DIFFUSIONAL LINGUISTICS IN AUSTRALIA:
PROBLEMS AND PROSPECTS

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1. INTRODUCTION

There are several motives for doing research on diffusional linguistics. Firstly, there is the possibility of correlating the results of the research with archeological, historical, and ethnological studies bearing on past migrations and associations of tribal or linguistic groups. Secondly, diffusional linguistics can function as an occasional adjunct to historical linguistic research of the usual type based primarily on genetic reconstruction. Thirdly, diffusional linguistics can be taken as a subject worthy of theoretical study in its own right.

In Australia it would appear that the first line of research mentioned above has been unproductive, simply because of the rarity of contacts between Aboriginals and Melanesian or other peoples to the north. In Arnhem Land, Macassan (Indonesian) contact for several centuries prior to about 1920 has been well-documented, and Capell (1965) among others has mentioned the Macassan loanwords in some coastal Aboriginal languages. von Brandenstein (1970) has suspected Portuguese loanwords in the northwestern part of the continent.

Perhaps the greatest potential for such diffusional studies has been in Cape York peninsula and the Torres Straits. It is known that in the Torres Strait Islands are found two languages, one of Australian stock and the other of Papuan. Moreover, on the Cape York mainland itself many rather bizarre phonological developments have transformed ordinary Australian-type proto-languages into superficially un-Australian languages, and it has been suspected for some time that Papuan interference may have helped encourage these developments.
in the near future to satisfactory results. In order to gain a valid appreciation of the nature of diffusional interaction, and also to sharpen our methodological tools, it will be necessary to conduct intensive comparative/diffusional investigations of small groups of languages in particular regions.

Some of these areas are going to be more amenable to these projects than others. It turns out that the area where I worked in southeastern Arnhem Land is an almost ideal site for such a study; for the results see Heath (1978).

The advantage of this region is that, as noted earlier, we find the Yuulingu group (a division of the vast Pama-Nyungan family) trapped in the northeastern corner of the peninsula, and in contact over a broad area with languages of the prefixing group (a loose collection of several families, all ultimately related to each other genetically). The Yuulingu and prefixing languages are genetically related, but only at an extremely distant level, and at the time when they came into contact they were apparently so different in structure and vocabulary that they might as well have been genetically unrelated. See Map.

As the result of this, we find a number of pairs of languages which have been in contact for a considerable period but which prior to the initiation of this contact had little in common with each other. Moreover, since there are at least ten Yuulingu languages, and even more prefixing languages in the near vicinity, it is possible to do conventional genetic reconstruction within close subgroups. We are therefore in an excellent position to identify diffusional (as opposed to internal analogical or structural-functional) developments in the history of each relevant language over the last millennium or so.

For example, Ngandi is a prefixing language whose closest sister language in genetic terms is Nunggubuyu. However, in recent times the Ngandi have been interacting socially with the Ritharngu (a group speaking a Yuulingu language) to the north to a greater extent than with the Nunggubuyu. The latter have come to be closely intertwined socially with the Warnararang, the most northerly of a rather different prefixing group to the south.

Much of the proto-language underlying Ngandi and Nunggubuyu (Proto-NgNu) can be reconstructed by conventional means, also taking into account broader reconstructions for the whole prefixing group. Similarly, much of Proto-Yuulingu and of the proto-language underlying Warnararang, Mara, and Alawa (Proto-MaWaAl) can be reconstructed.

Having done this, it is not especially difficult to determine the set of historical changes which convert Proto-NgNu into attested Ngandi
LANGUAGES SITUATION IN A PART OF NORTHERN AUSTRALIA

key: 1. Bitharang (Yuulongu group)
    2. Ngandi (prefixing group)
    3. Wajarpuwu (prefixing group)
    4. Wumardi (prefixing group)
and Nunggubuyu, and so forth. We can then judge to what extent
diffusional pressures (of Ritharngu on Ngandi, and of Warndarang on
Nunggubuyu) are responsible for the historical changes. Similarly,
we can evaluate the influence of Ngandi on the development of Ritharngu,
and of Nunggubuyu on the development of Warndarang. In all of these
cases, significant diffusional interaction can be demonstrated.
Diffusional changes range from the outright borrowing of words and
bound morphemes to more subtle (and often partial) structural
realignments.

