
The repair problem: diagnostics and competing orthographic subsystems in Suruí

Denny Moore & Andrew Nevins

Proceedings of Conference on
Language Documentation & Linguistic Theory 3

Edited by Peter K. Austin, Oliver Bond, Lutz Marten &
David Nathan

19-20 November 2011 School of Oriental and African Studies, University of London

Hans Rausing Endangered Languages Project
Department of Linguistics
School of Oriental and African Studies
Thornhaugh Street, Russell Square
London WC1H 0XG
United Kingdom

Department of Linguistics:
Tel: +44-20-7898-4640
Fax: +44-20-7898-4679
linguistics@soas.ac.uk
<http://www.soas.ac.uk/academics/departments/linguistics>

Hans Rausing Endangered Languages Project:
Tel: +44-20-7898-4640
Fax: +44-20-7898-4349
elap@soas.ac.uk
<http://www.hrelp.org>

© 2011 Denny Moore & Andrew Nevins

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, on any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the author(s) of that part of the publication, except as permitted by UK copyright law.

ISBN: 978-0-7286-0398-1

This publication can be cited as:

Denny Moore & Andrew Nevins. 2011. The repair problem: diagnostics and competing orthographic subsystems in Suruí. In Peter K. Austin, Oliver Bond, Lutz Marten & David Nathan (eds) *Proceedings of Conference on Language Documentation and Linguistic Theory 3*, 193-198. London: SOAS.

or:

Denny Moore & Andrew Nevins. 2011. The repair problem: diagnostics and competing orthographic subsystems in Suruí. In Peter K. Austin, Oliver Bond, Lutz Marten & David Nathan (eds) *Proceedings of Conference on Language Documentation and Linguistic Theory 3*. London: SOAS. www.hrelp.org/eprints/ldlt3_20.pdf

The repair problem: diagnostics and competing orthographic subsystems in Suruí

DENNY MOORE¹ & ANDREW NEVINS²

Museu Goeldi¹ & University College London²

1. OVERVIEW

Over the past thirty years, the Suruí of Rondônia (Paíteer), a population of about 1,300 in western Brazil who speak a language of the Mondé branch of the Tupi family, have been taught at least four different orthographic subsystems for representing (or not) contrasts that include vowel length, tone, and nasality, as well as a voiceless fricative of variable phonetic realization. In addition, their writing system is taught jointly with Portuguese in schools, so that many of the graphemes have competing orthographic values in the two systems which could potentially lead to interference. The environment is challenging for orthographic consistency since there is little coordination between the National Indian Foundation, educational agencies, linguists, missionaries, and the four exogamous Suruí ‘clans’.

In this paper we outline some of the issues and challenges involved in ‘repairing’ a situation of orthographic inconsistency and present a methodology aimed at making writing intelligible to the community and facilitating a sensible orthographic consensus. This case is typical of the situation of indigenous languages in Brazil where a double standard obtains: rigorous uniformity is required for all publications in Portuguese, but orthographic inconsistency in an indigenous language is not considered a problem by non-indigenous educators or by many linguists. In contrast, the indigenous opinion is completely against inconsistency, which is considered annoying, confusing, and inefficient. For this reason the authors were invited by the Suruí as consultants to help resolve the problem of inconsistencies in their writing practices. The sources of the inconsistencies are successive changes in the writing system by the same linguist (in this case an SIL missionary), alternatives generated by other linguists, and filtering by non-linguists or linguists who omit the more technically challenging aspects of the language, especially those which are not found in the national language. The variations that these orthographic subsystems yield are generally distributed according to residence or age patterns or by affiliation with the particular religious or academic figures who originated the variations. They may not even be noticed by educational agencies. With time, the variations tend to follow the fault lines of society and be used for political purposes. In these cases, appeals to the authors of the varying orthographies or the deployment of abstract technical arguments are often ineffective. Interestingly, the most cognitively salient concern of the indigenous groups is often the question of the differences in speech across generations, which may become conflated with the question of orthographic adequacy.

