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**To cite this article:** Joshua Nash (2016) Ecologically embedded languages, cumulative grammars and island ecologies, *Acta Linguistica Hafniensia*, 48:2, 161-170, DOI: [10.1080/03740463.2016.1243977](https://doi.org/10.1080/03740463.2016.1243977)

**To link to this article:** <http://dx.doi.org/10.1080/03740463.2016.1243977>



Published online: 07 Nov 2016.



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## Ecologically embedded languages, cumulative grammars and island ecologies<sup>1</sup>

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### ABSTRACT

Ecolinguistics is used to explicate the concepts *ecologically embedded language* and *cumulative grammar*. The example of Norf'k, an unfocused contact language with few speakers spoken on Norfolk Island, South Pacific, is employed to reconcile several issues at hand when dealing with language–environment–culture interaction. Examples from Norf'k illustrating connectedness and cohesion between society and environment are given. Norfolk Island's micro-ecolinguistic case study is used to exemplify the effectiveness of small islands as worthwhile case studies for observing geographical and social bounding. The term linguistic and grammatical hamstering, a process of hoarding language forms and content as a result of this linking, is put forward.

**KEYWORDS** Contact languages; ecolinguistics; islands; linguistic and grammatical hamstering; Norf'k; toponymy

### Language and environment

Coupling language with environment, either literally or metaphorically, is not in any way new. There have been numerous investigations in linguistics, anthropology and other fields documenting, measuring, analysing and theorising about how different cultures speak about different environments using different languages. Here, I define *environment* as a *niche* where particular languages are spoken and the *place* where languages exist. Some of these linguistic investigations in modern Western universities have come to be known as ecolinguistics, linguistic ecology and language ecology (see Pennycook 2004 for more detailed definitions). This short position paper considers interactions between *ecologically embedded languages* and *cumulative grammar*, labels Peter Mühlhäusler and I have used in our research cooperation dealing with Norf'k, the Norfolk

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<sup>1</sup>Much of the content of this essay has developed through discussions, writings and fieldwork with Peter Mühlhäusler over many years. I thank him for his insights, expertise and patience as a supervisor and colleague. Several of the general ideas presented are found in a more descriptive manner in Mühlhäusler and Nash (2012), particularly in Chapter 5 (81–122).

Island language. These relationships in island places and island ecologies seen through language are offered as an attempt to advance methods and theory in ecolinguistics and to understand (small island) contact languages with complex linguistic and social histories.

Norf'k is a way of speaking that stems from the language which emerged on Pitcairn Island from 1790 in a small community comprised of Polynesian and English speakers. The relocation of the Pitcairn Islanders to Norfolk Island in 1856 marks the beginning of Norf'k as a form of the language of Pitcairn which has undergone changes due to its transplantation to a new environment. The linguistic situation on Norfolk Island is diglossic (Flint 1979). That is, there is a situation in which two similar varieties of the same language – English and Norf'k – are used in different conditions within the community, often by the same speakers. Where English has traditionally taken the acrolectal (high) position with Norf'k taking the basilectal (low), the contemporary linguistic situation has seen a marked reversal of the status of Norf'k within Norfolk Island society.

Norf'k has around 15% Polynesian lexicon. Both English and Norf'k are official languages of Norfolk Island and both languages are used in Norfolk Island place names. Although the literature reveals opinions ranging from the classification of Norf'k as an Atlantic creole (e.g. Hancock 1987), “a creole combining English, Tahitian, and universals of creolization” (Mühlhäusler 1985, 544), to the cant or specific group language hypothesis of Laycock (1989), the typological status of Norf'k remains unclear. While the terms ‘pidgin’, ‘creole’ and ‘patois’ have all been applied to Norf'k, the language resists simple classification. As Avram (2003, 49) notes, Norf'k is very much “a special case” (see also Baker and Huber's 2001 consideration of Norf'k typological status with reference to other Atlantic, Pacific and worldwide features in English-lexicon contact languages).

