LEXICO-PHONOLOGICAL DIALECTOMETRY OF YÉMBA SPEECH VARIETIES

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This article treats a complex problem of determining and defining the limits or boundaries of speech varieties of the Yémba language. Through the careful application of the dialectometry method, the exact number of Yémba dialects is scientifically defined and the relationships between them statistically established. This new definition of the Yémba language community is more complete and precise than that of Dieu and Renaud in ALCAM (1983:72). At the historical level this study constitutes a decisive step in the interpretation of migration flows that have characterised the various native speakers of this language. In applied linguistics, dialectrometric results obtained from this analysis constitute a reliable basis for the implementation of a language policy adapted to this community. Yémba is an East-Grassfield Bantu language spoken by close to 100 000 people in the Ménoua Division of the West Province of Cameroon.

Le présent article traite d'un problème complexe dans l'aire linguistique Yémba. Il s'agit en fait de la détermination et de la définition des limites dialectales des différents parlers qui composent cette aire. A travers une application minutieuse de la méthode dialectométrique, le nombre exact des dialectes Yémba est scientifiquement défini et les différents rapports qui les lient les uns aux autres statistiquement définis. Cette nouvelle définition de l'aire linguistique Yémba est plus complète et plus précise que celle de Dieu et Renaud dans l'ALCAM (1983:72). Cette étude constitue sur le plan historique une étape décisive dans l'interprétation des flux migratoires qui ont caractérisé les différents peuples locuteurs de cette langue. En linguistique appliquée, les résultats dialectométriques obtenus de cette analyse constituent une base fiable pour la mise en œuvre d'une politique linguistique adaptée à cette aire. Le Yémba est une langue bantoïde du Grassfield-Est parlée par près de 100 000 locuteurs natifs dans le département de la Ménoua à l'Ouest Cameroun.

0. DEFINITION AND GOALS

From the onomastics of the term dialectometry, it stands out that it is composed of the word 'dialect' which is the regional variety of a language and of 'metre' which is a fundamental measuring unit of distance in geometry. As such, if we consider these two words, we would define dialectometry as all the methods and procedures that enable us to measure the linguistic proximity or distances between a well-determined geographical area (Domche 1985:2). As a branch of synchronic dialectology, dialectometry uses mathematical treatments to determine dialectal boundaries and to bring out all the existing relationships between speech varieties of a given region. Dialectometry cannot only be applied to languages of the same family or those that dominate others. It can be employed to classify languages, which are foreign to one another in the sense that languages in contact get into strong relationship in which one tries to annihilate the other through a mechanism of substitution (Domche 1985: 3).

1. DIALECTOMETRICAL PROCEDURES

As in all scientific research, dialectometry is subjected to a set of procedures necessary in rendering credible and viable its results. The application of different dialectometric procedures is done above all by the intermediary of elaborate field research. But this should be preceded by theoretical research, which helps to explain certain facts observed on the field (Comrie 1988:5). There is no prototype prescription that applies to all research on the field since every individual adapts research according to his/her feelings. This is what L. Hyman (2001:22) refers to when he notes, '*the fieldwork is a state of mind*'. As such, the questionnaire, the locality of the survey and the contribution of informants constitute the principal starting points from which we can have, à priori, a general idea of the work. At this level, rigour must be observed to the letter, as the slightest error could have fatal effects on the final results.

1.1 COMPARISON OF LEXICAL DATA

After transcribing all the items in all the varieties, the next step consists in arranging them in a table known as the 'comparison of lexical data'. Each item is carefully studied in a comparative manner between two dialects. Comparison is done in a one-sided manner, that is, one does not need to apply all the principles of reflexivity, reciprocity or symmetry. If we study three dialects, A, B, C for example, we would only take into account the following combinations AB; AC; BC and not the others such as BA; AC; BC. The mathematical formula that permits us to determine the exact number of correspondences is as follows:

$$\frac{n(n-1)}{2} \times E$$

n corresponds to the number of dialects constituting the object of the study
E represents the number of items effectively compared

For example, if we have 50 items to compare in 6 dialects, by applying the above mathematical formula, we would have exactly 750 pairs of possible combinations. The more there is a number of important items to be compared, the more the number of combinations becomes important and immediately we are confronted with what Möhlig W.J.G. (1986:21) calls the mass problem. Nevertheless, this problem can be overcome with the use of a computer programme to facilitate the different combinations to operate.

1.2 STATISTICAL QUANTIFICATION OF DIVERGENCES

To statistically establish the different degrees of divergence, I refer to Möhlig W. J. G. (1980a and 1986a and 1986b), Domche (1985), Mous and Breedveld (1986) and Van der Veen (1991). From the points of view of all these researchers, it stands out that a quantifiable gradation of divergences at 5 levels (from 1 to 5) called values, coefficients or points.

1. Coefficient 4

This first value will be attributed to dialects whose corresponding forms to the same item on a given list are identical to regular correspondences. This is the case of total similarity. If the difference observed in the forms is conditioned by contexts, this same value will be attributed.

2. Coefficient 0

We shall attribute this value to dialects whose forms cannot be linked by any possible phonic correspondence. In such cases, these forms are attached to different etymons. The analysis of segments between the different forms to be compared is determined in the judgement of non-resemblance. M. Dieu (1980:52) is of this opinion when he affirms:

> Le premier test que nous ferons subir aux couples comparés sera donc un simple décompte de leurs segments, et puisqu'il faut bien fixer des seuils, nous stipulerons que si l'un des deux a une longueur qui dépasse le double de l'autre, il faut conclure, sans autre forme de procès, à la non-ressemblance.

When non-resemblance between two forms is attested and confirmed, we talk of total divergence.

3. Coefficient 3

This value is attributed to forms between which there exists a relation capable of permitting us to discover a regular correspondence. Although the forms to be compared belong to the same etymon, they can however have a morphological difference like the change of class, integration of a prefixing vowel at the root at the nominal root, etc. (Van der Veen 1991:192).

4. Coefficient 2

This value is given to forms between which it is possible to establish a relation of general resemblance giving the impression of a common origin, but through approximate correspondence. This is the case of partial similarity that materialises by a phonological difference identified, relevant from regular correspondences.

5. Coefficient 1

We attribute this point to forms that represent two differences at once, that is, morphological and phonological. Mous and Breedveld (1986:183) state: ‘if they have more than one difference, morphological and / or phonological (and the words are of the same root), it is counted as 1’. This is probable similarity meaning that there exist two cumulated differences that could be 2 clearly differentiated phonemes or a phoneme and a morphological difference evident without internal modification of the forms compared (like in the case of metatheses). The compared words have the same root without established correspondence. This is accentuated differentiation although the forms remain comparable.

After the attribution of coefficients to different pairs of forms, it is now possible to undertake good dialectometric analysis.

1.3 DIALECTOMETRIC ANALYSIS

The analysis of dialectometric data is done with the help of a computer programme developed by Möhlig M. (1986:29-44). When we introduce data into the computer, we ensure that the words that have the same root or stem are characterised by the same sign like A, B, C etc. Forms presenting partial identities are arranged in sub-groups; for instance, A1, A2, B1, B2, C1, C2, C3, etc. To differentiate partial morphological, phonological and accumulated divergences, we again introduce a new form of sub-category that can be presented as follows: A11, A12, B11, B12, B13, C11, C12 etc. After this phase the computer automatically brings out a matrix of similarity in a triangular form through which it is possible to determine the different relations that exist between dialects being compared. Then a dialectogramme is designed with the role of regrouping the different dialects according to their linguistic relationship. Through these results obtained from the microcomputer, we can easily proceed to the classification by intersection of the dialects of the linguistic area studied.

1.4 QUESTIONNAIRE PRESENTATION

In the framework of this work, I used a questionnaire of 600 notions designed for dialectometrical calculations for Bantu and Bantoid languages, elaborated by Möhlig W.J.G. (1982) that regroups about 28 semantic fields. In this work, this questionnaire was exploited in two different stages. The 600 notions were first transcribed and each carefully compared with the two dialects. This goal here was to discover clearly phonological regularities thanks to which we will decide on the nature of divergences observed during dialectometrical analysis. In other words, if the procedure for determining the correspondences from the 600 notions is not respected, it will be difficult if not impossible to establish differences. Secondly, after establishing evidence of the existence of phonological correspondences, it became necessary to work with a short list, but maintain the same conceptual framework. In research that aims at synchronic classification of dialects like this, a more reduced list of 100 items can give an account of the linguistic area studied in the same manner like that of 600 words. The two lists play complementary role in dialectometry as Möhlig W.J.G. (1986: 23) puts it:

> Une liste de 100 mots, comparée à celle de 600 mots, possède des avantages considérables quant à l'économie du travail, mais elle présente également des désavantages qu'il faut prendre en considération. En effet, une liste de 600 mots nous donne en général une base solide pour établir les correspondances phonologiques régulières alors que la liste de 100 mots est trop réduite pour cela.

2. PRESENTATION OF RESULTS

The presentation of results will involve 3 successive stages centred exclusively on the evaluation of the degree of resemblance between different forms attested for each term. This last criterion concerns essentially geographical distribution of the different forms per dialect. From the regular phonological correspondences, it would be much easier to proceed to the presentation of results on a phonological basis.

2.1 RESULTS OF LEXICAL DIALECTOMETRY

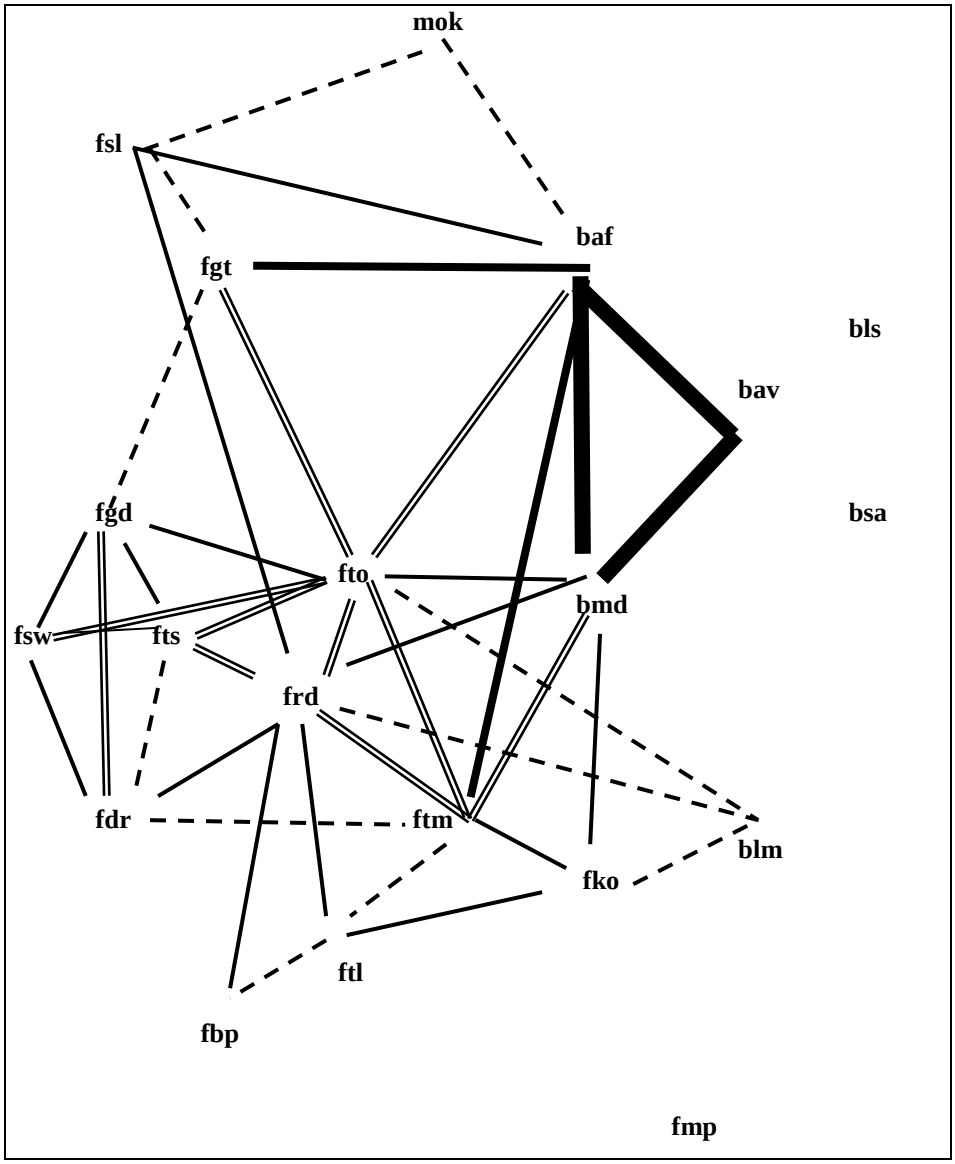
The results of dialectometry on lexical basis are presented in the triangular matrix below.

