Na'vi
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1 Na'vi/Print version

This is the print version of Na'vi
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Na'vi is a constructed language, created for the fictional Na'vi, the humanoid inhabitants of the moon Pandora in the 2009 film Avatar. It was designed by Paul Frommer, a professor at the Marshall School of Business with a doctorate in linguistics, to fit film director James Cameron's conception of what the language should sound like in the film, to be realistically learnable by the fictional human characters of the film, and to be pronounceable by the real actors, but not closely resemble any human language. When the film was released in 2009, Na'vi had a growing vocabulary of about a thousand words, but understanding of its grammar was limited to Frommer. The goal of this book is to make what is known of Na'vi grammar available to fans who are attempting to learn the language.

2 http://en.wikibooks.org/wiki/Na%27vi
3 http://en.wikibooks.org/w/index.php?title=Na%27vi/Print_version&amp;action=purge&amp;printable=yes
4 http://en.wikibooks.org/wiki/Fictional_universe_in_Avatar#Na.27vi
5 http://en.wikibooks.org/wiki/Avatar_(2009_film)
6 http://en.wikibooks.org/wiki/Paul_Frommer
7 http://en.wikibooks.org/wiki/Linguistics
8 http://en.wikibooks.org/wiki/James_Cameron
2 Contents

- History
- Phonology
- Nouns
- Pronouns
- Adpositions
- Adjectives
- Numbers
- Questions
- Verbs
- Syntax
- Discourse
- Lexicon
- Texts
- Appendix: Glossing conventions
- Glossary of linguistic terms
- Bibliography
3 History

The basis of the Na'vi language is James Cameron's 2005 scriptment for Avatar.[2] Cameron felt the need for a complete, consistent language for the alien characters of the film, so that their speech would feel realistic for the audience. His production company, Lightstorm Entertainment, contacted the linguistics department at the University of Southern California; Edward Finegan, a professor of linguistics at USC, thought that the project would appeal to Paul Frommer, with whom he had co-authored a linguistics textbook, and so forwarded Lightstorm's inquiry to him at the Marshall School of Business at USC. Frommer and Cameron met to discuss the director's vision for the language and its use in the film, and Cameron took Frommer aboard.

3.1 Cameron's Na'vi words

Cameron created some three dozen cultural words and personal, plant, and animal names in his scriptment. He had been to New Zealand a few years before, and says that he had the sound of the Māori language[1] in mind when he came up with the names;[3] Frommer also noticed a "Polynesian flavor".[4] Cameron’s words are:[note 1]

---

3.2 Frommer's Na'vi language

The language project was subject to three significant constraints. First, Cameron wanted the language to sound alien but, unlike Klingon\(^2\), to sound pleasant and appeal to the audience. Second, since the storyline included humans who had learned to speak the language, it had to be a language that humans could plausibly learn to speak. Last, the actors would have to be able to pronounce their Na'vi dialogue without unreasonable difficulty. Following the model of Cameron's existing vocabulary, Frommer developed three sets of meaningless test words and phrases that conveyed a sense of what the language might sound like: one using contrasting tones\(^3\), one using varying vowel length\(^4\), and one using ejective consonants\(^5\). Cameron didn't care for the first two, but liked the sound of the ejectives. This choice, along with names like Ckaha that Cameron had created, laid the foundation for the phonology\(^6\) that Frommer would use in developing the rest of the Na'vi language, its morphology\(^7\), syntax\(^8\), and an initial vocabulary; a task that took six months. He also translated into Na'vi four songs Cameron had written in English. The language in its final

---


\(^3\) #tone

\(^4\) #vowel_length

\(^5\) #ejective

\(^6\) #phonology

\(^7\) #morphology

\(^8\) #syntax
filming form contained several elements which were uncommon in human languages, such as verbal inflection\(^9\) using infixes\(^{10}\), but all elements are found in one human language or another, even if the combination is unique to Na’vi.

### 3.3 Filming

By the time casting for Avatar began, the language was sufficiently developed that actors were required to present Na'vi dialogue during their auditions. During shooting Frommer worked with the cast on their pronunciation and intonation\(^{11}\), both for film dialogue and during the recording of James Horner's\(^{12}\) Avatar score\(^{13}\). The bulk of the vocabulary was created by Frommer at this time, as needed for the evolving script. Cameron also coined a few additional words, such as atán "light" and Eywa’eveng "Pandora" (the Na'vi world; lit. "child of Eywa"). Actors would occasionally make mistakes in speaking Na'vi; in some cases, these were accepted as natural learner's errors made by their human characters; in others, they were incorporated into the language. The latter include páte "to arrive" from Zoe Saldana, who played Neytiri; latsí "to keep up" from Laz Alonso, who played Tsu’tey; and snumìna "dim-witted" from CCH Pounder, who played Mo’at.

