Lexical Tone and Melodic Pitch in the Music of Teotitlán del Valle Zapotec*

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Abstract
This study examines the relationship between lexical tone and melodic pitch in Teotitlán del Valle Zapotec (TdVZ), an endangered tone language in the Otomanguean language family, presenting an open corpus of three songs in the popular music style by native speaker and musician Gario Ángeles. This corpus includes the studio-recorded versions of these songs, solo vocal recordings, full spoken versions of the songs, and recordings of all lexical items found in the lyrics in lexical isolation. This study is especially valuable in that it develops a proposed methodology for studying the relationship between lexical tone and musical pitch in an underdocumented language with a complex tone system. The analysis presents a low correlation between melody and lexical tone, suggesting that even if tone has the impulse to dictate melody, musical elements have such a strong influence that they take precedence over lexical tone.

First and foremost, I would like to thank my advisor, Professor Brook Danielle Lillehaugen, for her unyielding mentorship and patience. I would also like to thank my music advisor, Professor Richard Freedman, for his feedback and guidance regarding the interdisciplinary nature of this project. I would like to thank my consultants, Gario Ángeles and Serafin Martinez, for their time, as well as Moisés García Guzmán for his assistance with my analysis and his dedication to the success of my project.
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1. Introduction

For many, the natural phenomena of music and language are deeply connected—so much so, in fact, that we cannot even recite words to songs without singing them. This self-evident connection between song and speech is so deeply engrained in the European intellectual tradition that some have pondered over the origins of language and music, and as such, whether they are intrinsically related. Jean-Jacques Rousseau, noted philosopher of the eighteenth century, even argued that music and language have a “common origin” (Rousseau 1775:50). Much more recently, others have joined the conversation; noted scholar Steven Mithen suggests that music preceded language and separated from it when music became unnecessary as communication (Mithen 2009:10). Whether music and language are similar in origin or not, this mindset invites us to think about the musicality of speech and, in turn, the effects of interactions between music and language. In vocal music, it is logical to ask which features in language must be represented, and which features are not a priority.

The concern of this study regards what happens when speakers of a tone language, in which pitch is essential to meaning, choose to sing in that language. In cases where pitch is a significant part of both music and language, how do they interact? Does the lexical tone dictate or constrict the melody? Does melody override lexical tone so that lexical tone is not realized in music? Do they both somehow co-exist without affecting each other? This study examines the relationship between lexical tone and melodic pitch in Teotitlán del Valle Zapotec (TdVZ), an endangered tone language in the Otomanguean language family, presenting an open corpus of three songs in the popular music style by native speaker and musician Gario Ángeles. I find that there is no clear correlation between melody and tone; however, if tone does dictate melody in some way, it is clear that melodic urges and musical phrasing are prioritized.

The relevant corpus includes the studio-recorded versions of these three songs, solo vocal recordings, full spoken versions, and recordings of all lexical items found in the lyrics in lexical isolation. This study is especially valuable in that it develops a proposed methodology for studying the relationship between lexical tone and musical pitch in an underdocumented language with a complex tone system.
1.1. Teotitlán del Valle Zapotec

Teotitlán del Valle Zapotec, an endangered language of Oaxaca, Mexico, is a variety of Zapotec, a family of indigenous languages that belong to the larger Otomanguean family (Munro et al. 2007:6). While the exact number of Zapotec languages is unknown (Munro & Lopez et al. 1999:1), there are between eleven and sixty Zapotec languages spoken throughout the state of Oaxaca (Munro et al. 2007:4). Tlacolula Valley Zapotec is considered one language (ISO code [zab], Simons & Fennig 2017), spoken in several pueblos surrounding Tlacolula de Matamoros, including Teotitlán del Valle, whose variety is the subject of this study. This also includes, among others, San Lucas Quiavini, whose variety of Zapotec is used in this study for comparison. It is not clear that all varieties of Zapotec in the Tlacolula Valley should be classified as one language; in fact, TdVZ seems to be an outlier, based on my own experience with other Tlacolula Valley Zapotec language varieties, including San Lucas Quiavini Zapotec (SLQZ) and San Jerónimo Tlacochahuaya Zapotec.

**Figure 1: Map of Central Oaxaca (Uchihara & Gutiérrez 2016:5)**

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1 Refer to Figure 1 for a map of Central Oaxaca.
TdVZ is a relatively underdescribed variety of Zapotec, and thus relies in part on surrounding pueblos—specifically San Lucas Quiavini—Zapotee for a certain degree of support and comparison (see section 2.1). While a full description of the tone system of TdVZ is unavailable, this study begins to fill a significant gap in the scholarship by providing a preliminary analysis of the relationship between melodic pitch and lexical tone in a language of which such a question has never been asked. I demonstrate that it is not necessary to wait for an underdocumented language to become less so in order to ask deeper questions about the relationship between speech and music.

**FIGURE 2: CHURCH IN TEOTITLÁN DEL VALLE**

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1.2. Tone and Music

Many have studied the relationship between tone and tune in numerous tone languages and with foci on a variety of musical genres. Scholars seek a correlation between musical pitch and

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2 See Figure 2 for a photograph (taken by me) of the main church in Teotitlán del Valle.
lexical tone, using a range of criteria to determine what is considered a correlation. This raises the question of whether melody could be a sort of enhanced speech or whether its pitch and the pitch of lexical tone in a tone language are completely separate entities unable to be evaluated on the same plane. If a significant relationship between lexical tone and musical pitch is found, this could mean that melody is restricted by lexical tone, and must follow the contours of tone that exist in the language in order to preserve the meaning of the text. If a significant relationship is not found, this could mean that melody has its own importance and is not determined at all by lexical tone, leaving listeners to use context to infer meaning.

Of all relevant studies, there has been a wide range of results. Many find a significant relationship between tune and tone, slightly fewer find a non-significant relationship, and several find mixed results (Elliott 2017:3). Of these mixed results, those studies that consider musical genre a factor are perhaps more informative than the others, due to the supposed “speech-like” qualities of certain types of music. Rycroft (1979) finds a closer correspondence in sung poetry and war chants in SiSwati and Zulu, and less correspondence in such genres as modern church hymns, school songs, and popular music (Elliott 2017:4). Perhaps genres like sung poetry and war chants are types of music that have stemmed from speech more than modern genres of music that stray farther from speech. Saurman (1999) also finds mixed results with respect to genre: she finds a high correlation between tune and tone in classical or traditional Thai songs, and a lower correlation for contemporary music (Elliott 2017:4). List (1961) presents similar findings for Thai; of the three genres he studies, the popular songs show lower correspondence than recitations and traditional songs (Elliott 2017:5).

Schellenberg (2012:272) warns against concluding that genre impacts the results of these studies, as there is too little data to support such a claim. However, he notes that “as the [song’s] function becomes more focused on the music...the primacy of the language seems to decrease and that of music takes precedence” (Schellenberg 2012:272). Gibbon and colleagues (2011) propose a linear “Conventionality Scale,” a continuum from “conventional” (more music-like) genres to “natural” (more speech-like) genres. Despite the loaded nature of such classifications, as there is no reason that speech-like music is more natural than less speech-like music, this spectrum of the speech-like quality of music is helpful for studies of music and tone. Elliott (2017) applies this proposed scale to some of the previous studies mentioned above, with church hymns (Rycroft 1979), popular music (List 1961, Rycroft 1979), classical music (List 1961), and
children’s music (Blacking 1967) on the “conventional” side, and chanting (Rycroft 1979), mnemonic recitations (List 1961), war cries (Rycroft 1979), and gambling songs (Herzog 1934) on the “natural” side (Elliott 2017:6).

The musical repertoire in Valley Zapotec is limited (see section 1.3). While this study cannot compare genres of Valley Zapotec music, as the only available Valley Zapotec music appears to be in the popular style, it can and does present findings with this genre. The implications of the fact that, as in many languages, the popular music genre presents a low correlation between tune and tone do not necessarily indicate a low correlation in traditional music that may have existed in the precolonial period. Here I am able to comment on my findings in this particular repertoire by one artist.

Among the vast range of tone languages studied for their relationship between melody and lexical tone, this study is modeled at its foundation after a similar study in a related language. There are two studies of tone in an Otomanguean language in relation to music: Pike’s (1939) study of Mixtec, and Elliott’s (2017) re-analysis of Pike’s data and his own study of Chicahuaxtla Triqui. Pike concludes that melody is not influenced by lexical tone in Mixtec (Elliott 2017:7). Reviewing all of the melodic patterns that shape “The Flea” song (1939:128-129), he finds only one clear instance of what he calls an “interference of text tones” on the melody (1939:129). Refer to Figure 3 for an example from Pike’s research. He provides his own coding system of diacritics on all syllables for comparing the note and tone of one syllable to that of the one beforehand, but fails to provide a musical transcription of the song’s melody. He concludes that the song is driven by a consistent melodic pattern, which does not stray, and “which [is] inherent in itself [the melody], not caused by text tone interference” (Pike 1939:130). Interestingly, according to Pike, Spanish loan words are much more likely to affect the melodic pattern than are native words (Pike 1939:130). He does not use statistics for his study, but rather discusses his findings from an impressionistic standpoint.

Elliott criticizes Pike’s purely qualitative approach (i.e., without statistics) to the data on Mixtec music. According to Elliott, Pike does not use concrete evidence to reach his conclusions (Elliott 2017:8). Elliott recodes the data that gave Pike insignificant results, trusting Pike’s system of diacritics as opposed to a standard musical transcription (Elliot 2017:8). He finds, after using what he considers to be a more acceptable method for concrete evidence, a statistically significant, though still low, correlation between tune and tone in Pike’s data (Elliott 2017:9).
Based on Pike’s data, “lexical tone accounts for approximately 3.6% of the variation evidenced in the melody of ‘The Flea’.” This low correlation suggests that “lexical tone is secondary to the melody,” thus reaching the same conclusion (Elliott 2017:9).

