On the external relations of Purepecha : an investigation into classification, contact and patterns of word formation

Bellamy, K.R.

7. DISCUSSION AND CONCLUSIONS

"Given that God is infinite, and that the Universe is also infinite...
would you like a toasted teacake?"
(Talkie Toaster to Holly, 'White Hole')

7.1. Recap and methodological reflection

In order to investigate questions pertaining to the external relations of Purepecha, from the perspectives of both relatedness and contact, as well as to language-internal issues of word formation, I have used a number of different methods in this thesis. This broad, multi-pronged approach recalls Hamp's (1979) three "great categories" of linguistic study: typology, the Comparative Method and areal linguistics (see Section 1.8). Moreover, I have drawn on - and presented - data from archaeology and genetics, as well as from multiple languages of the Americas, not only Purepecha. In this sub-section, I will revisit the methods I used and the - sometimes contradictory - findings they produced, offering a reflection on their utility and appropriateness for my research questions, as well as how they could be supplemented in future research.

Lexical material drawn from standardised wordlists formed the basis for three studies presented in this thesis: (i) the first part of Chapter 2, on the possible genealogical relations of Purepecha, (ii) Chapter 3, which tested the hypothesis of long-distance interaction between the Andes and West Mexico through the lexicon of metallurgy, and (iii) Chapter 4, where I discuss the shifting language contact situations in Michoacán and their potential impact on Purepecha lexicon and structure. Having established that previous studies connecting Purepecha to other languages of the Americas proceeded from an inspectional, or 'multilateral', method for identifying cognate candidates, rather than a systematic comparison method, in Chapter 2 I used a state-of-the-art quantitative method, namely the Oswalt Monte Carlo Shift Test, to evaluate the validity of previous claims. This test found no signal of relatedness higher than that expected by chance between Purepecha and the languages present in the Swadesh (1967) and Greenberg (1987) classifications, including Quechua in the Andes and Zuni in the southwest USA.

However, in Chapter 3 I also resorted to a more traditional inspectional analysis of the lexical data for metallurgy which, given their relatively small and specific nature, was feasible. Loanwords should also be more easily identifiable than deep-time cognates, due to the generally smaller amount of phonological change. The lack of clear loans linking the Andes and West Mexico in this lexical set offers support for the findings from Chapter 2, namely that a connection between the two regions, in terms of either genealogical relatedness or interaction, cannot be claimed on the basis of the current data. A more detailed inspectional analysis of a large-scale standardised wordlist (the REPLICA wordlist), reported in Chapter 4, also revealed a difference in the scale and nature of borrowing in the prehispanic and modern periods. Prior to contact, despite considerable regional linguistic diversity, Purepecha remained rather resistant to influence from other, neighbouring languages, whereas the contemporary language is replete with lexical borrowings, not to mention new, calqued morphosyntactic structures on the Spanish model. As such, both the traditional inspectional method and the more up-to-date quantitative method allow us to test existing proposals in an objective, systematic way, providing measurable and qualitative results that can inform and refine current models of language contact and relatedness. Moreover, the results gathered from the experimental language-internal study of olfactory language (Chapter 5), demonstrate how different elicitation techniques can combine to provide a clearer picture of a particular lexical semantic domain. Natural sources proved, perhaps unsurprisingly, to be the most effective means of eliciting the less commonly used smell terms, while the US-produced 'scratch-and-sniff' smell booklet proved hugely ineffective. The data collected for this study could be further supplemented with naturalistic, corpus data, the creation of which is one of my aims for a future, follow-up project.

While the negative results (i.e. a lack of linguistic relatives and limited contact effects) may seem unsatisfactory on the surface, I contend that it is useful in that it helps to guide future research and avoid replication of unnecessary efforts. Yet, we should also recall that these two negative results from linguistics contrast starkly with some preliminary findings from genetics (Brucato et al., 2015), presented in Section 3.2.2. This study identifies a small but significant Andean component in the

