CHAPTER 26

Linguistic divergence under contact

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The normal result of language contact is widely assumed to be convergence, as manifested in classic Sprachbünde and caused through metatypy, cognitive economy, shared norms of conversational practice, etc. Yet at the same time there is growing evidence that contact can also produce divergence, originating with Larsen's idea of 'neighbour opposition') and developed through Thurston's work on *eseterogeny*(elaboration of difference and impenetrability) to account for the apparently deliberate cultivation of language difference found in many parts of Melanesia.

I argue that contact-induced divergence is more prevalent than previously thought, drawing on case studies from New Guinea and Northern Australia. Crucial ingredients are mechanisms for generating divergent structures (psycholinguistic, systemic), social settings favouring the linguistic signalling of group-membership distinctions, and social processes of linguistic ideology and praxis selecting for distinct structural options as social signalling devices.

Keywords: complexification, correspondence mimicry, doppel avoidance, language contact, language convergence, language divergence, metalinguistic awareness, metatypy, multilingualism, nabooppositon

> It has occurred to me that the exogamic and other cultural institutions … may be exerting a force that makes a speaker want to render closely-related languages further apart, even to an artificial extent, but so far I have detected no linguistic innovations to this end.
>
> (Sorensen 1967: 676)

> What has been realized is that the development and maintenance of 760 languages has been made possible in very large part due to particular, widespread attitudes towards language.
>
> It is now generally agreed that New Guinea communities have purposely fostered linguistic diversity because they have seen language as a highly salient marker of group identity… In other words, New Guinea villagers have traditionally seized upon the boundary-marking dimension of language, and they have cultivated linguistic differences as a way of 'exaggerating' themselves… in relation to their neighbours and trading partners. (Kulick 1992: 2)

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1. Introduction[1]

Contact between languages is generally believed to produce convergence rather than divergence. For example, Kaufmann (2010: 481) suggests that "divergence … in language contact … is probably a rare element", and Labov (2010: 5) states that "[w]hen two speech communities are in continuous communication, linguistic convergence is expected, and any degree of divergence requires an explanation". The purpose of this paper is to argue that, the above tendencies notwithstanding, contact-induced divergence does exist and is a sufficiently widespread phenomenon that it merits more systematic study from historical linguists than it has received to date.[2] Understanding this phenomenon is likely, in fact, to be a key part of our still-incomplete program of accounting for why the world's languages are as diverse as they are.

In a region like New Guinea, for example, which shows legendarily high levels of diversity on all three main measures (number of languages, number of families, and typological diversity of languages), we currently face major explanatory problems accounting for this diversity given that it coexists with high levels of contact and multilingualism in such regions as the Sepik (Kulick 1992) or Southern New Guinea (Evans 2012, plus details below). So we need to ask whether contact can, against expectation, actually produce significant levels of divergence, and if so, how, when, where and under what social conditions? My goal in this article is to illustrate that divergence under

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2. Note that Thomason (2007: 42) is careful to frame her definition of "contact-induced change" in a way that is neutral with respect to convergence vs. divergence: her definition 'includes interference of all kinds – that is, changes in which forms or structures or both are transferred from one language to another – but also changes that distance one language or dialect from another'. The main thrust of her paper concerns the role of deliberate change – which is one, though not the only, cause of contact-induced divergence – but it contains several interesting examples of contact-induced divergence, some of which I refer to below.

contact can occur in virtually every part of the linguistic system, drawing on examples from a wide range of speech communities and contact situations.

After a brief survey in §2 of current assumptions regarding convergence being the normal outcome of language contact, I pass in §3 to a number of case studies, which build the case for divergence under contact, at all levels of the linguistic system. I then go on, in §4, to propose a general model for divergence under contact, which includes (a) mechanisms for generating divergent structures (b) social settings favouring linguistic signalling of group-membership distinctions, and social processes of linguistic ideology and praxis selecting for distinct structural options. Finally, in §5, I raise some unanswered questions for our understanding of divergence under contact.

2. Contact and convergence as a default assumption in historical linguistics

It is widely assumed in historical and areal linguistics that language contact leads to structural convergence, mediated by bi- or multilingual individuals, in such areas as India (Gumperz & Wilson 1971), the Amazon (Aikhenvald 2002) and Mainland Southeast Asia (Dahl 2008; Enfield 2002, 2005).

Ross (1996, 2007) has coined the term 'metatypy' for such structural convergence – the refashioning of language structures under contact so they become more similar, such as in the case of Karkar Island, north coast of PNG, where Takia (Austronesian) and Waskia (Papuan) have converged under contact. In its syntax, Takia has calqued Waskia syntactic patterns; in its morphology it has copied Waskia patterns but fashioned them from native material.

The concept of 'cognitive economy' is frequently cited as a driving force behind structural convergence in bilingualism, as well summarised by Kühl & Braunmüller (2014: 18–19):

> In order to keep the cognitive costs in language processing low, the bilingual speaker constantly practices some interlingual identification and matching of equivalent elements, based on formal and/or functional criteria (Matras 2009: 151). The lower the degree of separation between the subsets in the repertoire, the lower the cognitive costs (Matras 2009: 151, 235) will be. Thus, in order to ease the bilingual speaker's "linguistic burden" (Weinreich [1953] 1968: 8), speakers may choose to converge some linguistic features.

And yet there are several reasons for us to be cautious about treating convergence as (i) always due to contact, (ii) automatically more efficient cognitively, or (iii) an inevitable consequence of multilingualism.

As regards the first point, of attributing (real or apparent) convergence to contact, a number of recent sociolinguistic studies have shown that, under such textbook cases of language contact as Spanish and English in New Mexico, or English and French in

Quebec, claimed cases of language convergence[3] do not stand up to careful quantitative scrutiny (see Travis & Torres Cacoullos 2015 and Torres Cacoullos & Travis 2017 for further examples):

> [M]uch of the evidence brought to bear on contact-induced change – diachronic as well as synchronic – either fails to demonstrate that change has occurred, and/or if it has, that it is the product of contact and not internal evolution. These issues, together with the possibility that the inherent variability characteristic of all spoken language may have been mistaken for change, need to be resolved before an explanation can be justified (Poplack & Levey 2010: 391)

As regards the second, recent work by Ellison & Miceli (2017) has demonstrated the presence of psycholinguistic mechanisms that in at least some conditions make it easier to produce formally distinct signs, under conditions of bilingualism – there seems to be a language-choice monitoring mechanism which keeps lexical signs distinct enough that it is easier to produce forms exclusive to one language than those shared across a bilingual's languages, resulting in 'doppel avoidance' as surveyed in more detail in §4.1.2.

Turning to the third problem, there exist parts of the world where despite widespread patterns of multilingualism the expected phonological and grammatical convergence does not seem to occur. In the Morehead District of Southern New Guinea, for example, prescribed direct exchange of sisters interacting with clan exogamy, and the fact that a large proportion of clans have their own distinct language, means that a large proportion of households are bilingual on a daily basis. In-married wives maintain their own language but learn that of their husbands as well, children grow up speaking the languages of both parents and possibly additional ones associated with their grandparents, and even in a small hamlet of 30–40 people one can hear three or four languages being used on an hourly basis (see Ayres 1983). Villages associated with different languages are close together – just a couple of hours walk across easy terrain – and there are regular visits back and forth.

Despite this, and the fact that speakers regularly switch between languages (though actual code-mixing is rare), the degree of convergence looks very different to textbook Sprachbünde like Mainland South East Asia.

Certainly there are some areal features, found across the five or so unrelated families found there (see Evans 2012 and Evans et al. 2017) for details of languages of the region). These include lack of tone, presence of both prefixes and suffixes on verbs, 'composed' three-way number systems for verbal arguments, aspectual systems focussing on a momentaneous vs. durative contrast rather than a completive vs. non-completive one, and complex sets of past tense distinctions.

But there are, equally, many key typological differences. Let us compare a few features found in the Nambu branch of the Yam family (e.g. Nmbo, Nen) with those

3. Ironically for the purposes of the present article, Poplack & Levey (2010) appear to assume without comment that contact-induced change is convergence. They do not mention the possibility of divergence as an outcome of contact.

found in the Pahoturi family, right next to it but unrelated (Idi, Agob); people living in villages like Bimadbn claim Nen as the language of their village but are also fluent in Nmbo, another Yam language, and Idi, a Pahoturi language.

Languages of the Nambu branch of the Yam family have an ergative/absolutive case system, including in pronouns, while those of the neighbouring Pahoturi family have a nominative/accusative system; Yam languages lack clusivity while Pahoturi languages have it; Yam languages conflate 2nd with 3rd person in their verb agreement while Pahoturi languages conflate 1st and 3rd (and bear in mind that, since inflected verb forms can have well over a thousand different values, patterns of syncretism such as 2=3 or 1=3 impact hundreds of cells in the paradigm). Phonologically, Yam languages lack velar nasals but Pahoturi languages have them; Pahoturi languages also have retroflex stops and a place-of-articulation distinction for laterals, neither found in Nen, whereas Nen has coarticulated labialvelars not found in Idi.

This small list of typological features should give some idea of just how little structural convergence appears to have taken place between neighbouring languages in this region. It should be stressed that this lack of convergence certainly does not reflect a lack either of widespread multilingualism across the languages concerned, or of other evidence of contact, e.g. from the lexicon. There are numerous loanwords, for example, in the domains of bird and plant names, and in some areas of the phonology, such as the vowel system, there are clear structural isomorphisms (Ellison et al. 2016). Rather, it seems to suggest a resistance to grammatical and phonological convergence in many parts of the grammatical system.

Overall, then, data from regions like Southern New Guinea not only make us doubt whether structural convergence is as automatic a consequence of language contact as has been claimed, but it even raises the question of whether multilingual conditions can actually foster language divergence. In the next section we pass from this little Southern New Guinea cameo to a more wide-ranging survey of cases in which divergence is associated with language contact.