**FIGURE 3: CODING OF PIKE’S DATA IN MIXTEC (1939:130)**

1a

| vai-rí kátá-rí nú ámigó-rí: |
| vai-rí kata-rí nú ámigó-rí |

*I come to sing to my friend*

In addition to his reanalysis of Pike’s data, Elliott analyzes the relationship between lexical tone and melodic tune in Chichahuaxtlá Triqui, which has five levels of tone (2017:11). This differs from the Mixtec that Pike studied, which has three tones (1939:128), and differs greatly from TdVZ. TdVZ has two tone levels, though presents complications because of its tone sandhi—changes to tone based on surrounding tones—and contour and phonation options (Uchihara & Gutierrez 2016:36). In order to analyze the relationship between tune and tone in Chichahuaxtlá Triqui, Elliott codes the notes in the melody the same way that he codes the lexical tone (2017:19). He codes each tone and note based on a comparison between the tone or note of that syllable and that of the one that comes before it (2017:19). He asks of each syllable whether its lexical tone is higher, lower, or the same as the tone of the syllable before it, then asks whether its melodic pitch is higher, lower, or the same as the note before it (2017:19). He then compares these lines of coding and provides a statistical analysis for it, concluding that, while statistically significant, “the relationship between lexical tone and melodic tune is relatively low in the children’s songs examined in this research” (2017:23). See Figure 4 for an example of Elliott’s coding system. Similarly to Pike, he concludes that “lexical tone frequently takes a second place to melodic tune” (Elliott 2017:23). He also notes that while contour tones are extremely common in the language, they are never mapped onto music as such (i.e., one syllable appearing across two or more different notes) (Elliott 2017:24).
1.3. Music in Valley Zapotec

Song in Zapotec, while rare in the Valley, is not uncommon in general. Artists such as Susana Harp and Lila Downs are known for singing in indigenous languages of Oaxaca. These artists’ work is, however, not useful to my particular study. While doing important work for the valorization of indigenous languages, Susana Harp and Lila Downs are not native speakers of Zapotec. My concern about what happens when speakers of tone languages sing has everything to do with their instincts as speakers of that language. It is essential, therefore, that the composer of the music study be a native speaker of the variety of Zapotec with which I am concerned. Additionally, much of Susana Harp’s and Lila Downs’s Zapotec music features lyrics in Isthmus Zapotec, a different language spoken in a region almost three hundred kilometers southeast of the Tlacolula Valley. Many native speakers sing and rap in Isthmus Zapotec, such as Badu Bazendu in Juchitán de Zaragoza. In the Tlacolula Valley, on the other hand, very few people sing in Zapotec.

Not only is there very little new music in Tlacolula Valley Zapotec, but there is no trace of traditional, pre-colonial music in Valley Zapotec preserved today. There is evidence of Valley Zapotec music during the colonial period (Tavárez 2005), but all knowledge of what traditional music sounded like has been lost with colonialism and Spanish conquest. I have not come across any music preserved in the oral tradition, such as lullabies or children’s songs. Thus, these new

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3 https://www.youtube.com/channel/UCDvdAx_uL5B7GN9O0dDRCBw
projects and genres of music in the Isthmus and Valley alike are the current face of Zapotec music.

Gario Ángeles, whose music is the subject of this study, is one of as few as four artists in the Tlacolula Valley composing music in Zapotec. Ángeles’s brother, Román Hipólito, who is also from Teotitlán del Valle, but has migrated to the United States, has written music in Zapotec as well. In addition, Serafin Martínez, a local teacher of Zapotec in Teotitlán del Valle, has written a song in Zapotec, which he intends to be used for dancing. He has not recorded this song, but was kind enough to share it with me in person. Outside of Teotitlán del Valle but still within the Tlacolula Valley district, Paola Hersan, a singer an artist from Santiago Matatlán, has recorded a bilingual song in Zapotec and Spanish entitled Zapoteca. Other than these four people, I have no knowledge of others singing in Zapotec in the Tlacolula Valley. However, even if there are twice or three times as many as I have found, the number is certainly low. Refer to Table 1 for a list of available music in Tlacolula Valley Zapotec.

<table>
<thead>
<tr>
<th>Artist</th>
<th>Hometown</th>
<th>Titles of Work(s)</th>
<th>Language(s)</th>
</tr>
</thead>
</table>
| Gario Ángeles  | Teotitlán del Valle | Rabante Luy  
                | Vainchieya te Lag  
                | Luy Naou                     | Zapotec (TdVZ) |
| Roman Hipólito | Teotitlán del Valle | Bedy Ngul                             | Zapotec (TdVZ)   |
| Serafin Martínez| Teotitlán del Valle | Unknown                             | Zapotec (TdVZ)   |
| Paola Hersan   | Santiago Matatlán | Zapoteca                             | Zapotec and Spanish |

As of August 2017, Gario Ángeles had recorded three songs in Zapotec: Rabante Luy ‘I miss you a lot’, Vainchieya te Lag ‘I wove a rug’, and Luy Naou ‘You Are’, with many others in the works, in various stages of preparation for a studio recording. In this study I focus on the first two songs, Rabante Luy and Vainchieya te Lag. It is significant culturally, geographically, and

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4 [https://www.youtube.com/watch?v=SLcZMJ4wBHQ&t=116s](https://www.youtube.com/watch?v=SLcZMJ4wBHQ&t=116s)
5 [https://www.youtube.com/watch?v=p-9aQHCbOhs](https://www.youtube.com/watch?v=p-9aQHCbOhs)
6 Two of these songs can be found on YouTube: [https://www.youtube.com/watch?v=ZAuGIY3ulfo](https://www.youtube.com/watch?v=ZAuGIY3ulfo)  
[https://www.youtube.com/watch?v=zxb1oy-rXs&t=17s](https://www.youtube.com/watch?v=zxb1oy-rXs&t=17s)
personally that all three of them have lyrics only in Zapotec. A further description of these songs, their meaning, and musical structure is explored in section 3.

1.4. Methodology and Data

Section 1.2 reviewed the results and methodologies employed in previous studies of the relationship between tune and tone in various tone languages. Such studies involve statistical analyses of quantitative data, in which each lexical item is weighted equally and compared to that item’s corresponding place in the melody. These scholars generally study languages with larger corpora of data, simpler tone systems or, even more likely, one whose tone and phonology has been documented extensively. The present study differs from the literature reviewed in section 1.2 in that it deals with a small corpus of only two songs, and in that the complex tone and phonology of TdVZ has not completely documented and analyzed (see section 2.1 for information on the tone system of TdVZ). In light of these supposed drawbacks, it is logical to ask what, if anything, can be done to ask these questions of music in an endangered language where we do have access to a rare example of music. I demonstrate that it is indeed worthwhile to examine such questions when presented with an underdocumented language whose tone system is not only underdescribed but certainly quite complex. Without a full understanding of the tone system of TdVZ, I cannot examine the tone/tune relationship of every single word in a song; however, I can apply a different approach of focusing on certain words whose tones are more clear (see section 2.2). This is intended as a proposed methodology for studying the relationship between lexical tone and musical pitch in an underdescribed language; it is unnecessary to wait for more description in order to begin to ask questions when presented with a musical repertory in the language.

The data in the present study includes the studio-recorded version of Rabante Luy, Vainchieya te Lag, and Luy Naou, as well as a casual solo vocal recording of each song sung by Gario Ángeles. This project’s data also includes spoken versions of each of these songs, one by Gario Ángeles himself and another by a different native speaker of TdVZ who is relatively familiar with Ángeles’s songs. This extensive corpus of carefully detailed Zapotec music will be publicly accessible. Presently, this is the only open data set of Valley Zapotec music available, if not Zapotec music in general. This study uses the first two songs, Rabante Luy and Vainchieya te Lag, for analysis of the relationship between lexical tone and musical pitch. See appendices A
and B for interlinear glosses of these two songs, as well as musical transcriptions I have created for the melody of the same two songs.

2. Tone Analysis

2.1. Tone in TdVZ

Exploring a relationship between lexical tone and melodic tone in TdVZ is different than in the cases described in Section 1.2 for several reasons. Because of this limited access to music in Valley Zapotec, my work is restricted to a comparatively underdescribed variety, as discussed in section 1.4. Uchihara and Gutierrez (2016) have offered a description of the tone system of TdVZ (2016), but this work is in the form of conference presentation, not a peer-reviewed article. The scope of this project does not allow for a comprehensive analysis of TdVZ’s tone system. I do, however, take the work of Uchihara and Gutierrez into account and use it as a starting point when analyzing the tones of the relevant lexical items in Ángeles’s music.