Having established that initial structural divergences have not
proved to be a significant barrier to diffusion (even of large numbers
of bound affixes and the like), we can legitimately infer that
diffusion might have been even more substantial (or at least quicker)
had the languages in question been more similar initially. The south-
eastern Arnhem Land area is atypical of Australia in that genetic
distances (even, say, between Nunggubuyu and Ngandi) are much greater
than is usually the case elsewhere in Australia. Thus a more typical
situation would be one where several languages in contact are already
closely related genetically and quite similar structurally. Assuming
that diffusional forces are particularly intense in such areas, we may
reach the situation where it is methodologically very difficult to
disentangle the recent history of each language by distinguishing
sharings due to common origin from those due to recent diffusion.

Perhaps a reasonable plan for action would be to undertake
comparative/diffusional studies in four or five different parts of
Australia, each study involving no more than about five languages to
begin with. One such study might deal with Warlbiri, Warramunga,
Djingili, and nearby Arandic languages. In this area (in largely arid
regions of Central Australia) we find much larger language groups and
much less intermarriage among them than in coastal southeastern
Arnhem Land. Another study might involve several dialects in the
Western Desert group, which extends over an enormous area in Western
Australia and parts of the Northern Territory and South Australia.
This group differs from the previous one (Warlbiri, etc.) in that it is
a chain whereby each dialect is relatively close to the adjacent ones,
yet again each dialect group is substantially endogamous. Because it
should certainly be possible to reconstruct the proto-language, it
should also be possible to determine to what extent the fringe dialects
have been influenced by non-Western Desert dialects adjoining them.
There should certainly also be a comparative/diffusional study somewhere
in Cape York.
These specific suggestions can be modified or abandoned at the pleasure of the researchers involved; I have done no substantial reconnaissances or feasibility studies involving these regions, most of which I am not directly familiar with. What is important, though, is that at least a few serious comparative/diffusional studies are done in a representative set of areas with different demographic and socio-cultural characteristics.

3. DEMOGRAPHIC AND CULTURAL FACTORS

By 'demographic' factors we mean, in this context, the complex of environmental and social-structural phenomena which influence the frequency of direct contacts between persons belonging to different language groups. Quite obviously, there are going to be cases where two adjacent language groups have little contact, and others where contact is intimate and frequent. Environmental features such as mountain ranges, bodies of water, and (especially) areas without water or adequate food supplies can inhibit contact. A language group of a thousand individuals occupying a large and ecologically diverse territory is likely to be relatively self-contained; a language group of fifty occupying a small coastal area is likely to be predominantly exogamous for several reasons, including the need to maintain military alliances with neighboring groups and the usual vicissitudes in the relative number of men and women of a particular age available for marriage.

For the purposes of diffusional linguistic studies, it is not of crucial importance to analyse the factors affecting the extent of social contact (including intermarriage) among the relevant groups, but it is important to determine how extensive the contact was. Since we are usually interested in linguistic reconstruction going back at least a few centuries, this means reconstructing the basic demographic patterns of the immediate precontact period where this is feasible. It will normally be very difficult to do this in absolute quantitative fashion, but in discussing a particular region it should be possible to at least determine which groups were most closely in contact with which others. For example, in the area in which my fieldwork was conducted it was possible, by means of collecting texts from old men and so forth, to establish that the Ngandi were closely associated with the Ritharngu, while the Nunggubuyu were closely involved with the Warrdarang. Such associations do not follow automatically from locating the language groups on a map; indeed, on the map it appears that the Ngandi and Nunggubuyu (for example) were in very close contact whereas
in fact this would be an exaggeration.

Such a demographic investigation provides a rough background for the diffusional study. But there are also nondemographic cultural factors which, in at least some situations, can greatly affect the extent and type of linguistic diffusion observed. Although we cannot provide even a minimal account of these cultural processes here, we may observe simply that there is often an interesting dialectical (not dialectal!) relationship between the system of language/dialect divisions and the system of (nonlinguistic) social divisions such as moieties and clans in a particular area.