### 3.4 The game

Frommer expanded the vocabulary further in May 2009 when he worked on the Avatar video game\(^{14}\), which required words that had not been needed for the film. A few grammatical elements such as the intentional mood\(^{15}\) were added at this time, and so do not occur in the film. At the time of the film's release on December 18, 2009, the Na’vi vocabulary consisted of approximately 1000 words.

### 3.5 Public reception

The language acquired a public following, including an internet forum dedicated to learning it, within weeks of release.\(^{[5]}\) Frommer expressed hopes that the language would "have a life of its own".\(^{[6]}\) He accepted several new words suggested by members of the forum, such as prrwll "moss", and phrases coined for non-Na'vi concepts such as eltu lefngap "metallic brain" for "computer". In March 2010 he asked the forum for a list of needed vocabulary as the basis for doubling the size of the language.

---

\(^9\) inflection  
\(^{10}\) infix  
\(^{11}\) intonation  
\(^{13}\) http://en.wikibooks.org//en.wikipedia.org/wiki/Avatar:_Music_from_the_Motion_Picture  
\(^{14}\) http://en.wikibooks.org//en.wikipedia.org/wiki/James_Cameron%27s_Avatar:_The_Game  
\(^{15}\) mood
4 Phonology

All of the sounds of Na’vi occur in human languages. However, there are some peculiarities in their combination. Na’vi lacks voiced stops\(^1\) like [b d g] even though it has the voiced fricatives\(^2\) [v z]; more prominent than such intentional gaps though are its ejective stops\(^3\) [p’ t’ k’], spelled \(px tx kx\), which are novel to most English speakers. Na’vi also has the syllabic consonants\(^4\) \(ll\) and \(rr\) in addition to its seven simple vowels. Although the sounds were designed to be pronounceable by the human actors of the film, there are unusual consonant clusters\(^5\) which can be difficult, as in \(fngap\) [fŋap] "metal" and \(tskxe\) [tsk’e] "rock". The fictional Na’vi language of Pandora is unwritten. However, the actual (constructed) language is written in the Latin alphabet. The movie scripts were written in a slightly anglicized orthography for the actors of Avatar, with \(ng, ts\) for Frommer’s preferred \(g, c\). Typical Na’vi words include \(zìsìt\) "year", \(fpeio\) "ceremonial challenge", \(ni’awve\) "first", \(muiā\) "be fair", \(tireioang\) "spirit animal", \(klpxiltu\) "territory", \(uniltirantok\) "avatar".\(^7\)

4.1 Vowels

Altogether, Na’vi has thirteen vowel-like sounds. These include seven simple vowels:

\[
\begin{array}{lll}
\text{high}^6 & \text{front} & \text{back} \\
\text{i} & [i] & [u] \\
\text{mid} & o & [o] \\
\text{low} & à & [æ] \\
\text{a} & [a] \\
\end{array}
\]

as well as four diphthongs: \(aw\) [au], \(ew\) [eu], \(ay\) [ai], \(ey\) [ei], and two syllabic consonants: \(ll\) \(ll\) and \(rr\) \(r\), which mostly behave as vowels.\(^{[note 5]}\) The \(u\) varies between \([u]\) and \([u]\); it’s the former in open syllables\(^7\) such as \(tute\) 'person' and \(unil\) 'dream'; it may be either in closed syllables such as \(tsun\) 'be able to' and \(tsmuk\) 'sibling'. Na’vi vowels may occur in

---

\(^1\) #voiced
\(^2\) #fricative
\(^3\) #ejective
\(^4\) #syllabic_consonant
\(^5\) #consonant_cluster
\(^6\) #syllable
sequences, as in the Polynesian languages\(^8\), Bantu\(^9\), and Japanese\(^10\).[note 6] Each vowel counts as a syllable, so that 'eoioa "ceremonious" has five syllables, /ˈʔɛ.o.i.o.a/. The syllabic consonants may also occur in sequence with a simple vowel or diphthong, as in hrrap /ˈhr̩.ap/ "dangerous".