I pose ecolinguistics as a parameter-rich approach inculcating formalist, structural linguistic analysis, which considers both synchronic and diachronic data. Ecolinguistics differs from universalist perspectives (e.g. Hunn 1996) and cultural relativist perspectives (e.g. Lucy 1996, 1997; Whorf 1956). By considering the relationship between universal and culture-specific phenomena, an application of ecolinguistics as a method and theory should be able to integrate and consider not only phenomena between, within, and across contexts but also what these contexts actually mean. An ecolinguistic focus moves away from the structuralist approach, espoused by scholars after Saussure, to one, for want of a less tired expression, which is holistic.

The strengths of an ecolinguistic approach to language lie in its ability to incorporate cultural and ecological parameters in an empirical structural analysis. For example, the empirical study of place names as vital and observable linguistic form provides entrance points into understanding broader environmental and cultural history. Such an ecolinguistic approach develops an

understanding of the relationships between people and place and language change, substance and meaning. These takes recognise the ability and possibility of people being able to use language(s) to speak about places adequately as a means of talking about these environments ecologically, culturally, socially and even politically.

Although I advocate for the usefulness of ecolinguistics as a method and theory, I try to be aware of its shortcomings and weaknesses. The major shortcoming of ecolinguistics is that it implicates a large number of parameters. By considering many variables in any linguistic analysis, often few conclusions can be made. This creates tension between theorising about the nature of language and measuring how language actually functions in the world. Traditional linguistic approaches that see language as a matrix of system-internal relationships cannot easily conceive of the study of language form beyond the scope of this matrix, i.e. sense relationships within the system. This is where an ecolinguistic approach is warranted. Furthermore, because analyses of linguistic structure have tended to focus on these sense relationships, the analysis of substance relationships beyond language-internal form is uncommon. For example, the Norfolk Island place name Red Stone, a large and visually prominent islet with red-brown colouring on the northern coast of Norfolk Island, is both a descriptive place name as well as a key element in the Norf'k expression: *Do semes Red Stone – lubbe side es* 'do the same as we do with Red Stone – leave it where it is'. This expression is used when the speaker wishes to leave things – events, happenings and customs – exactly as they have always been. The physical nature of places and their linguistic form in Norf'k can become remembered in speech relating to extralinguistic phenomena.

Two further examples relating place, people and language in Norf'k are notable: the Norf'k expression *go up Cook's fer winter* (literally 'go up to the Captain Cook/Monument', a remote landmark and place name on the north coast dedicated to Captain James Cook's discovery by Europeans of Norfolk Island in 1774) meaning 'get lost!' or 'go to hell!' in English illustrates how distance-location, place names and idiomatic expressions embed language to place. In addition, the shorter *up Cook's* can be used to indicate a lack of knowledge about someone's whereabouts or that a particular person being discussed is now far away. Here, the Norf'k *he bin up Cook's* is cognate with similar instances in Australian English: *the back of beyond*, *beyond the black stump*, *back of Bourke*, *out whoop whoop*, and *in the middle of nowhere*. The second example is related to Norfolk's history of dangerous names and words. *To be snell* meaning 'to be catered for insufficiently, or to be hungry, even after eating a meal', is said to be derived from a member of the Snell family who did not cook enough food for their guests one evening (Wiseman 1977). The Snell family today are not entirely fond of this expression.

Ecolinguistics provides two main conceptual questions: what is the relationship between people, language, place and names; and how can these

relationships be empirically measured? Research in linguistics has generally focused on linguistic structure decontextualised from the environment where the language is spoken. Sociolinguistic research has contributed significantly to an understanding of language use and language in social context (Hymes 1972; Labov 1966) just as ecolinguistics has created awareness of language as an ecological phenomenon (Haugen 1972; Mühlhäusler 2003). More recent work (e.g. Trudgill 2011; De Busser and LaPolla 2015) on the interaction of language, environment, culture and society focuses on the relationship between size and coherence of the speech community and the degree of complexity of languages.