By establishing a particular demographic background we can get some idea of how frequently speakers of one language entered into communication with speakers of another. Obviously, substantial contact between the two groups is likely to lead to considerable linguistic diffusion by unconscious, relatively automatic interference. However, since in most Aboriginal societies there is also a nonlinguistic social grid involving moiety, clan, and possibly 'tribal' divisions, we have the possibility that these 'automatic' diffusional changes may have been artificially blocked, accelerated, or selectively channeled. In certain instances where two groups have sociocultural motives for overtly manifesting their solidarity or their structural equivalence, we might find strong assimilatory pressures which cause their languages/dialects to converge at an accelerated rate. Perhaps more often, we find dissimilatory pressures by which languages/dialects are not permitted to succumb to demographic factors favoring convergence, or by which the languages/dialects are forced to diverge further than they would normally have done.

This crude dichotomy of assimilatory vs. dissimilatory forces (both of which are diffusional, at least in a broad sense of this term) conceals a whole series of varieties. To begin with, given that there are such nondemographic diffusional pressures, we have to ask what aspects of linguistic structure are most greatly affected. That is, what are the precise linguistic features which the speakers manipulate as indices of their social identities, and what features are relatively inert in this respect? In one area pronunciation might be crucial, in another vocabulary might play the central role.

We must distinguish at least two levels of analysis. There is the etic level - the linguist records actual speech in the relevant languages/dialects and determines the nature and type of the linguistic differences among them. Then there is the meta-level of conscious native awareness of the relationship between linguistic/dialectal
divisions and social categories. In some cases we may find considerable etic correlation of the linguistic and social divisions, suggesting that speech differences indeed function as social indices in speech events; in this case there may or may not be an explicit native recognition of this at the conscious, ethnodialectological level. On the other hand, there may be a native theory that linguistic/dialectal divisions do (or ought to) correspond to social divisions, but the linguist may find that in actual speech events there are no systematic linguistic/dialectal divisions.

In this writer's fieldwork area there is considerable variation along these lines. Among the Nunggubuyu, Ngandi, and in general almost all of the prefixing languages investigated, there is no conscious theory that clan or moiety divisions are associated with speech differences of any sort. There is also no substantial evidence for actual dialectal differences within language groups, though those cover two moieties and five or six clan groups. Even at the language-group level there is no strong normative association between linguistic and social divisions; indeed, the language group is not corporate politically, ritually, or as a land-owning unit and thus is not really a nonlinguistic social group at all.

On the other hand, the fact that small language groups averaging little more than one hundred persons or so, and in very close geographical and social contact with each other, have maintained quite separate languages for many centuries suggests that there has been some dissimilatory pressure at the language-group level. If demographic factors alone were operative, we would think that such small and interrelated language groups would have merged into larger groups speaking a single language.

The situation among the Yuulongu languages is much different. This block contains somewhere between fifty and seventy 'clans' which are conceived of in large part as dialectal (as well as ritual-owning) units. That is, one inherits a dialect as an essential part of one's social identity (one also has secondary rights over the mother's clan's dialect and rituals). This situation is 'chartered' by myths which recount how ritual responsibilities, songs, dialects, etc. were distributed among the clans by the creator beings who shaped the social and topographic landscape.

This is the native theory. In practice, the 'dialects' can be grouped into about ten languages from the linguist's point of view; in most cases boundaries between languages are sharp but there is substantial and roughly continuous variation among dialects of a single
language. The Aborigines recognise this tenfold division at one level of their ethnodialectological theory, but assign it little social significance except when a language group (subsuming several clans) is entirely included within one of the patrimeoities. In part of the Yuulongu area we find that the language groups do tend to line up with moiety divisions; the Dhawal language includes about five large clans in one moiety, and two or three other language groups belong predominantly to the other moiety.

At the level of clan-dialects, in parts of the Yuulongu area it appears that there are structural features (e.g., choice of future-tense particle) which correlate at least roughly with clan divisions. However, in the Ritharngu language group no systematic differences were found among the dialects, even those belonging to different moieties. These people adhere to the native theory that each clan has its dialect, but at the etic level this is not borne out.

When asked to provide concrete examples of dialectal differences, Ritharngu speakers are at a loss. The differences exist at the metalevel only, and clan identity is not actually indexed by linguistic variables. This does not perturb the speakers when pointed out to them by the linguist, since they do not claim that particular variables accomplish this indexical function. They simply claim that, at some vague level, there are speech differences of some sort among the clan groups.