Table 1

	baf	bav	bls	blm	bmd	bsa	fdr	fko	fbp	fmp	fgd	fgt	ftl	fdr	fsl	fsw	ftm	fto	fts	mok
baf	-																			
bav	915	-																		
bls	603	576	-																	
blm	646	626	586	-																
bmd	881	871	569	641	-															
bsa	472	448	537	544	472	-														
fdr	663	626	542	606	633	490	-													
fko	730	725	581	660	702	467	660	-												
fbp	675	678	485	623	658	455	638	717	-											
fmp	544	529	495	492	534	408	492	589	539	-										
fgd	693	655	519	643	663	492	782	643	655	492	-									
fgt	831	774	596	641	762	485	705	710	646	522	678	-								
ftl	680	683	519	641	720	467	601	742	745	571	599	655	-							
fdr	727	722	537	675	700	487	702	752	727	569	717	715	685	-						
fsl	717	700	547	650	680	480	618	648	638	539	628	698	650	700	-					
fsw	725	683	559	643	702	519	722	673	693	539	740	695	670	735	698	-				
ftm	821	792	564	658	797	470	695	747	693	556	690	797	693	757	678	730	-			
fto	750	735	579	660	747	485	690	712	693	537	707	779	715	794	660	764	767	-		
fts	685	655	527	638	707	475	698	693	700	551	702	680	680	797	663	742	745	762	-	
mok	680	653	544	569	665	448	586	599	658	534	608	653	633	633	675	665	660	688	641	-

The figures that appear in the different boxes/cases represent the measure of the rate of resemblance obtained from comparison according to pairs between dialects found both on the horizontal and vertical axis. In order to avoid decimal parts, these figures are multiplied automatically by the value of absolute identity that can exist between two dialects, which is as from a thousand. If we want to present these figures in percentages, then we simply insert a comma after two figures from left to right. For example, the rate of 915 between BAF and BAV is equal to 91,5%, and so on. To bring out the different relationships that exist between dialects on a lexical basis, we refer to the combinations operated in the dialectogramme below.

Yémba: Lexical dialectometry (absolute value)



Key

915-850 (871)
849-800
799-750
749-700
699-650

The above dialectogramme is a detailed presentation of different relationships that exist between Yémba dialects. The indices are grouped into 5 big categories from 915 to 650, and linked by distinctive marks. As the scale illustrates, the rates below 650 for a thousand are not considered in the dialectogramme and this because of the very high degree of proximity noted between the dialects. The names of the dialects are presented in an abridged form in lower case and this for the convenience of presentation. As such, the allure of the cartogramme brings out the 3 groups of dialects as follows:

1. The first group, considered, as the nucleus of the first degree to the East is constituted of BAF, BAV and BMD with very straight relationships with FTM and FGT. Although these relationships appeared very old, we can mention some conventional facts that have militated in favour of the consolidation as facilities for communication channels linking the people concerned. Besides the Bafou and Fongo-tongo villages, reputed respectively for the monopoly of selling potatoes and palm oil supplies, make these villages important meeting points and mix up of people. It should also be noted that the Bafou and Baleveng villages constitute a new administrative centre with a sub-divisional office, a High School, and several secondary school institutions, etc. All these factors contribute in bringing populations together efficiently.
2. The other nucleus known as the second degree in the South is made up of dialects that gravitate around the FTO and FRD with an index that oscillates between 799 and 650. These dialects are found in both the first and second groups. It has to do with the following dialects: BAF, FSL, FGT, FGD, FDR, FKO, FBP, FTL, FSW, FTM, and FTS. It should be noted however that despite the relationship linking this group and the BLM and MOK dialects, the index rate remains sufficiently low. Contrary to the first group, this one is characterised by an artificial social homogeneity. Almost all the Yémba dialects converge towards FTO and FRD. This phenomenon is not an accidental occurrence in the sense that the biggest urban centre is the headquarters of Ménoua Division, which is the town of Dschang geographically situated in the villages of Foto and Foréké-Dschang, respectively in the northern and southern parts. The fact that these two villages play hosts to the biggest administrative, commercial, cultural and academic centre of the locality constitute an attraction to diverse populations.
3. Concerning the third group, it is made up of varieties that gravitate at the periphery with very low level indices compared to the other varieties. It has to do with the BLS, BSA, and FMP. But, final conclusions on their belonging to other linguistic areas can only be drawn after an analysis of the other dialectogrammes.

2.2 RESULTS ON THE BASIS OF GEOGRAPHICAL DISTRIBUTION

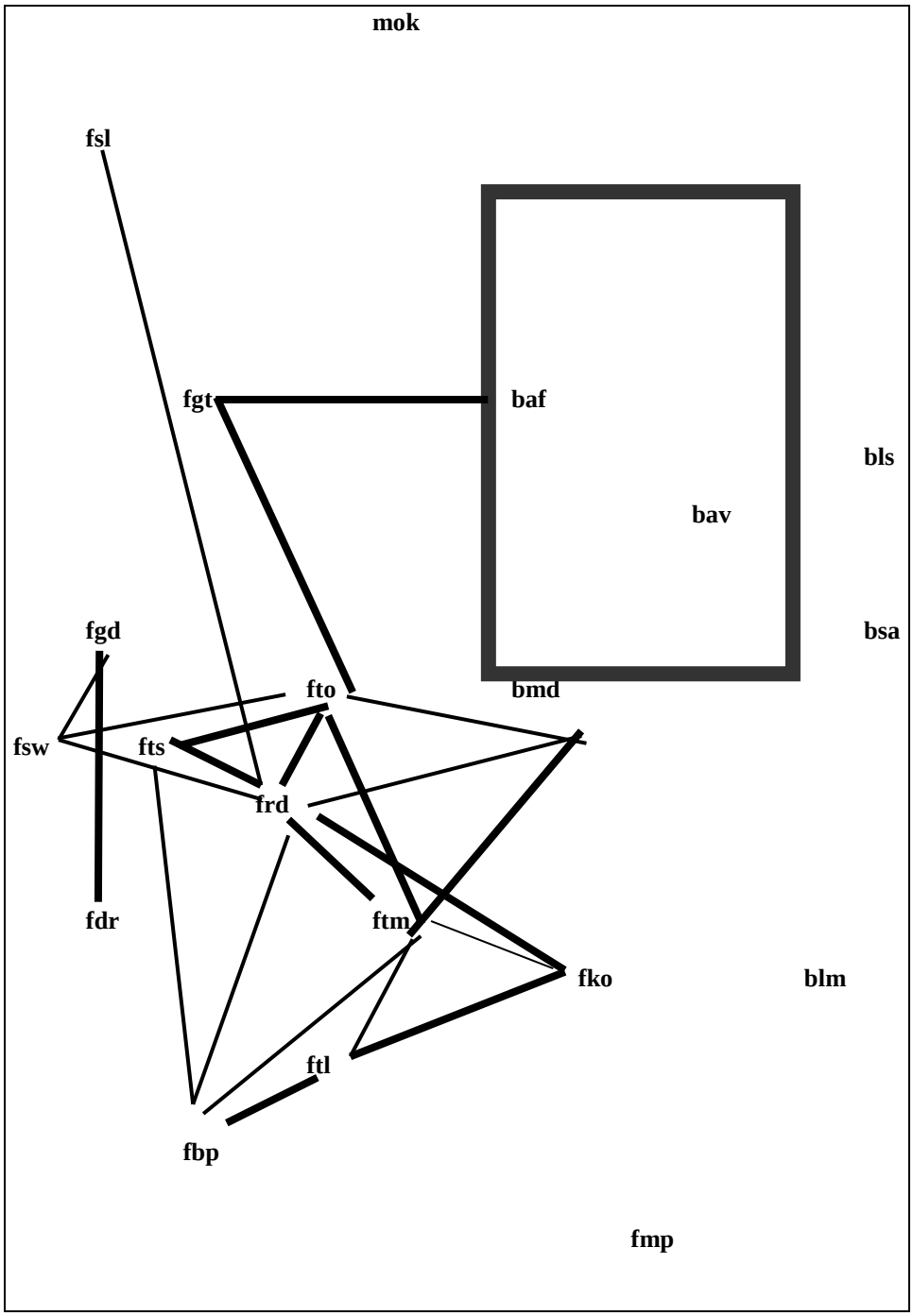
As with the preceding matrix, figures that appear in the different boxes represent the rate of geographical distribution of compared forms by pairs between the dialects found on the horizontal and vertical axis. These rates are lower than those obtained

exclusively through lexical evaluation because of the fact that they are obtained from the division of values of the relationship between two dialects by the value of absolute identity. It should be recalled that these rates have been multiplied by 1000 to suppress the decimal parts. In the cartogramme below, the different geographical qualification relationships between dialects are to be identified following grading that goes from 879 to 660 divided into three groups. As with the preceding dialectogramme, indices lower than 650 are not represented.

Table 2

	baf	bav	bls	blm	bmd	bsa	fdr	fko	fbp	fmp	fgd	fgt	ftl	frd	fsl	fsw	ftm	fto	fts	mok
baf	-																			
bav	879	-																		
bls	533	503	-																	
blm	585	560	525	-																
bmd	866	836	486	574	-															
bsa	400	371	488	478	399	-														
fdr	574	525	477	521	531	417	-													
fko	644	642	509	618	615	386	575	-												
fbp	594	606	398	573	576	377	547	672	-											
fmp	470	436	412	407	463	345	390	520	452	-										
fgd	619	568	445	569	576	420	716	558	570	385	-									
fgt	797	704	535	575	709	414	619	636	561	452	589	-								
ftl	615	615	441	602	655	387	513	724	706	510	520	584	-							
fdr	648	647	473	630	618	425	628	707	684	478	642	648	641	-						
fsl	648	618	480	610	603	424	517	571	555	443	536	639	580	631	-					
fsw	653	593	494	589	628	457	640	592	617	452	664	613	594	662	640	-				
ftm	752	720	495	605	738	391	608	694	624	491	594	736	663	696	600	645	-			
fto	694	678	529	619	678	423	611	660	639	451	626	733	657	775	594	695	721	-		
fts	606	574	457	584	633	404	619	633	629	462	623	604	629	738	582	670	711	701	-	
mk	601	571	479	525	591	388	478	523	584	436	521	577	566	570	601	595	587	631	574	-

Yémba: Geographical qualification dialectrometry



Key

879-836

797-701

696-660

The results obtained from lexical geographical dialectometry confirm those obtained from exclusively linguistic analysis. The stable group made up of dialects BAF, BAV, and BMD in the east is confirmed as the root of proto-Yémba. In the south, although many dialects converge towards FTO and FTM, the FRD dialect remains the main centre around which a majority of dialects gravitate, this because of the strategic position occupied by the Foréké-Dschang village at the administrative level in the Ménoua Division. One also observes a kind of dialectal belt linking FTS, FBP, FTL, FKO, FTM and FTO. Despite their distant position, FSL and FGT from their indices, have close links with those of the southern group. The BLS, BSA and FMP dialects remain isolated at the periphery and to them are added the MOK and BLM whose indices still appear weak with respect to the other dialects.