Uchihara and Gutierrez provide five categories of lexical tone in TdVZ: low level, low falling, high level, high falling, and rising (Uchihara & Gutierrez 2016:8). They argue that surface tone in TdVZ is different after phonemic tone undergoes changes due to phonological, morphological, and syntactic factors (Uchihara & Gutierrez 2016:14). They explain several factors that make it difficult to understand the tone system of TdVZ, despite the fact that they find only two levels. For example, the difference between certain categories such as low level and low falling is so subtle that it is difficult to distinguish without further information about the surrounding factors that contribute to tone changes (Uchihara & Gutierrez 2016:24). These subtle differences are not as relevant to this project as those differences that are more drastic, such as between low and high tones, or falling and rising, as a correlation or contradiction between lexical tone and melodic pitch would be far more interesting in these cases. They mention the uneven distribution of the categories as an obstacle as well: the low tone categories are much more prevalent than the high tone categories (Uchihara & Gutierrez 2016:29). They provide minimal pairs for the tone categories they have found. For example, they assign za ‘grease’ a low falling tone and za ‘cloud’ a low level tone (Uchihara & Gutierrez 2016:8). However, because they provide no larger corpus for reference for their research, such an analysis is not particularly useful for the data presented here.
Given this, it is important that I also do comparative work with a related form of Zapotec that is better described. The greatest resource to me in this area is the tone system of San Lucas Quiavini Zapotec (SLQZ). San Lucas Quiavini is a nearby Zapotec pueblo whose Zapotec is a closely related variety with some important phonological differences. Despite these differences, I use a detailed description of SLQZ (Munro & Lopez et al. 1999) to find and utilize reliable cognates whose tones clearly correlate with TdVZ. Below, I review the most reliable lexical items in each of the three songs with which I am working, along with the process by which I arrived at such conclusions. See appendix A and B for a proposed gloss of both songs, including those words whose phonemic tone is not clear based on the resources available.

Tone in SLQZ is analyzed such that phonation pattern, an additional articulatory feature based on the status of the glottis, determines tone. The phonation types that exist in SLQZ are plain, represented by a plain vowel (a); breathy, in which the glottis is more open, represented by a vowel followed by an h (ah); creaky, in which the glottis is more restricted, represented by a vowel with a grave accent (à); and checked, in which the vowel is followed by a glottal stop, represented by a vowel followed by an apostrophe (a’) (Munro & Lopez et al. 1999:33). In key—or, for the purpose of this study, stressed—syllables, there can be up to three vowels with any of the above phonation types. Munro et al. have found that phonation pattern determines tone in SLQZ; therefore, it is unnecessary to indicate tone in the orthography (1999:3). See Table 2 for examples of tones of words in SLQZ based on their phonation pattern. In SLQZ, plain vowels and checked vowels carry high tone, breathy vowels and creaky vowels carry low tone, and the combination of such vowel types have different tones depending on the specific pattern (Munro & Lopez et al. 1999:33). I consider the tone of the SLQZ cognates I find based on the vowel pattern given by Munro and Lopez in order to compare to the corresponding TdVZ lexical item. It is unknown whether TdVZ’s tone is determined by phonation type; this question is beyond the scope of this project, but I consider phonation type such as breathy, checked, and creaky voice as important factors that can be analyzed in relation to vocal music, and that can be compared with SLQZ cognates.

When discussing SLQZ cognates, I use the detailed phonemic orthography that Munro and Lopez (1999:33) provide. There is no standard orthography for TdVZ; in my discussion of TdVZ, I use the orthography adopted by Lillehaugen and Chávez Santiago et al. (2016), except for the titles of the songs, for which I use the exact titles from Gario Ángeles’s CD. TdVZ, like
other Zapotec languages, displays a phonological contrast between fortis and lenis consonants (Munro & Lopez et al. 1999:1). Most of the orthography follows IPA, with the exception of a few characters: there are two vowels represented by <e>, one corresponding with IPA and one closer to /e/; <x> represents /ʃ/; <y> represents /j/ word initially and the corresponding voiceless glide elsewhere; <ʾ> represents /ʔ/; <tx> represents /tʃ/; and <xh> represents /ʒ/. With the exception of intervocalic or word-final glottal stops <ʾ>, phonation type is not indicated in the orthography.

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Example</th>
<th>Tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>aa</td>
<td>syudaa ‘city’</td>
<td>high</td>
</tr>
<tr>
<td>a’</td>
<td>cha’t ‘kiss’</td>
<td>high</td>
</tr>
<tr>
<td>ah</td>
<td>zah ‘grease’</td>
<td>low</td>
</tr>
<tr>
<td>a’a</td>
<td>da’ad ‘father’</td>
<td>rising</td>
</tr>
<tr>
<td>àaa’</td>
<td>àaa’ ‘yes, that’s right’</td>
<td>rising</td>
</tr>
<tr>
<td>aa’</td>
<td>bax:aa’t ‘toad’</td>
<td>falling</td>
</tr>
<tr>
<td>àah</td>
<td>rzùahz ‘gets drunk’</td>
<td>falling</td>
</tr>
</tbody>
</table>

### 2.2. Isolated Items

With the lack of a full description of the tone and phonology system of TdVZ, one might suggest using surface tones to apply a similar method to Elliott (2016), comparing each tone to that before and after it (see section 1.2). However, as I have demonstrated in section 2.2, tone and phonation in SLQZ are closely tied up in complicated ways, and even if there are only two levels of tone, the vast number of combinations between phonation types suggests a complexity unable to be captured in a simple transcription of the surface tones for the words. Of course, TdVZ is by no means identical to SLQZ; however, Zapotec languages’ tone systems are notoriously complicated. Clearly, based on the analysis of SLQZ’s tone system (Munro & Lopez et al. 1999:33), a phonological understanding of a Zapotec language’s tone system is necessary in order to understand the surface tones of the concerned lexical items.

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7 Glottal stops are not considered a phoneme but part of the phonation type of the vowel. (Munro & Lopez et al. 1999:33)
Elliott (2017), whose study of another Otomonguean language with regard to music makes sense to use as a foundation, lays out a detailed methodology for his study on Triqui, mentioned in section 1.2. Certain elements of his methodology are useful to me; for instance, I use his comparative method between syllables’ tones/notes and the tone/note before them. Within this comparative method, I also compare parallel lines of music in search of similar tone patterns. However, it is important to note that this method may make more sense with the five-level tone system of Chicahuaxtla Triqui than a two-level tone system such as in Valley Zapotec. In addition, while Elliott’s statistical analysis is perhaps ideal for his own study, with controlled factors such as singer, age, and gender (Elliott 2017:12), it will not function well for the present study. The corpus is too small and does not have the capacity to represent a variety of speakers for a statistical analysis to function. It is possible also that, as in SLQZ, only key syllables carry the full set of possible tone contrasts, and there are limited options for tone contrasts in non-key syllables. Furthermore, there are many factors in a piece of music that cannot be explained by statistics, such as place within the phrase that a syllable occurs, rhythmic stress, or musical parallelism between related phrases. All of these factors with relation to tone warrant discussion, rather than a simple mathematical percentage of correspondence. Rather than choosing to use Elliott’s comparative method, I look specifically at the reliable isolated items mentioned above. I review these syllables in detail individually and in broad consideration with respect to the musical factors mentioned above.

Because it is not possible to understand the tone of every single word in the corpus of the present study, I propose a new method of determining the lexical tone of particular items from the songs and focusing on those in my analysis. This primarily involves the comparative use of the more described tone system of SLQZ. Table 3 and Table 4 consist of selected words for which I am confident about underlying tones, based on cognates in SLQZ. These items clearly share a similar tone and meaning, based on Munro & Lopez et al. (1999) and Lillehaugen et al. (2016a). A full table of lexical items from both songs with information about cognates in SLQZ can be found in appendices C and D.8 The items in Tables 3 and 4 are in the order in which they appear in the songs.

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8 In the table in the appendix, I provide the lexical item from the song in the order in which it appears, a proposed morphological gloss of the lexical item, and possible cognates from SLQZ, with relevant hyperlinks to the Talking Dictionaries and references to Munro and Lopez’s dictionary. I show the tone of the SLQZ cognates using
### TABLE 3: ISOLATED ITEMS IN RABANTE LUY

<table>
<thead>
<tr>
<th>TdVZ lexical item</th>
<th>TdVZ tone</th>
<th>SLQZ cognate</th>
<th>SLQZ tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 txi ‘when’</td>
<td>low</td>
<td>chih ‘when’</td>
<td>low</td>
</tr>
<tr>
<td>2 lui ‘you’</td>
<td>falling</td>
<td>liu’ ‘you’</td>
<td>falling</td>
</tr>
<tr>
<td>3 le’n ‘inside/stomach’</td>
<td>falling</td>
<td>làa’iny ‘inside/stomach’</td>
<td>falling</td>
</tr>
<tr>
<td>4 re’ ‘here’</td>
<td>falling</td>
<td>rée’ ‘here’</td>
<td>falling</td>
</tr>
<tr>
<td>5 sre’ ‘like this’</td>
<td>falling</td>
<td>rée’ ‘here’</td>
<td>falling</td>
</tr>
<tr>
<td>6 guk ‘when’</td>
<td>rising</td>
<td>gu’uc ‘when’</td>
<td>rising</td>
</tr>
<tr>
<td>7 te ‘so that’</td>
<td>high</td>
<td>tye ‘because, so that, since’</td>
<td>high</td>
</tr>
<tr>
<td>8 led ‘side’</td>
<td>high</td>
<td>laad ‘side’</td>
<td>high</td>
</tr>
<tr>
<td>9 nes ‘way, route’</td>
<td>low</td>
<td>nehehz ‘way, route’</td>
<td>low</td>
</tr>
<tr>
<td>10 txeky ‘back then’</td>
<td>high</td>
<td>chi’cy ‘then’</td>
<td>high</td>
</tr>
<tr>
<td>11 lau’ ‘your face’</td>
<td>falling</td>
<td>ioo’ ‘your face’</td>
<td>falling</td>
</tr>
</tbody>
</table>

All of the lexical items in Tables 3 and 4 are one syllable, with the exception of kulur, a loanword from Spanish “color”. As discussed, lexical tone is subject to change based on the tones of surrounding syllables, which presents a complex system of tone changes from lexical to surface tone. Tone can even be affected by surrounding syllables across word boundaries. The items in Tables 3 and 4 are reliable for phonemic tone in that, at least within a word, no surrounding syllables can affect the word’s tone. These words were recorded in lexical isolation, and as such, there is the possibility that in the entire spoken line of the song, changes in tone or phonation may arise. Tables 3 and 4, however, represent the surface tones of these morphologically simple words. All of these words, with the exception of sre’, have clear cognates in SLQZ with tones that seem to match. I believe sre’ to be made up of a morpheme s- and re (see Table 3).