The coupling of structural and ecolinguistic analysis highlights the tension between language as a signifier and its operation in the world as a lexicon and grammar used to describe a landscape. Some ecolinguistic research has focused on issues marginal to mainstream linguistics, to the extent that some would claim that much of what is in the interest range of ecolinguistics does not concern linguistics at all. Regardless, there is a need for context-sensitive empirical analyses which ask questions about interrelationships concerning language, culture and the natural environment without being alienated from formalist linguistics. Broad philosophical analyses of the relationship between lexicon and environment are important in their own right. However, these leave unanswered the question of how to analyse specific aspects of particular linguistic ecologies, e.g. in word classes like toponyms. Sapir illustrates how history is reflected in toponyms:

Only the student of language history is able to analyse such names as Essex, Norfolk, and Sutton into their component elements as East Saxon, North Folk, and South Town, while to the lay consciousness these names are etymological units as purely as are “butter” and “cheese”. The contrast between a country inhabited by an historically homogeneous group for a long time, full of etymologically obscure place-names, and a newly settled country with its Newtowns, Wildwoods, and Mill Creeks, is apparent. (Sapir 1912, 231)

As one of the early proponents of exploring relationships between language and its bio-cultural environment, Sapir’s suggestions about toponymy and other word classes such as biotic and personal names are still remarkably relevant.

The idea that linguistic practices are potentially detachable from the world suggests that one can distinguish between two prototypical language types: *ecologically embedded languages* and *ecologically disconnected languages*. These are idealised types and in reality most languages are a complex mix between being constructed by their environment and constructing their environment (Mühlhäusler 2003, 2). However, such a split between conceptions of what languages are is useful in an empirical analysis.

I posit several key constitutive conditions for an ecologically embedded language: words reflect social interaction between humans and (the(ir)) environment; the same word can be used to describe human and other life forms; the lexicon and grammar of space can accurately reflect topography; language

can be presented as an accumulated, accumulative and acculturated memory of past interactions between humans and nature; a diachronic approach is of vital importance to the study of synchronic patterns of language use; languages both describe and are descriptive products of the environment where they exist and are spoken. The consideration of ecologically embedded languages is crucial to assessing the nature of language and environment interaction under the rubric of study advocated by ecolinguistics.

### Cumulative grammar

Language, like any natural ecology, is built up of parts. Developing the notion that certain languages are more connected to the specific place of their development than others, I consider how an ecologically embedded language may accumulate forms and how grammar reflects and resembles this accumulation. I claim Norf'k has such a cumulative grammar rather than a common denominator lect or levelled way of speaking (Mühlhäusler 2013, 234) common in other focused, standardised and more managed and manageable contact languages in, e.g., the three major varieties of Melanesian Pidgin English, which are all standardised in the countries where they are spoken: (1) Tok Pisin, an official national language of Papua New Guinea, (2) Bislama, an official national language of Vanuatu and (3) Pijin, not an official language of the Solomon Islands but the country's lingua franca. Moreover, intricate language and place-knowledge (Nash and Low 2014) combines various eccentrically present and historically determined features of Norfolk Island environment and society and illustrates aspects of what I label a 'cumulative grammar'.

For several reasons congenial to the island locale where it is spoken, Norf'k, an unfocused language with few linguistic stereotypes or fundaments, can be submitted as a prototypical case of the development of a cumulative grammar. The vessel or container of the language, where the whole community rather than a single person or group possesses or owns this way of speaking, is highly idiosyncratic, distinctive and place-specific. Apparently, functionless pronoun forms are maintained (Mühlhäusler 2012), e.g. *one I apple* and *one apple fer me* where *myse apple* 'my apple' would suffice; peculiar toponym forms are kept intact (Nash forthcoming), e.g. it is not entirely clear why such complex possession is maintained in several Norf'k place names adhering to the form: *Ar Pine fer Robinson's* (literally 'The Pine of Robinson's', English: 'Robinson's Pine (Tree)'); grammatical and socially (un)beneficial linguistic forms are not discarded, e.g. *to be snell* (to be catered for insufficiently – see above); the language bears lexical and grammatical evidence for the idea that possibly possessing more constructions and ways of describing an environment and the social interactions which take place therein is more effective, e.g. having a toponym doublet, where two different versions of one name exist for the same place; compare Norf'k *Dem Steps* with English *The Convict Steps*, a place which was

created when stone was mined by convicts for constructing buildings in Norfolk Island's administrative centre in Kingston. While referring to the same place, these names serve different functions and have altered pragmatic constraints and freedoms. Inter- and even intra-family variations and the fact that there were extremely remote areas where Norfolk residents had little contact with other Norf'k or English speakers around the turn of last century has meant that certain features, such as short /a/ in a word like *palu* [p<sup>h</sup>alu] 'berley used for fishing' vs. long /a:/ in e.g. *paalu* [p<sup>h</sup>a:lu] 'to masturbate', which were previously distinct, have now become less so.