2.3 RESULTS OF PHONOLOGICAL DIALECTOMETRY

Before doing any calculations that could help in obtaining an exclusively phonological matrix, it is important to present the different phonetic traits and characteristics of phonemes; since it is from this that it is possible to numerically quantify the differences existing between dialects at the phonological level. According to Möhlig W. G. J. (1986:52), this approach is based on 4 conventional principles, which are:

- The selection of phonetic traits should operate within the whole chain of phonemes of the different dialects that adhere to the principle of regular correspondences.
- Traits belonging to the same place of articulation and which have the same value in all the dialects are recognised as redundant and are not thus taken into consideration. Attention is paid particularly to the places of articulation (bilabial, alveolar, palatal etc.), of the manner of articulation (occlusive, fricative etc.), of the passage of air (nasalisation, lateralisation, orality etc.) and of the voicedness (voiceless, voiced, aspirated, etc.)
- Two sounds of the same chain of correspondences having the same phonetic trait present or absent in an alternative manner, take the two values (positive or negative).
- In the case where a dialect is represented in the chain of correspondences by zero, all the traits of this series will be evaluated as negative.

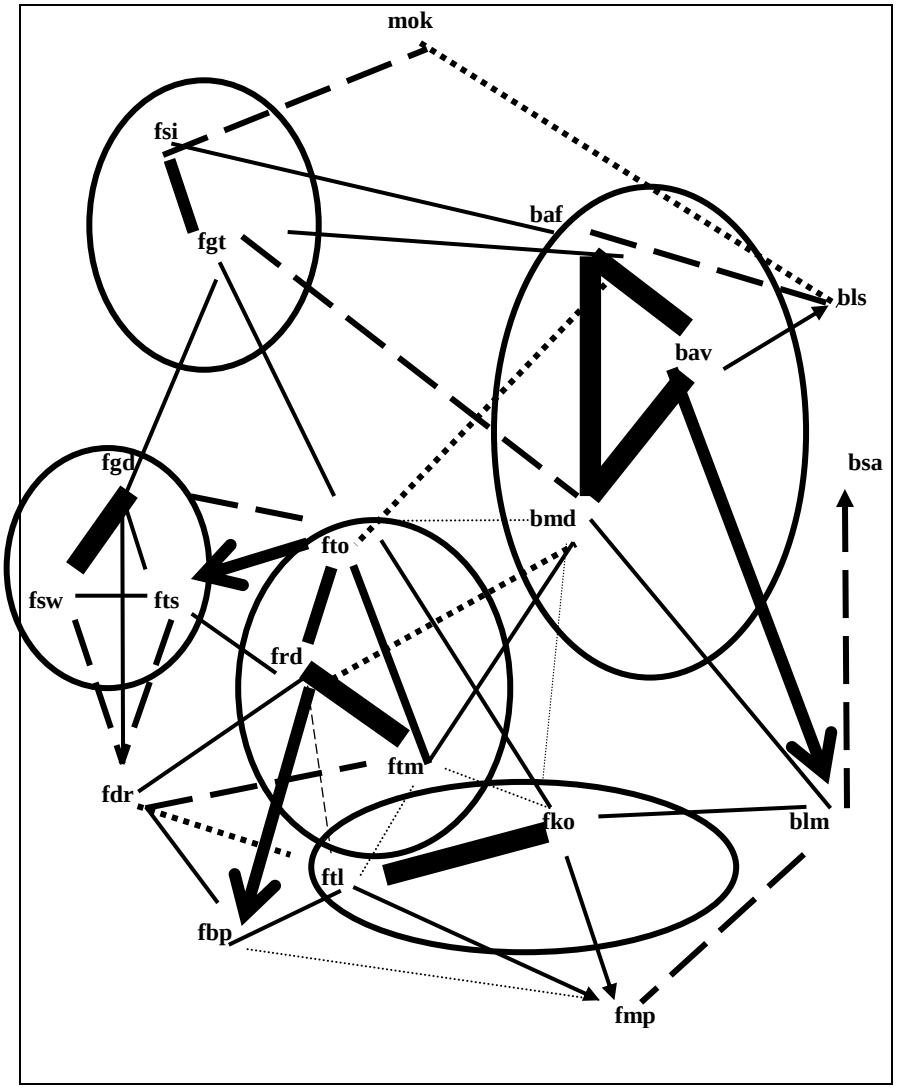
To these 4 criteria can be added that concerning numerical quantification of differences. Contrary to dialectometric calculations on a lexical basis whose highest limit is 4 as presented above, there is no standard limit at the level of phonological calculations in the sense that all depends on the number of phonetic traits characterising the series of phonemes being compared. It can happen that a series covers half a dozen of the characteristics while another has only two. In these two cases, we shall attribute the values of 6 and 2 respectively as the maximal limit of evaluation.

Table 3 Phonological matrix

	b	b	b	b	b	b	f	f	f	f	f	f	f	f	f	f	f	f	m
	a	a	l	l	m	s	d	k	b	m	g	g	t	r	s	s	t	t	t	o
	f	v	s	m	d	a	r	o	p	p	d	t	l	d	l	w	m	o	s	k
baf	-																			
bav	942	-																		
bls	710	768	-																	
blm	764	823	705	-																
bmd	869	855	739	794	-															
bsa	611	641	567	731	626	-														
fdr	632	647	647	746	691	731	-													
fko	666	666	652	750	695	626	735	-												
fbp	695	695	637	779	681	656	779	724	-											
fmp	746	776	671	716	746	686	626	791	671	-										
fgd	695	724	608	764	652	656	779	739	768	647	-									
fgt	768	826	623	794	710	686	720	797	724	735	782	-								
ftl	710	710	623	764	695	761	661	898	768	794	753	768	-							
fdr	666	666	550	779	666	641	794	811	811	602	768	782	724	-						
fsl	750	761	588	705	661	716	611	764	602	746	647	808	750	647	-					
fsw	695	695	550	676	594	611	735	826	695	691	884	782	753	768	720	-				
ftm	753	753	594	808	753	626	720	681	724	617	710	739	666	884	632	681	-			
fto	695	695	666	764	695	686	735	797	739	691	739	753	724	826	691	768	782	-		
fts	681	681	623	779	695	611	735	811	811	676	753	710	739	768	705	768	753	811	-	
mk	623	681	681	764	710	761	720	637	681	558	652	681	710	666	720	536	695	637	666	-

The phonological dialectometric data represented in this triangular matrix confirms by high indices, the homogeneous character of the language area. The BAF-BAV pair affirms itself as the closest with an index rate of 942, whereas BLS-FDR-FSW with 550 appears as the most distant group at the phonological level. A good interpretation of these relationships can only operate through results obtained from the dialectogramme below.

Yémba: Phonological dialectometry



Key

942-855
826-808
794-750
746-705
695-652

The representation of the cartogramme confirms the results obtained earlier. It happens, however, that it still offers supplementary information having traits both to the dialectal grouping and to the relationships that exist between them.

Concerning dialectal groups, the cartogramme brings out 5 principal sub-groups represented by circles. These results constitute viable indicators in the establishment of the different genetic relationships between the speakers of the different dialects concerned. In effect, phonemes are more resistant to change than lexis, which is at the mercy of time hazards. It stands out that the main group in the East comprised of dialects BAF, BAV, and BMD remain intact. This is due to historical links existing between the communities concerned. The fact that Bafou settlement was created by a prince of the Baleveng chiefdom is concrete proof (Dogmo 1997:16).

The 4 secondary sub-groups are formed as follows:

-FGT and FSL in the North with many similarities at the phonological level. According to history, the speakers of these two dialects were part of the same geographical entity and that it is following a succession conflict that a rebellious prince created the Fossong-eleleng village to institute his authority.

-The FGD-FSW group in the west constitutes a solid nucleus and has relationships with the FTS and the FDR. Today, these relationships have become concretised by the signing of a pact known as the 'group F4' bringing together the 4 villages concerned. This could be an explicit way for the chiefs of the different villages to affirm that they share a common origin.

-As the results of lexical and geographical dialectometry have demonstrated, the FTO, FRD and FTM dialects form a central nucleus whose homogeneity is not contested at all. The oral tradition of the Ménoua Division also reveals that the Foréké-dschang village got detached from the Foto village following rivalries between the princes (Nanfah 1998:24).

-Finally, the index rates between FTL and FKO in the South are not an accident. According to history, the founding chiefs of the speakers of these two dialects come from Bali in the Northwest province of Cameroon (Wamba 1997:13).

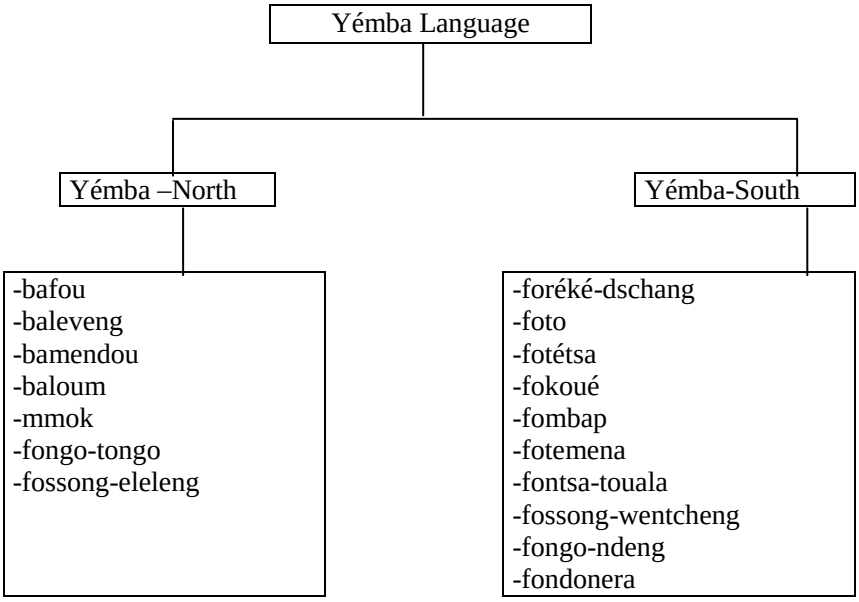
As for the relationship between the different groups, they are discernable in the dialectogramme with the help of indicative arrows. One realises that despite the isolated position of BLS and BLM, the East group around BAF entertains nevertheless relationships with them. The index rate of high relationships existing between this group and the BLM confirm the fact that this dialect belongs to the Yémba language area.

The relationships existing between the FTL and FKO with the FMP to such an important degree could contribute to the apprehension of the exact position of the latter. According to a study carried out by Kenfack in 1988, the people of Fomopéa came from the Tikar plain through Ndop and Bali to arrive after centuries of immigration in the Bamileké plateaux/hills. As mentioned above, the ancient people of the Fontsa-touala and Fokoué villages are of Bali origin, and so one could suggest that the relationships observed at the linguistic level have a historical background.

The relationship between FTO and FTS has a historical origin since, as a village, the latter gained its autonomy after breaking away from the Foréké-dschang village (Sontia 1997:19); although according to the contemporary history of Ménoua division, Foréké-dschang was created by a Foto prince. And so these cyclic manifestations of history are reflected at the level of linguistic similarity. The same applies for the relationships between FRD and FBP, whose interpretation is tributary to the different migratory flow that characterised the people concerned. According to Mbapte (1997:11), the chief who created the Fombap village came from the Fotemena chiefdom whose dialect belongs to the same linguistic nucleus as the FRD. One can therefore conclude that the phenomenon of linguistic transitivity should have been at the origin of the FRD-FBP relationship.