3. Discovering divergence: Some case studies

The case of Southern New Guinea, described in the last section, merely shows that languages in contact can have diverse structures, not that the contact caused the divergence – one could argue that they have simply retained distinct structures in spite of contact. But in this section we show that there are indeed cases where contact does seem to drive divergence. First we review some of the main thinkers on the topic, who since Baudouin De Courtenay (1885) have drawn attention to such phenomena. Then we pass to a number of case studies demonstrating divergence at virtually every level of linguistic organisation.

3.1 Contact-triggered divergence: A partial pedigree

As far as I am aware, the first idea relevant to contact-induced divergence was published by Baudouin de Courtenay in 1885, under the rubric 'correspondence simultaneity', which he characterised as "a live phonetic correspondence, which is perceived as such by the speakers" (Baudouin de Courtenay [1885] 1972: 187), and drawing attention to the fact that speakers may be aware of regular correspondences between words in different languages, e.g. Russian and Polish. By establishing this metalinguistic awareness of sound correspondences he laid the foundation for understanding one type of divergent change (see below), but did not actually adduce examples of it driving change.

Similarly, de Saussure ([1915] 1979: 281) introduced the two great opposing forces in tension in any speech community: *esprit de clocher* 'parochialist spirit', and *esprit particulariste* 'particularising spirit', opposed to "la force d' « intercourse »", "qui crée les communications entre les hommes". In postulating his opposition between parochialising and generalising forces, he sets a promising scene for understanding divergence, but then goes on to assume that outside contact perforce leads to convergence.

Two years after Saussure's *Cours* was first published, the first article appeared outlining a contrary dynamic: a particularising change that could only be understood as resulting from awareness of phenomena across more than one community. In his study of the Halling and Sogn dialects of Norwegian, dialectologist Amund B. Larsen noticed that the (historically regular) correspondence ø:ɔ between the Halling and Sogn dialects is so salient for Sogn speakers that they extended it into words which should not descend with ɔ. Christening this phenomenon *Naboopposition* 'neighbour-opposition', he concludes: *Naboopposition er en fast faktor i sprogutviklingen* 'Naboopposition is a constant factor in language evolution'. Larsen's discovery remained outside mainstream linguistic theorising for many decades, until being brought to wider attention by Peter Trudgill (1983). However, Trudgill's translation of the term as 'hyperdialectalism' has the unfortunate effect of suggesting that the phenomenon is confined to distancing between dialects, something we will see is an unnecessary restriction.

The next major step in understanding the dynamic of divergence came from the work of Heinz Kloss ([1952] 1978), with his concept of *Abstandsprache*, roughly, a language that has been purposefully differentiated from its congeners. However, his work focussed primarily on the macro-level, of languages (and dialects) as whole systems, with particular relation to language planning and the mutual adjustment between languages and political entities such as nation-states.

More ethnographic examples from New Guinea were to follow in the 1980s. Don Laycock (1982), as part of a broader argument for the cultivation of linguistic difference in Melanesia, reports how the Uisai dialect of Buin (Bougainville Island) has flipped masculine forms to feminine and vice versa, with respect to other Buin dialects. Unfortunately this oft-cited study did not follow up his claims with actual data and his posthumously-published dictionary of Buin does not contain supporting evidence of such gender flips, so Laycock's spectacular claim cannot be taken as established to the standards of evidence we would wish for.

Subsequently, several important studies by William Thurston (1987, 1989, 1992) on Anêm speakers (New Britain) and their neighbours focussed in considerable detail on the processes by which such speakers, whose multilingualism made them aware of the similarities and differences between their language and those of their neighbours, apparently promote a number of changes to Anêm. The effect of these changes is to make Anêm both more different from its neighbours and more difficult to learn – a process Thurston termed *esoterogeny*.

We complete our brief chronological survey of the development of ideas on contact-driven divergence by mentioning three important recent publications.

First, Claude Hagège (2005) discusses a number of cases where deliberate choices by nationalistic language planners have driven changes that consciously differentiate national varieties from their neighbours; these drew on conservative dialects as reservoirs of difference, rather than creating new forms out of nowhere. Among the cases he discusses are:

a. the successful reinstatement of feminine gender in Nynorsk (lost in Danish and Bokmål, the Danicised official form of Norwegian) by nationalist nineteenth century intellectuals, drawing on southwestern dialects which had kept the feminine; and
b. revival of glottalised pronunciations of voiced stops in Vietnamese, to amplify the phonetic difference from Chinese,[4] with the growth of Vietnamese independence from China in the twelfth century.

Second, Atkinson et al. (2008), applying phylogenetic methods to vocabulary data from Austronesian, Bantu and Indo-European, found a significant effect of lineage splitting on amount of change. The more nodes a lineage has gone through, the more changes it has (as measured by cognates). Their results suggest that around 10–20% of the differences between languages are attributable to change that happens at language splitting events, and they suggest that this reflects deliberate change to differentiate languages.

Third, an important new edited volume has recently appeared (Braunmüller, Höder & Kühl 2014) which revisits the issue of contact and non-convergence. Sometimes this takes the form merely of maintaining existing diverse structures in the face of contact, i.e. resisting convergence (e.g. syntactic non-convergence of Judeo-Spanish in Sofia with Bulgarian). This may in fact be the explanation for typological diversity in certain parts of the world, such as much of the Amazon (Pattie Epps, p.c.), which appear to have simply maintained the inherited diversity of its multitudinous families with little convergence. But at other times contact can be shown to have actually produced divergence with respect to some other variety, as in the case of divergence between the Portuguese and Spanish strategies for marking direct objects (see §3.5).

4. In fact it is difficult to know whether, in this case, we are dealing with the deliberate reestablishing of a 'rustic' form by nationalistic intellectuals, or the changing demography of elites following the departure of the Chinese, leading to a higher proportion of those speaking less Sinicised Vietnamese among the new elites.

We now turn to a range of specific examples, to support our general claim about contact-induced divergence with specific phenomena.

3.2 Lexicon

The lexicon is probably the most consciously accessible part of language, so it should be no surprise that this is where there have been the most frequent reports of deliberate fostering of divergence. We cite two examples from among many, coming from very different sociocultural settings. First, in Papua New Guinea, Ken McElhanon (cited in Kulick 1992: 2–3) reports the case of a Selepet-speaking community which decided at a meeting to replace the standard Selepet word for 'no', *bia*, with the word *buŋe*, so as to differentiate themselves from other Selepet villages. Second, in the newly independent nations formed from the fragmentation of the former Yugoslavia, there has been substantial politically-driven differentiation of the lexicon, e.g. in Croatian the word *major* for 'Army major' has been replaced with *bojnik*, and *pasoš* 'passport' has been replaced with *putovnica*; both of the original forms are still found in Serbian (Kapovic 2011).[5]

It would be a mistake, though, to see all lexical differentiation as resulting from conscious and ideology-driven processes of this kind, and in §4.1.2 I review recent experimental evidence showing that when accessing lexical items in bilingual mode, dissimilar words may be accessed with higher frequency. Iterated over generations, this process could readily produce lexical divergence without any need for conscious decision-making.

In many parts of the world we see examples of neighbouring languages, for which structural and reconstructive considerations suggest close relationships, exhibiting unexpectedly low levels of shared vocabulary. In Northern Vanuatu, for example, we find a relatively shallow time-depth and strong structural parallelisms in the grammar and phonology, but levels of shared vocabulary below 10% (François 2011), leading to examples like the following in which parallel sentences exhibit next to no cognacy in their lexica:

5. Harold Koch (p.c.) gives a further example, from a workshop on Arandic orthography organised by Jenny Green in about 1998. Green had asked him to suggest some words that were common to Arrernte, Anmatyerr, Alyawarr and Kaytetye, so as to illustrate how different spelling conventions applied to words pronounced the same. Koch's suggestions included 'black cockatoo' (spelled *irrarnte*, *irrarnt*, *errarnte*) and 'dingo' (spelled *artnwere*, *artnwere*), both forms he had previously verified through decades of fieldwork in the region. Afterwards some Kaytetye speakers challenged him, saying they were not the Kaytetye terms. Knowing that they had been Kaytetye words in the 1970s, Koch asked them what the true Kaytetye terms were, and was offered *eylek-aynewenhe* (lit. 'prickle-eater') for 'black cockatoo', and *waltake* for 'dingo', with *waltake* transparently derived from English 'wild dog'. Koch suspects that in this setting the Kaytetye men were at pains to differentiate their language lexically from the other Arandic varieties.

(1) Lemerig *tær ɪ ɣɒlɒl ʔørmaʔ ʔæ.kiʔis*
Koro *nɪr tɪ rɔŋ taβul wɔs.mɛlɛ*
3PL not.yet1 know properly not.yet2
Lemerig *n tɛk tɛk mɔɣɔt*
Koro *ɔ βalβalaw namɪɣɪn*
ART speech POSS:1INCL.PL
'They don't know our language very well yet.'

Likewise, in Australia, it is common for neighbouring and closely-related languages, apparently in contact for as far back as we can reconstruct, to exhibit rates of shared vocabulary below 10%. A particularly interesting case is found in the South Daly region, where Murrinhpatha on the one hand and a cluster of dialects including Ngan'gityemeri on the other share less than 10% of their vocabulary; on top of this, the forms for free pronouns and case markers have little in common. For many years this led linguists to assume they were not closely related, and to postulate isolate status for Murrinhpatha. But meticulous work by Ian Green (2003), based on the reconstruction of full paradigms for 18 auxiliary verbs and partial paradigms for another 10 highly complex verb paradigms that exhibit regular sound correspondences and particularities of organisation, has shown the relatedness of these languages.

