part of his evidence for the genetic relatedness of the Pama-Nyungan languages. He finds that a number of the non-Pama-Nyungan languages lack these cases (Blake 1977). If the Pama-Nyungan and non-Pama-Nyungan languages are ultimately related, then a change such as the loss of case markers in the non-Pama-Nyungan languages would seem to increase the genetic distance between the two groups.

2. A comparison of pronoun roots : in view of the intensive lexical and grammatical diffusion in Australia, the comparison of pronouns is considered to be more accurate than the lexicon in establishing linguistic genealogy (Blake 1988). Blake points out that even in Heath's (1981) study of an extreme case of lexical diffusion in northeast Arnhem Land, there is no significant borrowing of pronouns. The languages Blake considers are from the northeastern corner of the Northern Territory and the northwestern corner of Queensland.

The results of Blake's comparison make necessary some amendments to Hale, O'Grady and Wurm's classification. They are:

1. Yanyuwa, which was earlier classified as non-Pama-Nyungan, is now seen genetically as a Pama-Nyungan language.

2. The Tangkic languages, which were counted by Hale, O'Grady and Wurm as Pama-Nyungan, should be reclassified as non-Pama-Nyungan.

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3. Garawa and Wanyi should be counted as Pama-Nyungan languages.

On the whole, the genetic unity of Pama-Nyungan languages is recognized by Blake. It is only at the level of Pama-Nyungan and non-Pama-Nyungan that he has made amendments. Evans (1988) also provides evidence for the genetic significance of Pama-Nyungan. He provides evidence for a distinctive phonological change shared by all and only the Pama-Nyungan languages. The change he proposes is the laminalization of initial **d-** and **n-** to **DH-** and **NH-**. This laminalization isogloss almost corresponds to isoglosses for other innovations unique to Pama-Nyungan languages. Hence, this constitutes further support for a Pama-Nyungan family. The non-Pama-Nyungan languages i.e. the northern languages, form a "residue group". The pronoun systems and the presence of initial apicals are archaic retentions of the northern languages as opposed to the Pama-Nyungan ones.

Evans and Jones, after reviewing various comparative work on Australian languages, discuss the innovations that Pama-Nyungan has made (1991:9). They are: "to have shed prefixing verbal morphology, abandoned noun class prefixes, developed a substantially new set of pronouns and case forms, forged a distinctive set of verb 'conjugation markers' by analogically reshaping its inherited verbal paradigm, and laminalized initial [apical] consonants". Evan and Jones also see something in common with the proposals concerning non-Pama-Nyungan languages; that is, they all point to a considerable time-depth for the complicated verbal and nominal prefixing morphology in each reconstructed group. This renders Dixon's view that the prefixing typology is a recent areal development untenable.

II.2.   Linguistic Diffusion in Australia

The phenomenon of intensive areal linguistic diffusion in Australia is noted by many researchers. For reasons of social or cultural factors such as death tabooing, bilingualism, multi–lingualism and intertribal marriages, linguistic diffusion is pervasive. Death tabooing is said to apply in every part of Australia. After a person's death, his or her name is not to be spoken for some time (Dixon, 1980:28). Any vocabulary item that is similar in form to the banned name will be tabooed as well. This causes some vocabulary changes in Australian languages, for a synonym might be used to replace the tabooed word, or a newly coined compound might become the substitute instead. More often, it might be replaced by a word borrowed from neighbouring tribes. Dixon sees death tabooing as a significant force in lexical replacement, and thus a cause of vocabulary change in Australian languages. Alpher and Nash (1982:4-5), however, checked through material available and found that tabooing has only a minimal effect on vocabulary change and that the nature of replacement is temporary.

Heath points out that particular demographic factors characteristic of Australian aboriginal societies make diffusion greater in Australia than in almost any part of the world (1979:396). By demographic factors he means, in this particular context, the frequency of direct contact between

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people from different language groups due to the influence of the complex of environmental and social-structural phenomena (1979:401). Contact between neighboring language groups can be intimate or minimal. Environmental features that can restrain contact include mountain ranges, bodies of water, and areas where there are not enough food supplies, for example, in the central desert.

There are also nondemographic cultural factors. Heath describes a crude dichotomy of assimilatory versus dissimilatory forces. With the former, we find certain instances of language/dialect convergence taking place at an accelerated rate when two groups have socio-cultural motives for manifesting their solidarity or structural equivalence. With the latter, languages and dialects can undergo divergence when convergence is blocked, for example, by tribal division.