3. NEW DEFINITIONS OF THE DIALECTS OF THE YÉMBA LANGUAGE AREA

This study has helped partly confirm dialectal groups operated on the Yémba language by Dieu and Renaud (1986). From all the methods used, the dialectometry is most adapted to account for the dialectal situation of the Yémba language area because of the contiguousness of the dialects under study. After an analysis of the results, some dialects that were not considered for unjustified reasons are included. On a dialectometrical basis, the new grouping of Yémba dialects is presented as follows:



These names of Yémba-North and South are borrowed from Tadadjeu and Bird (1997) which they used for practical commodities in view of putting in place a writing system acceptable to all. According to them:

> Toutes ces différences et variations sont acceptées telles quelles actuellement pour faciliter la lecture, l'écriture et l'unité Yémba. L'uniformité viendra avec le temps, au fur et à mesure que la littérature se développera dans la langue. (1997:6).

The grouping operated above is of capital importance at the level of applied linguistics in the sense that it enables the agencies charged with language planning to choose the standard dialect that could be considered as the reference in the process of modernising Yémba. The reference dialect can be defined in dialectometry as a language variety which presents a very high index rate of similarity with respect to other dialects (Nanfah 2000:12). One gets confronted at this level by two eventualities that have to do with the choice of the standard in question:

-If it is adopted on exclusively genetic shifts, that is, the relationship that exists between the standard and the other dialects can be applied by the fact that they are descendants of the same language group, the Bafou dialect (BAF) of the Northern variety is well placed to play its role. In the different dialectometric results, I have

demonstrated that the speakers of different dialects that gravitate around Bafou had almost the same history especially concerning migratory flow.

-If, on the contrary, the standard is chosen purely on a synchronic basis, this will mean that Foréké-dschang (FRD) of the southern variety whose territorial coverage plays host to the greater part of the political, administrative and cultural centre of the division can be considered as a reference dialect. It should be noted that the nature of relationships between this and a majority of the dialects that converge towards it is much more conventional than natural.

In order to preserve the linguistic unity and above all the conservation of authentic data of the language, it would be preferable to refer to the Northern variety constituted around Bafou (BAF) to consolidate the process of modernisation of the Yémba language. This final choice which will come progressively, will help avoid problems related to questions such as 'the questions of a secondary standard' that considerably hinder the process of standardisation of Cameroonian languages (Sadembouo 1999).

4. CONCLUSION

The application of the dialectometric method on the dialects of the Yémba language area was carried out in three phases, each of which is characterised by its own specific procedures, especially with respect to the presentation of results. According to the application of these procedures, we can distinguish lexical, geographical, and phonological dialectometry.

Lexical dialectometry centres exclusively on quantitative evaluation of the degree of resemblance between compared dialects in pairs on a lexical basis. The index rates obtained are presented on a matrix of similarity through which the relationships between the different dialects are made possible through a dialectogramme.

As for geographical dialectometry, it makes use of the two indices obtained from the spatial distribution of different forms attested for each term, in view of rendering accounting for the relationships existing between the dialects concerned. The presentation of results at this level is also done with the help of a similarity matrix and a dialectogramme.

Concerning phonological dialectometry, it constitutes the ultimate step in the process. Numerical quantification of phonemic differences and similarities is operated thanks to systematic characterisation of phonetic traits of phonemes to be compared according to the procedures stipulated in Möhlig W. J. G. (1986:52). These quantifiable values resulting from phonetic traits enable us to calculate the arithmetical averages that are presented in the similarity matrix. The index rates identified in the matrix help in establishing and presenting in a dialectogramme the different relationships existing between the dialects studied.

ABBREVIATIONS

BAF=	bafou	FKO=	fokoué	acc=	accumulated
BAV=	baleveng	FMP=	fomopéa	morph=	morphological
BLM=	baloum	FRD=	foreké-dschang	pho=	phonological
BLS=	balessing	FSL=	fossong-eleleng	son=	voiced

BMD=	bamendou	FSW=	fossong-wentcheng	FTM=	fotemena
BSA=	bansoa	FTL=	fontsa-touala	FTO=	foto
FBP=	fombap	FGD=	fongo-ndeng	FTS=	fotsetsa’
FDR=	fondonera	FGT=	fongo-tongo	MOK=	mmɔk

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APPENDIX: Comparison of lexical data

Item	Divergences	Dialects	Geographical distribution
1. Body	A1 = **n-nét**	BAF, BAV, BLM, BMD, FDR, FKO, FMP FGD, FGT, FRD, FSL, FSW, FTM, FTS	4
	A2 = **n-na**	BLS, BSA, FBP, FTL	
	A3 = **ŋ-ŋɛ**	MOK	
	B = **m-bə**	FTO	

Conclusion: A1/A2= phon.; A1/A3= acc.; A2/A3= acc.

Item	Divergences	Dialects	Geographical distribution
2. Head	A1 = **a-t^{h}ū**	BAF, BAV, BLS, BMD, FDR, FKO, FBP, FGD, FGT, FRD, FSL, FSW, FTM, FTO FTS	4
	A2 = **e-t^{h}ū**	BLM	
	A3 = **-chū**	BSA, FTL, MOK	
	A4 = **tūk**	FMP	

Conclusion: A1/A2= morph.; A1/A3= phon.; A1/A4= acc.; A2/A3= phon.; A2/A4= acc.; A3/A4= acc.

Item	Divergences	Dialects	Geographical distribution
3. Hairs	A = **n-tsɔ'**	BAF, BAV, BMD, FDR, FBP, FGD, FGT, FTL, FRD, FSL, FSW, FTM, FTO, FTS, MOK	4
	B1 = **me-nɔ̄ŋ**	BLS BLM	
	B2 = **n-nɔɔ̄ŋ**	BSA,	
	B3 = **m-nieŋ**	FMP	

Conclusion B1/B2= morph.; B1/B3= acc. B2/B3= acc.

Item	Divergences	Dialects	Geographical distribution
4. Nose	A1 = **me-z^{h}ō**	BAF, BAV, BMD, FSL	7
	A2 = **me-s^{hw}ō**	FGD	
	A3 = **me-s^{h}ō**	BLM, FBP, FTL, FSW, FKO	
	B1 = **me-z^{wh}ɛ̄**	BLS, FGT, FRD,	
	B2 = **le-s^{wh}ɛ̄**	FDR, FTM, FTO, FTS	
	B3 = **nə-ts^{h}ə̄**	BSA, FMP	
	C = **le-jūɔ́**	MOK	

Conclusion: A1/A2= morph.; A1/A3= phon.; A2/A3= acc.; B1/B2= morph.; B1/B3= acc.; B2/B3= acc.

Item	Divergences	Dialects	Geographical distribution
5. Eye	A1 = **le-zēk**	BAF, BAV, BMD, FKO, FBP, FGT, FTL, FRD, FSL, FTM, FTO, FTS, MOK	6
	A2 = **e-zə̄**	FMP	
	A3 = **ne-jə̄k**	BLM,	
	A4 = **ne-ts^{h}ə̄k**	BLS, BSA	
	B1 = **le-g^{h}ī**	FDR, FGD	
	B2 = **le-l^{h}ī**	FSW	

Conclusion: A1/A2= phon.; A1/A3= phon.; A1/A4= acc.; A2/A3= phon.; A2/A4= acc.; A3/A4= acc.; B1/B2= phon.

Item	Divergences	Dialects	Geographical distribution
6. Ear	A1 = **le-tuŋ**	BAF, BAV, BLS, BLM, BMD, BSA, FDR, FBP, FMP, FGD, FGT, FTL, FSL, FTM, FTO, MOK	3
	A2 = **le-tɔŋ**	FKO, FRD	
	A3 = **le-toŋǵ**	FSW, FTS	

Conclusion: A1/A2= morph.; A1/A3= phon.; A2/A3= morph.

Item	Divergences	Dialects	Geographical distribution
7. Mouth	A1 = **n-c^{h}u**	BAF, BAV, BMD, BLS, BLM, FKO, FBP, FGD, FDR, FGT, FRD, FTL, FTM, FTO, FTS, FSW	4
	A2 = **e-s^{hh}u**	BSA	
	A31 = **n-cuk**	FMP	
	A32 = **n-ts^{h}u**	FSL, MOK	

Conclusion: A1/A2= phon.; A1/A31= phon.; A1/A32= phon.; A2/A31= acc.; A2/A32= phon.; A31/A32= acc.

Item	Divergences	Dialects	Geographical distribution
8. Tongue	A1 = **a-lə̄**	BAF, BAV, BMD, FRD, FTO, FTS, FSL, MOK	4
	A2 = **a-lēŋ**	BLS, FMP, FKO	
	A3 = **a-liū**	BLM, FDR, FBP, FGD, FGT, FTL, FSW, FTM	
	B = **e-s^{h}ə̄m**	BSA	

Conclusion: A1/A2= morph.; A1/A3= phon.; A2/A3= morph.

Item	Divergences	Dialects	Geographical distribution
9. Tooth	A1 = **le-sɔŋ**	BAF, BAV, BLS, BMD, FDR, FKO, FRD, FBP, FMP, FGD, FGT, FTL, FSL, FTM, FTO, FTS, FSW, MOK	3
	A21 = **nə-s^{h}ɔŋ**	BSA,	
	A22 = **nə-s^{hw}ɔŋ**	BLM	

Conclusion: A1/A21= phon.; A1/A22= phon.; A21/A22= phon

Item	Divergences	Dialects	Geographical distribution
10. Neck	A = **n-tə̄ŋ**	BAF, BAV, BMD, FRD, FTO, FTS, FSL, FMP, FKO, BLM, FDR, FBP, FGD, FGT, FTL, FTM, FSW, MOK	2
	B = **lə́ŋ**	BLS, BSA	

Conclusion: A/B= total divergences

Item	Divergences	Dialects	Geographical distribution
11. Hand	A1 = **a-pū**	BAF, BAV, BMD, FRD, FTO, FTS, FSL, FMP, FKO, FDR, FBP, FGD, FGT, FTL, FSW, FTM BSA, MOK,	2
	A2 = **a-p^{h}ū**	BLS, BLM	

Conclusion: A1/A2= phon

Item	Divergences	Dialects	Geographical distribution
12. Finger	A1 = **t^hu -pū** A2 = **t^huɔ-p^hū** A3 = **c^hɔ pū**	BAF, BMD, FTO, FTS, FKO, FGT, FTM, FSW BAV, BLS, BLM, FDR, FMP, FGD, FRD BSA, FBP, FTL, FSL, MOK	3

Conclusion: A1/A2= morph.; A1/A3= phon.; A2/A3= phon

Item	Divergences	Dialects	Geographical distribution
13. Back	A1 = **ŋ-ka'te** A2 = **ŋ-ka'lɛ** A3 = **ŋ-kɛ'ɛ**	BAF, BAV, BMD, FRD, FTO, FTS, FSL, FGD, FGT, FTM, BSA, MOK, BLS, BLM, FDR, FKO, FMP, FSW, FBP, FTL	3

Conclusion: A1/A2= morph.; A1/A3= acc.; A2/A3= phon.

Item	Divergences	Dialects	Geographical distribution
14. Breast	A1 = **m-bə̄** A2 = **le-pʉ̄** A3 = **m-b^{h}ʉ̄**	BAF, BAV, BLS, BMD, FGT, FKO, FTM, MOK BLM, BSA, FDR, FBP, FGD, FTL, FRD, FSL FSW, FTO, FTS FMP	3

Conclusion: A1/A2= phon.; A1/A3= phon.; A2/A3= morph.

Item	Divergences	Dialects	Geographical distribution
15. Navel	A1 = **le-tɔŋ** A2 = **le-tɔ́ŋ**	BAF, BMD, FTO, FTS, FKO, FGT, FTM, FSW, BAV, BLS, BLM, FDR, FMP, FGD, FRD, BSA, FSL, FTL, MOK FBP	2

Conclusion: A1/A2= morph

Item	Divergences	Dialects	Geographical distribution
16. Knee	A1 = **a-ts^{w}i'té** A2 = **a-k^{w}í'te** A3 = **a-kek^{w}é'te** B = **le-tseŋe** C = **e-ŋi'ɛ** D1 = **le-lə'ɔ́** D2 = **le-lʉ'** E1 = **e-jʉʉŋ** E2 = **le-zɔŋɔ́**	BAF, BAV, BMD, FTM BLS, BLM, BSA, FGT, FSW, FTO FSL, MOK FDR, FGD FKO FBP, FTL FRD FMP FTS	9

Conclusion: A1/A2= phon; A1/A3= phon; A2/A3= morph.; D1/D2= morph.; E1/E2= phon.