4.1.1 Comparison with the vowels of English

Most of the vowels occur in English. The ā e i i ey ay aw are pronounced as General American\(^11\) and RP\(^12\) bat, bet, bit, marine, obey, kayak, and cow. The u varies between put and flute. The a, o, and ew sounds do not occur in these dialects. A is the central vowel of Australian\(^13\), Scottish\(^14\), and Welsh\(^15\) father, or of New York\(^16\) lock, and like a French\(^17\) or Spanish\(^18\) a. For RP and GA speakers, it’s closest to the a of father; speakers in southern England and eastern New England who do not rhyme father with bother have the Na’vi a in father. O is the pure vowel of Scottish and Irish\(^19\) English no or Australian and South African\(^20\) English bought, like a Spanish o or, even closer, French eau and Italian\(^21\) come.[note 7] The ew is equivalent to the eu in Spanish Europa and the el in Brazilian\(^22\) mel "honey". An English approximation is "oh!" in exaggerations of the Queen’s English by American comedians such as Carol Burnett\(^23\). The syllabic consonants behave as vowels, as in plňtxe [pl̩.t’ɛ] "to speak" and prŕte’ [pr̩.tɛʔ] "pleasure". The rr is strongly trilled\(^24\), like Spanish rr, but forming a syllable of its own, like an imitation of a cat’s purr. The ll is similar to the syllabic le of bottle, but is "light", as in leap or as in Irish English, not "dark\(^25\)" as GA and RP syllabic l is.[note 8] Which English word you associate with which vowel will depend on your dialect. For example, if you’re Canadian, Na’vi e will be like the vowel in bet. However, if you’re a New Zealander, it will be closer to your pronunciation of bat. If you’re from London, the u varies between the vowels of flute and put. However, if you’re Australian, flute will not be a good approximation, and it may be best to stick with put.

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\(^{8}\) http://en.wikibooks.org//en.wikipedia.org/wiki/Polynesian_languages
\(^{9}\) http://en.wikibooks.org//en.wikipedia.org/wiki/Bantu_languages
\(^{10}\) http://en.wikibooks.org/wiki/Japanese
\(^{11}\) #GA
\(^{12}\) #RP
\(^{13}\) http://en.wikibooks.org//en.wikipedia.org/wiki/Australian_English
\(^{15}\) http://en.wikibooks.org//en.wikipedia.org/wiki/Welsh_English
\(^{17}\) http://en.wikibooks.org/wiki/French
\(^{18}\) http://en.wikibooks.org/wiki/Spanish
\(^{19}\) http://en.wikibooks.org//en.wikipedia.org/wiki/Irish_English
\(^{21}\) http://en.wikibooks.org/wiki/Italian
\(^{22}\) http://en.wikibooks.org/wiki/Brazilian_Portuguese
\(^{23}\) http://en.wikibooks.org//en.wikipedia.org/wiki/Carol_Burnett
\(^{24}\) #trill
\(^{25}\) #dark_l
<table>
<thead>
<tr>
<th>Na’vi (IPA)</th>
<th>Na’vi (IPA)</th>
<th>England, Canada, USA</th>
<th>Australia</th>
<th>New Zealand</th>
<th>South Africa</th>
<th>Ireland</th>
<th>Scotland</th>
<th>Wales</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>[i]</td>
<td>marine (in all major English dialects)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>u</td>
<td>[u] or [ʊ]</td>
<td>flute or put</td>
<td>put</td>
<td>put</td>
<td>flute or put</td>
<td></td>
<td>flute or put</td>
<td></td>
</tr>
<tr>
<td>ñ</td>
<td>[ɨ]</td>
<td>bit</td>
<td>bit</td>
<td>—</td>
<td>kit</td>
<td>bit</td>
<td>bit</td>
<td>bit</td>
</tr>
<tr>
<td>o</td>
<td>[o]</td>
<td>—</td>
<td>law</td>
<td>law</td>
<td>law</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>e</td>
<td>[ɛ]</td>
<td>bet</td>
<td>bet</td>
<td>bat</td>
<td>—</td>
<td>bet</td>
<td>bet</td>
<td>bet</td>
</tr>
<tr>
<td>â</td>
<td>[æ]</td>
<td>bat</td>
<td>bat</td>
<td>—</td>
<td>bat</td>
<td>?</td>
<td>&quot;bat&quot;</td>
<td>&quot;bat&quot;</td>
</tr>
<tr>
<td>a</td>
<td>[a]</td>
<td>&quot;father&quot;</td>
<td>father</td>
<td>—</td>
<td>wise</td>
<td>&quot;father&quot;</td>
<td>cat</td>
<td>cat</td>
</tr>
<tr>
<td>aw</td>
<td>[aw]</td>
<td>cow</td>
<td>&quot;cow&quot;</td>
<td>&quot;cow&quot;</td>
<td>—</td>
<td>?</td>
<td>cow</td>
<td>cow</td>
</tr>
<tr>
<td>ew</td>
<td>[ɛw]</td>
<td>—</td>
<td>(like eew!, but starting with an [ɛ] sound)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ay</td>
<td>[aj]</td>
<td>kayak</td>
<td>&quot;kayak&quot;</td>
<td>&quot;kayak&quot;</td>
<td>—</td>
<td>—</td>
<td>kayak</td>
<td>kayak</td>
</tr>
<tr>
<td>ey</td>
<td>[ɛj]</td>
<td>obey</td>
<td>&quot;obey&quot;</td>
<td>&quot;obey&quot;</td>
<td>obey</td>
<td>—</td>
<td>—</td>
<td>obey</td>
</tr>
</tbody>
</table>
Na’vi vowels compared with the standard pronunciation of nine English-speaking countries.[note 9]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ll</td>
<td>[l̩]</td>
</tr>
<tr>
<td></td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(syllabic as in <em>bottle</em>, but ‘light’ as in <em>leap</em> or as in Irish English)</td>
</tr>
<tr>
<td>rr</td>
<td>[r̩]</td>
</tr>
<tr>
<td></td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(syllabic as in US <em>church</em>, but trilled as in Welsh English)</td>
</tr>
</tbody>
</table>
A tilde (˜) indicates that the word is only an approximation of the Na’vi pronunciation. A dash (—) indicates that there is no good approximation in this dialect. A question mark (?) indicates that available sources did not supply a good approximation, but one might exist.