Other linguistic quirks which have become accepted in Norf'k are: the retention of word final complex consonant clustering, uncommon in many contact languages, and the use of proper names as common nouns or verbs, e.g. *to chuck a Quintal* 'to have a tantrum', 'to get upset', an allusion to the temperamental personality of *Bounty* mutineer, Matthew Quintal, and *to Buffett*, e.g. *you se Buffettin* 'you are Buffetting' – 'to sit on the fence', 'to be a fence sitter', 'to be indecisive', an allusion to the tendency of members of the Buffett family not to commit to things or make decisions. These phenomena render linguistic a common determinant in island and low information societies: whatever is brought in often stays. This complex nexus of linguistic and grammatical hampering questions the possibility of there existing a shared, factual and reified grammar which can account comprehensively for the tangible and intangible linguistic history of a language like Norf'k and where-whether such a grammar may reside, if at all.

The house name *Foote Nort* brings the name of a non-Norfolk Islander into the Norf'k lexicon. The humorous and quirky allusion to the common Norf'k question *foot nort* 'why not' is based on the homophony between the Norf'k adverb and the name of a Canadian philanthropist who moved to Norfolk Island in the 1970s, Mr. Eldon Foote. *Foote Nort* lexifies into Norf'k the intimate presence of a non-Norf'k speaker. All these examples, along with other the non-toponymic Norf'k lexicon and grammar, are evidence of accumulation of words and grammar in Norf'k.

Norfolk Island has a small population, approximately 1800 people, of whom around 400 speak Norf'k, with several diverse and differing social and political predilections. This small insular society depicts how language posed as a grammar echoing social souvenirs and inheritances, insular mentality and adherence to tradition rather than change, e.g. celebrating the persistence of the Polynesian and St Kitts Creole<sup>2</sup> elements in Norf'k, conglomerate into unexpected linguistic curios. For example, why various archaic and seemingly unnecessary forms, e.g. three possessive constructions – *myse table*, *one I table*, *one table fer*

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<sup>2</sup>Edward Young, one of the *Bounty* mutineers, was from St Kitts, a small island in the Leeward Islands in the eastern Caribbean. He was of mixed English and St Kitts ancestry and was one of the first and principal linguistic socialisers on Pitcairn Island during the formative years of the Pitcairn language. See Baker and Mühlhäusler's (2013) paper in this journal and Nash ([forthcoming](#)) for further details.

*me* – persist in Norf’k is unknown. What is more intriguing is that such forms persevere while simultaneously the number of Norf’k speakers is decreasing and overall grammatical attrition are appearing, e.g. pluralisation of nouns and more intricate inflectional verb morphology not common in earlier Norf’k speech. Dealing with an ecologically embedded, unfocused language based in a cumulative grammar, with no well-understood and well-implemented writing system, and with no set parameters of linguistic conduct and explicit linguistic role models offers ecolinguistics and linguists in general a ripe challenge for consideration and analysis.

### **Embedded languages, island ecologies: cumulative grammar as a reconciling metaphor**

Islands have long been posed as laboratory case studies of natural and human habitation and adaptation in the natural sciences and the social sciences. Relationships involving islands, language, ecology and cultural and political change suggest intimate links between survival, scarcity and the need to adapt ecologically and linguistically. It appears that possessing the linguistic tools to be able to speak about a particular natural ecology adequately is crucial to being able to manage the same (island) ecology satisfactorily. One of the major claims of ecolinguistics is that when a language does not possess the necessary lexical and grammatical tools to describe the natural environment, e.g. biota, topographical features, interrelationships between the social and natural ecology, large-scale ecological mismanagement can result. However, the reality of undertaking a precise study to measure the contours between linguistic change and environmental (mal)adaption is a Herculean task.