Item	Divergences	Dialects	Geographical distribution
17. Foot	A1 = **a-k^{h}u**	BAF, BMD, FTO, FTS, FKO, FGT, FTM, FSW, BAV, BLS, BLM, FDR, FGD, FRD, BSA, FSL	4
	A2 = **a-k^{h}uɔ**	FBP, FTL	
	A3 = **a-k^{hw}o**	FMP	
	B = **a-pf^{h}o**	MOK	

Conclusion: A1/A2= morph.; A1/A3= phon.; A2/A3= phon.

Item	Divergences	Dialects	Geographical distribution
18. Body	A1 = **ŋ-gup**	BAF, BMD, FTO, FTS, FBP, FKO, FGT, FTM, FSW, BAV, BLS, BLM, FDR, , FGD, FRD, BSA, FSL, FTL	3
	A2 = **ŋ-guɔp**	FMP,	
	A3 = **ŋ-gop**	MOK	

Conclusion: A1/A2= morph.; A1/A3= phon.; A2/A3= phon.

Item	Divergences	Dialects	Geographical distribution
19. Meat	A = **m-bap**	BAF, BAV, BMD, FTO, FTS, FBP, FKO, FGT, FTM, BLS, BLM, FDR, FMP, FGD, FRD, BSA, FSL, FSW, FTL, MOK	1

Conclusion: There is total similarity between all the dialects for this item.

Item	Divergences	Dialects	Geographical distribution
20. Bone	A1 = **a-kwɛ́**	BAF, BMD, FKO, FTM, FSW, BAV, FRD, FSL, FMP	3
	A2 = **a-k^{wy}é**	BLS, BLM, BSA, FDR, FGD, FGT, FTO, FTS, MOK	
	A3 = **a-kíɔ́**	FBP, FTL	

Conclusion: A1/A2= phon.; A1/A3= acc. A2/A3= acc.

Item	Divergences	Dialects	Geographical distribution
21. Blood	A1 = **me-ts^{h}i**	BAF, BMD, FTO, FTS, FBP, FKO, FMP FGT, FTM, FSW, BLS, BLM, FDR, FGD, FRD, FSL, MOK	3
	A2 = **me-t^{h}i**	BAV	
	A3 = **me-c^{h}ɛ**	BSA, FTL	

Conclusion: A1/A2= phon.; A1/A3= phon.; A2/A3= acc.

Item	Divergences	Dialects	Geographical distribution
22. Heart	A1 = **a-tū**	BAF, BAV, BMD, FTO, FTS, FBP, FGT, FSW, FTM, FTL, BLM, FDR, FGD, FRD, FSL, MOK	3
	A2 = **a-tūŋ**	BLS, FKO, FMP	
	A3 = **a-t^{h}ɔ́m**	BSA	

Conclusion: A1/A2= morph.; A1/A3= acc.; A2/A3= acc.

Item	Divergences	Dialects	Geographical distribution
23. Sleep	A1 = **le-li**	BAF, BAV, FDR, FGD, FGT, BLM, BMD, FKO, FRD, BSA, FTO, FTS, FSW, FTM, FTL	5
	A2 = **ń-déi**	FSL, MOK	
	A31 = **ń-dzí**	FBP	
	A32 = **e-lhī**	FMP	
	A4 = **ń-d^{hy}é**	BLS	

Conclusion: A1/A2= morph.; A1/A31= phon.; A1/A32= phon.; A1/A4= acc.; A2/A31= phon.; A2/A32= acc.; A2/A4= acc.; A31/A32= phon. A31/A4= acc.; A32:A4= acc.

Item	Divergences	Dialects	Geographical distribution
24. Go	A1 = **le-gʉɔ**	BAF, BAV, FDR, FGD, FGT, BMD, FRD, FTO, FTS, FTM, FMP	4
	A2 = **ŋ́-gʉ́é**	BLS, FBP, FKO, FTL, FSL, FSW, MOK	
	A3 = **ŋ́-gó**	BSA	
	A4 = **nə-g^{hw}ɔ**	BLM	

Conclusion: A1/A2= morph.; A1/A3= phon.; A1/A4= acc.; A2/A3= phon.; A2/A4= acc.; A3/A4= phon.

Item	Divergences	Dialects	Geographical distribution
25. Come	A1 = **le-s^{h}ʉ'**	BAF, BAV, FBP, FDR, FGT, BMD, FRD, FTO, FTS, FSW, FTM, FTL	5
	A2 = **nə-s^{h}i'**	BLM, BSA, FKO, FGD,	
	A3 = **é-sɔ́'**	FSL	
	B = **le-tɔ̄**	BLS	
	C = **é-fhō**	FMP, MOK	

Conclusion: A1/A2= phon.; A1/A3= acc.; A2/A3= 1

Item	Divergences	Dialects	Geographical distribution
26. To sit	A1 = **ŋ́-náŋ**	BAF, BAV, BMD, FKO, FMP, BSA, FTO, FTS, FBP, FGT, FSW, FTM, FTL, BLM, FDR, FGD, FRD, FSL, MOK	2
	A2 = **ŋ́-neŋe**	BLS	

Conclusion: A1/A2= phon.

Item	Divergences	Dialects	Geographical distribution
27. Fall	A11 = **le-g^{wh}ʉ**	BAF, BLM, FSL, FGT, FGD	8
	A12 = **le-g^{h}ʉ**	BMD	
	A21 = **ŋ́-g^{w}ɔ́**	BSA, FRD, FTO, MOK	
	A22 = **le-g^{wh}ɛ**	BAV, BLS	
	A3 = **ŋ́-k^{w}ɔ̄**	FTS	
	B = **ń-dɛ̄p**	FDR	
	C = **ń-cū**	FKO, FBP, FMP, FTL, FTM	
	D = **le-hu**	FSW	

Conclusion: A11/A12= morph.; A11/A21= phon.; A11/A22= phon.; A11/A3= acc.; A12/A21= phon.; A12/A 22= acc.; A12/A3= acc.; A21/A22= morph.; A21/A3= phon.; A22/A30= acc.

Item	Divergences	Dialects	Geographical distribution
28. Person	A1 = **ŋiŋ nɔŋ**	BAF, BAV, FGD, FGT, BMD, FRD, FTS, FMP BLS, FBP, FTL	4
	A2 = **nin nɔŋ**	BLM, FSL, FTM, FTO	
	A3 = **ŋ^{y}ɛ**	BSA, MOK	
	A4 = **ŋ^{w}ʉə nɔŋ**	FDR, FKO, FSW	

Conclusion: A1/A2= morph.; A1/A3= phon.; A1/A4= acc.; A2/A3= acc.; A2/A4= acc.; A3/A4= phon.

Item	Divergences	Dialects	Geographical distribution
29. Name	A1 = **le-zēŋ**	BAF, BAV, FBP, FGT, BMD, FRD, FTO, FTS, FTM, FTL, FSL, BLS, FKO	6
	A2 = **le-jūŋ**	MOK	
	A31 = **ni-zí**	BLM	
	A32 = **e-zīn**	FMP	
	A4 = **le-**līŋ	FDR, FGD, FSW	
	B = **ne-tsə̄**	BSA	

Conclusion: A1/A2= morph.; A1/A31= phon.; A1/A32= phon.; A1/A4= acc.; A2/A31= acc.; A2/A32= acc.; A2/A4= acc; A31/A32= phon.; A31/A4= acc.; A32/A4= acc.

Item	Divergences	Dialects	Geographical distribution
30. (My) Infant	A1 = **méŋ ga**	BAF, BAV, FGT, BMD, FMP, FSW, MOK, FTM,	4
	A2 = **míŋa**	BLS	
	A3 = **míŋ na**	BLM, FBP, FTL, FRD, FSL, FTO, FTS,	
	A4 = **mʉ́ ga**	BSA, FDR, FKO, FGD	

Conclusion: A1/A2= morph.; A1/A3= phon.; A1/A4= acc.; A2/A3= morph.; A2/A4= acc.; A3/A4= acc.

Item	Divergences	Dialects	Geographical distribution
31. Twins	A1 = **me-fāk**	BAF, BAV, BLS, BMD, FKO, FTO, FTS, FBP, FGT, FSW, FTM, FTL, BLM, FDR, FGD, FRD, FSL, MOK	3
	A21 = **mə-hák**	BSA	
	A22 = **me-fā**	FMP	

Conclusion: A1/A21= phon.; A1/A22= phon.; A21/A22= phon.

Item	Divergences	Dialects	Geographical distribution
32. Man	A = **m-baŋa**	BAF, BAV, BLS, BMD, BSA, FKO, FMP, FTO, FTS, FBP, FGT, FSW, FTM, FTL, BLM, FDR, FGD, FRD, FSL, MOK	1

Conclusion: There is total similarity between all the dialects for this item.

Item	Divergences	Dialects	Geographical distribution
33. Woman	A1 = **me-z^{w}í** A2 = **meŋ-g^{w}í** A3 = **meŋ-g^{wh}ūɔ́**	BAF, BAV, BLS, BSA, FKO, FGT, FTM, BLM BMD, FDR, FMP, FGD, FRD, FSL, FSW, FTO, FTS, MOK FBP, FTL	3

Conclusion: A1/A2= phon.; A1/A3= acc.; A2/A3= phon.

Item	Divergences	Dialects	Geographical distribution
34. Give	A1 = **le-yā** A2 = **le-yē** A3 = **lé-ná** B1 = **ŋ́-gīá** B2 = **ŋ́-gɛ́** B3 = **ŋ́-g^{y}ɛ́** C = **é-há** D1 = **é-f^{y}á** D2 = **le-fiɛ́**	BAF BAV, BMD BLS FKO, FGT, FRD, FTO, MOK FBP, FTL BLM, FSL, FTM, FTS BSA, FMP FDR, FGD FSW	9

Conclusion: A1/A2= phon.; A1/A3= phon.; A2/A3= phon.; B1/B2= phon.; B1/B3= morph.; B2/B3= phon.; D1/D2= phon.

Item	Divergences	Dialects	Geographical distribution
35. Beat	A1 = **le-ts^{w}ā** A2 = **le-cuā** A3 = **ń-cá** B = **ń-dēp** C = **ń-zāp**	BAF, BAV, FTM, FGD BLS, BLM, BMD, BSA, FRD, FSW, FTO, FTS FSL FDR, FKO, FBP, FMP, FGT, FTL, MOK	5

Conclusion: A1/A2= phon.; A1/A3= 2.; A2/A3= morph

Item	Divergences	Dialects	Geographical distribution
36. War	A1 = **n-cu** A2 = **n-cuɔ** A3 = **n-c^{h}u**	BAF, BAV, BLS, BSA, FKO, FGT, FTM, BLM,BMD, FDR, FMP, FGD, FRD, FSL, FTL FSW, FTO, FTS MOK FBP	3

Conclusion: A1/A2= morph.; A1/A3= phon.

Item	Divergences	Dialects	Geographical distribution
37. Laugh	A1 = **le-z^{w}i** A2 = **ŋ́-g^{w}ī́ɔ́** A31 = **le-wi** A32 = **ŋ́-g^{w}í**	BAF, BAV, FKO, FTM, FBP BLS, BMD BLM, BSA, FDR, FMP, FGD, FGT, FTL, FRD, FSL, FSW, FTO, FTS, MOK	4

Conclusion: A1/A2= morph.; A1/A31= phon.; A1/A32= phon.; A2/A31= phon.; A2/A32= morph.; A31/A32= phon.

Item	Divergences	Dialects	Geographical distribution
38. House	A1 = **ŋ-g^{y}ā** A2 = **ŋ-g^{y}ɛ̄** B1 = **n-dā** B2 = **n-d^{y}ɛ̄** C = **m-bia**	BAF, FRD, FTO, FGT BAV, BMD, FKO, FTM, FTS BLS BLM, FDR, BSA, FBP, FMP, FTL, FSL, FSW, MOK FGD	5

Conclusion: A1/A2= phon.; B1/B2= phon.