Among the Ngalkbon-Dalabon (a prefixing group west of the Yuulongu), there is an explicit theory that speakers from one moiety speak 'fast', while the other moiety speaks 'slow'. Note that this unlikely theory is focussed on a subjective suprasegmental variable and thus has the advantage that it cannot be readily shown to be false. Cf. Dixon (1976:214-218).

This discussion has not mentioned the many other sociocultural factors affecting linguistic change, including differentiation among generations, between sexes, among individuals as part of personality expression, etc. However, the factors dealt with here - involving one's identity as part of a clan, moiety, or language group - are the most vital in the kinds of diffusional research which can be expected in Australia.

4. DIFFUSION OF VOCABULARY

It has long been recognised, for example in Indo-European linguistics, that at least certain kinds of vocabulary are relatively susceptible to being diffused from one language to another. Because
overall diffusion in Australia has been greater than in Indo-European and most other well-known language families, we must expect that vocabulary diffusion has been extremely extensive here.

In the southeastern Arnhem Land study it was found that Ngandi and Ritharrngu share nearly 50% of nominal and verbal stems. Only a handful of shared items can be attributed to independent retention of Proto-Australian items (e.g., *-bu- to hit, to kill). Consequently, Ngandi shares more vocabulary with Ritharrngu than it does with its sister language, Nunggubuyu, despite its incomparably closer genetic relationship to the latter.

Diffused lexical items now shared by Ngandi and Ritharrngu include such basic vocabulary as fingernail, sorotum, mouth, meat, skin, bone, saliva, be afraid, always, ashes, because, to blow, to break, dry country, charcoal, to chop, circumcised man, cloud, country, to cut (two items), to dig, to close off, dreaming (totem), to stand (something) up, bush fire, to operate fire-stick, firewood, to fly, to fly around, to follow, to cross, to bathe, to go past, to go up, honey, to hook up spear onto womena, to be hungry, to hunt (with dogs), to jump, jungle, later, leaf, to lick, to tell a lie, to light (fire), to look around, to make string, man, mud, to be dark, north (and the other compass points), old man, old woman, one, to be open, other, stone oven, paper bark, person, to feel sorry for, to pull along, rain, sand, to scorch, to scratch, to send, (sun) to set, shell, short, shortcut, to be sick, side, sore (wound), (water) spring, star, story (word), straight, string, sun, to pull out (take away), uncircumcised boy, to want, (water) well, wet, whirlwind, wind, woman, and so forth. In almost all of these cases the items are the basic words for these senses in both languages (not, e.g., infrequent synonyms). Other domains not mentioned here, such as kinship terminology and flora-fauna terminology, are also full of diffused terms.

It will be noticed that the above list contains many verbs as well as nouns. Moreover, there are a number of high-frequency verb roots (often monosyllabic) not mentioned above which occur in both languages. Examples: to hit, to kill, to see, to hear, to carry, to sit, to stand, to get. Some of these are probably survivals from the remote common proto-language, but one or two (e.g., to hear) are probably borrowings, and at any rate there is no evidence that such high-frequency verbs systematically resist diffusion. In cases where the sharing is retentionist rather than diffusional, we can simply point out that no diffusion was necessary or possible since the items were already identical (or nearly so).
It should be clear that Australia is not going to be a glotto-chronologist’s paradise, and that genetic classifications based primarily on quantification of lexical (or other) synchronic sharings are unlikely to bear fruit.

However, even in the Ngandi-Ritharrngu case lexical diffusion has not been totally unconstrained. Aside from the fact that some key items (e.g., stone) have not been diffused, we find that there are some structural considerations which have channeled diffusion into some areas and away from others. However, these considerations are not primarily semantic, so it is not a question of particular, semantically-definable domains being especially susceptible or resistant to diffusion.

Whereas noun stems (aside from kin terms) share a substantially similar morphology in both languages, and can occur in ‘naked’ form without affixes in some instances, for verbs we have to distinguish several different inflectional classes. Moreover, the largest and most productive class in both languages has, in addition to thematised inflectable forms, a naked ‘root form’ used as a kind of abbreviation for a fuller verb form (or clause), hence Ritharrngu thematised stem bagu1-?yu- to return (e.g., past bagu1-?yu-?a) and root form bagu1?. The majority of the verb stems which have been diffused between the two languages belong to this class, and we strongly suspect that the occurrence of such roots in an unencumbered root form has facilitated diffusion. The rate of diffusion in the other classes (where the morphological boundary between root and suffix is less clear-cut) has been significantly lower, though some verbs in these classes have been diffused.

