

## **An Explanation of the Logic of Hmong RPA**

by

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### **Abstract**

Hmong RPA is probably the most used Hmong alphabet worldwide. Although the creators of the alphabet describe it as a coherent alphabet, it is often misunderstood by the Hmong people and as a result, many have adapted it by changing some consonant clusters by another association of letters that would make more sense to them. This paper aims at explaining the logic behind the consonant clusters starting with N (nc, ndl, ntx, ntsh, nplh, etc., called prenasalized consonants) in simple terms so that Hmong people understand the coherence mentioned by Bertrais (1991). After having explained the “rule” behind the choice of these letter combinations, the author analyzes the sounds made by all of them in alphabetical order to show that these prenasalized consonants all follow the same rule. It is hoped that this paper will help Hmong people understand the Hmong alphabet better and learn it more easily.

**Keywords:** Hmong Romanized Popular Alphabet, RPA

### **Introduction**

François Savina, the first Western missionary to meet the people formerly known as Miao and now known as Hmong, has described them as a people with an oral tradition only (Savina, 1924). Later on, researchers such as anthropologists Lemoine (1972a) and Cooper et al. (1991), or linguist Smalley (1990) confirmed this statement of a people with no writing system. But this

does not mean that the Hmong were indifferent to the idea of having an alphabet of their own. For instance, in a study of Hmong rebellious movements, Culas (2005) showed how, in every messianic rebellion, the messiah promised to give his followers the things they desired the most: a country and a writing system. Lemoine (1972b) also mentioned these same characteristics three decades ago but did not study them specifically. This shows how the Hmong longed to be able to write. Savina created his own Hmong alphabet but it never caught the attention of the Hmong people. Then later, other people or countries created their own versions of a Hmong alphabet. In 1972, Lemoine counted 8 different alphabets but later in 1990, Smalley et al. counted 14 alphabets. Two of the alphabets mentioned by Lemoine were not counted by Smalley et al., this takes the total number to 16 documented Hmong alphabets, without counting some mystical and/or mythical alphabets.

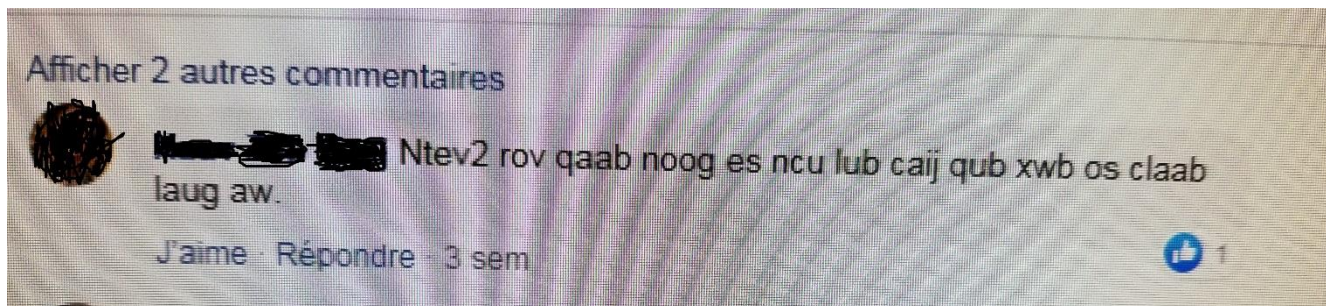
Among these alphabets, the one that seems to be the most largely used by the Hmong today is the Hmong Romanized Popular Alphabet (now RPA), which was created, as indicated by Bertrais (1991), by Linwood Barney, Yves Bertrais, Tho Hu, Pastor Roff, William Smalley, and Ying Ya. Bertrais stated that from the beginning, “We would choose letters and groups of letters which remain logical and coherent throughout the system.” This cohesion seems to have been forgotten by the Hmong people. For instance, many Hmong people have tried to adapt it to their liking, for instance spelling *ntsuab*<sup>1</sup> (green) *njua* (like in Hmong Njua). Moreover, others have added new signs like the Thai ๑ sign used to indicate that the preceding word must be repeated a second time. This sign was adopted by the Hmong of Thailand and Laos since, as in many other Asian languages, Hmong repeats words twice to emphasize or to intensify. This sign was then adopted by some Hmong scholars in America but using a “similar” sign as Western