Item	Divergences	Dialects	Geographical distribution
39. Fire	A1 = **m-mɔ́k** A2 = **m-mɔ́k^{h}ɔ́** A3 = **m-mók**	BAF, BAV, BLS, BSA, FKO, FGT, BMD, FSL, FTL, FSW BLM FDR, FBP, FMP, FGD, FRD, FTM, FTO, FTS, MOK	3

Conclusion: A1/A2= morph.; A1/A3= phon.; A2/A3= acc.

Item	Divergences	Dialects	Geographical distribution
40. Charcoal	A1 = **ŋ-kí** A2 = **ŋ-kíi** A31 = **ŋ-ké** A32 = **ŋ-k^{hy}é** B = **m-bia**	BAF, FTO, FGT, BAV, FKO, FTM, FTS, BSA FBP, ,FTL, FSW BLM, BMD, FDR, FRD FSL, MOK BLS, FMP FGD	5

Conclusion: A1/A2= morph.; A1/A31= phon.; A1/A32= phon.; A2/A31= acc.; A2/A32= acc.; A31/A32= phon.

Item	Divergences	Dialects	Geographical distribution
41. Smoke	A1 = **ŋ-g^{h}ī** A2 = **ŋ-g^{h}ī** A3 = **ŋ-k^{h}ī** B1 = **n-tī** B21 = **n-t^{h}ī** B22 = **n-d^{h}ī** C = **ń-nú**	BAF, BAV, BMD FBP FGD, MOK BSA FDR, FSW, FTS BLS, BLM, FKO, FMP, FTL, FRD, FSL, FTM, FTO FGT	7

Conclusion: A1/A2= morph.; A1/A3= phon.; A2/A3= phon.; B1/B21= phon.; B1/B22= phon.; B21/B22= phon.

Item	Divergences	Dialects	Geographical distribution
42. Ash	A1 = **a-v^{h}o** A21 = **a-v^{h}ɛ̄** A22 = **a-f^{h}ɔ́** A3 = **a-pfū**	BAF, BAV, FTM, BLM, FMP, FGT, FRD, FBP, BMD, FSL, MOK FKO, FTL, FTO BSA, FDR, FGD, FSW, FTS BLS	4

Conclusion: A1/A21= phon.; A1/A22= phon.; A1/A3= acc.; A21/A22= phon.; A21/A3= acc.; A22/A3= acc.

Item	Divergences	Dialects	Geographical distribution
43. Wood	A1 = **n-ts^{w}īŋ**	BAF, BAV	4
	A2 = **ŋ-k^{w}īŋ**	BLS, BMD, FDR, FBP, FMP, FGD, FGT, FRD, FSL, FSW, FTO, FTS, MOK	
	A3 = **n-c^{w}īŋ**	FKO, FTL, FTM	
	A4 = **k^{why}ē**	BLM, BSA	

Conclusion: A1/A2= phon.; A1/A3= phon. A1/A4= acc.; A2/A3= phon.; A2/A4= acc.; A3/A4= acc.

Item	Divergences	Dialects	Geographical distribution
44. Cook	A1 = **le-lā**	BAF, BAV, BLM, BMD, FTO, FGT, FKO, FTM, FTS, BSA, FRD, FBP, FTL, FSW, FSL, MOK	5
	A21 = **ń-dá**	FDR	
	A22 = **ń-dɔ́**	FGD	
	A31 = **e-lō**	FMP	
	A32 = **le-lɔ̄ɔ̄ŋ**	BLS	

Conclusion: A1/A21= phon.; A1/A22= acc. A1/A31= phon.; A1/A32= acc.; A21/A22= phon.; A21/A31= acc. A21/A32= acc. A22/A31=acc.; A22/A32= acc.; A31/A32= acc.

Item	Divergences	Dialects	Geographical distribution
45. Cut	A = **le-zā'**	BAF, BAV, BLM, BMD FTO, FGT, FTM, BSA, FBP, FTL, FSW, FSL, MOK, FGD	5
	B1 = **ŋ́-kʉ́'**	FKO, FTS	
	B2 = **ŋ́-kʉ̄ɔ́'**	BLS, FMP	
	B3 = **ŋ́-k^{h}ʉ́'**	FRD,	
	C = **ń-tʉ́ɔ́**	FDR	

Conclusion: B1/B2= morph.; B1/B3= phon.; B2/B3= acc.

Item	Divergences	Dialects	Geographical distribution
46. Goats	A1 = **m-v^{h}ō**	BAF, BAV, BLM, BLS, BMD, FGD, FGT, FRD, FTO, FTM	4
	A2 = **e-fhə̄**	FDR, FKO, FBP, FMP, FTL, FSW, FTS, MOK	
	B1 = **m-b^{h}iē**	FSL	
	B2 = **m-b^{hy}ē**	BSA	

Conclusion: A1/A2= phon.; B1/B2= morph.

Item	Divergences	Dialects	Geographical distribution
47. cat	A1 = **pusī**	BAV, BLM, BMD, FDR, FSW, FTS, BSA	6
	A2 = **puseh**	BLS	
	A3 = **pusɛ**	FGD, FTL	
	A4 = **puus^{h}ī**	FMP	
	B = **mé-ŋ^{w}ɛ-ńtsáŋ**	BAF, FKO, FGT, FRD, FSL, FTM, FTO, MOK	
	C = **mé-ŋɔ́ŋ**	FBP	

Conclusion: A1/A2= morph.; A1/A3= phon.; A1/A4= acc.; A2/A3= phon. A2/A4= acc.; A3/A4= acc.

Item	Divergences	Dialects	Geographical distribution
48. Hunts	A1 = **le-juŋ**	BAF, BLM, BLS, FGD, FGT, FRD, FTM, BSA FSL FDR, FBP, FMP, FSW, FTS, MOK	4
	A2 = **ń-zɔ̄ŋ**	FKO	
	B = **le-nā**	BAV, BMD, FTL	
	C = **li-wāk**	FTO	

Conclusion: A1/A2= phon.

Item	Divergences	Dialects	Geographical distribution
49. Throw	A1 = **le-kɔŋ**	BAF, FGD, FGT, FRD, FTM, FSL, FDR, FBP, FMP, FSW, FTS, MOK FTO, FKO, BAV, BMD	3
	A2 = **le-k^{w}ɔŋ**	BLS, BLM, BSA	
	B = **a-ma'a**	FTL	

Conclusion: A1/A2= phon.

Item	Divergences	Dialects	Geographical distribution
50. Kill	A1 = **le-z^{wh}ī**	BAF, BMD, FGT, BLS	9
	A2 = **ń-z^{wh}íɛ**	FTO	
	A31 = **ń-z^{whʏ}é**	BAV, BLM, MOK	
	A32 = **ń-j^{hw}é**	FKO, FBP	
	A4 = **ŋ́-g^{hw}ɛ́**	FMP, FTL, FTM	
	B1 = **e-sɛ́h**	FDR	
	B2 = **ń-s^{w}é**	BSA, FGD, FRD	
	B31 = **le-s^{wh}é**	FSW, FTS	
	B32 = **ń-z^{h}ó**	FSL	

Conclusion: A1/A2= morph.; A1/A31= phon.; A1/A32= acc.; A1/A4= acc.; A2/A31= morph.; A2/A32= phon.; A2/A4= acc.; A31/A32= phon.; A31/A4= acc, A32/A4= acc.; B1/B2= phon.; B1/B31= phon.; B1/B32= phon.; B2/B31= acc.; B2/B32= phon.; B31/B32= acc.

Item	Divergences	Dialects	Geographical distribution
51. Stick/ Cane	A1 = **n-tɛ̄**	BAF, BAV, FTO	7
	A2 = **n-tā**	BMD,	
	A3 = **a-t^{h}ʉ́**	BLM, FBP, FGD, FTL, FRD, FSL, FSW, FTS, MOK	
	B1 = **ké-siŋ**	BLS, FKO	
	B2 = **ké-seŋ**	FDR, FGT, FTM	
	C = **wit**	BSA	
	D = **a-kem**	FMP	

Conclusion: A1/A2= phon.; A1/A3= acc.; A2/A3= acc.; B1/B2= phon.

Item	Divergences	Dialects	Geographical distribution
52. Bite	A1 = **le-lō**	BAF, BAV, BMD, FSL, FTM	5
	A2 = **ń-dú**	BLM, MOK	
	A3 = **ń-dúŋ**	BSA, FDR, FKO, FBP, FGD, FTL, FRD, FSW, FTS	
	B1 = **e-cō**	FMP	
	B2 = **ń-tsɔ́k**	BLS, FGT, FTO	

Conclusion: A1/A2= phon.; A1/A3 =acc.; A2/A3= morph. B1/B2= acc.

Item	Divergences	Dialects	Geographical distribution
53. Corne	A = **n-dɔ̄ŋ**	BAF, FGD, FGT, FRD, FTM, FSL, FDR, FBP, FMP, FSW, FTS, MOK FTO, FKO BAV, BMD, BLS, BLM, BSA, FTL	1

Conclusion: There exists total similarity between all the dialects for this item.

Item	Divergences	Dialects	Geographical distribution
54. Tail	A1 = **a-sáŋ** A2 = **a-sáŋá** A3 = **e-s^{hw}áŋ** B1 = **nə-kʉ** B2 = **ne-kuu**	BAF, BAV, FSL, FSW, MOK BMD, FDR, FKO, FBP, FGD, FGT, FTL, FRD, FTM, FTO, FTS BLM BSA BLS, FMP	5

Conclusion: A1/A2= morph.; A1/A3= phon.; B1/B2= morph.

Item	Divergences	Dialects	Geographical distribution
55. Fish	A1 = **e-sōh** A2 = **e-sū** A3 = **e-s^{w}ɛ̄h**	BAF, BAV, BMD, BLS, FBP, FMP, MOK, FKO FTL, FSL BLM, BSA, FDR, FGD, FGT, FRD, FSW, FTM, FTO, FTS	3

Conclusion: A1/A2= phon.; A1/A3= acc.; A2/A3= acc.

Item	Divergences	Dialects	Geographical distribution
56. Snake	A1 = **n-nū** A21 = **n-nō** A22 = **n-n^{w}ɔ̄**	BAF, BAV, BMD, BLS, FBP, MOK, FKO, FTL, FSL, FDR, FGD, FGT, FRD, FSW, FTM, FTO BLM, FMP, FTS BSA	3

Conclusion: A1/A21= phon.; A1/A22= phon.; A21/A22= phon.

Item	Divergences	Dialects	Geographical distribution
57. Bird	A1 = **séŋ** A21 = **mé-s^{h}īŋ** A22 = **s^{h}ʉ́ŋ**	BAF, BAV, BMD, BLM, FBP, FKO, FTL, FSL, FDR, FTS, BSA, FGD, FGT, FRD, FSW, FTM, FTO, BLS FMP, MOK	3

Conclusion: A1/A21= acc.; A1/A22= acc.; A21/A22= phon.

Item	Divergences	Dialects	Geographical distribution
58. Hunger	A1 = **n-zi** A2 = **n-ze** A31 = **n-d^{hy}e** A32 = **n-j^{h}e**	BAF, BLM, FGD, FGT, FRD, FTM, BSA, FSL, FDR, FBP, FTS, FTO, BAV, BMD, FTL, FKO FSW, MOK BLS FMP	4

Conclusion: A1/A2= phon.; A1/A31= acc.; A1/A32= phon; A2/A31= phon.; A2/A32= phon.; A31/A32= phon.