Strange as it may seem, the most plausible explanation here is that some process – whether consciously fostered, growing out of unconscious doppel-avoidance in bilingual situations, or some intermediate level of consciousness – has driven lexical divergence (including for free pronouns) between these languages at a much faster rate than would be expected from the detailed parallelisms in their verbal paradigms.[6] While there are occasional examples of neighbouring Australian languages with higher levels of shared vocabulary, this is unusual except in cases of very closely related languages, and the Southern Daly case is far from atypical – see Harvey (2011).[7]

6. Green (2003) considers, and rejects, the possibility that the languages are in fact not related (or only at a very deep level), with the wide-ranging paradigmatic similarities due to borrowing. He argues that this would amount to unparallelled levels of borrowing, even by the standards of the cases discussed in Thomason & Kaufman (1988). An alternative explanation would simply appeal to huge time depth as the cause of the very low level of shared lexicon, but this then faces the problem of how to account for the uncanny level of persistence of detail (including detailed irregularity) for dozens of paradigms, each with many dozens of forms.

7. The oft-repeated claims by Dixon (1972, 1980, 1997, 2002) about a '50% equilibrium level' being reached by neighbouring languages in Australia do not stand up to careful scrutiny, either of the empirical facts or of the mathematical modelling. See e.g. Alpher & Nash (1999) and Evans (2005: 232–5) for detailed discussions.

3.3 Phonological divergence

The phonetic level is also a highly salient and emblematic aspect of language difference. As we saw above in the case of Vietnamese following cultural independence from China in the twelfth century, a restitution of implosive voiced stops as prestige forms (instead of low-status rural variants) took place, as part of nationalistic differentiation of the language from Chinese.

Policing of phonological 'purity' is also a widely-reported phenomenon used to keep phonological systems apart in situations of contact. In the highly multilingual Amazon, Aikhenvald (2002: 415) reports how Tariana speakers avoid the sound [ɨ], associated with Tukano, as "part of the more general constraint against language mixing" (Epps forthcoming).

But awareness of different phonological patterning across two or more languages in a multilingual situation need not stop at maintaining the separation of systems – it can also lead to more active refashioning in the interests of differentiating. Benjamin (1976: 147–150) reports on a fascinating case of this in Temiar, an Aslian (Austroasiatic) language of Malaysia in intimate contact with the dominant language, Malay. Describing the assimilation of Malay loanwords as they pass into Temiar, Benjamin observes that even when they would fit into Temiar phonology without modification, they are adapted in ways that distance them from the original forms. Thus final nasals become corresponding voiceless stops, and initial nasals become voiced stops, even though both initial and final nasals are perfectly acceptable within Temiar phonotactics. Examples are:

(2) Mal kəbun > Tem kəbut 'orchard'
Mal lobaŋ > Tem lobak 'hole'
Mal ɲamoʔ > jamoʔ 'mosquito'
Mal nama > damə:h 'name'

Note that the effect of these changes could be seen in two ways: either as creating additional phonological divergence between the Temiar and Malay pronunciations of words which are formally similar, or as creating special phonotactic subclasses within Temiar that distinguish more dramatically between native and borrowed vocabulary than would be the case if the loanwords had been taken over without phonological modification. Either way, Benjamin gives the following interpretation for the process:

> Temiar culture … makes it desirable that Malay loanwords should be specially marked.
> (Benjamin 1976: 150)

For further examples of phonological differentiation, see Blust (2012) on the genesis of Hawu vowel metathesis ("we are clearly forced to seriously consider some cases [of sound change] as the results of arbitrary human invention"), and, again from the Amazon, Gomez-Imbert's (1999) account of tonal relinking in the Tukanoan languages Barasana and Taiwano. There, against a background of linguistic exogamy that requires each clan to have its own distinct language, phonological differentiation has occurred in

an exceptional case where two clans would otherwise share the same language, against regional norms:

> Speakers show extreme vigilance in this regard, since their paternal language has to identify them as an exogamous group, so that they may be sufficiently different from others and thus sufficiently united with them. When the differerences are reduced at the segmental level it is not at all surprising that tones should be used as markers of difference, since they are easily detached from segments.
>
> (Gomez-Imbert 1999; translation mine)[8]

The differentiation appears to have taken place by altering the patterns of tonal linking to segments, resulting in a phonological differentiation of Barasana and Taiwano at the extrametrical level, thus bringing it into conformity with the one language–one clan requirement of the Vaupés region.[9]

3.4 Morphological divergence

Here we illustrate with another Australian example, involving the Iwaidjan languages Mawng and Iwaidja (Evans 1998, 2000). These two languages, about as similar as Italian and Spanish, are spoken in close proximity on the north coast of the Cobourg Peninula in Arnhem Land. Two other languages, now extinct, separated them geographically – Ilgar, which is a sort of linguistic halfway house between them (and for which I have gathered sufficient paradigmatic and other material to make detailed comparisons), and a variety known as Manangkarri, said to have been very close to Mawng but extinct without having been documented beyond one or two words. All these languages, plus many others in the hinterland to the south, were knitted together in a single regional system characterised by shared ceremonies, intermarriage, and a common juridical

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8. Original: Les locuteurs montrent une extrême vigilance en la matière, car il faut que leur langue paternelle les identifie en tant que groupe exogame, qu'elle soit donc suffisamment différente des autres et aussi suffisamment unifiée. Lorsque les différences sont réduites du côté segmental, rien de surprenant à ce que les tons soient utilisés comme marqueurs de différence, car ils se désolidarisent facilement des segments.

9. "Ces deux parlers partagent des propriétés comme les deux tons sous-jacents et l'extramétricité, dans la tonologie nominale au moins, ce qui est montré par la copie tonale. *Le taiwano pousse l'utilisation de ce dispositif pour creuser la distance avec ses alliés barasana*. [Taiwano pushes the use of this means further to increase the distance from its Barasana allies] Mais la tonologie verbal réserve sans doute des surprises. Il se peut que dans les racines verbales BHB la première more ne soit pas extramétrique, contrairement à ce qui a été montré pour les noms de même profil, car cette more n'est pas protégé de l'association des préfixes tonals, contrairement à ce qui a lieu en barasana. *Ce qui ajouterait au contraste entre ces deux parlers, allant dans le sens voulu par le modèle exogamique*. [This would increase the contrast between the two varieties, going in the sense that the (language-)exogamous model requires]" (Gomez-Imbert ~~1990~~ 1999, italics and translations mine; note that BHB stands for 'bas-haut-bas' LHL, as a tonal contour).

system involving patrilineal clans, matriline-regulated reckoning of marriage partners, and a multilayered system of shared social categories including matrimoieties, matriphratries and eight 'subsections'. Extensive multilingualism both resulted from, and enabled, the tightly-woven social interactions throughout this region.

The change of interest to us here concerns the enigmatic extension, in Iwaidja, of a fifth 'neuter' gender present in proto-Iwaidja-Mawng.[10] In terms of its morphology in general, and its treatment of gender classes in particular, Mawng is clearly the most conservative language of the group (with one exception to be discussed below, namely the assignment of genders to body parts). It possesses five genders: masculine, feminine, vegetable, 'land and liquids', and miscellaneous.[11] These are manifested in many parts of the grammar, the most important ones being on nominal roots (particularly part nouns, whether of humans, plants or the landscape), on demonstratives and other DP-internal items showing agreement with the head noun, and in verbal agreement for both subject and object with third person singular arguments. An example illustrating the semantic effects of 'cross-classing' the same nominal root with all five genders is the following, based on the root *-mawur* 'arm': *i-mawur* 'his arm' (masc *i-*), *iɲ-mawur* 'her arm' (fem *iɲ-*), *ma-mawur* 'branch' (veg. *ma-*), *wu-mawur* 'river, creek' (land and liquids *wu-*), and *abawur* 'tendril of vine' (miscellaneous *aK-*, where *K-* indicates hardening of the following morpheme) (Capell & Hinch 1970).

Agreement is widely 'lexicalised' – see Evans (2007), Singer (2016) – which means that for many verbs the subject and/or object pronominal affix is fixed with a particular gender value regardless of the actual gender of the argument's referent. For example the verb *atpi* 'hold', which is open as regards the object gender, has a derived form *LL-atpi*, with a deponent land and liquids object prefix, and means 'understand' (Singer 2016: 95). Verbs with lexicalised agreement are effectively a type of verbal idiom, in which case the idiomatised element is the gender of one or both arguments instead of a lexical noun as in the case of English expressions like *kick the bucket*.

The five genders in Mawng are far from equally frequent in their occurrence. The following table shows the frequency of occurrence of gender prefixes to the verb in A, S and O functions (in the sense of Dixon 1979, i.e. transitive subject, intransitive subject and object) for the first three texts in Capell & Hinch (1970: 107–117).

10. In previous publications I have used the term 'proto-Iwaidjan' for the level at which these five genders should be reconstructed. However, it is now less clear that all five genders should be reconstructed all the way back to proto-Iwaidjan (i.e. the construct also including Amurdak), so I use 'proto-Iwaidja-Mawng' for the language ancestral to Mawng, Iwaidja, Ilgar and Manangkarri.

11. Various terminologies have been used for the Mawng gender system, ranging from a simple numbering system (Roman numerals I-V in the order given here, in Capell & Hinch 1970; masculine, feminine, vegetable, neuter and miscellaneous in Evans (1998), and masculine, feminine, vegetable, land and liquids and edible in Singer (2016). Here I follow my 1998 discussion in using 'miscellaneous' for the fifth gender, which is of special interest here, but keep Singer's helpful 'land and liquids' term for the 4th class.

Table 1. Relative occurrence frequencies of the five genders in Mawng

Grammatical function	M	F	V	LL	Misc
A	46	1	0	0	0
S	77	11	1	4	0
O	97	2	1	11	0

Both Ilgar and Iwaidja have simplified this system.