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<sup>1</sup> In this article, all the Hmong words and sounds are spelled in RPA in italic.

keyboards do not have this sign. This resulted in the use of the 7 digit letter to indicate the repetition (like Yang, 2020). But this decision was arbitrary and does not make sense for others who prefer to use the letter 2 immediately after the word (or attached at the end of the word).

Here is an example as seen on a social medium:



As indicated earlier, in this example, one should read “*Ntev ntev rov qaab ...*”. Let us notice here another example of individual adaptation of the alphabet by spelling ‘*claab*’ instead of “*dlaab*”. Some of these changes may make sense to those who use them, but they break the logic underlying the choice made by the creators of the alphabet for the consonant clusters in RPA. To the contrary of those who want to change the existing letters, we believe it is better to not change them in order to keep the logic of the alphabet.

The purpose of this article is to explain the logic of RPA as understood by the author. This is not intended as another phonetical description of the Hmong sounds. Many authors have done this in the past (Lemoine 1972a, Niederer 2001-2002, Golston & Yang 2001, Macken 2002, Wikipedia, etc.) more or less completely and accurately, so it is not necessary to do it once again here. But these descriptions remain very technical and one must have some solid linguistic background to be able to understand the tables proposed. Unfortunately, Hmong speakers lack this linguistic knowledge most of the time. Our goal is to explain the choice of the consonant clusters starting with N in RPA so that those who want to change *np* by a B or *nts* by NJ

understand that there is a logic underlying the choice of these letters. In brief, this article is a popularization of some linguistic knowledge applied to RPA. First, we will explain some basic concepts to know in Phonetics in order to better explain the rationale of RPA. Then we will analyze all the consonant clusters starting with N and show how they all follow this one rule. As a conclusion, it is hoped that with these explanations, the users of RPA will stop adapting the alphabet to their liking to keep the coherence of RPA.

1. Voiced vs voiceless, as simple as this!

In Linguistics, or more precisely in Phonetics, which is the part of Linguistics that study the sounds of a language, some consonants are paired together, like P and B, or T and D. The reason they were paired together is that they are pronounced the same way. The position of the mouth is exactly the same, the position of the tongue is the same, and therefore, the way the sound is produced is the same. The only difference between two paired sounds (let us take the example of T and D) is that one is pronounced by making the vocal cords vibrate (D) while the other does not (T). As a result, one consonant is louder (D) while the other is more silent (T). The louder consonants are called voiced consonants and the more silent ones are called voiceless (or unvoiced). The credit of Smalley (who did not speak Hmong when he contributed to the creation of Hmong RPA) was to be able to identify all the consonant sounds and to organize them around this voiced/voiceless rule in a coherent way, as we will see hereunder.

Among all the voiced and voiceless Hmong consonants, these are the sounds that matter for our explanation here: the voiced consonants B, D, G, S, and their corresponding voiceless consonants P, T, K, and Z. In addition to these, we may add the RPA sounds **S** (like in English) and **Z** (like in Asian). Combining the English sounds to the Hmong sounds, the order we usually give to our students to help them remember these is:

Table 1: Voiceless/voiced correspondences

Voiceless	T	K	P	S	<i>S</i>
Voiced	D	G	B	Z	<i>Z</i>

The mnemonic mean being to ask the students what the voiced letters remind them of, and inevitably, there is always one who says DraGon Ball Z<sup>2</sup>, which makes the others laugh and remember instantly these letters.