Our strategy was to initially avoid ingrained symbol preferences and instead focus on practical results, especially consistency, by means of simple standardized writing samples. If the writing samples demonstrate serious inconsistency, this creates

dissatisfaction and curiosity about the cause of the differences, and those emotions can be channeled to motivate adjustments and to understand the technical linguistic questions from the bottom up rather than from the top down. The method took advantage of the representative Suruí organization's familiarity with diagnostics in ecological and health programs. The uniform sample list created for the survey of actual orthographic use was specifically designed to contain minimal pairs (which were not adjacent on the list), morphophonemic processes, and various word classes. It was collected with a roughly representative selection of community members considered literate, distributed in various villages. The general strategy is results-oriented, demystifying, transparent, explanatory, and collaborative.

2. METHODOLOGY

Our project was conducted in six Suruí villages, whose residents were unaware of the extent of the inconsistencies (later deemed 'startling' by several indigenous leaders) that were found both within and between villages. In each of the six villages about 5-10 people who had literacy training were sampled with the same list of 32 words or word combinations, being reassured that it was just a sample and that there were no right or wrong answers. Each participant received a sheet containing the list of words in Portuguese with a line next to each word on which to write the corresponding form in Suruí. To facilitate understanding, the list was read in Portuguese and the corresponding Suruí form was pronounced. Results were entered into a laptop and printed on a portable printer and returned to the community as quickly as possible to provide rapid feedback. Our aim was to raise awareness about the seriousness of the inconsistencies, reduce attachment to habits and convictions contributing to the inconsistencies, and mobilize the community to work towards solutions. A number of participants specifically remarked on the need to mark tone and length only after having observed their own difficulty in writing down certain minimal pairs for which they insisted some difference in orthographic encoding was necessary.

An integral part of the methodology employed is the importance of separating the technical description of which contrasts must be represented in the orthography from the community's decision as to which symbols to use in order to consistently encode those contrasts. To take one example, the first part of our work involved bringing about awareness (in contrast to some previous efforts in developing Suruí orthography) that distinctions between long and short vowels are crucial to encode in the writing system (e.g. *me* 'road' vs. *me:* 'yard'). The second step, however, involves a specific informed decision by the community whether to employ doubled vowels (e.g. *mee*), an h (e.g. *meh*) for the long vowels, or some other solution, while pointing out that each of these introduce ramifications elsewhere. For example, [h] is an independent consonantal phoneme in the language, though it may also be manifested as an interdental fricative. On the other hand, writing doubled vowels requires doubling tone and nasality diacritics on each vowel, and complicates the possibility of writing instances of true hiatus. Another consideration is which alternative is used most in common practice, as determined by the samples, in order

to minimize change. In order to work through these decisions, therefore, the third phase of our project involved testing the efficacy of whichever choice is adopted, through an iterated series of evaluative diagnostics.

A small part of the survey results are shown in Table 1. Along with the transcriptions, information was collected on the name, age, and village of each person sampled, as well as information on who taught the person to read and write.

Table 1
Words from the Suruí writing sample

English	Suruí surface form	Speaker 1	Speaker 2	Speaker 3	Speaker 4	Speaker 5
		Village 1	Village 2	Village 3	Village 4	Village 5
snake	hobó:	sobo	sobóh	robo	sobo	soboh
cat	mekótʃi:t	mekotxid	mekotxíd	mekõtih	mekotihd	mekotit
tick	ɲa:rkú:p	ḡarkub	ḡarküb	ḡarkib	ḡarkub	ḡarkuhp
fat	íkáp	ikab	ikáb	icah	ikab	ihkap
egg	ikáp	ikab	íkab	ikab	ihkab	ikap
tooth	iká:p	ikahp	ikáhb	iká	ikáhb	ikahp
road	me	me	mé	meh	me	me
yard	me:	meh	méh	meeh	meh	mee
rotten	ixó:t	ixōhd	ixōhd	ixom	ixon	ixōt
bad	inhá:t	inhād	iníad	inhã	inhād	inat
dark	ipé:p	ipeb	ipéhb	ipeb	ipehb	ipehp
stingray	í:pe:	ipeh	íhpé	ipeh	ihpéh	ipeh
stone	ixá:a:	ixaah	ixáh-ah	ixah	ihxaa	ixaa