Ilgar (Evans 2000, 2007) has simplified the system in the way one would expect, given these frequencies, generalising the higher-frequency genders, keeping the mid-frequency genders in restricted settings, and dropping the lowest-frequency gender altogether. As productive genders for nominal possession, it only retains the masculine and feminine (e.g. *i-ŋicalk* '(man's) body', *iɲ-ŋicalk* '(woman's) body'); the same goes for gender agreement of adjectives with their heads, e.g. *i-Jicumara*l 'small (m.)', *iɲ-cicumaral* 'small (f.)' (Evans MS). In verbal agreement, productive indexing of gender is confined to masculine and feminine, but there are a number of verbs showing lexicalised agreement with the vegetable and land and liquids genders. However, there is absolutely no trace, in any part of the system, of the 'miscellaneous' gender – hardly an unexpected loss, given its zero occurrence in the Capell & Hinch texts.

What is surprising, however, is what has happened in Iwaidja. Here it is the miscellaneous gender that has been generalised. Traces of the other four genders survive in highly restricted environments. The masculine and feminine survive only as verbal A prefixes in the combination 3SGA>3SGO, while the vegetable and land and liquids prefixes survive in a few nouns (e.g. a few plant parts have vegetable *ma-*, and 'tongue (of flame)' adds this prefix to the regular root for 'tongue') and in a few dozen verbs with lexicalised agreement. Everywhere else the miscellaneous prefix has been generalised to the total exclusion of all other genders: in intransitive verb prefixes, body parts possessed by the third persons, even the free third person singular pronoun – cf. Ilgar *anat* 3SG.M, *iɲanat* 3SG.F; Iw *canat* 3SG (see Evans 1998 for formal details).

An additional phonological twist camouflages the cognacy of forms further. In addition to the hardening of root consonants produced by the miscellaneous prefix *aK-*, the vowel itself has been dropped before all roots of more than one syllable (cf. *acu* '(s)he/it lies', < *aK-yu*, and *camaŋ* '(s)he works, < *aK-yamaŋ*). The non-hardened roots are visible after other prefixes, such as 1SG *ŋa-* or 3PL *a-*: cf. *apawur* 'his/her arm, arm', *ŋamawur* 'my arm', *amawur* 'their arm(s)' (cf. also the Mawng forms of this same root given above).

The effect of these changes is to produce initial mutation of almost all 3rd singular forms, driving apart the superficial similarity between Iwaidja on the one hand, and Ilgar and Mawng on the other. The puzzle is to account for how a highly marked and infrequent gender could be generalised in Iwaidja. The following scenario implicates a process of morphological divergence based on an awareness of proportional correspondences between Iwaidja and Mawng at an earlier stage of the language.

Stage 1: variation reflecting competing strategies. At this postulated stage, there would have been variation, in the proto-language, in what gender is assigned to body parts. This reflects a tension, widely attested in northern Australia (cf. Evans 1994), between assigning body part gender based on an intrinsic gender (cf. German *die Hand*, *der Fuß*, whether the owner is male or female) or on 'inherited' gender, i.e. the gender of the possessor: men's hands and feet are masculine, women's hands and feet are feminine, corresponding parts of plants are vegetable, etc. This second strategy is found in (contemporary) Mawng and in Ilgar; many Australian languages exhibit tensions between the two principles, resolved in a range of ways (Evans 1994).

We postulate that in the proto-language, part roots could either receive 'inherited gender' (so that a man's arm would be masculine and a woman's hand would be feminine), or 'intrinsic gender' (normally miscellaneous, in the same way that most body parts are neuter in a nearby language like Bininj Gun-wok (Evans 2003a)). This would generate competing forms like *abawurr* (misc.) vs. *imawurr* (masc) for referring to a man's hand – assigned on the basis of competing semantic principles. At this stage the variation would have been language internal, though we presume that different varieties may have weighted the variants with different frequencies.

Stage 2: Social recategorisation of variation as shibboleths. This stage is crucial to our argument, and involves the social recategorisation of variation in body-part noun class based on an awareness that there were different levels of prevalence, with the intrinsic strategy more prevalent in Iwaidja and the inherited strategy more prevalent in Mawng. This would then lead to one structural alternant being associated with each variety; they become shibboleths. However, at this stage the difference is confined to body-parts.

Stage 3: Social analogy. At this stage, speakers generalise the analogical formal relations between the languages beyond the realm of body part nouns to other parts of the grammar. In other words, there is an analogical extension of the relation of Iwaidja aK-N to Mawng G-N to other domains of grammar, such as verbal prefixes and free pronouns (where G is a variable gender prefix ranging over masculine, feminine, vegetable and land/liquids).

Note that the cognitive mechanism here – of analogical extension – is one that is well-established in historical linguistics, within studies of single language varieties. What is new here is that the analogy is drawn not just on the basis of material from within a single variety (e.g. different paradigms, or parts of paradigms), but presupposes an awareness of the relations between different varieties. We shall see in §4.1 below that formal refashionings of this type have been attested elsewhere in Australia (and called 'correspondence mimicry', e.g. Nash 1997; Alpher & Nash 1999), but they are generally restricted to individual lexical items. In this case, however, the argument is that the refashioning is more general, applying to the realisation of large paradigms of prefixed words, both nominal and verbal.

To summarise this section, the Iwaidja case allows us to solve a puzzle of unexpected historical development – the generalisation of a highly marked form – by linking an earlier phase of typologically plausible variation in one part of the lexicon to a

mechanism that drives morphological change in one variety, distancing it from another related variety with which it is in contact, through a process of metalinguistic analogical extension – a type of morphological Nabooppositon.

3.5 Morphosyntactic divergence

We exemplify morphosyntactic divergence with the case of Spanish and Portuguese (drawing on Döhla 2014), focussing on the trajectories of direct object marking (DOM) by preposition: *a* in Spanish, *a* in Portuguese or *ao* if fused with the masculine article; both extend an original 'to' meaning. Starting in the Middle Ages, Portuguese extended the contexts and frequency of DOM, apparently under Spanish influence and/or bilingualism, in a Gaussian curve which reached its peak in the seventeenth century. This is the normal progression one would expect in cases of language contact producing convergence.

However, after the seventeenth century the advances of DOM within Portuguese were reversed; it faded out and is now absent in modern spoken Portuguese, so that the two modern Iberian languages are now divergent in this regard.

It appears that this typological divergence was triggered by nationalism – Portuguese intellectuals seeking to distance Portuguese from Spanish. As Braunmüller (2014: 10) puts it, summarising Döhla's findings in the same volume:

> bilingualism may trigger convergence, whereas nationalism tends to favour linguistic divergence. Interlingual 'short-cuts' that were formerly beneficial when Portuguese intellectuals admired the Spanish language and its culture were given up, together with bilingualism. Or, nationalism can be pinpointed as the ultimate cause of the breakdown of these translinguistic bridges, thereby paving the way for linguistically divergent constructions, which ultimately resulted in a new linguistic norm

While the facts of divergence are demonstrated clearly in Döhla's article, are Braunmüller's interpretations correct insofar as bilingualism is concerned? Is it also possible that bilingualism, *plus* nationalistic attitudes, is the key factor in differentiating – after all, if people are unaware of another norm, they cannot know what to deviate from. We here propose another model, in which bilingualism can actively drive divergence, by providing a detailed and accurate model of the particularities of an alternate linguistic system from which speakers distance themselves in their "own" variety, consciously or unconsciously.

Having established that cases of divergence under contact have been reported for every level of the linguistic system – lexical, phonetic, phonological, morphological and morphosyntactic – we pass in the next section to a more detailed consideration of the various mechanisms that can produce divergence.

4. Divergence under contact: Towards a general model

A general model for divergence under contact needs to contain the following two elements:

1. one or more mechanisms for generating divergent structures. Speakers may of course do this on the basis of existing variation in one system, but in a context where they have access to two or more distinct linguistic systems the pool of forms/structures that can be picked will be larger
2. social settings which favour the signalling of linguistic differences and/or group-membership distinctions, coupled with social processes of linguistic ideology and praxis selecting for distinct linguistic options as markers of group-membership

4.1 Mechanisms for generating diverse structures

There is in fact more than one attested mechanism for generating diverse structures; here we mention three.

4.1.1 *Metalinguistic awareness of correspondences*

Bilingual or bidialectal speakers do not just know two linguistic systems, they are also often aware of correspondences between them, particularly where the languages are related or when has significant numbers of loan words or structures from the other. This awareness includes correspondences of the form 'initial X in a word in A corresponds to initial Y in a word in B', where A and B are two languages known to speakers.

Consider the series of studies of the Sui language in southern China by James Stanford (2008, 2009), showing how extensive this awareness can be, particularly with regard to lexical and tonal correspondences. Among the Sui, clan exogamy applies, and in-married women are socially disallowed from speaking their own variety. Their children grow up with a very clear sense of the correspondences between different clan lects, since they are socialised into knowing the complete set of correspondences between what their mother says in her clan lect and what they are expected to say in theirs, which is the same as their father's.

As a more informal example, I cite a case where I was walking on a forest path in the Morehead district to collect bee samples for identification, and overhead two men joking. When I asked them what the joke was, they said that they didn't know what the name of the bee we were looking for would be in the next-door language, Nmbo, but guessed that it would be *wahar*. This deduction combined their knowledge that the word in their own language Nen was *wasar* with a general awareness of s:h correspondences between Nen and ~~Nama~~ Nmbo (cf. Nen *samba*, Nmbo *hamba* 'village', Nen *sakr*, Nmbo *hakr* 'boy', etc.).[12]

12. See Dench (2001: 117–118) for a very similar example involving the Australian language Martuthunira and its neighbours.