So, in fact, *n* has two functions: it indicates the prenasalization (a slight *n* sound before *D* in *nt* for example), and it indicates that the following voiceless consonants must be voiced. It is believed that the choice of *N* put before these letters results from the fact that these consonants are prenasalized, and in the International Phonetic Alphabet (now IPA), the prenasalization is indicated with an *n* in subscript in front of the consonant. We suppose that Smalley, who was the only linguist among the team who created Hmong RPA, used this voiced/voiceless correspondence and applied it to the choice of letters used to represent the Hmong sounds. These five paired consonants explain the cohesion of the alphabet, as we will see by analyzing the RPA consonant clusters.

## 2. Analysis of the consonant clusters in RPA

### 2.1. *P, t, k* vs *np, nt, ng*

Let us start with the easiest consonant clusters *np*, *nt*, and *nk* that we have briefly described earlier. They are the voiced version of the voiceless consonants *p*, *t*, and *k*. These voiceless consonants in Hmong are pronounced like the French corresponding consonants (*table*,

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<sup>2</sup> Dragon Ball Z refers to a famous manga/anime by Akira Toriyama.

kangourou, and poète for example). We are not using English examples here because English T, K, and P letters are rather pronounced with an aspiration (with a hard expulsion of air out of the mouth after pronouncing the consonant). *Np*, *nt*, and *nk* are pronounced more or less like B, D, and G. And besides indicating a prenasalization, the n also indicates that the following consonant becomes voiced. So P becomes B, T becomes D, and K becomes G (with a prenasalization, indeed). Hence we have the correspondences indicated in Table 1. The exact pronunciation of *np* should be mB, *nt* should be nD, and *nk* should be nG. Now the following parts describe the pronunciation of the voiceless/voiced consonants in alphabetical order.

## 2.2. *C* vs *nc*, *ch* vs *nch*

Now we shall examine the double consonants in an alphabetical order. Hmong *c* letter has been chosen according to its corresponding IPA letter and sound (called voiceless palatal stop or voiceless palatal plosive). To make it more understandable, let us use French sounds again: French T in initial position (meaning as the first syllable of a word) has two possible pronunciations: T when followed by a, e, o (like tata (auntie), tenir (to hold), or topaze (topaz)), and T followed by i and u (timide (shy) or tu (you) for example). In Hmong, the French T sound followed by a, o, u is represented by *t* and the T sound as followed by i and u is represented by *c*. As described by the IPA, *c* is a voiceless consonant. Alongside, for *nc*, it is pronounced with a D as a starting sound. Let us go back to French to explain these sounds: the French D (the voiced version of T) has two different pronunciations: D when followed by a, e, i, o, and u (like dame (lady), de (of), dire (to say), etc.), and D when followed by a diphthong starting with an i (like dieu (god), diamant (diamond), or diode (same word in English)). The latter is pronounced exactly the same way as Hmong consonant *nc*, but as expected, it makes the vocal cords vibrate. So as one can see, *nc* is the voiced version of *c*.

### 2.3. *Dl vs ndl, dlh vs ndlh*

When they created the alphabet, the authors of RPA made the mistake to not take into account the *dl* sound pronounced in Hmong Leng and Green Hmong<sup>3</sup>. Even though one of them (Barney) was trying to create an alphabet for Green Hmong, oddly, the *dl* sound and its derivatives *ndl*, *dlh*, *ndlh* were omitted. In a private conversation, Lemoine told us that to compensate for this oversight, the Hmong Leng he was working with decided that since every time White Hmong uses *d* corresponded to a more or less similar word using an L sound in Green Hmong and Hmong Leng, the easiest way would be to create a new character for this typical Green Hmong/Hmong Leng sound. And the most logical character would be to add an *l* to *d*. This is how *dl* and its derivatives were created and added to RPA. Nevertheless, the pronunciation of *dl* does not correspond to the pronunciation of the White Hmong *d* sound added to *l* at all. It corresponds more or less to a TL sound as Andruski & Ratliff (2000) noted, this pronunciation in their chart where they clearly identify *dl* as pronounced TL. However, nowadays, it is more and more pronounced by the Hmong of the Diaspora as a similar but not exactly the same sound<sup>4</sup>. Thereby, *dlub* (black) is pronounced as French *cl* as in “clou” (nail)<sup>5</sup> with a KL sound. On the other side, *ndl* is pronounced more or less like GL (as in glad), like in *ndlav* (to pay someone to do something). So once again, we have the correspondence voiceless/voiced indicated in Table 1: the K sound in *dlub* / “clou” becomes a G sound in *ndlav* / “glad”. The L sound already being a voiced sound, it does not change. Let us remind that *n* indicates that the following voiceless consonants are voiced. Likewise, we have the same sounds