O'Grady (1990e:469) has encountered a type of dissimilatory force which causes divergence. He points out that there could be conscious manipulation of word shapes involved. For example, PPN **rawa** descends in Garadjarri as **rawarri** *dead*. The feeling grows that the accretion of **-rri** is part of a conscious drive on the part of Garadjarri speakers toward creating greater differentiation between Garadjarri and neighbouring languages. Such innovations may have first arisen in the context of language use by the initiated, who would have been concerned to keep certain knowledge secret (Alkire, p.c.).

Similarly, the semantic flip-flop whereby PPN ***yu+ng** *give* > GYA **yu.nga+l** *send* and PPN ***jAya+** *send* > GYA **taya** (IMPERATIVE) *give!* may also be a result of conscious manipulation (O'Grady, p.c.).

Heath discusses further a whole series of effects which nondemographic diffusional pressures have on aspects of linguistic structure. The main point is that diffusion is greater between Australian languages than between Indo-European languages or between languages in other well-known language families (1979:405).

Heath has produced a study of linguistic diffusion in eastern Arnhem Land. There, the Yuulngu group, which is a member of the vast Pama-Nyungan family, is isolated in the northeastern corner of the area and in contact over a broad area with non-Pama-Nyungan languages. Thus, an interesting situation has arisen.

Looking at a map of this area suggests close contact between two genetically related non-Pama-Nyungan languages: Ngandi and Nunggubuyu. However, in recent times the Ngandi-speaking people have been interacting socially with people speaking Ritharngu, which is a Pama-Nyungan language. As a result, Ngandi shares nearly 50 percent of nominal and verbal stems with Ritharngu. Only a few shared items between the two can be attributed to independent retention of Proto-Australian items. As a sister language of Ngandi, Nunggubuyu, however, does not share as much vocabulary with Ngandi. What Heath wants to show is that Australia is not "a glotto-chronologist's paradise, and that genetic classification based primarily on quantification of lexical (or other) synchronic sharings are unlikely to bear fruit (1979:406)". At first glance, this comment seems so strong as to preclude efforts at the lexical comparison of Australian languages. However, we should

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note that what has taken place for Ngandi may not apply to every corner of Australia. As to the dichotomy of assimilatory versus dissimilatory forces, Heath says that more often the latter prevail. So far, there is not a diffusional pattern that is attested as being general to all the Australian languages. A look at another pair of neighbouring languages in this same area, Nunggubuyu and Warndarang (the latter belongs to a different non-Pama-Nyungan family than Nunggubuyu does), will illustrate another aspect of diffusional phenomena in Australia. Lexical diffusion between the two languages is said to have been insubstantial and has been almost nonexistent for verbs. Even among just four neighbouring languages– Ngandi, Nunggubuyu, Ritharngu and Warndarang, there is no set pattern between each pair: namely, between Ngandi and Ritharngu, and between Nunggubuyu and Warndarang. The point to make here is that no generalization about diffusion covers the whole continent. The facts are different in each of the cases studied. Heath (1979:400) proposes that difussional studies can be conducted in several different areas on the continent and different results should turn up. The areas he suggests are: (a), the Arandic speech area together with the area where Warlbiri, Warramunga and Djingili are spoken, (b), the area of the Western Desert group, (c), Cape York Peninsula.

However, Dixon (1980:254-255) imagines more regularity. He says that "if, in Australia, two rather different languages come into contiguity, they will borrow back and forth until the proportion of common lexemes gradually rises, and eventually makes up about 50 per cent (in practice 40-60 per cent) of each language's total vocabulary". In Hale, O'Grady and Wurm's classification, the phenomenon of diffusion has been considered. The two conditions noted as exceptions to the criteria for classification with cognate density are: one, when the existence of a dialect chain is strongly indicated; and two, when borrowing between two languages is demonstrated (1966:25). With the expressed goal of doing one thing at a time and doing it well, this team had to complete the task of arriving at a preliminary genetic grouping of Australian languages with full concentration on lexical evidence. They later encouraged more detailed work leading to possible revision and refinement of the classification (O'Grady and Klokeid, 1969:311).

Dixon's hypothesis has another focus. He says, "if one tribe splits into two new tribes, each will taboo and replace words independently, and the percentage of common vocabulary will steadily drop until it reaches the 50 per cent 'equilibrium level' " (1980:255). He further concludes that if any two Australian languages have been in contact for a sufficiently long period, their vocabularies will be expected to have 40-60 per cent identical or similar forms. His example involves a comparison of the two neighbouring languages Warrgamay and Nyawaygi, from north-east Queensland. The two languages have 44 per cent common or closely similar vocabulary on a standard 100-word list and 48 per cent on a fuller 500-item count. In examining Dixon's equilibrium hypothesis, Alpher and Nash (1982:4) have found three aspects needing closer examination: 1. Observation of particular instances of replacement. 2. Observation of replacement rates in Australia. 3. Observation of the proportion of shared vocabulary between neighbouring languages in "equilibrium".