Item	Divergences	Dialects	Geographical distribution
59. To eat	A1 = **le-pfēt**	BAF, BAV, FSW, BMD, FDR, FKO, FBP, FGD, FGT, FTL, FRD, FTM, FTO, FMP	5
	A2 = **ḿ-pfát**	MOK	
	A31 = **ḿ –pfɔ́**	BLS, BLM, FTS	
	A32 = **ḿ-pfɔ́ŋ**	BSA	
	B = **ŋ́-kút**	FSL	

Conclusion: A1/A2= phon.; A1/A31= acc.; A1/A32= acc.; A2/A31= phon.; A2/A32= phon.; A31/A32= morph.

Item	Divergences	Dialects	Geographical distribution
60. To drink	A1 = **le-nū**	BAF, BLM, BLS, FGT, FRD, FTM, FSL, FBP, FTS, FTO, BAV, BMD, FTL, FKO, FSW, MOK	4
	A2 = **ń-n^{w}ɔ́**	BSA	
	A31 = **ń-n^{h}ū**	FMP	
	A32 = **ń-nó**	FGD, FDR	

Conclusion: A1/A2= morph.; A1/A31= phon.; A1/A32= phon.; A2/A31= phon.; A2/A32= phon.; A31/A32= acc.

Item	Divergences	Dialects	Geographical distribution
61. Egg	A1 = **le-po**	BAF, FGT, FTM, FSL, BAV, BMD, MOK	4
	A2 = **le-pum**	BLS, FMP, FSW, FTO, FTS	
	A3 = **nə-pu**	BLM,	
	A4 = **nə-buŋ**	BSA, FDR, FKO, FBP, FTL, FRD, FGD	

Conclusion: A1/A2= morph.; A1/A3= phon.; A1/A4= acc.; A2/A3= morph.; A2/A4= acc.; A3/A4= phon.

Item	Divergences	Dialects	Geographical distribution
62. Oil	A1 = **me-vēt**	BAF, BAV, FSW, BMD, FDR, FKO, FBP, FGD, FGT, FTL, FRD, FTM, FTO, FMP, FTS	3
	A2 = **me-vā**	BLS, BLM, BSA	
	A3 = **me-vūt**	FSL, MOK	

Conclusion: A1/A2= morph.; A1/A3= phon,; A2/A3= morph.

Item	Divergences	Dialects	Geographical distribution
63. Salt	A1 = **ŋ-gwāŋ**	BAF, BAV, BMD, FDR, FKO, FBP, FGD, FGT, FTL, FRD, FTM, FTO, FMP, FTS, BLS, BLM, BSA, FSL; MOK	2
	A2 = **ŋ-gūaŋ**	FSW	

Conclusion: A1/A2= morph.

Item	Divergences	Dialects	Geographical distribution
64. Sky	A1 = **le-p^{h}ū**	BAF, FTO, FTL, FRD, FSL, FSW, FTS, FDR, FGT, FTM, FKO, BLM, FGD	7
	A2 = **le-p^{h}uɔ**	FBP	
	A31 = **le-p^{h}ō**	BAV, BMD	
	A32 = **le-f^{h}ō**	MOK	
	A4 = **e-pūk**	FMP	
	B1 = **le-faŋ**	BLS	
	B2 = **nə-haŋ**	BSA	

Conclusion: A1/A2= morph.; A1/A31= phon.; A1/A32= phon.; A1/A4= acc.; A2/A31= morph.; A2/A32= morph.; A2/A4= acc.; A31/A32= phon.; A31/A4= acc.; A32/A4= acc.; B1/B2= phon.

Item	Divergences	Dialects	Geographical distribution
65. Sun	A1 = **nu**	BAF, FGT, FTM, FSL, BAV, BMD, MOK, FSW, FTO, FTS, FDR, FBP, FGD, BLM	4
	A2 = **nɔm**	BSA	
	A31 = **nɛm**	BLS	
	A32 = **no**	FKO, FMP, FTL, FRD	

Conclusion: A1/A2= morph.; A1/A31= acc.; A1/A32= phon.; A2/A31= phon.; A2/A32= morph.; A31/A32= acc.

Item	Divergences	Dialects	Geographical distribution
66. Moon	A = **saŋ**	BAF, BAV, FGT, FSL, BLS, MOK	5
	B1 = **mə́-ŋ^{w}ɯ́**	BLM, BMD, BSA, FBP, FGD, FSW, FTM, FTO	
	B2 = **ŋ-ŋ^{w}ɯe**	FRD, FTS	
	B3 = **me-ŋ^{w}ū**	FKO, FMP, FTL,	
	C = **e-fo at^{h}ɯ́**	FDR	

Conclusion: B1/B2= morph.; B1/B3= phon.; B2/B3= acc.

Item	Divergences	Dialects	Geographical distribution
67. Star	A1 = **cɯ'ɔ saŋ**	BAF, BAV, FSW, BMD, FDR, FKO, FBP, FGD, FTL, FTM, FTO, FMP, FSL, MOK,BLS, BLM, BSA	4
	A2 = **ze'saŋ**	FRD	
	A3 = **tsə'saŋ**	FGT	
	B = **meŋ-ŋɯ́**	FTS	

Conclusion: A1/A2= morph.; A1/A3= acc.; A2/A3= phon.

Item	Divergences	Dialects	Geographical distribution
68. Wind	A1 = **fe-f^{w}ɛt**	BAF, BLM, BMD, FDR, FRD, FTM, FKO, FMP, FTL	6
	A2 = **fe-fɯɛt**	BAV, FSL	
	A31 = **fe-fɛt**	BLS, BSA	
	A32 = **fɯ-f^{w}át**	FGT	
	A41 = **e-fūk**	FBP, FGD, FSW, FTO, MOK	
	A42 = **a-fēm**	FTS	

Conclusion: A1/A2= morph.; A1/A31= phon.; A1/A32= phon.; A1/A41= acc.; A1/A42= acc.; A2/A31= phon.; A2/A32= phon.; A2/A41= acc.; A2/A42= acc.; A31/A32= phon.; A31/A41= acc.; A31/A42= acc.; A32/A41= acc.; A32/A42= acc.; A41/A42= acc.

Item	Divergences	Dialects	Geographical distribution
69. Rain	A1 = **m-beŋ**	BAF, BAV, BMD, FDR, FKO, FBP, FGD, FGT, FTL, FRD, FTM, FTO, FTS, FSW, BLS, BLM, BSA, FSL, MOK	2
	A2 = **m-bʉeŋ**	FMP	

Conclusion: A1/A2= morph.

Item	Divergences	Dialects	Geographical distribution
70. Country	A = **a-lā'**	BAF, BAV, BMD, FDR, FKO, FBP, FGD, FGT, FTL, FRD, FTM, FTO, FTS, FSW, BLS, BLM, FSL, MOK, FMP	2
	B = **ŋ-g^{w}ɔŋ**	BSA	

Conclusion: There exists total divergence between the two forms for this item.

Item	Divergences	Dialects	Geographical distribution
71. Mountain	A1 = **le-k^{w}ēt**	BAF, FTO, FTL, FRD, FTS, FDR, FTM, FKO, BLM, FGD, BAV, BMD, FBP	7
	A2 = **le-kuēt**	FGT	
	A3 = **le-k^{w}āt**	MOK	
	A4 = **le-kōt**	FSL	
	B1 = **le-k^{w}ɔ'ɔ́**	BLS, FSW	
	B21 = **ŋ-kɔŋ**	BSA	
	B22 = **ŋ-k^{w}in**	FMP	

Conclusion: A1/A2= morph.; A1/A3= phon.; A1/A4= acc.; A2/A3= phon.; A2/A4= phon.; A3/A4= phon.; B1/B21= acc.; B1/B22= acc.; B21/B22= acc.

Item	Divergences	Dialects	Geographical distribution
72. Water	A1 = **n-ts^{h}i**	BAF, BLM, BMD, FDR, FRD, FTM, FKO, FTL, FGD, FSW, FTO, MOK, BAV, FGT BLS	6
	A2 = **n-tsi**	FSL	
	A3 = **n-ts^{h}ɛ**	FTS	
	A41 = **e-s^{h}ɛ**	BSA	
	A42 = **n-c^{h}ɛ**	FBP	
	B = **ŋ-k^{h}e**	FMP	

Conclusion: A1/A2= morph.; A1/A3= phon.; A1/A41= acc. A1/A42= acc.; A2/A3= phon.; A2/A41= acc.; A2/A42= acc.; A3/A41= phon.; A3/A42= phon.; A41/A42= phon.

Item	Divergences	Dialects	Geographical distribution
73. River	A1 = **miá-**	BAF, FTO, FDR, FKO, FGD, BAV, FBP, BLS, FSW, BSA, FGT, FMP, FSL	4
	A2 = **mīɛ-**	FRD	
	A3 = **mʉ́ə-**	BLM	
	B = **n-du**	BMD, FTL, FTM, FTS, MOK	

Conclusion: A1/A2= morph.; A1/A3= phon.; A2/A3= phon.

Item	Divergences	Dialects	Geographical distribution
74. Lake	A1 = **- me-tʉŋ** A2 = **- me-tɛŋ** B = **- te-sɔ'ɔ** C = **-ts^{h}éts^{h}eé** D = **-tá'-ci'ā** E = **cú'cə-** F1 = **a-tuplɛ-** F2 = **a-tapli-** F3 = **a-tapə-** G = **a-taŋa-** H = **a-mɔ́lé -** I1 = **mía** I2 = **mié** J = **a-tūa'-**	BAF, BMD, FTO, FGT, FMP FSL, FSW BAV BLS BLM BSA FDR FRD FBP FKO, FTL FGD FTM FTS MOK	14

Conclusion: A1/A2= phon.; F1/F2= phon, F1/F3= acc.; F2/F3= morph.; I1/I2= morph.

Item	Divergences	Dialects	Geographical distribution
75. Stone	A1 = **tɔ́** A2 = **tɔ́ŋ** A3 = **tɔ́** B1 = **me-loŋɔ** B2 = **a-l^{h}uŋ**	BAF, FKO, BAV, FSW, FGT, FSL, BMD, FTL, FTM BLS BLM, FDR, FBP, FGD, FRD, FTO, FTS, MOK BSA FMP	5

Conclusion: A1/A2= morph.; A1/A3= phon.; A2/A3= morph.; B1/B2= phon.

Item	Divergences	Dialects	Geographical distribution
76. Dust	A1 = **a-vɔ́p** A2 = **a-vɔ́pɔ** A3 = **a-báp** A4 = **a-v^{w}áp**	BAF, BAV, BMD, FTO, FSW, FGT, MOK, FTM BLS, BLM, BSA, FMP, FTL FBP, FGD, FDR, FRD, FSL, FTS FKO	4

nclusion: A1/A2= morph.; A1/A3= phon.; A1/A4= acc.; A2/A3= phon.; A2/A4= acc.; A3/A4= phon.

Item	Divergences	Dialects	Geographical distribution
77. Earth	A1 = **a-tsá'** A2 = **ci-cá'** B = **e-sī**	BAF, BAV, BMD, FTO, FSW, FGT, MOK, FTM, BLS, BLM, FTL FBP, FGD, FRD, FSL, FKO, FTS BSA, FMP, FDR	3

Conclusion: A1/A2= morph.

Item	Divergences	Dialects	Geographical distribution
78. Tree	A1 = **a-t^{h}ʉ́** A2 = **a-t^{h}ʉ́ɔ** A3 = **a-tʉ́k** B = **e-c^{h}ɛ́**	BAF, BAV, BMD, FTO, FSW, FGT, MOK, FTM, BLM, FTL, FKO, FBP, FGD, FDR, FRD, FSL, FTS BLS, FMP BSA	4

Conclusion: A1/A2= morph.; A1/A3= acc.; A2/A3= acc.

Item	Divergences	Dialects	Geographical distribution
79. Thornbush	A1 = **n-zɔ̄ŋ** A2 = **n-j^{w}ɔ̄ŋ** B = **e-c^{w}ɔ'**	BAF, BAV, BMD, FTO, FSW, FGT, MOK, FTM, BLS, FTL, FBP, FGD, FRD, FSL, FKO, FTS, FDR, FMP BSA BLM	3

Conclusion: A1/A2= phon.