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<sup>3</sup> See Ly 2019 for a description of the linguistic features of Green Hmong, White Hmong and Hmong Leng.

<sup>4</sup> Derooy (1956) noted this phonetic adaptation of a sound difficult to pronounce for an approximately identical sound in a language in contact. Although he said the speaker usually replaces a sound that is difficult to pronounce in the other language by a similar sound in his/her mother tongue. This phonetic adaptation seems to have reversed over the years for the Hmong people of the Diaspora.

<sup>5</sup> English’s *cl* is a little different since it has an aspiration.

for *dlh* and *ndlh*, the *h* simply indicates an aspiration (an expulsion of air after the pronunciation of the consonant). For example, *dlha* (to run) and *ndlhij ndlhuaj* (no meaning, these two words are used as an onomatopoeia: the imitation of the sounds of one's steps in the water).

#### 2.4. *K vs nk, kh vs nkh*

We have already described the pronunciation of *k* and *nk* in section 2.1. This is just to add that their derivatives *kh* and *nkh* are pronounced the same with the addition of the aspiration.

#### 2.5. *P vs np, ph vs nph, and pl vs plh, npl vs nplh*

Same thing here: *p* is the voiceless consonant, *np* is the voiced version of *p*, *ph* is the aspirated voiceless, *nph* is the aspirated voiced version. *P* is pronounced as in English's "apple" while *np* is pronounced as a B sound like in "bite".

As for *pl* and its derivatives *npl*, *plh*, and *nplh*, since *l* is not a voiceless consonant, it does not change into a different sound and is pronounced the same.

#### 2.6. *Q vs nq, qh vs nqh*

The Hmong *q* letter has been chosen according to its corresponding IPA letter and sound (voiceless uvular stop sound). Knowing this, anyone who knows about the IPA would automatically know how to pronounce the *q* letter. And following the logic we are trying to demonstrate, *nq* just corresponds to the voiced uvular stop sound, or in easier terms, the voiced version of *q*. But unfortunately, most Hmong people do not know about IPA. So let us try to explain the pronunciation of *q* and *nq* in simple terms: *q* is pronounced in the back of the throat and makes a double sound approximately similar to *kr*. The *K* sound must not have any aspiration and the *R* sound is quite slight and blended with *K* in such a way that they are almost inseparable. On the other hand, *nq* is pronounced in the back of the throat as well but in a softer



way. The explosiveness of the K sound being softened, it is pronounced approximately like a G sound associated with the slight R sound. So once again, the “kind of” K sound in *q* becomes a “kind of” G sound in *nq*. *Qh* is the aspirated version of *q*, and *nqh* is the aspirated voiceless version of *nq*.