In fact, the introduction of the notion of Naboopposition by Larsen (see §3.1) relied on a similar mechanism: speakers of one dialect were aware of the vowel correspondence between dialects, and extrapolated this correspondence from one word to others, extending the analogical proportion between dialects to cover other cases than would fall into the traditional set of corresponding words, and producing (in the case outlined by Larsen) a change in the system of the speakers' own dialect.

A number of such cases of 'correspondence mimicry' have been described in Australian languages (Koch 1997: 35; Koch 2014; Nash 1997; Alpher & Nash 1999: 14–15).[13] In this case, loanwords between neighbouring Pama-Nyungan languages have become adjusted to consonant correspondences resulting from the so-called 'initial dropping' that has taken place in certain languages (see e.g. Koch, forthcoming). The 'initial-dropping languages' of Central Australia have lost all instances of original word-initial consonants. Speakers who are bilingual in an initial-dropping and a neighbouring non-initial-dropping language tend to recognize this regular correspondence, and mimic it in loanwords. As a result, word-initial consonants get dropped when borrowed into an initial-dropping language from a non-initial-dropping one. The giveaway that this is correspondence mimicry rather than the usual pattern of inheritance is that the vowel quality in the loanwords is left as is, whereas this should also diverge in the case of bona fide descent. In other words, awareness of the sound correspondences in loanwords is imperfect, and confined to the initial segments without taking into account the subtleties of the vowels.

The effect of these changes is to 'dealienate' suspected loanwords by retrofitting them using multilingual metalinguistic knowledge of sound correspondences between neighbouring languages.[14] A consequence is that the phonotactic distributions of initial elements between languages are pushed further apart than they would be if loanwords were allowed to (re)introduce consonant initials to the lexicon.

4.1.2 *Doppel avoidance*

Ellison & Miceli (2017) develop the notion of 'monitoring' as a production component – an element already needed to account for such factors as taboo avoidance and error-correction. Following De Groot (2011) and others, they suggest that bilingual speakers in bilingual mode[15] sometimes employ it, apparently unconsciously, to avoid

13. For other examples, including diphthongisation in Fayoum Oasis Arabic and the substitution of *n* for *l* in Chilliwack Salish reflecting a knowledge of *n*:*l* correspondences between Thompson Salish and Chilliwack Salish, see Thomason (2007: 46).

14. Cf. Thomason's (2007: 47) discussion of how Hakha Lai codas were changed away from the inherited pattern, analogising from forms found in Laizo: "the correspondences were 'acutely transparent', and moreover multilingualism was pervasive in the region, so that Lai speakers could easily apply what amounts to a correspondence rule in reverse and replace their native codas with the Laizo phonotactic pattern".

15. Language mode refers to the continuum of activation of a bilingual's two languages. At one end of the continuum, monolingual mode, only one of the bilingual's languages is highly activated, at the other end, bilingual mode, both languages are highly activated.

intrusions from one language to another when seeking words for objects in bilingual activation mode, by favouring the production of words which do not have resemblants in the other language.

In an ingenious experiment investigating the production of "doppels"[16] by bilinguals, they demonstrate that bilinguals tend to avoid "doppels" when seeking words for objects in bilingual activation mode, whereas monolinguals, who have no such monitoring needs, do not display the effect. For example, Dutch-English bilinguals who were given a context paragraph (in Dutch), then asked to fill a slot in an English sentence with an appropriate word, will prefer *picture* over *photograph* in their English response, apparently to avoid lexical overshoot from transfer of the Dutch word *foto(graaf)*. But English monolinguals in the same context will use the word *photo(graph)* with relatively higher frequency.

Ellison & Miceli go on to model the effects of iterating these productions biases over a number of 'generations' and show that, under intergenerational repetition, doppel avoidance can drive rapid lexical divergence.

Here, then, is a clear case where the exigencies of production, under the conditions of bilingual monitoring, drive divergence rather than convergence in bilingual settings.

4.1.3 *Summative complexification*

Contact between two varieties with different systems of semantic contrast can lead to a third variety with a 'summed system', which includes all the distinctions made in either of the non-contact varieties.[17] Consider the situation of noun-classes in four linguistic varieties in Central Arnhem Land, all from the Gunwinyguan family: Kunwinjku, Kuninjku and Kune, which are all closely-related dialects of the Bininj Kunwok language (BKW), and Dangbon (aka Dalabon), a distinct but related family. (Dangbon and Dalabon are two names for what is essentially the same variety, used in different locations; Dangbon is the commonest variant of the language name used in the region under discussion below).[18] Kunwinjku to the west and Dangbon to the east are not in

16. They use the term doppel to avoid the confusion that comes from the use of the term cognate by psycholinguists, in ways which conflate cognates, loans and accidentally resemblant items: by doppel they simply mean items close in both form and meaning, whatever the reason for their formal resemblance.

17. For another elegant case of summative complexification in Australia, see McConvell (1985), who describes the evolution of a system of eight 'subsections' or marriage classes from the interaction of two four-class systems in a situation of bilingual contact.

18. In fact the situation is more complicated than this, and revealing to our theme. Dalabon, Dangbon, Ngalkbun and Buwan are all names used for the same language, though they tend to be used in different locations: Dalabon in the heartland, Dangbon in the areas where the main bordering language is Bininj Kunwok, Ngalkbun in areas bordering Jawoyn, and Buwan in areas bordering Rembarrnga. All are 'shibbolethnonyms' (McConvell 2006), based on the Dalabon inflected stem *bon* 'goes', which is distinct from the word for 'goes' in all surrounding languages (hence revealing clear metalinguistic knowledge of differences in basic vocabulary, from all sides). *Buwan* is simply the Rembarrnga reflex

intense contact, whereas Kuninjku and Kune lie in a geographically intermediate position and some Kune-speaking clans even identify themselves as 'Kune Dangbon' clans, i.e. they take bilingualism in these two languages as a defining feature.

With respect to the organisation of their noun-classes, Kunwinjku and Dangbon have quite different systems.

Kunwinjku has a five-way formal division, marked by the choice of one of four prefixes, or no prefix at all (Figure 1).

Figure 1. The noun class system, Kunwinjku dialect of Bininj Kunwok

Class	Prefix	Sample word	Meaning
I (Masc)	*na-*	*na-koʔpaɲ*	'old man'
II (Fem)	*ŋal-*	*ŋal-koʔpaɲ*	'old woman'
III (Veg)	*man-*	*man-tacek*	'Grevillea pterydifolia'
		man-mim	'seed'
IV (Neut)	*kun-*	*kun-wok*	'language'
		kun-mim	'eye'
Unprefixed	*ø-*	*taluk*	'woman'

Dangbon, on the other hand, does not make use of prefixes, but instead makes a distinct between 'part nouns', which obligatorily add a possessor suffix, and 'non-part nouns', for which the addition of a possessor suffix is optional (Figure 2). Not only does it use (obligatory or optional) suffixes rather than the (obligatory) prefixes found in Kunwinjku, the semantic bases of classification are quite different, resting solely on the question of whether the noun is normally a part of something else (cf. Ponsonnet 2015), whereas the Bininj Kunwok classification looks at biological gender, plant vs. non-plant status, and a number of additional factors (Evans 1997; Evans et al. 2002).

Figure 2. Nominal classes in Dangbon

Class	Suffix	Sample word	Meaning
Part	-Poss	**ce*,	*nose
		ce-no,	'his/her nose',
		ce-ŋan	'my nose'
		etc.	
Absolute	(-Poss)	*ɻolu*,	'dog'
		ɻolu-no,	'his/her dog'
		ɻolu-ŋan	'my dog'

of *bon* (proto-Gunwinyguan *o regularly descends as /uwa/ in Rembarrnga), but all three other names are a compound of the root for 'mouth' in the respective language with the form for *bon* or a variant: *ngalk* in Jawoyn, *dang* in BKW, and *dalû* in Dalabon. In other words the language names are conceived as 'the mouth [language] whose word for 'go' is *bon*', as if German were called *Mundgeht* in German itself, *mouthgeht* in English, and *boccagheit* in Italian.

We can take the Kunwinjku and Dangbon systems in Figures 1 and 2 as two organisational poles for the possibilities of nominal class structure, neither in intensive contact with the other. But what if we look at the Kuninjku dialect, which is a variety of Bininj Kunwok (and hence very close to Kunwinjku in lexis and general grammar) that is in intense, regular contact with Dangbon. What we find in Kunwinjku is shown in Figure 3.

Figure 3. Noun-class system for the Kuninjku dialect

Class	Affix	Example	Meaning
I (Masc)	*na-*	*na-koʔpaɲ*	'old man'
II (Fem)	*ŋal-*	*ŋal-koʔpaɲ*	'old woman'
IIIa (Veg. Abs)	*man-*	*man-tacek*	'Grevillea pterydifolia'
IIIb (Veg. Part)	*man- ~ -no*	*man-mim ~ mim-no*	'language' should be 'seed'
IVa (Neut Abs.)	*kun-*	*kun-wok*	'language'
IVb (Neut Part)	*kun- ~ -no*	*kun-mim ~ mim-no*	'eye'
Unprefixed	*ø*	*taluk*	'woman'

Figure 3 clearly shows the results of summative complexification: it has integrated the full set of distinctions made in the two neighbouring systems, maintaining the gender and vegetable features found in Bininj Kunwok on the one hand, and the part vs. absolute distinction from Dangbon on the other. In doing so, it splits III and IV from BKW into part (alternating structures) vs. absolute (fixed), but at the same time it retains the vegetable vs. neuter contrast in part nouns.

The intersection of these two systems has created subclasses not found in either neighbouring variety: vegetable parts like 'seed' (which allow either the *man-* prefixed 'vegetable' structure, or the *-no* suffixed possessive structure), and non-vegetable parts like 'eye' (which allow either the *kun*-prefixed 'neuter' structure or the *-no* suffixed structure).