Abbreviations underneath each syllable - R represents a rising tone, F represents falling, L represents low, and H represents high.
The majority of the words in Tables 3 and 4 have low or falling tone, which follows the pattern described by Uchihara and Gutierrez (2016:29). However, certain TdVZ items do not have the same phonation type as their SLQZ cognates. This is important to note because if phonation is different between SLQZ and TdVZ, it is possible that other elements, such as tone, might also be different. For example, TdVZ lui ‘you’ does not end in a checked vowel, whereas its cognate in SLQZ does. Also, TdVZ guk ‘when’ does not seem to be interrupted by a glottal stop, whereas its cognate in SLQZ is. Several of the examples in Tables 3 and 4 are simply unclear in phonation type, and will require further investigation to determine. However, most examples match in phonation type and, most significantly, in tone, if they do not match in

<table>
<thead>
<tr>
<th>TdVZ lexical item</th>
<th>TdVZ tone</th>
<th>SLQZ cognate</th>
<th>SLQZ tone</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 te ‘one’</td>
<td>high</td>
<td>te’ ‘one’ (fast speech)</td>
<td>high</td>
</tr>
<tr>
<td>13 kun ‘with’</td>
<td>low</td>
<td>cuahnn ‘with’</td>
<td>low</td>
</tr>
<tr>
<td>14 lau ‘your face’</td>
<td>falling</td>
<td>lòó’ ‘your face’</td>
<td>falling</td>
</tr>
<tr>
<td>15 kulur ‘color’</td>
<td>high</td>
<td>coloory ‘color’</td>
<td>high</td>
</tr>
<tr>
<td>16 ni ‘that’</td>
<td>low</td>
<td>nih ‘who, that’</td>
<td>low</td>
</tr>
<tr>
<td>17 txeky ‘back then’</td>
<td>high</td>
<td>chi’cy ‘then’</td>
<td>high</td>
</tr>
<tr>
<td>18 na ‘I, me’</td>
<td>falling</td>
<td>nàa’ ‘I, me’</td>
<td>falling</td>
</tr>
<tr>
<td>19 zeky ‘thus’</td>
<td>high</td>
<td>zi’cy ‘thus’</td>
<td>high</td>
</tr>
<tr>
<td>20 a ‘already’</td>
<td>high</td>
<td>a ‘already’</td>
<td>high</td>
</tr>
<tr>
<td>21 ru’u ‘mouth’</td>
<td>falling</td>
<td>ru’uh ‘mouth’</td>
<td>falling</td>
</tr>
<tr>
<td>22 gueu ‘river’</td>
<td>falling</td>
<td>guèu ‘river’</td>
<td>falling</td>
</tr>
<tr>
<td>23 lady ‘cloth’</td>
<td>low</td>
<td>lahdy ‘clothes’</td>
<td>low</td>
</tr>
<tr>
<td>24 lo ‘face’</td>
<td>low</td>
<td>lohoh ‘face’</td>
<td>low</td>
</tr>
<tr>
<td>25 txi ‘when’</td>
<td>low</td>
<td>chih ‘when’</td>
<td>low</td>
</tr>
<tr>
<td>26 ru’u ‘your mouth’</td>
<td>falling</td>
<td>ru’uh ‘your mouth’</td>
<td>falling</td>
</tr>
<tr>
<td>27 bi ‘air’</td>
<td>low</td>
<td>bihih ‘air’</td>
<td>low</td>
</tr>
</tbody>
</table>
phonation type. The words with a high or rising tone, such as te ‘so that,’ led ‘side,’ texky ‘back then,’ and guk ‘when’ are easier to distinguish. For this reason, I pay particular attention to these words and how they fit into the melody; what is the significance of the fact that they carry a less common tone than most of the other words?

No verbs are included in Tables 3 and 4. This is because they are more morphologically complex, with many interacting parts such as an aspect marker, a stem, a subject enclitic, and sometimes more. It is therefore unclear how certain elements such as subject enclitics affect the tone of the stem. However, several verbs from the song also have clear cognates in SLQZ, so I include them in the appendix, along with other more morphologically complex items, as a less reliable yet still relevant category of lexical items of use to me.

3. Applying the Isolated Items Approach

3.1. Rabante Luy

The title Rabante Luy, means ‘I miss you a lot.’ The song was inspired by a conversation Gario Ángeles overheard in the market in Teotitlán del Valle between two older Zapotec women (Gario Ángeles p.c.). One spoke of missing her husband because he was away, most likely in the United States. This is a common practice in Zapotec communities; families are often separated because of migration to the United States in order to find work (Stephen 2007). It is significant that this is a story Ángeles chose to represent in his native tongue. The song never uses the words rabante luy, but continuously asks the questions Guk gabiuu? Guk zuguau? ‘When will you return? When will you be home?’ The deep emotional connection between language and home is very prevalent here, and likely a reason that Ángeles revealed that he has been hesitant to translate his lyrics into Spanish for the benefit of the masses (Gario Ángeles p.c.). Figure 5 includes the lyrics and an English translation of Rabante Luy, provided with permission from Ángeles.

Rabante Luy is a strophic piece in D major; distinct sections of the text use the same returning musical material. This is reflected in the transcription, with verses that consist of two sets of repeated lines of text (sections A and B, appendix E). There is a pre-chorus that follows the same structure of repeated lines of text, but the melody changes for the second time around (sections C and D, appendix E). After the pre-chorus comes a refrain, consisting of two repeated
lines again, with an added tag on the end of the second set, ending the refrain on a dominant chord, resolving to the tonic with the beginning of the next verse (sections E, F, and G, appendix E). The following verse, pre-chorus, and final refrains follow the same pattern, with the final refrain repeating and ending again on the dominant, but this time only resolved to the tonic in the instrumental outro, rather than with the beginning of the next verse.

FIGURE 5: LYRICS AND TRANSLATION OF RABANTE LUY

Verse 1

A
Txi gabania tui, luisiu yu’u le’n kie. When I am waking up, only you are inside my head.
 Ketru rutiplazdia re zugua tuizia’a sre. I can’t handle being alone here like this anymore.

B
Txi gabania tui, luisiu yu’u le’n kie. When I am waking up, only you are inside my head.
 Ketru rutiplazdia re zugua tuizia’a sre. I can’t handle being alone here like this anymore.

Pre-chorus 1

C
Guk gabiuu? Guk zugua’u? When will you return? When will you be home?
 Te gazon led nes, nes nia dusö’n. So that we can walk down the road hand in hand.

D
Guk gabiuu? Guk zugua’u? When will you return? When will you be home?
 Te gazon led nes, nes nia dusö’n. So that we can walk down the road hand in hand.

Chorus 1

E
Ana xhixhite, yu’u le’n kie, Back then and every day, you are in my head.
 Ana xhixhite, reste sre. Back then and every day, I wake up like this.

F
Ana xhixhite, yu’u le’n kie, Back then and every day, you are in my head.
 Ana xhixhite, reste sre. Back then and every day, I wake up like this.

G
Ana xhixhite, ana xhixhite. Back then and every day, back then and every day.

Verse 2

H

9 Elements such as harmony will be addressed in Goldberg 2018.
I remember well back then, when we were together,
Very happily I wake up, when I see your face.

I remember well back then, when we were together,
Very happily I wake up, when I see your face.

Pre-chorus 2

When will you return? When will you be home?
So that I can hug you once, and kiss your mouth.

When will you return? When will you be home?
So that I can hug you once, and kiss your mouth.

Chorus 2

Back then and every day, you are in my head.
Back then and every day, I wake up like this.

Back then and every day, you are in my head.
Back then and every day, I wake up like this.

Back then and every day, back then and every day.

Chorus 3

Back then and every day, you are in my head.
Back then and every day, I wake up like this.

Back then and every day, you are in my head.
Back then and every day, I wake up like this.

Back then and every day, back then and every day.

Refer to Table 3 for a list of isolated items in Rabante Luy with their cognate information in SLQZ and their proposed tones in TdVZ. Below I examine each item with regard to its tone, its musical pitch, and its placement within the song. Figure 6 is the musical transcription of the first verse of the song, including the isolated items txi ‘when’, lui ‘you’ (as part of luisiu ‘only you’),
le’n ‘stomach/inside’, re’ ‘here’, and sre’ ‘like this’. The verses in this song consist of the first two lines repeated for the second two lines. This gives more examples of the same lexical items in the same or sometimes different melodic context.