genome of four groups known to have had metalworking in the prehispanic period including, most importantly for the purposes of this thesis, the Purepecha. Given the absence of this genetic component in Central America, an introduction via a Pacific maritime route from the coast of Ecuador and northern Peru (where metallurgy considerably predates its western Mexican counterpart) seems probable. As such, genetics offers very suggestive evidence for interaction between individuals from these two regions, albeit at a still unspecified time in the past. Given the extremely small size of this Andean genetic component, it is most likely that any proposed contact scenario was small-scale and not particularly intense. However, as also noted in Section 3.5, it is also possible that the technological transfer that is likely to have taken place between artisans of the two regions may have occurred in a largely non-verbal manner. Studies from other technologies, such as weaving, have demonstrated that emphasis is placed more on the physical replication of a process than on its linguistic explanation. In sum, there may have been interaction between individuals, but this may not have taken the form of linguistic interaction, certainly not leading to any form of bilingualism or mutual intelligibility. It should also be noted that there is a serious lack of linguistic information regarding the languages previously spoken on the coast of Ecuador, rendering detailed comparisons even more problematic (Willem Adelaar, pers. comm.). Nonetheless, the collection of new, semantically specialised lexical datasets such as this one opens the door for future studies using different methods, such as Bayesian phylogenetics.

The contradictory findings from linguistics on the one hand and archaeology and genetics on the other may reflect a complex situation, which could have comprised multiple possible interaction scenarios over a period of around two thousand years, although their linguistic content is still unclear. They also highlight the fact that we cannot rely on the evidence from one discipline alone if we wish to piece together as comprehensive a picture as possible of prehistoric population movements, social and cultural interaction, and linguistic consequences. Indeed here I echo the need for more multidisciplinary research in western Mexico highlighted by Pickering and Beekman (2016: 21) in their extensive volume on the shaft tomb tradition in this region, where they report that "[…] the recognition of the mutual benefits to multidisciplinary

approaches remains limited in western Mexico." As such, this thesis contributes in a small way to the currently limited multidisciplinary research environment in Michoacán.

Later in the same volume on the shaft tomb tradition, (Beekman & Pickering, 2016: 208) highlight another issue that has plagued studies of Mesoamerican archaeology, and which can also be applied to Mesoamerican linguistics, namely the emphasis on areal similarities rather than regional or local variation. In this vein, they propose that "[a]pproaches that emphasize variable practices rather than normative culture areas can potentially provide a richer and more nuanced understanding of this area's [West Mexico's] participation in broader Mesoamerican prehistory" (Beekman & Pickering, 2016: 208). Thus, while the use of multiple methods and data sources in this thesis may have in a sense clouded our overall vision of the position and role of Purepecha, it casts new light on previous assumptions and, in line with recent calls in archaeology (a sister discipline after all), advocates for a more focussed, language-internal approach. A similar multi-pronged approach limited to linguistics is also called for in Eppler, Luescher & Deuchar (2017: 1) in relation to grammaticality in code-switching, whereby our "advances in our understanding […] will be achieved by combining the insights of different theoretical models instead of considering them in isolation". I reiterate this call for a multi-strand approach, with specific application to the study of prehistoric language and culture, as well as more focused language-specific work, as exemplified by Chapter 6 on word formation processes in Purepecha.

7.2. Hey, linguists, leave those isolates alone!

Language isolates are inevitable when the written record is limited; a partial or complete lack of documentation until modern times severely hinders, if not precludes, historical comparative work. While Purepecha is well documented in indigenous American terms, with written material dating back to the mid-sixteenth century, many of the languages that neighboured it in the prehispanic and colonial periods are not. As such, the methods for identifying possible linguistic relatives are limited (but see Campbell, 2010). Having explored the proposed genealogical relations through quantitative methods, inspectional multilateral comparison (à la Greenberg, 1987) and

typological means, I can only conclude that Purepecha remains an isolate devoid of known relatives. It remains the unsolvable puzzle, rather than the tricky but fundamentally decodable cryptic crossword or Sudoku (see Section 1.1).

The lack of resolution to the original research question of this thesis is certainly compounded by the lack of data for many languages just mentioned, as well as the devastating population and thus also language loss that Mexico (and many other countries of the Americas) suffered in the immediate aftermath of Spanish conquest. It may be that a linguistic relative was spoken close to the known Purepecha-speaking area, but it is hard to envisage a situation now where we could validate this hypothesis. The apparent structural similarities between Purepecha and Quechua, especially in the verbal domain (see Chapter 2) may belie a more ancient connection, although on the basis of existing evidence I am not convinced that this is the case (see Urban, Bellamy and Pache (under review) for a typological study that demonstrates no significant typological link between the two languages on the basis of many more features). Such an ancient connection could also be shared with other languages across the Americas (see Chapter 3 for a selected list of structurally similar languages, such as Athabaskan), but in the face of such a data void, this deep-time claim is presently nothing more than speculation.