Summative complexification like this makes good sense in terms of the processing demands of bilinguals, since the complexified system forms a sort of local etic grid which makes all distinctions needed in one or the other languages that will be needed by speakers bilingual across these varieties: the Kuninjku system has all distinctions needed to successfully produce category contrasts either to the west (Kunwinjku – just ignore the part-absolutive distinction) or to the east (Dangbon – just ignore the distinctions made by prefixes). Speakers storing this more complex system are thus well-placed to produce into either of the main varieties from their bilingual repertoire without being caught short in terms of class membership. Here, then, for the relevant bilinguals cognitive economy is actually motivating divergence of Kuninjku from any other single variety, using the strategy: 'scan for all the contrasts you may need in any of the languages you use'.

4.2 Social settings favouring linguistic elaboration of group-membership distinctions

The use of signalling contrasts to identify either individuals or groups is widespread in the animal kingdom – a good part of whale-song appears to be individual-identifying, and a large part of bird-song is group-identifying. These phylogenetically fundamental features persist in human language into the signalling of group-membership distinctions, though there may be differences in the degree to which they are consciously fostered. In Keller's (1994, 1998) terms, whale-song is most likely an 'object of the first kind' (the unplanned outcome of unintentional activity), and this could sometimes apply to language divergence under contact (such as the processing-driven divergences discovered by Ellison & Miceli 2017). Language divergence could also be an "object of the second kind" (the planned outcome of intentional activity, such as the coining of terms such as *courriel* and *logiciel* by the Académie Française as equivalents of *email* and *software*, so as to differentiate French from English more than it would be if loanwords were allowed to take up residence), or an 'object of the third kind' (the unplanned outcome of intentional activity).

Which social units get singled out for linguistic diversification is a contingent fact of human social organisation. At the upper end of the scale we have large units like modern nation states, to the extent they have any success in enforcing national-level norms over the forces of regionalism and language change, or at least of enabling them (via nationwide media and communications) or entraining them (via education). At the lower end we have the congeries of small, linguistically-exogamous units like clans, such as the Sui clans described by Stanford (2008, 2009), in Australia the patriclans described by Garde (2008) for Western Arnhem Land, and Sutton (1978) and Smith & Johnson (1986) for Western Cape York, and in the Vaupes the patriclans described by Gomez-Imbert (1999), Jackson (1983), Sorensen (1967), and others. In some cases, such as many parts of northern Australia, clan sizes can be less than a hundred and the existence of small languages with stable populations of fewer than one hundred speakers (e.g. Gun-gurrgoni, Green 2004) is likely to be the endpoint of language diversification reaching down to clan level.

We can understand the dynamics of this process if we consider the situation in Western Cape York, as described by Sutton (1978: 228). Here, linguistically exogamous marriage produces multilingual, linguistically diverse households. In such circumstances, lectal choice carries a high functional load, indexing the country and social identities of speakers and represented characters in narratives (cf. Evans 2011; Sutton 1997). There is an ideology that each patriclan has its own way of speaking. The creation of new social groupings, such as splits in clans, results in the rapid development of new patrilects: "[B]ecause of an ideology of clan dialect distinctiveness… and the creative role of powerful individuals, there was also constant pressure for diversification" (Sutton 1978: 229).

Settings like those in the Sui region, in northern Australia, in the Vaupes, and in many other parts of the world where small languages, linguistic exogamy and multilingualism are the norm, create natural conditions for the types of contact-driven divergence summarised in this paper. An ideology of differentiation drives speakers to exaggerate differences from other groups,[19] while their multilingual portfolios set them up with clear metalinguistic knowledge about the languages of other groups, which serve as reference points for linguistic distancing. This contrasts with the situation in monolingual-only communities, which can only diverge at the rate of random drift because they have no other way of "pushing against" the other language.

The conversational setting generally makes the presumption that multilingualism or multidialectalism is sufficiently widespread that knowledge of features from two linguistic features can be mutually presumed.[20] In such settings, speakers choose one form over another, out of the candidates in a multilingual mix, as a form of audience design. By making this choice they communicate a range of social facts to their interlocutors: similarity or difference between one group and another, dual affiliation of some group (e.g. a group like Kune-Dangbon which defines itself bilingually), preferred affiliation of an individual to a group, or simply the speaker's right, as a senior group member, to rule on lexical variation.

The crucial thing is that this awareness of alternative systems sets the scene for many types of "flight" (Fischer 1958), in the sense that an individual seeking to signal the distinctness of their own social group has access to a huge number of structural features which can form potential contrasts between the two systems, which can be assumed by the speaker to be mutually shared with their audience. We know from many sociolinguistic studies (e.g. Labov 1966; Horvath 1984; Trudgill 1974) that 'flight' from closely related sociolects can occur, so the general principle is well known. What

19. Luisa Miceli (p.c.) suggests that invoking an ideology of differentiation may not in fact be necessary: it may simply be sufficient to have monitoring highly engaged because it's culturally important to speak a particular lect. So when innovations arise, which could in principle easily be incorporated into any lect, they will not be because they were first heard in association with one lect.

20. Labov (2010: 7–8) expresses some skepticism about the degree to which individuals can be aware of multiple systems: "The divergence problem arises when different patterns of communication are generalized across individuals in neighbouring communities. That problem concerns the effect on the main cognitive function of language… For that function to be preserved in the face of linguistic divergence, speakers must develop a pandialectal grammar (Bailey 1972), which enables them to decode and comprehend the speech of neighbouring communities. Chapters 2–4 will report the results of experiments which reveal that this ability is in fact quite limited." However, we must be wary of drawing universalising conclusions from Labov's findings, restricted as they were to North American English speakers in a very large speech community in which egalitarian multilingualism is not the norm. Comparative studies of this point would be highly rewarding. We should also bear in mind that the level of mastery of another system that is needed to diverge from it is less than that needed to converge with it perfectly, since the point from which flight occurs can be quite simplistically defined (e.g. one stereotypical, emblematic word order, rather than the nuanced set of orders needed to completely replicate a precise and comprehensive grammar).

is newer about the mechanism being argued for here is that the 'flight' occurs between systems which are much more different than, say, two varieties of New York or Sydney English – they may occur between two distinct (Portuguese and Spanish) or even unrelated languages (e.g. Vietnamese and Chinese, Temiar and Malay).

5. Conclusion

I have argued in this article that examples of divergence under contact are to be found in virtually every part of the linguistic system: lexicon (Banks Islands of Vanuatu), phonetics and phonology (Temiar, Barasano, twelfth-century Vietnamese), morphology (Iwaidja), syntax (Portuguese DOM), and the semantics of grammar (Kuninjku). Although it is likely that contact-induced divergence is commoner in the lexicon, phonetics and phonology (Sankoff 2002), probably because these are generally the most accessible to conscious monitoring, the examples I have marshalled here show that the range of divergence effects goes much further than has generally been realised by historical linguists.

Moreover, we can now identify at least three plausible mechanisms at work to produce it: correspondence mimicry as a type of analogical change rooted in comparisons across language systems, cumulative complexification as a means of ensuring the speaker is primed for all categories in both languages, and doppel avoidance as an attentional regulator to avoid mixing up items from two languages during bilingual production.

Alongside these cognitive mechanisms for producing divergence, we identified certain types of favourable social setting – particularly those combining egalitarian multilingualism with a strong linguistic ideology that each small group should have its own distinct variety. Brought together in one place, we can see that Larsen's seminal idea of Naboopposition or 'Neighbour Opposition', formulated in 1917, is of much wider import than simply a mechanism for producing vowel changes in some dialects. Rather, it is potentially a key source of language change and diversification across a wide range of contact settings.

By way of a conclusion, I list four unanswered questions for our understanding of divergence under contact.

1. Are there restrictions on what parts of the language system can diverge under contact? Form is generally considered easier to monitor than structure or meaning, and most reports of contact-induced divergence concern lexicon of phonology – how far do we find divergences in other parts of the linguistic system?
2. How far does metalinguistic knowledge play a role in divergence under contact, and are there significant differences in linguistic cultures that promote or retard the effects of multilinguistic metalinguistic knowledge?
3. Are there really high cognitive costs to maintaining divergent linguistic systems in bi- and multilingual settings?

4. Are there limits to how many linguistic elements may diverge in a stable multilingual setting: if cognitive cost is a worthwhile investment to signal different social affiliation, are there nonetheless limits on what cognitive cost can be borne in terms of summed typological disparities?

For the obvious reason that divergence has barely begun to be taken seriously as a possible outcome of linguistic contact, we do not currently possess an adequate empirical base to answer any of these questions. However, it is my hope that the case I have made here for taking divergence seriously, as a possible albeit non-standard outcome of language contact, will stimulate the further research needed to examine them in detail.

Shadowed behind these questions is one of the great unanswered puzzles of linguistics: how has the world ended up with such a dazzling array of linguistic varieties, families and structures?

On one view, these are simply the kaleidoscopic reshufflings of different possibilities in the design space as combinations of functional factors weigh off against each other in different ways of resolving "competing motivations", perhaps cooked along by a pinch of "ethnosyntactic" effects (Enfield 2002) such as the emergence of kinship-specific pronouns in Australian languages (Evans 2003b).

But confronted with the pullulating variety of structure found in hotspots of linguistic diversity like New Guinea or the Amazon, it is far from clear that these models are sufficient. We must take seriously the possibility that language diversity, at least in part, grows out of a more targeted pattern of distantiation between one variety and another, all the more effective for knowing what structures are there to be distanced from.

References

Aikhenvald, Alexandra. 2002. *Language Contact in Amazonia*. Cambridge: Cambridge University Press.