**Figure 6: Musical Transcription of Verse 1 of Rabante Luy**

![Musical Transcription](image)

Refer to Figure 6 for a musical transcription of Verse 1 of Rabante Luy. Note that sections A and B contain almost identical musical material and text. Harmony and accompaniment is not indicated in the transcription, but such elements are also consistent between the two sections. For example, the very first word txi ‘when’, which has a low lexical tone, is realized first in measure 2 on an F-sharp, then (in the same melodic context) on a B in measure 6 at the end of section A. This wide discrepancy in pitch for the same word points to a lack of correlation between lexical tone and melody. The first time txi is sung suggests a consistency between its low lexical tone and the melodic pitch; txi with a low tone starts at an F-sharp and jumps up to a B for the next word, highlighting the low tone. However, it does not follow the same pattern when the same sequence of text occurs in measure 6. Next, lui- in luisiu in measures 5 and 7 has a falling lexical tone. Its melodic pitch does not fall; in fact, the word remains on the same note, D, for the entirety of the syllable. This is at the very bottom of the range of this passage, which would match the low tone of the syllable, if low and falling tones are treated the same way in music. It behaves the same way when the material is repeated in section B. Re’ and sre’ also both carry
falling tones. Re’ falls on an A within several repeated As in measure 5 and in its parallel place in measure 9, and does not fall in contour as its lexical tone does. Sre’, however, does fall on two notes, an E-sharp for the first part of the syllable, and an F-sharp for the second part, in measures 5-6 in section A and 9-10 in section B. Not only does this melodic contour rise rather than fall, as the lexical tone does, but the music also adds a vowel after the s- where there is not one lexically. In speech, sre’ is pronounced as one syllable, with sr- as the onset and -e the nucleus. The falling contour occurs entirely on the -e. This epenthesis of a new syllable for the music, with its very own neighbor-note melodic motion, also indicates the non-importance of not only tone, but other phonological features such as morae or syllable structure, for determining melody.

The next set of isolated items appears in the first pre-chorus, whose musical transcription can be found in Figure 7. They include guk ‘when’, te ‘so that’, led ‘side’, and nes ‘way’.

**Figure 7: Musical Transcription of Pre-chorus 1 in Rabante Luy**

Just as in the verses, the pre-choruses consist of repeated lines of text and music; the only difference in musical material between sections C and D is at the end of the respective sections. Section C ends in a musical question, answered by the end of section C with a melodic descent to the tonic of the piece. Guk has a rising lexical tone. It only uses one note in the music, so it cannot be rising in melody. It is, however, on a relatively high note for the range of the song. This musical phrase begins on a B at the start of section C, and gradually heads downward melodically to the end of the phrase, until jumping back up to guk for the first line’s repetition at section D. Guk appears in two different types of places in these lines, once at the beginning of the phrase in measure 11 in section C and 13 in section D, at the top of the melodic descent, and
once in the second sequence of the signature motif of this section halfway through measure 11 in section C and 13 in section D, already into the descent. Even though the lexical tone is rising, the next time guk appears in the song, it is lower than the note before it, as it is part of a grander melodic descent, as well as landing firmly on the tonic of the song by the end of section D. Led ‘side’ and nes ‘way’ are two isolated items that actually appear adjacent to one another in the music. Led has a high lexical tone while nes has a low tone. However, the relationship between these two words’ tones is not reflected in the melody. In measure 12 in section C and its parallel place in measure 14 in section D, led appears on an F-sharp, while nes appears on a G, so nes, with a low lexical tone, has a higher melodic pitch than led, with a high lexical tone.

Finally, a musical transcription for the last verse is provided in Figure 8. This includes the isolated items txeky ‘back then’, lau ‘your face’, and lui ‘you.’ Txeky has a high tone lexically; however, in the musical phrase, it occurs on an A after a string of Bs, which does not follow the expected pattern according to lexical tone. Txi ‘when’ returns, this time on a low note (D) compared to the rest of the phrase in measure 22 in section H and 26 in its parallel place in section I. Its low tone is reflected in the music. Lau ‘your face’ carries a falling lexical tone. However, both instances are represented musically on a sustained F-sharp at the end of a musical phrase, in measure 24 in section H and 28 in section I. There is no contour in pitch for the
melody; in fact, that it is a sustained note at the end of a phrase draws attention to its steady pitch. Thus far, melodic pitch does not seem to be determined or even influenced by lexical tone. If it is at all, there are certainly some restrictions regarding the importance of lexical tone on melody.

3.2 Vainchieya te Lag

Vainchieya te Lag details relevant cultural elements specific to the town of Teotitlán del Valle. Teotitlán del Valle is a town famous for its textiles, and in this song, Gario Ángeles outlines the weaving process, while also connecting it to the general romantic theme tying together not only all of his music but also to the romantic popular music style. The rhythmic pulse is built on the sounds of an actual loom recorded in the song, aurally reflecting the content of the piece. In the lyrics, provided below, he describes the process of weaving a rug with the image of his beloved’s face. This exemplifies a hybridity of a western popular music style (in content and musical form) and local Zapotec culture (through text and larger themes).

Vainchieya te Lag ‘I wove a rug’ is also a strophic piece. It is in C major, with two verses and refrains between them. These verses (sections A, B, E, and F, appendix F), are made up of parallel pairs of musical lines, and the refrains (sections C, D, G, and H, appendix F), consist of a sequencing melody pointing downward until the line srute nau ‘how beautiful you are.’ Every time the refrain occurs, it repeats, and involves extra repetitions of srute nau the second time in each refrain. After the final refrain, the A section returns but for only one line, ending unexpectedly. According to Ángeles, there were plans for a continuation of this song, and this was not meant to be the final version. Figure 9 includes the lyrics and English translation of Vainchieya te Lag.

**Figure 9: Lyrics and Translation of Vainchieya te Lag**

**Verse 1**

A

Banytxieya te laj cun lau, I wove a rug with your face,  
Gudie kulur ni rini xcalnau. I dyed the color that speaks of how you are.

B

Banytxieya te laj cud cau, I wove a rug where you are,  
Gudie culur ni rini xkalnou. I dyed the color that speaks of how you are.
Chorus 1

C
Axtxekyte rinidan na,  Since way back then they have told me,
Ana rinidan zeky,     They tell me it's true,
Sruta nau.           How beautiful you are.

D
Axtxekyte rinidan na,  Since way back then they have told me,
Ana rinidan zeky,     They tell me it's true,
Sruta nau.           How beautiful you are.
Sruta nau.           How beautiful you are.

Verse 2

E
A basa rugueu, guatibia du.  I returned from the riverbank, I went to wash the thread.
Gulesa ladi bania ganili.   I lifted the rug, I made the bobbin.

F
Basabtxeya lady, biua lo traly. I prepared the warp, I placed it on the loom.
Txi bizunia ru' u baguba bi. When I reached your mouth, I took in air.
Baguba bi.                   I took in air.

Chorus 2

G
Axtxekyte rinidan na,  Since way back then they have told me,
zekyka rinidan txeky, So they have told me then,
Srute nau.           How beautiful you are.

H
Axtxekyte rinidan na,  Since way back then they have told me,
Ana rinidan zeky,     They tell me it's true,
Srute nau.           How beautiful you are.
Srute nau.           How beautiful you are.
Srute nau.           How beautiful you are.

Coda

I
A babe te laj kud kau.   I already finished a rug where you are.

As I did with the isolated items in Rabante Luy, I now focus on those words with reliable cognates in Vainchieya te Lag (see Table 4) with regard to their tone, their musical pitch, and
their context within the musical phrasing. Figure 10 illustrates the musical transcription of the first verse of the song, including the isolated items *te* ‘one’, *kun* ‘with’, *lau* ‘your face’, *kulur* ‘color’, and *ni* ‘that’.

**FIGURE 10: MUSICAL TRANSCRIPTION OF VERSE 1 OF VAINCHIEYA TE LAG**

Much of this melody consists of repeated notes on the same musical pitch until the next chord change. For this reason, we cannot gain much useful information about *te*, which has a high lexical tone, without knowing the tones of the surrounding syllables, as this note is no different from the surrounding notes. However, the next pair of isolated items, *kun* and *lau* occur right next to each other on the same musical note, G. *Kun* ‘with’ has a low lexical tone and *lau* ‘face’ has a falling lexical tone. These do happen a fourth lower than the C which held *te*. The key syllable of *kulur*, the second syllable, has a high lexical tone as well. It also happens on a C, which matches the pitch of the previous high-toned reliable cognate, *te*. Finally, *ni* has a low lexical tone, and occurs on a lower pitch than the high-toned isolated items before it, an A. Based on this small amount of evidence, using the reliable cognate approach, it would seem that this song shows a higher correlation between musical pitch and lexical tone. However, since we do not have further information at this time about the lexical tones of the surrounding syllables, it is impossible to determine how these isolated items’ tones compare to those surrounding them, as there is not much melodic variation between pitches within musical phrases.
I turn to an instance of the refrain, represented in Figure 11. The refrain consists of two repeated lines of music and text, with the last line of text srute nau ‘how beautiful you are’ repeated several times. The isolated items txeky ‘back then’, na ‘me’, and zeky ‘thus’ are present in this passage of music. The musical material here consists of a strong drive downward from measure 32 in section G and measure 36 in H, starting on an E, to an A in measure 32 in section G and measure 39 in section H. txeky ‘back then’ has a high lexical tone, and, consistent with its tone, appears on the highest note of the musical phrase. na ‘me’ has a falling tone, and does not appear on more than one note. It is, however, part of a larger descending melodic phrase, so it is possible that the falling nature of the lexical tone is represented not within the single note, but rather on a grander scale in context. However, inconsistent with its lexical tone is the note on which zeky ‘thus’ is sung in measure 33 in section G and in measure 37 in section H. zeky ‘thus’ has a high tone, and yet occurs at the end of the two-measure descending musical phrase. This suggests that, in this case, the musical sequencing takes precedence over any possible correlation between lexical tone and melody.