### 2.7. *R* vs *nr*, *rh* vs *nrh*

*R* is one of the most, if not the most, difficult sound to teach in Hmong because it comprises two sounds while using just one letter. It would have been more logical to use two letters since there are two sounds here. The first sound is a T sound that, as soon as it is released, is followed by a slight “sh” ([ʃ] in IPA) sound. It corresponds to the voiceless retroflex stop [tʃ] in IPA, that one should not get mixed up with the “t” sound [t]. Because of the two sounds comprised in *r*, many people mispronounce it, and most parents do not make the effort of teaching their children to pronounce it correctly. Mispronunciations range from *d* to *ts* via a *t* sound. Regarding the three dialects used in America, let us remind the reader that *r* is used in White Hmong and Hmong Leng but not in Green Hmong. Lemoine pointed out this difference in 2013 by saying: “le parler *mong djoua* la récuse et prononce **ts** pour **r**, **tsh** pour **rh**, **nts** pour **nr**, **ntsh** pour **nrh**.” In English: “Green Hmong rejects it and pronounces *ts* instead of *r*, *tsh* instead of *rh*, *nts* for *nr*, *ntsh* for *nrh*”. This *ts* pronunciation is very similar to the *r* sound as we will describe it later. As expected, *nr* is just a voiced version of *r*. “Voiceless retroflex stop” not being understood by many Hmong people, let us explain this in simpler terms: *R* starts with a T sound generally produced with the jaw closed and the tip of the tongue placed behind the upper teeth. When the T sound is released, the tongue is pulled back (retroflex) and in the same time, air is blown out making a slight SH sound. The T sound is louder than the SH sound, but one must not forget that second sound even though it is slight. For *nr*, it is pronounced the same way, but the T

sound is softer, transforming it into a D sound, and the SH sound vibrates, becoming a slight J sound as in “Asian” (and not as in June). So here again, the same logic is applied: with *n* in an initial position, the following voiceless consonants become voiced. However, here, we should say the following sounds. Finally, *rh* and *nrh* are just the aspirated versions of *r* and *nr* and follow the voiceless/voiced logic as well.

### 2.8. *T* vs *nt*, *th* vs *nth*

*T* and *nt* have been explained earlier. Like the reader should know now, *th* and *nth* are just the aspirated versions of *t* and *nt* and also apply the voiceless/voiced logic. Let us just remind that to the contrary of *d* and its derivatives, *nt* is pronounced with a slight n sound before saying the D sound: nD.

### 2.9. *Ts* vs *nts*, *tsh* vs *ntsh*

*Ts* and its derivatives are another example of the voiceless/voiced rule. *Ts* is the combination of the T sound and the SH sound (spelled with *s* in Hmong). But to the difference of *r* described above, *t* and *s* are blended and the T sound is slighter, not as loud as the SH sound. For *r*, the T sound is louder than the SH sound. For *nts*, after the initial prenasal n sound, *t* is pronounced on its voiced version *d* and *s* is pronounced on its voiced version *z* (as in Asian). Here again, the *d* sound is not as loud as the *z* sound. So something like ndJ. Even though it may not seem obvious for Hmong speakers of America, who are used to spelling this sound with a simple J as in “John”, it is more evident for the Hmong of France who do hear the association of the D sound followed by the J sound. Otherwise, *tsh* and *ntsh* are just the same sounds as *ts* and *nts* followed by an aspiration.

### 2.10. *Tx vs ntx, txh vs ntxh*

Describing *tx* and its derivatives takes us back to describing *ts* and its derivatives with one different sound: the *x* one. Here again, with *n*, voiceless T becomes voiced D, and the voiceless *x* (pronounced as the English S sound as in “soup”) becomes voiced Z (as in English’s zebra). Put it simply, Hmong *tx* associates English’s voiceless T sound and voiceless S sound, while *ntx* is pronounced with a slight prenasal n sound followed by English’s voiced D sound and voiced Z sound. The rule applies again here. As the reader can guess now, *txh* and *ntxh* are the same sounds followed by an aspiration.

### 2.11. Other voiced/voiceless sounds

Finally, one could wonder why some sounds that do have a voiced/voiceless opposition, like for instance *f* and *v* or *s* and *z*, did not follow this logic by being spelled for example *f* and *nf* or *s* and *ns*. This would make sense, but it is believed that inasmuch as some single letters already existed to transcribe these sounds simply, the creators of the alphabet did not want to make things more complicated than they already are. Incidentally, the choice of *z* to transcribe the J sound as in French word *je* (I) probably results from the similarity of this sound with IPA’s /z/ letter that transcribes exactly the same sound<sup>6</sup> as in Hmong.