If we look at the Nunggubuyu-Warndarang pair a bit further south and east, we find that lexical diffusion has been quite a bit less substantial, and has been almost nonexistent for verbs in particular. This is because the two languages have totally different verbal systems; Nunggubuyu directly inflects its verb roots with pronominal prefixes and tense-aspect suffixes, while Warndarang has an auxiliary structure with a verb-particle (often a CVC syllable) followed by one of a small number of specialised auxiliaries (which have prefixes and suffixes like ordinary Nunggubuyu verbs). Thus the set of verbs in Warndarang which corresponds structurally to ordinary Nunggubuyu verbs, namely the auxiliaries, constitute an essentially unproductive and closed set which does not easily receive new members, and Nunggubuyu has no parallel at all to the Warndarang verb-particles. The structural inhibitions on borrowing noun stems in these languages are
less severe and a fair amount of nominal diffusion has occurred.

In the southeastern Arnhem Land case, then, structural factors rather than semantic ones seem to have been the most effective barriers to lexical diffusion.

There are also a variety of sociocultural factors to consider, however. These include the possibility of artificial exaggeration or diminution of lexical divergence for the purpose of indexing the mutual identification or differentiation of social groups, and also the role played by lexical taboos in encouraging lexical turnover (hence vocabulary borrowings to replace tabooed items).

In the Arnhem Land case, it is difficult to find evidence that social-group indexing has played a particularly significant role in determining the rate of lexical diffusion. As we have seen, speakers of most prefixing languages (e.g., Ngandi) have no elaborated native theory by which language/dialect differences are correlated with non-linguistic social divisions. Among the Ritharrngu (and other Yuinlingu groups) such a theory exists, but at least in the southern area the theory is not confirmed by etic analysis and there is no evidence that individual lexical items play much role in indexing. Ngandi and Ritharrngu are so different from each other in morphology and so forth that it is simply unnecessary to code differences between them by lexical distinctions; the latter might be more significant in a dialect chain where the basic morphological structures were almost identical. In other words, social indexing is more likely to be significant in cases where dialects/languages are splitting away from each other than in cases where two dissimilar languages are in contact and converging to some extent.

The existence of 'special' languages can play an important role in lexical diffusion under certain conditions. The best examples of this are cases where a group has, in addition to the ordinary language, a special avoidance (respect) language used in the presence of certain affines. In the most dramatic cases the avoidance language has a completely different lexical stock from that found in the ordinary language.

As Dixon (1972) has shown, in the Dyirbal group of languages (each of which has ordinary and avoidance languages), it is often the case that an avoidance word in one language is identical to an ordinary word in an adjacent language, and presumably has been borrowed from this source. Hence the situation shown in Figure 1.
Since the avoidance language is used only in restricted social environments, and is generally much poorer in lexical stock than the ordinary language, it is likely that its lexical items are subject to much fluctuation over time. As certain of its terms go out of use or are forgotten, it requires replenishment, and the obvious source for a substitute term is the common term in some nearby language. Hence what is originally an ordinary term in L₁ is borrowed into L₂ as the avoidance term in the diagram. (Speakers of L₂ will often have only poor fluency in the avoidance version of the neighboring language L₁, so the latter’s ordinary rather than avoidance form will be the usual source for replenishing the avoidance vocabulary of L₂.)

However, because the lexical stocks of ordinary and avoidance versions of L₂ must be kept totally distinct (to maximise the social-indexing value of the avoidance language), we have the ironic result that the borrowing of X from ordinary L₁ into avoidance L₂ actually inhibits the borrowing of X from ordinary L₁ into ordinary L₂. In the figure, it is now essential to maintain the opposition between Z and X, and consequently Z cannot be replaced by X (borrowed from L₁). Since L₂ is unlikely to borrow Y from avoidance L₁, diffusion between L₁ and ordinary L₂ may be held to a relatively low rate because of such factors. To my knowledge, a quantitative study of these phenomena has not been undertaken.