I have taken a position using the methodological and theoretical possibilities of ecolinguistics to assess the language situation on the small island ecology where Norf’k resides and is housed. In a way, I have presented the island’s linguistic ecology as a metaphor of prototypically connected ecological and linguistic change; this idea leads to the suggestion that there are significant parallels between the contours of a natural ecology and those of the island’s linguistic and cultural ecology. This is observed and is measureable particularly in grammatical constructions used to describe the social environment, e.g. the appearance of more complex pronoun forms in Norf’k than English, and the natural ecology, e.g. the toponomastic lexicon which is a representatively accessible membrane which depicts and reflects elements of linguistic and cultural adaption.

The nature of linguistic and cultural change necessitates an incorporation of what is otherwise known as extralinguistic or non-living patterns and phenomena. This is a reflection of the fact that any living language is only as strong as the strength of its extralinguistic support network, which necessarily implicates ecological and language-external links. This insight is probably shared by most



linguists who have worked with endangered minority languages where imperialism and colonialism are significant causal factors in the processes of language death. These principles have general application although each ecology demands its own specific explanation. Ecologies are also geography-specific: the distinct natural and linguistic ecology of Norfolk Island is a part of Australia, the Pacific and Oceania.

The cumulative grammar idea can be used metaphorically to represent an entire natural ecology. Such a process demonstrates the importance and interconnectedness of each element in an ecology and every element in the lexicon and grammar of a language. Just as grammar expresses the idea that the whole of language is greater than the sum of its parts, the whole expression of a natural ecology illustrates how the ecology's parts contribute to a greater sum; a holistic analysis of ecological systems, e.g. biological and chemical systems, can be applied to a grammatical analysis of a specific language in a particular linguistic ecology. It appears that a cumulative grammar, especially in contained small island situations, is motivated or caused by any or all of the following: resource limitations, scarcity and threats of and to continuation of embedded social and environmental elements. While an alternative explanation is that in such circumstances adaptive pressure to scarce linguistic and physical resources may be low, several of the examples I have given, which relate lexical and grammatical retention and hampering, strongly elucidate the interdependence of premises relating the linguistics of environment with the environments of language.

Although I use 'linguistic hampering' and 'linguistic hoarding' metaphorically, these concepts may be in need of fine-tuning and adjustment. I have claimed that a small island linguistic ecology like Norfolk Island, which was extremely culturally isolated prior to the advent of modern tourism following the Second World War, telecommunications and the Internet. During this time Norfolk, with its small number of speakers, was notably linguistically resource limited. While it is arguable that Norfolk was linguistically scarce during its early development, a state which led to the retention of the lexicon and grammar, and whether or not the supply of linguistic resources in such environments decreases when the linguistic resources are hoarded, there are definitely features of Norfolk which are significantly different to the English with which it was and is continually in contact. It is not clear whether linguistic hoarding is a malfunction of language and whether indeed linguistic resources are things which can in actuality be stored or hoarded in a lexicon or grammar.

Ecolinguistics, the idea of ecologically embedded languages, and more specifically the idea of a cumulative community-based-driven-focused grammar or way of speaking advocate that language can be embedded in the landscape and within the minds of the users of the language dialectically. This idea has been expressed by Le Page and Tabouret-Keller (1985) in their work on creole-based approaches to language and identity in the Caribbean: the grammar of a language does not exist separated from the people or the place where the language

is spoken. At the same time, no single community member ever possesses the whole grammar or entire lexical resources of a language.

## Disclosure statement

No potential conflict of interest was reported by the author.

## Notes on contributor

*Joshua Nash* is a linguist and an environmentalist. His research intersects ethnography, the anthropology of religion, architecture, pilgrimage studies, and language documentation. He has conducted linguistic fieldwork on Norfolk Island, Pitcairn Island, and Kangaroo Island, environmental and ethnographic fieldwork in Vrindavan, India, and architectural research in outback Australia. He is a postdoctoral research fellow in linguistics at the University of New England, Armidale.

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