Here, "Instances of replacement" refers to death tabooing, as mentioned above. This phenomenon has caused some linguists to think that the lexical retention rate is very low in Australia, and therefore, it is another reason to question Hale, O'Grady and Wurm's classification. However,

an example is provided by Hale and O'Grady to show that this is not the case. They used a test list for Parnkalla from 1960 and checked it against a vocabulary published by Schürmann in 1844. The two lists turned out to show almost total agreement of lexical items. The few disagreements may well have been because they were looking at two different dialects of the same language (O'Grady, Voegelin, and Voegelin 1966:26). Alpher and Nash give a further example provided by Haviland, who has been able to make a comparison across 200 years - the longest period possible for Australia and the only case available. A detailed comparison of Cook and Bank's 1770 list of Guugu-Yimidhir is made with the modern recorded data by Haviland. He finds that the retention rate for Guugu-Yimidhirr over this period is 98 per cent, which would extrapolate to 90 per cent per millennium, whereas glottochronologists hypothesize an 86 per cent per millennium retention rate (the figure 86% is from Bynon (1977:269)).

A simple comparison between Gawurna's and Yaralde's 100-item basic wordlists (based on the Swadesh 100-item wordlist as revised by O'Grady) is conducted to see whether the percentage of vocabularies shared reach the 40-60 percent "equilibrium" level. Both languages are in South Australia and are geographically in contiguity. The cognates found are listed below (all letters are capitalized to remind the reader that both languages were recorded before the advent of phonemic theory):

	Yaralde	Gawurna	English Gloss
1.	KELE	KADLI	*dog*
2.	KUNAR	KUDNA	*faeces*
3.	PERAR	BIRRI	*fingernail*
4.	MARI, MAROWI	MARRA	*hand*
5.	NGAPE	NGAI, NGATTO	*I*
6.	KANGKIN	KARNKE+	*laugh*
7.	TORE, TORENGK	TĀ	*mouth*
8.	NAKKIN	NAKKO, NANGA	*see*
9.	TALLANGGE	TADLANYA	*tongue*
10.	PULLATYE	PURLAITYE	*two*
11.	NGANGGE	NGANNA	*who*
12.	NGUNE	NINNA, NINDO	*you, (sg.)*

The above twelve pairs are surely cognates. There are another five pairs that are possible cognates. For example, words such as **NGUMPURA** in Yaralde and **NGAMMI** in Gawurna both mean *breast of female*. However, it is a question of whether Yaralde -**MP**- corresponds to Gawurna -**MM**- (presumably -**m**-).

In the above comparison, the two neighbouring languages share only 12 per cent of the 100 basic words. The figure of 12 per cent is certainly a lot lower than the 40-60 per cent Dixon's

hypothesis would predict for languages which are geographical neighbours. However, it is not clear how long Yaralde and Gawurna were in contact. Dixon has an account of a Yaralde legend which describes how the tribe used to live further up the Murray River (its mouth is at Lake Alexandrina in South Australia and it extends up to Mildura in Victoria and beyond) and eventually moved down the river until they reached the coast and settled there. Therefore it is not a good test for Dixon's hypothesis. On the other hand, it also shows one aspect of the difficulties involved when doing a diffusion study. As Johnson (1990:420) points out, it is now almost impossible to determine former sociolinguistic patterns because of the massive changes in Aboriginal life that have taken place since the European invasion.

O'Grady's (1959) study of the effects of the spread of circumcision and subincision on languages in Western Australia offers yet another perspective concerning Gawurna and Yaralde. The people of Yaralde did not acquire this ritual as the people of Gawurna did. On top of this, the fact that Yaralde had moved from the north, which is detected from their legendary account by Dixon, indicates that there is a more distant linguistic relationship than what the geographical proximity between the two languages shows.

As Alpher and Nash (1982) have suggested, two languages that share a very low percentage of cognates may have been neighbours for a long time. They also point out that if O'Grady et al.'s lexicostatistical classification shows nothing else, it at least gives numerous instances of adjacent languages that shared less than 40 per cent or more than 60 per cent common vocabulary. For example, between Mara and Yanyuwa, the two adjacent Western Gulf languages, only 2 per cent of sharing is calculated. In addition, O'Grady and Klokeid (1969) have shown 90 per cent for the Western Desert dialects Pintjantjatjara and Yankuntjarra. The above cases are enough to disprove the "equilibrium" hypothesis from either direction, whether there was convergence or divergence.