It is worth stressing that only a few areas in Australia have fully developed avoidance languages, though there are many languages with a small number of avoidance terms. Most languages, however, do have analogous phenomena in the relationship between ordinary and song (or more generally ritual) languages. It would be interesting to explore this matter further, but I will content myself here with observing that song languages seem to have played only a small role in lexical diffusion among the ordinary languages in the Arnhem Land case. The song languages themselves have, as might be expected, borrowed extensively from neighboring ordinary and song languages in replenishing their own lexical stock, but this has not greatly interfered with diffusion among the ordinary languages themselves. Song languages have
not been the principal media through which Ngandi and Ritharrngu ordinary languages have borrowed from each other, nor have they deterred such borrowing in the manner suggested above for the avoidance languages.

Before leaving the subject of lexical diffusion, it is necessary to deal briefly with the role of taboos. It has been noted from time to time that upon the death of a person, people in his kindred or some larger group may refrain from pronouncing his name for a number of years. If the name happens to be identical with a word used in the ordinary language, this word may become taboo, possibly for a period of years. Moreover, a word which has the misfortune of being phonologically similar to the deceased's name may also be tabooed.

It has been suggested that the high rate of lexical diffusion in Australia is largely due to the operation of the taboo, since it creates a need for lexical replenishment and since the vocabulary stock of a nearby language is the logical place to look for a replacement for the tabooed word.

It is unlikely, however, that the taboo has played a crucial role in influencing rates of diffusion, except perhaps in certain regions in Australia. In the Ngandi-Ritharrngu situation, for example, we have documented a remarkably high rate of lexical diffusion, yet among the Ngandi (who have done most of the borrowing) the death taboo is not especially strong or long-lasting. Most personal names are obscure song epithets and the like which are unlikely to affect ordinary vocabulary. If the death taboo were so important, we would expect lexical turnover to be far greater in such semantic domains as flora-fauna, with which many of the personal names are associated - yet we find very high rates of diffusion in other areas as well, such as compass-point adverbs and kin terms (not to mention verbs, logical conjunctions, etc.). On top of this, diffusion between Ngandi and Ritharrngu has also affected many semi-frozen, bound affixes such as case suffixes and the like, and no-one would seriously suggest that an ablative suffix or a comitative prefix is likely to become too hot to handle because of taboos.

This is not to deny that there might be regions in Australia where the death taboo is stronger and has indeed played a moderately important role in stimulating diffusion. Probably the best symptom for such a situation would be that each language in the area has a supply of apparently superfluous synonyms for many common nouns and verbs. In Arnhem Land, for example, the Yuungu languages (particularly those north of the ones I worked on) are noted for their extravagant
stock of synonyms. I have elicited body-part terms for one such language (Dhay?yi), and often got five or six synonyms whereas a language like Nunggubuyu only infrequently had more than one. I understand that the death taboo is fairly strong among the northern Yuulngu, and we can infer that the large supply of synonyms is a response to this situation.

What has not been established, however, is how frequently a word which becomes tabooed after a death is permanently exorcised from the language. In many cases it appears that the word is avoided for a decent period, ranging from two to perhaps ten years (less for more distant relatives), and is then reintroduced as the common word in its former sense. Indeed, the personal names themselves are usually recycled (to descendants of the deceased two generations below him). Consequently, although we have well-documented cases where a short-term death taboo has operated, we have little information about the ultimate fate of the tabooed terms, and are thus in a poor position to estimate even crudely the quantitative role of the taboo in lexical turnover.

5. DIFFUSION OF PHONOLOGY

It has long been remarked that Australian languages share a substantially uniform phonological system, despite the large geographic distances involved and despite substantial time depth separating one region from another. Moreover, in cases where special phonological features occur, these often have spread throughout a particular region. That is, we find few cases where geographically contiguous languages have sharply different phonological systems.

In Arnhem Land, we find a clear boundary between a group of languages with two series of stops (fortis vs. lenis) and without a syllable-final glottal stop, and another group with only one stop series and without a phonemic glottal stop. This boundary does not correlate with genetic divisions. The first group includes the Yuulngu languages and a number of adjacent prefixing languages to the southwest and south, including Ngandi. The second group includes the prefixing languages further south, including Nunggubuyu (which is genetically closest to Ngandi) and Warndarang. It can be shown that Nunggubuyu, under the influence of Warndarang, has undergone a series of consonant shifts converting a Ngandi-like protosystem into the attested Warndarang-like system.