In Table 1 the first column is the gloss of the word requested. In the second column a surface phonological representation of the word in Suruí is given. High tone is represented by an acute accent. For presentation to the Suruí, symbols more familiar to them were used, with tone indicated iconically by lines above each syllable. It was possible to show the Suruí that there are serious inconsistencies in the orthographic representation of certain contrasts and also to refer them to the phonological representation to understand how certain variations are occurring. For example, the words for ‘egg’ and ‘fat’ have opposite tone. The speakers hear the difference, and often try to indicate it, but are not sure how to do so. There is awareness of tone and some attempts to mark it in ‘cat’, ‘road’, ‘yard’, ‘bad’, ‘dark’, ‘stingray’, and ‘stone’. Words such as ‘tooth’ indicate that the missionary linguist’s switch from to <p> to mark the final voiceless stop was often not adopted. It was explained in such cases that the discrepancies were not on the part of the Suruí, but rather on the part of the linguist. Note in the word for ‘stingray’ that the respondents usually hear length and try to mark it with an <h> but are not sure where to put the <h>. The final vowel in

'tick' is not in Portuguese and shows variation. The hiatus in 'stone' is perceived as different from a long vowel, but there is some inconsistency in its treatment. The word 'bad' shows confusion in marking the palatal nasal, with possible Portuguese influence. Portuguese may likewise be influencing the confusion between <y> and <i> in 'old'. The word for 'snake' shows clear Portuguese interference in that the initial [s], often pronounced [h] is represented by an <r>, which is pronounced [h] when initial in Portuguese. A cautionary note is that the variation in the transcription of 'dark' may reflect variation in pronunciation (not shown above) rather than an orthographic inconsistency. Interestingly, the variation in Suruí writing does not seem to pattern significantly along village or age lines, perhaps because the missionary influence was pervasive over decades, with the influence of other literacy projects being relatively transitory. For example, in a village where a Suruí book had recently been created, using what was claimed to be a definitive writing system based on elders' speech, the variation was basically the same as evident in the other villages. (In fact the book itself was internally inconsistent.)

By working through these examples with native speakers, a way to resolve the problems appears: represent the phonological reality in a unique, consistent way and then it is only necessary to listen to what you say to write the word. The phonology becomes the friend of the writer. Exercises can be designed to illustrate the phonological distinctions. Our sampling tended to focus attention on orthographic adequacy and away from the question of speech differences between older and younger speakers, or from association with political factions (native or non-native). Of course there is still a question of symbol selection and explaining the overall advantages and disadvantages of each alternative while leaving the choice up to the community. There is also a question of determining any dialectal variation and how to handle that in the writing system, being careful not to try to determine which dialect is 'correct'. Some analytical problems need attention, for example the identification of word boundaries and a better understanding of morphotonic tone alternations and their implications for writing.

It is perhaps useful to compare the Table of Suruí words with a similar writing sample from an indigenous group in Rondônia, the Djeoromitxi. The more restricted variation observed is a function of the different way writing was introduced and fostered. In this language community, a standardized orthography and its basis were discussed and understood. Consistent materials were created and used, with monitoring of progress. Few variations appear in the writing samples and the satisfaction of the speakers with their writing is high, although the language also contains sounds that are not found in Portuguese, as well as problems of word boundaries. It was important to present such results to the Suruí to show that consistency is possible in indigenous writing. Where material is prepared with a scientific basis and community approval and the instruction is monitored a high degree of literacy in the native language can be reached. For example, the literacy project among the Karitiana of Rondônia, Brazil, conducted by Luciana Storto and the Museu Goeldi, reached a two-thirds literacy rate among speakers over ten years old.