I will state again at this point that the phenomenon of linguistic diffusion has not been fully studied and the situations outlined above cannot be considered general in every part of the Australian continent. This is true up to the most recent research done by Johnson (1990:419-420). He feels that although the kind of linguistic diffusion found in western Cape York "has been more prevalent elsewhere than is generally recognized", a claim that this situation is general to Aboriginal Australia still cannot be made. After all, as Johnson concludes, if only some of the language groups under study changed their geographical relationship every five hundred years or so, repeated diffusion caused by small scale migration would "scramble the fine genetic details beyond recovery" (1990:431-432). It is relationships of the intermediate levels among the languages in question that are hard to establish, whereas a broad genetic relationship is fortunately obvious. In other words, a subgrouping into Pama-Nyungan and non-Pama-Nyungan languages is not likely to be threatened by the factors enumerated by Johnson. Eventually, in cases where diffusion has taken place and blurred the evidence for genetic relationships, we would just have to "work directly from present-day languages to proto-languages without the comfort of any intermediate levels" (Johnson, 1990:432). Linguistic diffusion in Australia affects low level subgrouping to a large extent, but it should not impose problems on a high level subgrouping in a family tree where the splits between Pama-Nyungan and the other 26 language families has taken place.

On the other hand, Harvey (1991:15) seems to think that diffusion did not operate to the extent of obscuring genetic affiliations.

Heath (1981:356) does further analysis in his more recent work on linguistic diffusion in eastern Arnhem Land. He suggests that a more flexible approach than the traditional lexicostatistics should be adopted when dealing with languages from areas where intensive lexical diffusion has taken place. Interestingly, Hale, O'Grady and Wurm had already identified a language group in this area, Yuulngu, as belonging to Pama-Nyungan before Heath's study. The intense diffusion between the Pama-Nyungan languages and the non-Pama-Nyungan languages of this enclave have not prevented Hale, O'Grady and Wurm from identifying their genetic relationship. According to Alpher and Nash, the three-man team's "estimates of the fraction of lexical replacement that is attributable to borrowing, and estimated equilibrium rate that follows from this, are low enough to suggest that lexicostatistics, as a rough-and-ready method of language subgrouping, can proceed without undue concern for the effects of borrowing". Also, there is always the possibility that one or more languages may be misclassified by this rough-and-ready method. However, the subgrouping of Pama-Nyungan languages as a family is supported by the specific research conducted in their study.

O'Grady (1990b:1-10) has conducted an experiment which is inspired by Anttila's direct comparison of German and Russian. What Anttila (1972, 1989) has worked out is that "German and Russian are plausibly relatable on the basis of contemporary evidence only"(O'Grady cites Anttila). Using the same approach, O'Grady claims to find a similarly plausible relationship between Wadjuk, which is located in the southwest of Australia, and Umpila, which is on Cape York Peninsula in the extreme northeast. He does this even when burdened with four disadvantages (which turned out not to be crippling) (O'Grady, 1990a:xiii):

1. "wide geographical separation;"

2. Wadjuk was transcribed in the "pre-phonemic" notation of the 19th century;

3. "the sparseness of the available Umpila lexicon, which consists of no more than one thousand entries;" and

4. "we scrupulously avoid consulting data from close relatives of either Umpila or Wadjuk."

O'Grady is able to find over fifty highly plausible cognate pairs of elements. Among them, nominal case-marking suffixes, pronouns, names of body parts and terms for basic life functions are included. This result reassures us of the genetic relationship between the two languages. O'Grady points out that if more complete dictionaries of both languages were to be available, many more cognates would turn up. The same type of comparison could have been conducted with other languages to show a comparable amount of evidence for genetic relationship. By the comparison of languages that are far apart, the problem of diffusion is greatly lessened.

Once a relationship between a pair like the above is established in Australia, more languages from the intervening linguistic and geographical space can be selected to provide further evidence for Pama-Nyungan as the "largest coherent linguistic genetic construct in Australia".

III. CONCLUSION

In this work, two main issues that have developed in Australian comparative linguistics are discussed: the validity of a Pama-Nyungan subgroup within the Australian language phylum and the effects of diffusion on comparative work in Australia. The evidence supporting Pama-Nyungan –real language data–counts for more than this or that linguist's opinion. Hock (1986:42) makes the following comment:

> ...linguists...are not simply playing around with changes and imposing their own view on history. Rather, it is the history of the language and its development which imposes the solution on the linguist.

Though further research centering on the relationship between the Pama-Nyungan and non-Pama-Nyungan languages needs to be pursued, a genetic unity such as Pama-Nyungan is well supported with data and analysis provided by Alpher, Blake, Dixon, Evans, Fitzgerald, Hale, Hendrie and O'Grady.

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