## Discussion

It is hoped that this article has clearly demonstrated the voiceless/voiced correspondences of the prenasalized consonant clusters in Hmong. This simple but essential “rule” of voiceless consonants becoming voiced after the initial n shows the logic behind the choice of some consonants that may sometimes be difficult to learn and to understand. The choice of these letter

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<sup>6</sup> Just like some other consonants were chosen according to their IPA’s characters and sounds, like *c*, *k*, *q*.

combinations is very coherent and by being aware of this coherence, perhaps Hmong people will think twice before trying to change them for characters or combination letters that may look easier to learn to them but have no logic at all. This alphabet has some flaws for example it does not transcribe all the Hmong sounds, but it is coherent. To the question of whether or not we should adapt RPA to make it simpler, several considerations must be taken into account. For example, some Hmong in America want to change *nts* into NJ, arguing that it corresponds more to what they hear. One thing they may not think of is the international characteristic of RPA: it gathers all the Hmong of the diaspora under the same coherent alphabet no matter the country they live in. If NJ may make sense for the Hmong of America, DJ would be more logical for the Hmong of France. And what about the Hmong of Argentina, who are influenced by Spanish sounds, and who would want to pronounce the J on the typical Spanish “jota” sound, pronounced with the back of the throat like in “joven” (young)? What may make sense to the Hmong of America may not make sense at all for others. Therefore, the author believes it is more important to keep the alphabet as is for the sake of coherence and universality for the Hmong of all countries. Nevertheless, it is important to create other characters to be able to write all the Hmong sounds of the three dialects spoken by the Hmong of the Diaspora. If we were to take into consideration the sounds used by the other Hmong dialects spoken in Asia, then a whole other level of reflection needs to be made before making any suggestions.

## **Conclusion**

On a pedagogical point of view, table 1 summarizes the correspondences between the voiceless sounds and their corresponding voiced sounds. What students need to know is that when they see a consonant cluster starting with an n, the first thing they must remember is that n indicates a prenasalization marked by a brief n sound or m sound (with *np*, *nph*, *npl*, *nplh*). The

second role of *n* is to indicate that the following letters are not pronounced the same anymore<sup>7</sup>. And the third thing they need to remember is that the voiceless consonants become voiced. Of course, in order to know the exact pronunciation, they should know the table. Unfortunately, the Hmong of France seem to better understand this method than the Hmong of America because the French transcription system is closer to the phonetic transcription of IPA. For instance, to transcribe phonetically *tsev* and *ntse* (respectively house and clever), they will be more naturally willing to transcribe them “tché” and “djé” because the French would also do so. And this transcription clearly shows how voiceless T becomes voiced D and voiceless CH (which corresponds to the English SH) becomes voiced J (as in French word **j**ambon (ham)). On the other hand, the Hmong of America have more difficulties in understanding these correspondences because, based on English, their phonetic transcription for *tsev* would be “che”, which results in one of the most frequent misspelling mistakes the author has seen among his students (spelling the Hmong words using the *ts* sound with the *ch* character), and the transcription of *ntsev* would be “je” as in the English word “joy”. Obviously, these transcriptions do not help the Hmong of America understand the voiceless/voiced correspondences. Another example is *c* and *nc*, that was explained earlier using French examples. Like the French saying states: “apprendre, c’est comprendre” (learning is understanding). It is believed that a better comprehension of the logic of RPA will help Hmong people better learn this writing system. This paper attempted to explain the logic behind RPA using simple terms and we hope the reader will have a better understanding now.

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<sup>7</sup> Except for “l” which is already voiced, and the aspiration letter h.

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