Table 2
Words from the Djeoromitxi writing sample

English	Phonology	Orthography	Speaker 1	Speaker 2	Speaker 3
egg	ʃe	dje	dje	dje	dje
tobacco	paʃi	padji	padji	padji	padji
bad	piči	pitxi	pitxi	pitxi	pipitxi
axe handle	mĩtə rʉkʉ	mĩtā rükü	mitā rükü	mĩtā rükü	mĩtā rükü
honeycomb	be i kə (?)	be i kã	be i kã	beikã	be i ka
tooth	rʉ	rü	rü	rü	rü
path	wikʉ	wikü	wikü	wikü	wikü
cat	warurei	warurei	warurei	warurei	warurei
extinguish	čepe	txepe	txepe	txepe	txepe
yard	biku	biku	biku	biku	biku
sticktight	čičika	txitxika	txitxika	txitxika	txitxika
snake	mě	mě	mě	mě	mě
ants	kunõhihi	kunõhihi	kunõhihi	kunõhihi	kunõhihi
fish	mĩnõ	mĩnõ	mĩnõ	mĩnõ	mĩnõ

The initial writing survey of the Suruí language was very successful and popular. The results were presented to the maximal political body of the Suruí, the Parliament, which found them rather sobering, but also encouraging in a way: at least the nature and extent of the problem was becoming clear. The results of the survey of Djeoromitxi writing were provided to show that problems of inconsistency are not inevitable among indigenous groups; it all depends on how the work is done. Our suggestion to the group was to create a technical committee of the most interested and literate Suruí to work with the linguists to arrive at a suggested orthography, and an explanation of its motivation which can be explored on a trial basis for practicality. This could then be presented to the Parliament. Afterwards it will be necessary to produce appropriate literacy materials for use in schools and test both teachers and students to see if they are able to use the system. One frequent problem in Brazil has been the lack of testing following development of orthographic systems, in order to monitor what is being done and how much is being learned.

3. FINAL CONSIDERATIONS

The survey methodology of our project may be useful to other researchers working in similar situations. A quick survey of this type will probably be included in the National Inventory of Linguistic Diversity in Brazil, which will assess the state of all the languages of the country. Of course, the very diagnostic capability of the methodology makes some educators and linguists nervous. It is undoubtedly the case across various communities that ‘undoing’ the state of affairs of an inconsistent writing situation is much more difficult than working with a community to develop a consistent and accurate system from scratch, particularly as individuals become

entrenched in competing subsystems. Franchetto (2008), for example, reports the use of graphemes as political emblems in an indigenous language in Brazil. The seriousness of the repair problem should not be underestimated: Meira (2004) reports that speakers of a dialect of Bakairi for which the orthography was a poor fit, did not correct the problem; they simply abandoned writing in their language, until a linguist made suitable adjustments.

Consensus can best emerge from demonstrating where the natural intuitive indigenous preference for consistency and for inter-legibility lies and is not being met, using a principled separation between demonstrating the existence of contrasts (a scientific task which must be explained with care, preferentially from the bottom up) and the informed choice of particular symbols to represent them (a community decision). The process continues with the collaborative creation of literacy materials and monitoring the results of their use. The resulting adequacy and uniformity of the writing system corresponds to the indigenous desire to be able to recover traditional pronunciation far into the future. While a negative reaction against measures for orthographic consistency on the part of other linguists with influence on the indigenous group is possible, and may be a complicating factor, the community is quite determined to take its own decisions and the cooperative and educational approach stands a good chance of success.

REFERENCES

- Meira, Sérgio. 2004. O linguista e a ortografia indígena: o caso da língua Bakairi. *Revista de Estudos e Pesquisas*, FUNAI, Brasília 1(2):73-99.
- Franchetto, Bruna. 2008. A guerra dos alfabetos: Os povos indígenas na fronteira entre o oral e o escrito. *MANA, Estudos de Antropologia Social*, 14(10):31-59.