The lack of external influence on Purepecha might suggest that its speakers were isolated (in the sense of being geographically and socially apart) from other groups, even though we know that many other languages were spoken within the borders of the Tarascan State, as well as at and around its periphery. Trudgill (2011: 89) rightly states that isolation does not necessarily imply total isolation but rather "an absence of any significant history of the language having been acquired by adult non-native speakers". This situation is presented in relation to minority languages, such as Frisian in The Netherlands, but in the case of Purepecha, we see an example of an elite language (that may not, however, have been the majority numerically speaking) that was presumably not also being learned by adults from other linguistic groups. As such, we might wish to postulate a situation where bilingualism involving Purepecha was not the norm, or only in particularly asymmetric power situations, such as contact with Cuitlatec (see Sections 4.2.3 and 4.4).

Nonetheless, the higher than average number of isolates in the Americas - Purepecha included - remains perplexing. As we saw in the introduction (Chapter 1), we may simply have to remain perplexed, since not all of the pieces to some puzzles, including language isolates, are always available to us. Thus, when it comes to isolates, I suggest that attention should be shifted to improving the state of their description, theoretical analysis, and internal reconstruction (cf. Campbell, 2010), rather than continuing to get bogged down in, sometimes severely speculative, classifications that may rely largely on structural rather than lexical features (see Section 2.2). By conducting careful, detailed language-internal research, we will be able to piece together a much clearer picture of a language's structure which, in turn, will enable more accurate comparative work, if appropriate. One of the biggest issues with the comparative work on Purepecha by Swadesh (1967) and Greenberg (1987) was their lack of attention to internal word structure, leading to situations where phonemes in a root in one language were compared with those in a suffix in another (see Chapter 2). By improving our understanding of isolates, as well as under-described (usually minority) languages more generally, we can avoid the mistakes - or certainly avoid replicating similar ones - committed by previous researchers.

Chapters 5 and 6 of this thesis constitute a first attempt at a more in-depth study of word formation in Purepecha, focusing on the relative semantic contribution of suffixes and roots, including how these contributions play out in the extensive and areally unusual semantic domain of olfaction. This type of language-internal work also promises to increase our knowledge of the vast diversity present in indigenous American languages, especially from a functional-typological perspective. In turn, this broader typological panorama will help us to further refine our knowledge of the limits of human language more generally, including when two or more languages are in contact, a common situation in the Americas (as in the majority of the world). More detailed descriptive studies will also permit researchers in specific theoretical frameworks, such as Distributed Morphology and formal semantics, to test their theories using sound data.

In terms of future research regarding the external relations of Purepecha, I see no reason to pursue further possible genealogical relatives. Equally, investigating

possible structural contact effects on Purepecha as a follow-up to the present, lexically-based study is also unnecessary in my view (see Chapters 2 and 3), since Purepecha's areally divergent grammatical structure is clear (see Section 4.4; see also Urban, Bellamy & Pache, under review; Chamoreau, in press; Smith-Stark, 1994). While possible contact effects could be pursued in more depth, for example by applying a Multilateral Network (MLN) model to extensive, phonologically standardised wordlists (see Section 2.3), I am of the opinion that more language-internal work should take priority. Purepecha is, in the words of Michael Silverstein, "a delicious language", and thus merits in-depth lexical and structural analysis (as it would if it were less delicious too), on the basis of multiple data sources that reflect the diversity inherent to its four main varieties (thereby permitting internal reconstruction of the lexicon and morphosyntax), as well as through the lens of different theoretical frameworks (cf. Section 5.6). This more in-depth understanding of the language will not, in all likelihood, provide the key to the unsolvable puzzle that is the external relations of Purepecha, but it will unlock new descriptive and theoretical insights into the language, its history and development. These insights can, in turn, be applied to more linguistically-informed revitalisation, including language teaching and Purepecha-medium instruction, as well documentation efforts in each of the four Purepecha-speaking regions of Michoacán, with a view to extending them to diaspora communities in North America.