Finally, I consider the second and final verse of Vainchieya te Lag, represented in Figure 12, which consists of the same musical material and structure as the first verse, with the exception of an added measure and repetition of baguba bi ‘I took in air’ in measure 30, a dramatic moment before the return of the refrain.
The second verse includes the isolated items ‘already’, ‘mouth’, ‘river’, ‘cloth’, ‘face’, ‘when’, ‘your mouth’, and ‘air’. The melody, as in the first verse, does not consist of much melodic variation, remaining on or around C for half of each measure and then on the G below that C for the second half of the measure. The placement of ‘already’ is a noteworthy; it functions as a pick-up note into measure 23 in section E. It jumps from a G to a C for the next measure. This low note preceding a higher note does not match the high lexical tone of ‘already’. It makes an appearance at the end of the song in almost the exact same context, acting as a low pick-up note to a higher note in the next measure (see Appendix F, section I). The rest of the isolated items in this passage are either low or falling; ‘mouth’, ‘river’, and ‘your mouth’ having a falling tone; and ‘cloth’, ‘face’, ‘when’, and ‘air’ having a low tone. None of these words are split into more than one note, so a true falling tone represented in the music is not possible. As for the words with a low tone, ‘cloth’ happens at the top of the range of this musical phrase, after a string of repeated Cs, in measure 27 in section F, as does ‘your mouth’ in measure 29. ‘Face’ and ‘when’, which also have low tones, do occur on an F-sharp in measure 27 and a G in measure 28, both in section F. These are low notes in comparison.
to others, but they seem to simply follow the musical pattern outlined above, alternating by half-measure between notes surrounding C and notes surrounding G.

4. Conclusion

This study set out to determine whether lexical tone is represented in music in TdVZ, based on a corpus of two songs recorded in TdVZ by Gario Ángeles. Without a large or varied enough corpus of data for a statistical analysis of all surface tones to be informative, this paper has led a discussion-based approach based on carefully chosen isolated items in each song whose tone is clear. This method has been especially valuable because of the lack of availability of a fully described analysis of such a complex tone system. While there are some instances in which tone and melody do match, there is a noteworthy number of instances where the relationship is unclear because there is little change in the melody, and some instances where the melody is the exact opposite of what one would expect in looking for a correlation between tone and pitch. In light of these results, I do not find a major correlation between melody and lexical tone. It is unclear whether the instances of a correlation between lexical tone and melody are by chance or an effect of lexical tone on the melody; however, there are so few instances that whether tone has an effect at all, it is clear melodic drive and other musical factors have such a strong influence that they take precedence regardless.

In investigating this question, this study documented the words of three TdVZ songs in different formats: full studio-recordings, casual solo vocal performance, full spoken versions by two different speakers, and spoken versions of the words in lexical isolation. These are available publicly (cite AILLA). This study has also proposed a methodology for studying the relationship between lexical tone and melody in an underdocumented language with a complex tone system, in which the researcher identifies certain isolated lexical items whose tones are most clear, and focuses on those items regarding their tone, the melody, and the relevant musical context.

Further research might examine this issue using a larger corpus of data. Not only have I not analyzed Luy Naou, the third song Ángeles has recorded, but he is still writing music and has plans to finish an album. Additionally, future researchers might analyze the other examples of Valley Zapotec music (see section 1.3) through a similar lens. Future studies could examine elements such as phonation and rhythmic stress closely and their realization or lack thereof in music, which will help to inform us of what types of elements, including tone, are essential to be
preserved in music. By casual observation I have noticed evidence that points to a lack of importance in music of such elements as phonation and syllabic stress in music; however, this is an area that has much more room for analysis by future studies. The implications of this study, separate from the results, indicate that it is not necessary to have access to a fully described tone and phonation system in order to ask and answer questions about the interaction between words and music.
Appendices

A. Rabante Luy with Interlinear Gloss

Verse 1

A

<table>
<thead>
<tr>
<th>Txi</th>
<th>gabania</th>
<th>tui, luisiu</th>
<th>yu’u</th>
<th>le’n</th>
<th>kie,</th>
</tr>
</thead>
<tbody>
<tr>
<td>txi</td>
<td>ga-bani=a</td>
<td>tui luisi=u</td>
<td>Ø-yu’=u</td>
<td>le’n</td>
<td>kie=e</td>
</tr>
</tbody>
</table>

When I am waking up, only you are in my head.

Ketru rutiplazdia re zugua tuizia’a sre.

ket-ru ru-tip-laz-di=a re z-ugua=a tui-z=ti=a sre

NEG-more HAB-strong-heart-PT=1s here DEF-stay=1s one-only=1s like.this

I can’t handle being here alone like this anymore.

B

<table>
<thead>
<tr>
<th>Txi</th>
<th>gabania</th>
<th>tui, luisiu</th>
<th>yu’u</th>
<th>le’n</th>
<th>kie,</th>
</tr>
</thead>
<tbody>
<tr>
<td>txi</td>
<td>ga-bani=a</td>
<td>tui luisi=u</td>
<td>Ø-yu’=u</td>
<td>le’n</td>
<td>kie=e</td>
</tr>
</tbody>
</table>

When I am waking up, only you are in my head.

Ketru rutiplazdia re zugua tuizia’a sre.

ket-ru ru-tip-laz-di=a re z-ugua=a tui-z=ti=a sre

NEG-more HAB-strong-heart-PT=1s here DEF-stay=1s one-only=1s like.this

I can’t handle being here alone like this anymore.

Pre-chorus 1

C

<table>
<thead>
<tr>
<th>Guk</th>
<th>gabiuu?</th>
<th>Guk</th>
<th>zugua’u?</th>
</tr>
</thead>
<tbody>
<tr>
<td>guk</td>
<td>ga-biu=u</td>
<td>guk</td>
<td>z-ugua-u</td>
</tr>
</tbody>
</table>

When will you come back? When will you be home?

Te gazon led nes, nesnia duso’n.

te g-az=on led nes nes-nia d-us=0’n

so.that IRR-walk=1p side way grab-hand 1p-=1p

So that we can walk down the road holding hands.

---

10 Note that all of the repetition in these lyrics is included in the gloss. Repetition is an important part of the oral tradition of Otomanguean languages (Anderson 1993); see section 5.2.
When will you come back? When will you be home?

So that we can walk down the road holding hands.

Every day, you are inside my head,

Every day, you I wake up like this.

Every day, every day.

Chorus

E

Ana xhixhite, yu’u le’n kie,
A-na xhi-xhi-te Ø-yu’=u le’n kie
already-long time day-day EMPH STA-be inside=2s stomach/inside head=1s

Every day, you are inside my head,

Ana xhixhite, reste sre.
A-na xhi-xhi-te r-est=e s-re
already-long time day-day EMPH HAB-get.up=1s ?-here

Every day, you I wake up like this.

F

Ana xhixhite, yu’u le’n kie,
A-na xhi-xhi-te Ø-yu’=u le’n kie
already-long time day-day EMPH STA-be inside=2s stomach/inside head=1s

Every day, you are inside my head,

Ana xhixhite, reste sre.
A-na xhi-xhi-te r-est=e s-re
already-long time day-day EMPH HAB-get.up=1s ?-here

Every day, you I wake up like this.

G

Ana xhixhite, ana xhixhite.
A-na xhi-xhi-te a-na xhi-xhi-te
already-long time day-day EMPH already-long time day-day EMPH

Every day, every day.
Verse 2

I

Ranalaste txeky, txi zuguo’n rupun,
ran-a-la-te txeky txi z-ugu-o’n r-up-un
HAB-know-heart-emph back.then when DEF-stay-2p HAB-two-2p
I remember well back then, when we were together.

Axt nasa’a reste, txi rugie lau.
ax-t na-sa=a r-est=e txi r-ugie la-u
very STA-be.happy=1s HAB-get.up=1s when HAB-see=1s face=2s
Very happily I woke up, when I saw your face.

Pre-chorus 2

J

Guk gabiuu? Guk zugua’u?
guk ga-biu=u guk z-ugua-u
when IRR-return=2s when DEF-stay-2s
When will you come back? When will you be home?

Te ke’eza’a te lui, gaua te ru’u.
te ke’e-za=a te lui g-au=a te ru-u
so.that IRR-hug=1s one you IRR-eat=1s one mouth=2s
So that I can hug you once more, kiss your mouth once more.

K

Guk gabiuu? Guk zugua’u?
guk ga-biu=u guk z-ugua-u
when IRR-return=2s when DEF-stay-2s
When will you come back? When will you be home?
Te ke’eza’a te lui, gaua te ru’u.

so that I can hug you once more, kiss your mouth once more.

Chorus

L

Ana xhixhite, yu’u le’n kie,
A-na xhi-xhi-te Ø-yu’=u le’i ki=e
Every day, you are inside my head.

Ana xhixhite, reste sre.
A-na xhi-xhi-te r-est=e s-re
Every day, you I wake up like this.

M

Ana xhixhite, yu’u le’n kie,
A-na xhi-xhi-te Ø-yu’=u le’i ki=e
Every day, you are inside my head.

Ana xhixhite, reste sre.
A-na xhi-xhi-te r-est=e s-re
Every day, you I wake up like this.

N

Ana xhixhite, ana xhixhite.
A-na xhi-xhi-te a-na xhi-xhi-te
Every day, every day.

Chorus

O

Ana xhixhite, yu’u le’n kie,
A-na xhi-xhi-te Ø-yu’=u le’i ki=e
Every day, you are inside my head,
Ana xhixhite, reste sre.
A-na xhi-xhi-te r-est=e s-re
already-long.time day-day-EMPH HAB-get.up=1s ?-here

Every day, you wake up like this.

P
Ana xhixhite, yu'u le'n kie,
A-na xhi-xhi-te Ø-yu'=u le'n ki=e
already-long.time day-day-EMPH STA-be.inside=2s stomach/inside head=1s

Every day, you are inside my head.