It is likely that diffusion at an earlier stage is responsible for the near-identity of the consonant systems of the Yuulngu languages
with those of the adjacent prefixing languages like Ngandi. Certainly
the diffusion of large quantities of stems and other morphemes has
played a central role in this. However, both in the Yuulngu and
prefixing languages we find fortis/lenis oppositions, and glottal
stops, in inherited as well as borrowed morphemes. It must therefore
be recognised that phonological diffusion in this case has been
accomplished not only by direct lexical diffusion, but also by indirect
processes whereby speakers of different languages developed regional
pronunciation patterns and applied them to their own lexical material.
Indeed, in the assimilation of Nunggubuyu phonology to that of
Warndarang, direct lexical borrowing (which has been limited) has
certainly not been the primary mechanism.

Unfortunately, it is not yet clear whether the Yuulngu or prefixing
languages first developed the more complex system with two stop series
and with the glottal stop. It is therefore not possible to reconstruct
the actual historical developments responsible for the present
affinities between the two groups.

This is also the case with another important regional feature of
this area, the occurrence of interdental consonants (but only before
vowels). Most Yuulngu languages (but not Djinang, at the northwestern
extreme of the group) have ą and (fortis) ą in a large number of stems
and bound morphemes, and a small number of important affixes and
pronominal or demonstrative stems with ċ. In Djinang, the lamino-
alveolars ą, ę, and ċ correspond to interdental ą as well as to lamino-
alveolars in the other Yuulngu languages. As for the prefixing languages,
many to the west of the Yuulngu group lack interdentals, but ą and ċ
are common in Ngandi, and ċ (*ą) and ą (*č) are common in Nunggubuyu.
One suspects that the interdental ą originated in the Yuulngu group
(having split off, perhaps, from laminoalveolars), and that Ngandi and
Nunggubuyu (or rather Proto-NgNu) borrowed them from this source, while
one or two northwestern Yuulngu languages like Djinang have merged
interdental ą with laminoalveolars under the influence of prefixing
languages in that area. If so, the details must have been complex since
the opposition between interdental ą and laminoalveolar ċ in Ngandi and
Nunggubuyu applies to inherited as well as borrowed vocabulary. The
hypothesis presented here cannot be considered established until a
more detailed investigation has been carried out.

One of the few studies of phonological diffusion in other parts of
Australia (aside from the Torres Strait Islands case mentioned at the
beginning of the paper) involves Cape York Peninsula. Alpher (1976)
has demonstrated that the dropping of initial consonants in a number of
essentially contiguous languages has probably occurred subsequent to
the splitting off of these languages from their immediate common
ancestor. It is thus probable that diffusional interaction has played
a significant role.

However, it is likely that the primary thrust of diffusional
forces in Australian phonological systems has been conservative —
impeding major sound changes rather than ensuring their wide distri-
bution. Although the attested continent-wide similarities may go
back to the proto-language, innate lethargy is not a satisfactory
explanation for their perpetuation. It is likely that the rarity of
major demographic shifts (i.e., migrations), and the near-absence of
contact with Melanesian or other foreign languages, has contributed to
a situation where most Australian languages have been surrounded by
languages sharing the same basic phonological features. Consequently,
the effect of diffusion has been mutual reinforcement, rather than
inducement to radical alterations. We have noted some instances where
diffusion has played a role in propagating local innovations, but this
has been subordinated overall to the conservative effects of diffusional
pressures.

6. DIFFUSION OF MORPHOLOGY AND SYNTAX

Undoubtedly the most striking result of the Arnhem Land study has
been the recognition of large numbers of bound morphemes (mainly
prefixes and suffixes) which have been directly diffused across well-
established language boundaries, e.g., from Ritharrngu into Ngandi or
vice versa. The examples include case suffixes, derivational verbal-
ising suffixes, a system for thematising verbal root forms (mentioned
above) including the actual suffixes involved, negative suffixes,
comitative prefixes, and the like. Similarly, Warndarang has borrowed
from Nunggubuyu (perhaps with some assistance from Ngandi) some case
suffixes along with a system of nonhuman noun-class prefixes.

The sheer number of such examples which can be documented, even
restricting ourselves to the four languages shown in the map (cf.
above), has permitted at least a partial analysis of the factors
favoring or impeding direct diffusion of bound morphemes; see Heath
(1978). The question turned out to be what kinds of morphemes
have not been diffused, rather than what kinds have been.