Alpher, Barry & David Nash. 1999. Lexical replacement and cognate equilibrium in Australia. *Australian Journal of Linguistics* 19:1. 5–56. https://doi.org/10.1080/07268609908599573

Atkinson, Quentin D., Andrew Meade, Chris Venditti, Simon J. Greenhill & Mark Pagel. 2008. Languages evolve in punctuational bursts. *Science* 319(5863). 588. https://doi.org/10.1126/science.1149683

Ayres, Mary. 1983. *This side, that side: Locality and exogamous group definition in Southwest Papua*. University of Chicago PhD Dissertation.

Bailey, Charles-James. 1972. The integration of linguistic theory. In R. Stockwell & R. Macaulay (eds.) *Linguistic change and generative grammar*, 22–31. Bloomington: Indiana University Press.

Baudouin de Courtenay, Jan Niecisław. (1885) 1972. Foreign alternations, i.e. alternations which are due to the influence of another language (Chapter 6 of *An attempt at a theory of phonetic alternations: A chapter from psychophonetics*, 144–212), 187–193. In *A Baudouin de Courtenay anthology: The beginnings of Structural Linguistics*, edited and translated by Edward Stankiewicz. Bloomington: Indiana University Press.

Benjamin, Geoffrey. 1976. An outline of Temiar grammar. In Philip N. Jenner, Laurence C. Thompson & Stanley Starosta (eds.), *Austroasiatic studies* (Oceanic Linguistics Special Publication 13), Part 1, 129–187.

Blust, Robert. 2012. Hawu vowel methathesis. *Oceanic Linguistics* 51. 207–233. https://doi.org/10.1353/ol.2012.0009

Braunmüller, Kurt. 2014. Introduction. In Braunmüller, Höder & Kühl 2014, 1–10.

Braunmüller, Kurt, Steffen Höder & Karoline Kühl (eds). 2014. *Stability and divergence in language contact*. Amsterdam: John Benjamins. https://doi.org/10.1075/silv.16

Campbell, Lyle & Martha C. Muntzel. 1989. The structural consequences of language death. In Nancy C. Dorian (ed.), *Investigating obsolescence: Studies in language contraction and death* (Studies in the Social and Cultural Foundations of Language 7), 1811196. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511620997.016

Capell, Arthur & Heather E. Hinch. 1970. *Maung grammar, texts and vocabulary*. The Hague: Mouton. https://doi.org/10.1515/9783111586649

Dahl, Östen. 2008. An exercise in "a posteriori" language sampling. *Sprachtypologie und Universalienforschung* 61:3. 208–220.

De Groot, Annette M. B. 2011. *Language and cognition in bilinguals and multilinguals: An introduction*. New York: Psychology Press. https://doi.org/10.4324/9780203841228

Dench, Alan. 2001. Descent and diffusion: The complexity of the Pilbara situation. In Alexandra Y. Aikhenvald & R. M. W. Dixon (eds.), *Areal diffusion and genetic inheritance: Problems in comparative linguistics*, 105–133. Oxford: Oxford University Press.

Dixon, R. M. W. 1972. *The Dyirbal language of north Queensland*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781139084987

Dixon, R. M. W. 1979. Ergativity. *Language* 55(1). 59–138. https://doi.org/10.2307/412519

Dixon, R. M. W. 1980. *The languages of Australia*. Cambridge: Cambridge University Press.

Dixon, R. M. W. 1997. *The rise and fall of languages*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511612060

Dixon, R. M. W. 2002. *Australian languages: Their nature and development*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511486869

Döhla, Hans-Jörg. 2014. Diachronic convergence and divergence in differential object marking between Spanish and Portuguese. In Braunmüller, Höder & Kühl 2014, 265–289.

Ellison, Mark, Nicholas Evans, Eri Kashima, Dineke Schokkin & Daniel Williams. 2016. Do shared norms cross language boundaries? A case study from multilingual Southern New Guinea. Paper presented at NWAV-AP4 Conference, Chiayi, Taiwan, 16/4/2016.

Ellison, Mark & Luisa Miceli. 2017. Language monitoring in bilinguals as a mechanism for rapid lexical divergence. *Language* 93:2. 255–287. https://doi.org/10.1353/lan.2017.0014

Enfield, N. J. (ed.). 2002. *Ethnosyntax: Explorations in grammar and culture*. Oxford: Oxford University Press.

Enfield, N. J. 2005. Areal linguistics and Mainland Southeast Asia. *Annual Review of Anthropology* 34. 181–206. https://doi.org/10.1146/annurev.anthro.34.081804.120406

Enfield, N. J. 2011. Linguistic diversity in Mainland Southeast Asia. In N. J. Enfield (ed.), *Dynamics of human diversity. The case of mainland Southeast Asia*, 63–79. Canberra: Pacific Linguistics.

Epps, Patience. Forthcoming. Amazonian linguistic diversity and its sociocultural correlates. In Mily Crevels, Jean-Marie Hombert & Pieter Muysken (eds.), *Language dispersal, diversification and contact: A global perspective*. Oxford: Oxford University Press.

Evans, Nicholas. 1994. The problem of body parts and noun class membership in Australian languages. *University of Melbourne Working Papers in Linguistics* 14. 1–8.

Evans, Nicholas. 1997. Head classes and agreement classes in the Mayali dialect chain. In Mark Harvey & Nicholas Reid (eds.), *Nominal classification in Aboriginal Australia*, 105–147. Amsterdam: John Benjamins. https://doi.org/10.1075/slcs.37.08eva

Evans, Nicholas. 1998. Iwaidja mutation and its origins. In Anna Siewierska and Jae Jung Song (eds.), *Case, typology and grammar: In honour of Barry J. Blake*, 115–149. Amsterdam: John Benjamins. https://doi.org/10.1075/tsl.38.10eva

Evans, Nicholas. 2000. Iwaidjan, a very un-Australian language family. *Linguistic Typology* 4:2. 91–142.
Evans, Nicholas. 2003a. *Bininj Gun-wok: A pan-dialectal grammar of Mayali, Kunwinjku and Kune*. Canberra: Pacific Linguistics.
Evans, Nicholas. 2003b. Context, culture and structuration in the languages of Australia. *Annual Review of Anthropology* 32. 13–40. https://doi.org/10.1146/annurev.anthro.32.061002.093137
Evans, Nicholas. 2005. Australian languages reconsidered: A review of Dixon (2002). *Oceanic Linguistics* 44:1. 216–260. https://doi.org/10.1353/ol.2005.0020
Evans, Nicholas. 2007. Pseudo-argument affixes in Iwaidja and Ilgar: A case of deponent subject and object agreement. In Matthew Baerman, Greville G. Corbett, Dunstan Brown & Andrew Hippisley (eds.), *Deponency and morphological mismatches. Proceedings of the British Academy* 145. 271–296.
Evans, Nicholas. 2011. A tale of many tongues: Documenting polyglot narrative in North Australian oral traditions. In Brett Baker, Ilana Mushin, Mark Harvey & Rod Gardner (eds.), *Indigenous language and social identity. Papers in honour of Michael Walsh*, 291–314. Canberra: Pacific Linguistics.
Evans, Nicholas. 2012. Even more diverse than we thought: the multiplicity of Trans-Fly languages. In Nicholas Evans & Marian Klamer (eds.), *Melanesian languages on the edge of Asia: Challenges for the 21st century* (Language Documentation and Conservation Special Publication No. 5), 109–149.
Evans, Nicholas. MS. Towards a grammar of Ilgar/Garig. Unpublished manuscript.
Evans, Nicholas, Wayan Arka, Matthew Carroll, Yun-Jung Choi, Christian Döhler, Volker Gast, Eri Kashima, Emil Mittag, Bruno Olsson, Kyla Quinn, Dineke Schokkin, Philip Tama, Charlotte Van Tongeren & Jeff Siegel. 2017. The languages of Southern New Guinea. In Bill Palmer (ed.), *The languages and linguistics of New Guinea: A comprehensive guide*. Berlin: Walter de Gruyter, 621–754. https://doi.org/10.1515/9783110295252-006
Evans, Nicholas, Dunstan Brown & Greville Corbett. 2002. The semantics of gender in Mayali: Partially parallel systems and formal implementation. *Language* 78:1. 111–155. https://doi.org/10.1353/lan.2002.0014
Evans, Nicholas & Simon Greenhill. 2014. Pronoun paradigms, syncretism, and language phylogeny. Paper presented at Australian Linguistics Society Annual Conference, Newcastle, December 2014.
Fischer, John L. 1958. Social influences on the choice of a linguistic variant. *Word* 14. 47–56. https://doi.org/10.1080/00437956.1958.11659655
François, Alexandre. 2011. Social ecology and language history in the Northern Vanuatu Linkage: A tale of divergence and convergence. *Journal of Historical Linguistics* 1(2). 175–246. https://doi.org/10.1075/jhl.1.2.03fra.
Garde, Murray. 2008. Kun-dangwok: "clan lects" and Ausbau in western Arnhem Land. *International Journal of the Sociology of Language* 19:1. 141–169.
Gomez-Imbert, Elsa. 1999. Variétés tonales sur fond d'exogamie linguistique. *Cahiers de Grammaire* 24. 67–93.
Green, Ian. 2003. The genetic status of Murrinh-patha. In Nicholas Evans (ed.), *The non-Pama-Nyungan languages of northern Australia: Comparative studies of the continent's most linguistically complex region* (Pacific Linguistics 552), 125–158. Canberra: Pacific Linguistics.
Green, Rebecca. 2004. Gurr-goni, a minority language in a multilingual community: Surviving into the 21st century. In Joe Blythe & R. McKenna-Brown (eds.), *Proceedings of the seventh FEL conference, Broome, Western Australia, 22–24 September 2003*. Bath: Foundation for Endangered Languages.