Q
Ana xhixhite, ana xhixhite.
A-na xhi-xhi-te a-na xhi-xhi-te
already-long.time day-day-EMPH already-long.time day-day-EMPH

Every day, every day.
B. *Vainchieya te Lag* with Interlinear Gloss

**Verse 1**

A

<table>
<thead>
<tr>
<th>Banytxieya</th>
<th>te</th>
<th>laj</th>
<th>kun</th>
<th>lau,</th>
</tr>
</thead>
<tbody>
<tr>
<td>b-ain-txiey-a</td>
<td>te</td>
<td>laj</td>
<td>kun</td>
<td>la-u</td>
</tr>
</tbody>
</table>

PERF-make-with.care-1s one sheet with face-2s

*I wove a rug with your face.*

<table>
<thead>
<tr>
<th>Gudie</th>
<th>kulur</th>
<th>ni</th>
<th>rini</th>
<th>xkalnau.</th>
</tr>
</thead>
<tbody>
<tr>
<td>g-udi-e</td>
<td>kulur</td>
<td>ni</td>
<td>r-i-ni</td>
<td>x-kal-na-u</td>
</tr>
</tbody>
</table>

PERF-dye-1s color REL HAB-speak-3s POSS-?-be-2s

*I dyed a color that speaks of how you are.*

B

<table>
<thead>
<tr>
<th>Banytxieya</th>
<th>te</th>
<th>laj</th>
<th>kud</th>
<th>kau,</th>
</tr>
</thead>
<tbody>
<tr>
<td>b-ain-txiey-a</td>
<td>te</td>
<td>laj</td>
<td>kud</td>
<td>k-a-u</td>
</tr>
</tbody>
</table>

PERF-make-with.care-1s one sheet where ?-be-2s

*I wove a rug where you are.*

<table>
<thead>
<tr>
<th>Gudie</th>
<th>kulur</th>
<th>ni</th>
<th>rini</th>
<th>xkalnau.</th>
</tr>
</thead>
<tbody>
<tr>
<td>g-udi-e</td>
<td>kulur</td>
<td>ni</td>
<td>r-i-ni</td>
<td>x-kal-na-u</td>
</tr>
</tbody>
</table>

PERF-dye-1s color REL HAB-speak-3s POSS-?-be-2s

*I dyed the color that speaks of how you are.*

**Chorus 1**

C

<table>
<thead>
<tr>
<th>Axtxekyte</th>
<th>rinidan</th>
<th>na,</th>
</tr>
</thead>
<tbody>
<tr>
<td>ax-txeky-te</td>
<td>ri-ni-dan</td>
<td>na</td>
</tr>
</tbody>
</table>

since-back.then-EMPH HAB-speak-3p 1s

*Since way back then, they have told me.*

<table>
<thead>
<tr>
<th>Ana</th>
<th>rinidan</th>
<th>zeky,</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-na</td>
<td>ri-ni-dan</td>
<td>zeky</td>
</tr>
</tbody>
</table>

already-long.time HAB-speak-3p thus

*So they tell me,*

<table>
<thead>
<tr>
<th>Sruta</th>
<th>nau.</th>
</tr>
</thead>
<tbody>
<tr>
<td>sru-ta</td>
<td>n-a-u</td>
</tr>
</tbody>
</table>

pretty-EMPH STA-be-2s

*How beautiful you are.*
Since way back then, they have told me.

They tell me it’s true.

How beautiful you are.

I already came back from the river to wash the thread.

I lifted the rug, I made the bobbin.

I prepared the warp, I placed the rug on the loom.

When I reached your mouth, I took in air.
Baguba bi.
b-agub=a bi
PERF-suck=1s air
I took in air.

Chorus 2

G

Axtxekyte rinidan na,
ax-txeky-te ri-ni-dan na
since-back.then-EMPH HAB-speak-3p 1s
Since way back then, they have told me.

Zekyka rinidan txeky,
zeky-ka ri-ni=dan txeky,
thus-EMPH HAB-speak=3p back.then
So they have told me.

Sruta nau.
sru-ta n-a-u
pretty-EMPH STA-be-2s
How beautiful you are.

H

Axtxekyte rinidan zeky,
a-txeky-te ri-ni-dan zeky
since-back.then-EMPH HAB-speak-3p indeed true
They tell me it’s true,

Sruta nau.
sru-ta n-a-u
pretty-EMPH STA-be-2s
How beautiful you are.
How beautiful you are.

I already finished the rug where you are.
### C. Rabante Luy Words\(^{11}\) with SLQZ Cognates\(^{12}\)

<table>
<thead>
<tr>
<th>TtVZ(^{13})</th>
<th>Gloss</th>
<th>SLQZ Cognate(s)(^{14})</th>
</tr>
</thead>
<tbody>
<tr>
<td>txi</td>
<td>txi when ‘when’</td>
<td>chi ([chih]) L(^{15})</td>
</tr>
<tr>
<td>gabania</td>
<td>ga-bana=a PROG-wake.up=1s ‘I am waking up’</td>
<td>rbany ([rbahnny]) (HAB) L rbå’a’nya’ (HAB 1s) (Munro &amp; Lopez et al. 1999:220) F H</td>
</tr>
<tr>
<td>tui</td>
<td>tui one ‘one’</td>
<td>teiby ([te’ihby]) F</td>
</tr>
<tr>
<td>luisiu</td>
<td>lui-si=u you-only=2s ‘only you’</td>
<td>liu ([liu]) ‘you’ F lii’zyuu’ ‘only you’ (Munro et al. 154) F F</td>
</tr>
<tr>
<td>yu’u</td>
<td>Ø-yu’=u? STA-be.contained=2s ‘you are inside’</td>
<td>ru ([ru’uh]) (HAB) F ru’uu’ (2s) (Munro et al. 304) F ru’yu’u’ (2s) (Munro 304) H F</td>
</tr>
<tr>
<td>le’n</td>
<td>le’n stomach/inside ‘inside’</td>
<td>lany ([laa’any]) F làa’iny (Munro 446) F</td>
</tr>
<tr>
<td>kie</td>
<td>ki-e head-1s ‘my head’</td>
<td>N/A</td>
</tr>
<tr>
<td>ketru</td>
<td>ket-ru neg-still ‘no more’</td>
<td>queity ([gue’ity]) ‘not’ (Munro 204) R</td>
</tr>
</tbody>
</table>

\(^{11}\) The words are in the order in which they appear in the songs. Repeat words are not included in this table.

\(^{12}\) SLQZ cognates are given, sometimes with more than one possible cognate. In some cases, two different aspects or persons are available, or different parts of the word are available, in which I have included both for the benefit of the reader.

\(^{13}\) This column includes, when available, links to audio on the Tecuitlán del Valle Talking Dictionary (Lillehaugen et al. 2016a), spoken by Gario Angeles.

\(^{14}\) This column includes, when available, links to audio on the San Lucas Quiavini Talking Dictionary (Lillehaugen et al. 2016b), and references to Munro & Lopez et al. 1999.

\(^{15}\) L represents a low tone, F represents a falling tone, R represents a rising tone, and H represents a high tone. This information is based on Munro and Lopez and colleagues’ (1999:4-5) analysis of tone based on phonation type.
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Notes</th>
</tr>
</thead>
</table>
| rueplasdia | ru-tip-laz-di=a  
HAB-?-heart-NEG=1s  
‘handle’ | laz [lāːa’z] ‘heart’  
F  
rtynampláa’z ‘puts a lot of effort into’ (Munro & Lopez et al. 1999:285)  
L  
F |
| re     | re  
here  
‘here’ | re [rèe’]  
F |
| zugua  | z-ugua=a  
DEF-stay=1s  
‘I stay’ | rzugwa [rzugwa’ah] ‘stands (in a location)’  
F  
sugwa’ah (DEF) (Munro & Lopez et al. 1999: 317)  
H  
F |
| tuizia’a | tui-si=a  
one-only=1s  
‘only me’ | teiby [te’iiba]  
F  
te’iibhyihzy ‘only’ (II 466)  
F  
L  
nàa’zya ‘only me’ (II 458)  
F  
H |
| sre    | s-re?  
?-here?  
‘like this’ | re [rèe’] ‘here’  
F |
| guk    | guk  
when  
‘when’ | Guc bzenyu na? [gu’uc bze’ennyii’ nah ?]  
R  
‘when did you arrive?’  
u’uc, gu’uc ‘when’ (Munro & Lopez et al. 1999:349)  
R  
R |
| gabiuu | ga-biu-u  
irr-return=2s  
‘you will return’ | ricy [ri’iiba] ‘return’  
F  
rbii’ih, ri’iiba, rzi’iiba ‘returns’ (Munro & Lopez et al. 1999: 477)  
F  
F  
F |
| zuguo’u | z-uguo=u  
def-stay=2s | rzugwa [rzugwa’ah]  
F  
sugwa’ah (DEF) (Munro & Lopez et al. 1999: 317)  
H  
F |
| te     | te  
so.that  
‘so that’ | tan [ta’aam] ‘because’  
R  
tyen [tye’nn] ‘because, so that’  
H  
tye ‘because, so that, since’ (fast speech of tyen) (Munro & Lopez et al. 1999: 346, 400)  
H |
| gazon  | g-az-on  
irr-walk=1p | rza [rzah] ‘walk’ (HAB)  
L |
<table>
<thead>
<tr>
<th>led</th>
<th>led side 'side' steby lad lany dyeni [steeby laad làa'ány] 'on the other side of that store laad 'side' (Munro &amp; Lopez et al. 1999: 142)</th>
</tr>
</thead>
<tbody>
<tr>
<td>nes</td>
<td>nes way 'way' nez [ne'ehz] nehehz 'way, route' (Munro &amp; Lopez et al. 1999: 175)</td>
</tr>
<tr>
<td>nes</td>
<td>nes ?-hold 'hold (hands)' rnnàa'az 'grabs; touches' (Munro &amp; Lopez et al. 1999: 276)</td>
</tr>
<tr>
<td>nia</td>
<td>nia-a hand-1s 'my hand' na [nnāā'ą̂] 'hand'</td>
</tr>
<tr>
<td>duso'n</td>
<td>d-us-o'n 1p-?-1p N/A</td>
</tr>
<tr>
<td>ana</td>
<td>a-na already-long.time 'For a while' a 'already, now'</td>
</tr>
<tr>
<td>xhixhite</td>
<td>zhi-zhi-te day-day-EMPH 'every day' zhi [zh:ih] 'day' -tée` 'often, a lot; really, too' (Munro &amp; Lopez et al. 1999: 342)</td>
</tr>
<tr>
<td>reste</td>
<td>re-ste=e HAB-get.up=1s 'I get up' risti [rihstii] 'get up (out of bed)' rihsia' (1s) (Munro &amp; Lopez et al. 1999: 264)</td>
</tr>
<tr>
<td>ranalaste</td>
<td>r-ana-laz-te HAB-know-heart-EMPH 'I remember well' rnalaz [rnahllàà'a'z] -tée` 'often, a lot; really, too' ?? (Munro &amp; Lopez et al. 1999: 342)</td>
</tr>
<tr>
<td>txeky</td>
<td>txeky back.then 'back then' chiey [ch'i'cy] 'then'</td>
</tr>
<tr>
<td>zuguo'n</td>
<td>zu-gu=on DEF-stay=1p 'we will stay' rzugwa [rzugwa'ah] sugwa'ah (DEF) (Munro &amp; Lopez et al. 1999: 317)</td>
</tr>
<tr>
<td>rupun</td>
<td>tup=un two=1p 'both of us' vyropta, ropta [vyro'pta, ro'pta] 'the two of, both of' yro’p, ro’p (Munro &amp; Lopez et al. 1999: 368)</td>
</tr>
<tr>
<td>axt</td>
<td>axt</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td>very</td>
</tr>
<tr>
<td>nasa’a</td>
<td>na-sa=a</td>
</tr>
<tr>
<td></td>
<td>reyetlaz</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>rugie</td>
<td>r-ugi=e</td>
</tr>
<tr>
<td></td>
<td>rigan</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>lau</td>
<td>lo=u</td>
</tr>
<tr>
<td></td>
<td>lo [loho]</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>ke'ez'a</td>
<td>ke-za=a</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
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<tr>
<td>le</td>
<td>te</td>
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<td></td>
</tr>
<tr>
<td>lui</td>
<td>lui</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>gaua</td>
<td>g-au=a</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>ru'u</td>
<td>ru=u</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### D. Vainchieya te Lag Words with SLQZ Cognates