In addition to such blatantly direct diffusion, however, there are
also strong indications of indirect morphosyntactic diffusion — the
rearrangement or restructuring of inherited morphology and syntactic
patterns to conform to those of a nearby language. Such indirect diffusion has often resulted in partial assimilation only.

For example, the Yuulngu languages generally have fully independent personal pronouns which can occur anywhere in the sentence (as nouns can), and are generally omitted when a full noun-phrase is present. On the other hand, the prefixing languages in this area have bound pronominal prefixes specifying the category of subject (and, for transitives, object). Consequently, fully independent pronouns - though they exist - are generally not used in these case categories, and usually have emphatic or contrastive function when they are used. The prefixes are used whether or not independent noun-phrases for these cases are also present in the sentence. Thus *The man hit the woman* would have the following surface structures (with word-order free) in the Yuulngu and prefixing languages, respectively:

Yuulngu: \textit{man-Ergative hit-Past woman-Accusative}

prefixing: \textit{man-Ergative he/her-hit-Past woman-Accusative}

(Actually, most prefixing languages would use the zero Nominative case for direct object, and some would also use it for subject, but we disregard this problem here.)

The pronominalised versions would be these:

Yuulngu: \textit{he-Ergative hit-Past her-Accusative}

prefixing: \textit{he/her-hit-Past her}

(Again, the case-marking in the Yuulngu example would actually have Nominative instead of Ergative, but we disregard this.)

Rithargu, however, diverges from the pattern set by the other Yuulngu languages. It has developed a series of enclitic subject- and object-marking pronominals, which along with some other optional elements form an enclitic cluster which follows the first constituent in the sentence. If + is the boundary just before an enclitic, the two Yuulngu sentences shown above become these in Rithargu:

full form: \textit{man-Ergative + he + her hit-Past woman-Accusative}

pronominalised: \textit{hit-Past + he + her}

The enclitic pronouns are simply reduced forms of the Yuulngu independent pronouns (e.g., 3Sg Accusative *ŋa* from *ŋi-ŋa*), and the full forms are sometimes used in Rithargu as emphatic pronouns in sentence-initial position.

Note that in the full form of the Rithargu sentence, the enclitics are used although the sentence includes full NP's specifying the
subject and object. Thus Ritharrngu has assimilated partly to the
system found in prefixing languages, since it has developed a system
of obligatory bound pronouns for subject and object, and uses
independent pronouns in these case categories as sentence-initial
emphatic pronouns. However, the mechanical details of the Ritharrngu
system (enclitics following first constituent in the sentence) differ
substantially from those of the prefixing systems (prefix-complex fused
to verb).

In the northwestern portion of the Yuulngu group, Djinang appears
to have gone even further and has developed a system of pronominal
prefixes (or at least proclitics) marking the category of subject and
object. The prefixes are, historically, reduced or otherwise thinly
disguised forms of the old Yuulngu independent pronouns in most cases.
However, the system of pronominal prefixes is not quite as well-
established as it is in the prefixing languages themselves, and it
appears from the limited data I have collected that the 1sg prefix er-
(*gara), for example, is omitted in some tenses (hence the independent
pronoun *gara must be used).

Unfortunately, at present we know very little about Djinang and the
immediately adjacent prefixing and Yuulngu languages. This is likely
to be at least as interesting an area for diffusional linguistics as
the area further south where I have worked extensively.

7. THE FUTURE

It is unfortunate that the southeastern Arnhem Land case study has
been so salient in this report. It is to be hoped that within a few
years we will have a number of diffusional studies by other
Australianists who have specialised in different regions, so that we
will be in a stronger position to generalise concerning the nature of
linguistic diffusion (and of historical linguistic processes generally)
in this continent. At that point the full significance of Australia
for diffusion theory will become clear.

It is already apparent, however, that Australia will have much to
say about the future of diffusion theory. The latter can only develop
properly in the context of a broader historical theory which includes
the traditional comparative method for genetic reconstruction. In
Australia the comparative method holds great promise, for recon-
struction within small subgroups and also (notwithstanding frequently-
heard disclaimers) at the Proto-Australian level. This is also true
of several other language families, but in addition to this Australia
is almost unique in the extent of diffusion it has permitted across well-established language boundaries. This is probably due to its nearly unique demographic patterns, but whatever the reason Australia will be an important laboratory for investigating historical dynamics.