Gumperz, John J. & Robert Wilson. 1971. Convergence and creolization: A case from the Indo-Aryan/Dravidian border in India. In Dell Hymes (ed.), *Pidginization and creolization of languages*, 151–167. Cambridge: Cambridge University Press.

Hagège, Claude. 2005. On the part played by human conscious choice in language structure and language evolution. In Zygmunt Frajzyngier, Adam Hodges & David Rood (eds.), *Language diversity and linguistic theories*, 105–117. Amsterdam: John Benjamins. https://doi.org/10.1075/slcs.72.06hag

Harvey, Mark. 2011. Lexical change in pre-contact Australia. *Diachronica* 28. 345–381. https://doi.org/10.1075/dia.28.3.03har

Horvath, Barbara. 1984. *Variation in Australian English: The sociolects of Sydney*. Cambridge: Cambridge University Press.

Jackson, Jean E. 1983. The fish people: Linguistic exogamy and Tukanoan identity in northwest Amazonia. New York: Cambridge University Press. https://doi.org/10.1017/CBO9780511621901

Kapovic, Mate. 2011. Language, ideology and politics in Croatia. *Slavia Centralis* IV(2). 45–56.

Kaufmann, Göz. 2010. Non-convergence despite language contact. In Peter Auer & Jurgen E. Schmidt (eds.), *Language and space: An international handbook of linguistic variation*, vol. 1, 478–493. Berlin: de Gruyter Mouton.

Keller, Rudi. 1994. *On Language change: The invisible hand in language*. London: Routledge.

Keller, Rudi. 1998. *A theory of linguistic signs*. Oxford: Oxford University Press

Kloss, Heinz. (1952) 1978. *Die Entwicklung neuer germanischer Kultursprachen von 1800–1950*. Munich: Pohl.

Koch, Harold. 1997. Comparative linguistics and Australian prehistory. In Patrick McConvell & Nicholas Evans (eds.), *Archaeology and linguistics: Aboriginal Australia in global perspective*, 27–43. Oxford: Oxford University Press.

Koch, Harold. 2014. Loanwords between the Arandic languages and their western neighbours: Principles of identification and phonological adaptation. In Lauren Gawne & Jill Vaughan (eds.), *Selected papers from the 44th conference of the Australian Linguistic Society, 2013*, 311–334. Melbourne: University of Melbourne. http://hdl.handle.net/11343/40970

Koch, Harold. Forthcoming. The development of Arandic subsection terms in time and space. In Patrick McConvell, Piers Kelly & Sebastien Lacrampe (eds.), *Kin, skin and clan*. Canberra: ANU Press.

Kühl, Karoline & Kurt Braunmüller. 2014. Linguistic stability and divergence: An extended perspective on language contact. In Braunmüller, Höder & Kühl 2014, 14–38.

Kulick, Don. 1992. Language shift and cultural reproduction: Socialization, self and syncretism in a Papua new Guinean village. Cambridge: Cambridge University Press.

Labov, William. 1966. *The social stratification of English in New York City*. Washington DC: Center for Applied Linguistics.

Labov, William. 2010. *Principles of linguistic change*, vol. 3, *Cognitive and cultural factors*. Malden: Wiley Blackwell. https://doi.org/10.1002/9781444327496

Larsen, Amund B. (1917) 1993. Naboopposition – knot. In E. H. Jahr, O. Lorentz & M. Christoffersen (eds.), *Historisk språkvitenskap* (Studier i Norsk Språkvitenskap 5), 97–131. Oslo: Novus.

Laycock, Don. 1982. Linguistic diversity in Melanesia: A tentative explanation. In R. Carle, M. Heinschke, P. Pink, et al. (eds.), *Gava':Studies in Austronesian languages and cultures dedicated to Hans Kähler*, 31–37. Berlin: Reimer.

Matras, Yaron. 2009. *Language contact*. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511809873

McConvell, Patrick. 1985. The origin of subsections in Northern Australia. *Oceania* 56. 1–33. https://doi.org/10.1002/j.1834-4461.1985.tb02105.x

McConvell, Patrick. 2006. Shibbolethnonyms, ex-exonyms and eco-ethnonyms in Aboriginal Australia: The pragmatics of onymization and archaism. *Onoma* 41. 185–214.

Muljačić, Žarko & Harald Harmann. 1996. Distance interlinguistique, élaboration linguistique et "coiffure linguistique". In *Kontaktlinguistik / Contact linguistics / Linguistique de Contacte. Ein internationales Handbuch zeitgenössischer Forschung*. Berlin: Walter de Gruyter.

Nash, David. 1997. Comparative flora terminology of the central Northern Territory area. In Patrick McConvell & Nicholas Evans (eds.), *Comparative linguistics and Australian prehistory*, 187–206. Oxford: Oxford University Press.

Ponsonnet, Maïa. 2015. Nominal subclasses in Dalabon (Southwestern Arnhem Land). *Australian Journal of Linguistics* 35:1. 1–52. https://doi.org/10.1080/07268602.2015.976900

Poplack, S. & Levey, S. 2010. Contact-induced grammatical change: A cautionary tale. In P. Auer & J. E. Schmidt (eds.), *Language and Space: An international handbook of linguistic variation*, vol. 1: *Theories and methods*, 391–419. Berlin: Mouton de Gruyter.

Romaine, Suzanne. 1989. Pidgins, creoles, immigrant, and dying languages. In Nancy C. Dorian (ed.), *Investigating obsolescence. Studies in language contraction and death*, 369–383. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511620997.029

Ross, Malcolm D. 1996. Contact-induced change and the comparative method: Cases from Papua New Guinea. In Mark Durie, Malcolm D. Ross (eds.), *The comparative method reviewed: Regularity and irregularity in language change*, 180–217. New York: Oxford University Press.

Ross, Malcolm D. 2007. Calquing and metatypy. *Journal of Language Contact* 1:1. 116–143. https://doi.org/10.1163/000000007792548341

Sankoff, Gillian. 2002. Linguistic outcomes of language contact. In J. K. Chambers, P. Trudgill & N. Schilling-Estes (eds.), *The handbook of language variation and change*, 638–668. Oxford: Blackwell.

Saussure, Ferdinand de. (1915) 1979. *Cours de linguistique générale*, ed. by C. Bally & A. Sechehaye. Paris: Payot.

Singer, Ruth. 2016. The Dynamics of Nominal classification: Productive and Lexicalised Uses of Gender Agreement in Mawng. Berlin: De Gruyter Mouton Pacific Linguistics. https://doi.org/10.1515/9781614513698

Smith, Ian & Steve Johnson. 1986. Sociolinguistic patterns in an unstratified society: The patrilects of Nganhcara. *Journal of the Atlantic Provinces Linguistics Association* 8. 29–43.

Sorensen, Arthur P., Jr. 1967. Multilingualism in the Northwest Amazon. *American Anthropologist* 69. 670–684. https://doi.org/10.1525/aa.1967.69.6.02a00030

Stanford, James N. 2008. A sociotonetic analysis of Sui dialect contact. *Language Variation and Change* 20:3. 409–450. https://doi.org/10.1017/S0954394508000161

Stanford, James N. 2009. "Eating the food of our place": Sociolinguistic loyalties in multidialectal Sui villages. *Language in Society* 38:3. 287–309. https://doi.org/10.1017/S0047404509090502

Sutton, Peter, 1978. *Wik: Aboriginal society, territory and language at Cape Keerweer, Cape York Peninsula, Australia*. St Lucia: University of Queensland PhD thesis.

Sutton, Peter. 1997. Materialism, sacred myth and pluralism: Competing theories of the origin of Australian languages. In Francesca Merlan, John Morton & Alan Rumsey (eds.), *Scholar and sceptic: Australian Aboriginal studies in honour of L.R. Hiatt*, 211–242, 297–309. Canberra: Aboriginal Studies Press.

Thomason, Sarah G. 2007. Language contact and deliberate change. *Journal of Language Contact – Thema* 1. 41–62. https://doi.org/10.1163/000000007792548387

Thomason, Sarah G. & Terrence Kaufman. 1988. *Language contact, creolization, and genetic linguistics*. Berkeley: University of California Press.

Thurston, William R. 1987. *Processes of change in the languages of north-western New Britain* (Pacific Linguistics B-99). Canberra: Pacific Linguistics.

Thurston, William. 1989. How exoteric languages build a lexicon: Esoterogeny in West New Britain. In R. Harlow & R. Hooper (eds.), *VICAL I: Papers in Oceanic linguistics*, 555–579. Auckland: Linguistic Society of New Zealand.

Thurston, William R. 1992. Sociolinguistic typology and other factors effecting change in northwestern New Britain, Papua New Guinea. In T. Dutton (ed.), *Culture change, language change: Case studies from Melanesia*, 123–139. Canberra: Pacific Linguistics.

Torres Cacoullos, Rena & Catherine Travis. 2017. *Bilingualism in the community: Code-switching and grammars in contact*. Cambridge: Cambridge University Press.

Travis, Catherine E. & Rena Torres Cacoullos. 2015. Gauging convergence on the ground: Code-switching in the community. *International Journal of Bilingualism* (Special Issue) 19:4. 365–480. https://doi.org/10.1177/1367006913516046

Trudgill, Peter. 1974. *The social differentiation of English in Norwich*. Cambridge: Cambridge University Press.

Trudgill, Peter. 1983. *On dialect: Social and geographical perspectives*. Oxford: Basil Blackwell.

~~Trudgill, Peter. 1986. *Dialects in contact*. Oxford: Blackwell.~~

Weinreich, Uriel. (1953) 1968. *Languages in contact: Findings and problems*. The Hague: Mouton.

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ICHL 2015 and Green 1998 are not citations so do not need references. Gomez-Imbert 1990 has been corrected to Gomez-Im tally with the date in the list of references