<table>
<thead>
<tr>
<th>TdVZ</th>
<th>Gloss</th>
<th>SLQZ cognates</th>
</tr>
</thead>
<tbody>
<tr>
<td>banytxieya</td>
<td>b-any-txiey-a</td>
<td>te' 'one' (fast speech) (Munro 339)</td>
</tr>
<tr>
<td></td>
<td>PERF-make-with.care-1s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘I wove’</td>
<td></td>
</tr>
<tr>
<td>te</td>
<td>te</td>
<td></td>
</tr>
<tr>
<td></td>
<td>one</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘one’</td>
<td></td>
</tr>
<tr>
<td>laj</td>
<td>laj</td>
<td></td>
</tr>
<tr>
<td></td>
<td>sheet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘rug’</td>
<td></td>
</tr>
<tr>
<td>kun</td>
<td>kun</td>
<td>cuan[cuahmn] ‘with’</td>
</tr>
<tr>
<td></td>
<td>with</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td>‘with’</td>
<td>quën[quehmn] ‘with’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>L</td>
</tr>
<tr>
<td>lau</td>
<td>la-u</td>
<td>lüo’ (2s) (Munro 156)</td>
</tr>
<tr>
<td></td>
<td>face-2s</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td>‘your face’</td>
<td></td>
</tr>
<tr>
<td>gudie</td>
<td>g-udi-e</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PERF-dye-1s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘I dyed’</td>
<td></td>
</tr>
<tr>
<td>kulur</td>
<td>kulur</td>
<td>rcwa color[rcwaa’ah coloroy]</td>
</tr>
<tr>
<td></td>
<td>color</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>‘color’</td>
<td>paint</td>
</tr>
<tr>
<td>ni</td>
<td>ni</td>
<td>ni[nih] ‘who, that, which’</td>
</tr>
<tr>
<td></td>
<td>REL</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td>‘that’</td>
<td></td>
</tr>
<tr>
<td>rini</td>
<td>ri-ni</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HAB-speak</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘speaks’</td>
<td></td>
</tr>
<tr>
<td>xkalnau</td>
<td>x-kal-na-u</td>
<td></td>
</tr>
<tr>
<td></td>
<td>POSS?-be-2s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘how you are’</td>
<td></td>
</tr>
<tr>
<td>kud</td>
<td>kud</td>
<td></td>
</tr>
<tr>
<td></td>
<td>where</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘where’</td>
<td></td>
</tr>
<tr>
<td>kau</td>
<td>k-a-u</td>
<td></td>
</tr>
<tr>
<td></td>
<td>?-be-2s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘you are’</td>
<td></td>
</tr>
</tbody>
</table>

16 This table includes information about cognates in SLQZ for only the isolated items chosen for this study’s analysis.
<table>
<thead>
<tr>
<th>Word</th>
<th>Translation</th>
<th>Example Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>axtkyte axt-txeky-te</td>
<td>since-back.then-EMPH</td>
<td>‘since way back then’</td>
</tr>
<tr>
<td>rinidan</td>
<td>ri-ni-dan</td>
<td>HAB-speak-3p</td>
</tr>
<tr>
<td>na</td>
<td>na</td>
<td>1s ‘me’</td>
</tr>
<tr>
<td>ana</td>
<td>a-na</td>
<td>already-long.time ‘for a long time’</td>
</tr>
<tr>
<td>zeky</td>
<td>zeky</td>
<td>thus ‘thus’</td>
</tr>
<tr>
<td>sruta</td>
<td>sru-ta</td>
<td>pretty-EMPH ‘very pretty’</td>
</tr>
<tr>
<td>nau</td>
<td>n-a-u</td>
<td>STA-be-2s ‘you are’</td>
</tr>
<tr>
<td>a</td>
<td>a</td>
<td>already ‘already’</td>
</tr>
<tr>
<td>basa</td>
<td>b-as-a</td>
<td>PERF-return-1s ‘I returned’</td>
</tr>
<tr>
<td>ru’u</td>
<td>ru</td>
<td>mouth ‘mouth’</td>
</tr>
<tr>
<td>gueu</td>
<td>gueu</td>
<td>river ‘river’</td>
</tr>
<tr>
<td>guatibia</td>
<td>gu-a-tibi-a</td>
<td>PERF-AND-wash-1s ‘I went to wash’</td>
</tr>
<tr>
<td>du</td>
<td>du</td>
<td>thread ‘thread’</td>
</tr>
<tr>
<td>gulesa</td>
<td>gu-les-a</td>
<td>PERF-lift-1s ‘I carried’</td>
</tr>
<tr>
<td>lady</td>
<td>lady</td>
<td>cloth ‘cloth’</td>
</tr>
</tbody>
</table>

---

**Notes:**
- **EMPH:** Emphatic.
- **HAB:** Habitual.
- **PERF:** Perfective.
- **STA:** Simple tense.
- **thread and cloth** are common items used in the context of the narrative.
<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>banya</td>
<td>PERF-make-1s <code>I made</code></td>
</tr>
<tr>
<td>ganily</td>
<td>canilla <code>canilla</code></td>
</tr>
<tr>
<td>basabtxieya</td>
<td>PERF-place-with.care-1s <code>I prepared the warp</code></td>
</tr>
<tr>
<td>byu’a</td>
<td>PERF-cause.to.be.inside-1s <code>I placed</code></td>
</tr>
<tr>
<td>lo</td>
<td>face <code>face</code></td>
</tr>
<tr>
<td>traly</td>
<td>telar <code>telar</code></td>
</tr>
<tr>
<td>txi</td>
<td>when <code>when</code></td>
</tr>
<tr>
<td>bizunia</td>
<td>PERF-arrive-1s <code>I arrived</code></td>
</tr>
<tr>
<td>ru’u</td>
<td>mouth-2s <code>your mouth</code></td>
</tr>
<tr>
<td>baguba</td>
<td>PERF-suck-1s <code>I sucked</code></td>
</tr>
<tr>
<td>bi</td>
<td>air <code>air</code></td>
</tr>
<tr>
<td>babe</td>
<td>PERF-finish-1s <code>I finished</code></td>
</tr>
</tbody>
</table>
E. Rabante Luy Musical Transcription

Rabante Luy

Gario Ángeles

\[
\begin{align*}
\text{A} & \quad \text{Txi ga-bany-a tu-i lui-siu yu'u le'n kie} \\
\text{B} & \quad \text{ket-ru ru-ti-plas-di-a re zu-gua tu-i-sia s-re} \\
\text{C} & \quad \text{guk ga-biuu guk zu guau te ga-zon led nes nes nia du-so'n} \\
\text{D} & \quad \text{guk ga-biuu guk zu guau te ga-zon led nes nia du-so'n} \\
\text{E} & \quad \text{a-na xhi} \\
\text{F} & \quad \text{xhi-te yu'u le'n kie a-na xhi-xhi-te re-ste sre} \\
\text{G} & \quad \text{xhi-te yu'u le'n kie a-na xhi-xhi-te re-ste sre} \\
\end{align*}
\]
F. Vainchieya te Lag Musical Transcription

Vainchieya te Lag

Gario Ángeles
References