Item	Divergences	Dialects	Geographical distribution
80. Herb	A1 = **le-zɛ́** A2 = **le-z^{h}é** B = **le-yí** C = **m-vēŋ** D = **m-ba'**	BAF, BAV, BMD, FTL, BLM, FMP FKO BLS, BSA FDR, FBP, FGD, FGT, FRD, FSW, FTM, FTO, FTS, FSL, MOK	5

Conclusion: A1/A2= phon.

Item	Divergences	Dialects	Geographical distribution
81. All	A = **me-tsem** B = **ŋ-k^{w}a** C = **ŋ-g^{w}ɔŋ** D = **tenjá́** E = **titʉ pʉə** F = **pɔ́p**	BAF, BMD, FDR, FTM, FTS, FGD, FSW, FTO, MOK, FGT, BLS BAV, FKO, FBP, FMP, FRD BLM BSA FTL FSL	6

Conclusion: There exists total divergence between all the different forms of this item.

Item	Divergences	Dialects	Geographical distribution
82. One	A1 = **wɔ́-mɔ́'ɔ** A21 = **yi-mɔ́'ɔ** A22 = **zɛ-mɔ́'ɔ** A23 = **a-mɔ́'ɔ** B = **tá'** C = **n-cʉ'**	BAF, BMD, FDR, FTM, FTS, FGD, FTO, BLS, FTL, BAV, FKO, FBP, FRD BLM FSW MOK BSA, FGT, FSL FMP	6

Conclusion: A1/A21= morph.; A1/A22= morph.; A1/A23= morph.; A21/A22= morph.; A22/A23= morph.

Item	Divergences	Dilaects	Geographical distribution
83. Two	A1 = **mém-pīā**	BAF, BAV, BMD, FTO, FSW, FGT, MOK, FTM, FTL, FGD, FKO, FDR	3
	A2 = **wɔ́-pʉ̄ā**	BLS, BLM, BSA	
	A3 = **pé-pīé**	FBP, FMP, FRD, FSL, FTS	

Conclusion: A1/A2= morph.; A1/A3= acc.; A2/A3= acc.

Item	Divergences	Dialects	Geographical distribution
84. Three	A1 = **mé-tét**	BAF, BAV, BMD, FTO, FSW, FGT, FTM, BLM, FTL, FKO, FBP, FGD, FDR, FRD, FSL, FTS	4
	A2 = **pe-tét**	FMP, MOK	
	A31 = **mə-tét**	BSA	
	A32 = **wɔ́-tá**	BLS	

Conclusion: A1/A2= morph.; A1/A31= phon.; A1/A32= acc.; A2/A31= morph.; A2/A32= acc.; A31/A32= acc.

Item	Divergences	Dialects	Geographical distribution
85. Four	A1 = **le-kua**	BAF, BAV, BMD, FMP, FTO, FSW, FGT, BLM, FTL, FGD, FSL, BLS, MOK	4
	A2 = **le-kʷa**	BSA, FBP, FTM	
	A31 = **le-kuɔ**	FDR, FRD, FTS	
	A32 = **le-kʉa**	FKO	

Conclusion: A1/A2= phon.; A1/A31= phon.; A1/A32= phon.; A2/A31= morph.; A2/A32= morph.; A31/A32= phon.

Item	Divergences	Dialects	Geographical distribution
86. Five	A1 = **mé-tá**	BAF, BAV, BMD, FTL, BLM, FBP, FGT, FRD, FTS, FTM, FTO, FKO, FSL	5
	A2 = **pe-tá**	FMP, MOK	
	A31 = **e-tɛ́a**	BLS, FDR, FSW	
	A32 = **mɔ́-te**	BSA	
	A4 = **mɔ́-tsía**	FGD	

Conclusion: A1/A2= morph.; A1/A31= phon.; A1/A32= phon.; A1/A4= acc.; A2/A31= phon.; A1/A32= phon.; A2/A4= acc.; A31/A32= acc.; A31/A4= acc.; A32/A4= acc.

Item	Divergences	Dialects	Geographical distribution
87. Year	A = **ŋ-gu'a-lā'**	BAF, FGD, FGT, FRD, FTM, FSL, FDR, FBP, FMP, FSW, FTS, MOK, FTO, FKO, BAV, BMD, BLS, BLM, BSA, FTL	1

Conclusion: There exists total similarity between the different dialects for this item.

Item	Divergences	Dialects	Geographical distribution
88. Day	A1 = **a-zókó**	BAF, BMD, FTM, FTS, FGD, FTO, FGT, BSA, BAV, FKO, FMP	7
	A2 = **a-zɔ́k**	FTL	
	A31 = **a-z^{h}ó**	BLS	
	A32 = **a-juké**	MOK	
	A41 = **a-zəgə**	FDR, FBP	
	A42 = **a-z^{w}iké**	FRD, FSL, FSW	
	B = **a-lé'é**	BLM	

Conclusion: A1/A2= morph.; A1/A31= acc.; A1/A32= acc.; A1/A41= acc.; A1/A42= acc.; A2/A31= acc.; A2/A32= acc.; A2/A41= phon.; A2/A42= acc.; A31/A32= acc.; A31/A41= acc.; A31/A42= acc.; A32/A41=acc.; A32/A42= acc.; A41/A42= acc.

Item	Divergences	Dialects	Geographical distribution
89. Night	A1 = **e-tsō'**	BAF, BMD, BSA, FSW, MOK, FRD	5
	A2 = **e-tsɛ̄'**	FDR, FMP	
	A3 = **a-ts^{w}ɛ̄t**	BLS, BLM, FKO, FGD, FGT, FTL, FTM, FTO, FTS	
	B = **n-zém**	BAV, FBP	
	C = **n-tū'**	FSL	

Conclusion: A1/A2= phon.; A1/A3= acc.; A2/A3= acc.

Item	Divergences	Dialects	Geographical distribution
90. To see	A1 = **ń-jɔ́**	FSW, BLM, FTL, FSL FKO, FTS, FBP	4
	A2 = **le-jūɔ́**	BAF, BAV, BMD, FDR, FMP, FGD, FRD, FTM	
	A3 = **ń-jiɔ́**	BSA, FGT, FTO, MOK,	
	A4 = **ŋ́-gíá**	BLS	

Conclusion: A1/A2= morph.; A1/A3= phon.; A1/A4= acc.; A2/A3= phon.; A2/A4= acc.; A3/A4= phon.

Item	Divergences	Dialects	Geographical distribution
91. To die	A1 = **le-k^{wh}ū**	BAF, BAV, FSW, BLM, FKO, BLS, FGT, FDR, FGD, FRD, FTM, FTO, MOK	4
	A2 = **ŋ-k^{wh}úé**	FBP	
	A3 = **le-k^{wh}é**	BMD, FMP, FTL, FSL, FTS	
	B = **nə-pfū**	BSA	

Conclusion: A1/A2= morph.; A1/A3= phon.; A2/A3= phon.

Item	Divergences	Dialects	Geographical distribution
92. Big	A1 = **míá**	BAF, BMD, BAV, FGT, FMP, FTM, MOK	5
	A21 = **m-mé**	BLM, FBP, FTL	
	A22 = **m-míɛ**	FKO, FGD, FRD, FSW, FTO, FTS	
	B = **ŋ-gú'**	BLS, BSA	
	C = **é-fáŋ**	FDR, FSL	

Conclusion: A1/A21= phon.; A1/A22= phon.; A21/A22= phon.

Item	Divergences	Dialects	Geographical distribution
93. Small	A1 = **mɔ́** A2 = **mó** A31 = **míi gá'** A32 = **miŋ gá'** B1 = **ŋ-kúk** B2 = **ke-kú'** B3 = **ŋ́-k^{y}ɔ́k**	BAF, BAV, BMD, FTL FGD, FTS BLM, FBP FKO, FMP, FRD, FSW, FTM, FTO, MOK BSA, FDR, FSL FGT BLS	7

Conclusion: A1/A2= phon.; A1/A31= acc.; A1/A32= acc.; A2/A31=acc.; A2/A32= acc.; A31/A32= phon.; B1/B2= morph.; B1/B3= phon.; B2/B3= acc.

Item	Divergences	Dialects	Geographical distribution
94. Long	A1 = **si-sia** A2 = **é-sıāk** A3 = **se-siɛ** A41 = **e-sák** A42 = **s^{h}ʉ-s^{h}iɛ**	BAF, BMD, FTM, FTO, BAV, FSW, FGT FSL FBP, FTL, FRD, MOK BLS, BLM, BSA, FDR, FKO, FTS FMP	5

Conclusion: A1/A2= morph.; A1/A3= phon.; A1/A41= acc.; A1/A42= acc.; A2/A3= phon.; A2/A41= phon.; A2/A42= acc. A3/A41= acc.; A3/A42= phon.

Item	Divergences	Dialelcts	Geographical distribution
95. Good	A1 = **ḿ-bɔ́ŋ** A2 = **pe-pɔ̀ŋ** B = **ŋ́-gōōlé**	BAF, BAV, FSW, BLM, FKO, BLS, FDR, FGD, FRD, FTM, FTO, MOK, BMD, FTL, FTS, BSA, FBP FMP, FSL FGT	3

Conclusion: A1/A2= phon.

Item	Divergences	Dialects	Geographical distribution
96. Bad	A1 = **ḿ-bék** A2 = **ḿ-bék** A3 = **ḿ-b^{h}ɔ́k** B = **te-pɔŋ**	BAF, BAV, BLM, FKO, FGT, FDR, FGD, FRD, FTM, BMD, FSL BSA BLS FBP, FMP, FTL, FSW, FTO, FTS, MOK	4

Conclusion: A1/A2= phon.; A1/A3= acc.; A2/A3= acc.

Item	Divergences	Dialects	Geographical distribution
97. Black	A1 = **si-séh** A21 = **si-sɛ́** A22 = **si-s^{h}ɛ́** A3 = **é-síŋ** B = **fɔ̀-fíŋ**	BAF, FTM, FSW, FBP, FRD, MOK, BSA, FTS BLM, FGT, FTL, FSL, FTO BAV, BMD BLS, FKO, FMP FDR, FGD	5

Conclusion: A1/A21=morph.; A1/A22=phon.; A1/A3=acc.; A21/A22= phon.; A21/A3= acc.; A22/A3= acc.

Item	Divergences	Dialects	Geographical distribution
98. Red	A1 = **paŋ**	BAF, BAV, BMD, FTO, FSW, FGT, MOK, FTM, FTL, FBP, FGD, FRD, FSL, FKO, FTS, FDR, FMP, BSA	2
	A2 = **ḿ-bāŋ**	BLS, BLM	

Conclusion: A1/A2= phon.

Item	Divergences	Dialects	Geographical distribution
99. White	A1 = **f^{h}ɔ́**	BAF, BAV, FGT, FDR, FGD, FRD, FTM, FSL, FBP, FMP, FSW, FTO, FTS, MOK	3
	A2 = **fú-f^{h}é**	FKO, FTL	
	A3 = **fé-fɔ́kɔ́**	BLS, BLM, BMD, BSA	

Conclusion: A1/A2= phon.; A1/A3= acc.; A2/A3= acc.

Item	Divergences	Dialects	Geographical distribution
100. Cold	A1 = **ŋ́-ŋ^{w}ɛ̄**	BAF, FGT	7
	A2 = **ŋ́-ŋ^{w}ɛ̄**	BLS, FDR, FGD	
	A3 = **nə-ŋɛnə**	BSA	
	B1 = **e-fɔ̄**	FMP	
	B2 = **e-fūk**	BLM, FKO, FBP, FTL, FRD, FSL, FSW, FTO, FTS, MOK	
	B31 = **e-f^{w}ɔ̄k**	BAV, BMD	
	B32 = **e-f^{h}ɔ̄’**	FTM	

Conclusion: A1/A2= phon.; A1/A3= acc.; A2/A3= acc.; B1/B2= morph.; B1/B31= acc.; B1/B32= acc.; B2/B31= phon.; B2/B32= phon.; B31/B32= phon.