4.2 Stress

Na’vi does not have vowel length, but it does have contrastive stress: \textit{tute} [tute] "person", \textit{tute} [tuˈte] "female person", or \textit{täftxu} [tæ.ʃˈtə.ju] "weaver", \textit{täftxu} [tæ.ʃtə.ˈju] weaves (formal), like the difference between English \textit{bellow} and \textit{below}. Although stress may move with derivation, as here, it is not affected by inflection (case on nouns, tense on verbs, etc). So, for example, the verb \textit{lu} "to be" has stress on its only vowel, the u, and no matter what else happens to it, the stress stays on that vowel: \textit{lamu} [laˈmu] "was", \textit{lamæŋu} [lamæ.ˈŋu] "was (negative speaker attitude)", etc. Although case affects the pronouns that are based on \textit{oe} "I", most affixes do not affect the stress of other nouns or pronouns. For example, from \textit{n̄g̊a} "you", there is \textit{n̄aŋŋa} [n̄a.aj.ˈŋa] "like you all"; from \textit{li̯u} [li̯.ˈu] "word" there is \textit{ayli̯u}fa [ai̯.li̯.ˈu.ˈfa] "with the words".

4.3 Consonants

There are twenty consonants. There are two Latin transcriptions: one that more closely approaches the ideal of one letter per phoneme, with the letters c and g for [ts] and [ŋ] (the values they have in much of Eastern Europe and Polynesia, respectively), and a modified transcription used for the actors, with the digraphs ts and ng used for those sounds. In both transcriptions, the ejective consonants are written with digraphs in x, a convention that may be unique to Na’vi, though Nambikwara uses tx, kx for similar if not identical sounds.

\begin{itemize}
  \item \underline{26} #vowel\_length
  \item \underline{27} #tone
  \item \underline{28} #stress
  \item \underline{29} #derivation
  \item \underline{30} #inflection
  \item \underline{31} #phoneme
  \item \underline{32} #ejective
  \item \underline{33} \url{http://en.wikibooks.org//en.wikipedia.org/wiki/Nambikwara_language}
\end{itemize}
<table>
<thead>
<tr>
<th>Category</th>
<th>Alveolar</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ejective</td>
<td>(p')</td>
<td>(t')</td>
<td>(k')</td>
<td>(ʔ)</td>
</tr>
<tr>
<td>Plosive</td>
<td>(p)</td>
<td>(t)</td>
<td>(k)</td>
<td>(h)</td>
</tr>
<tr>
<td>Affricate</td>
<td>(ts)</td>
<td>(s)</td>
<td>(ng)</td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>(f)</td>
<td>(z)</td>
<td>()</td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>(m)</td>
<td>(n)</td>
<td>()</td>
<td></td>
</tr>
<tr>
<td>Liquid/glide</td>
<td>(r)</td>
<td>(y)</td>
<td>(w)</td>
<td></td>
</tr>
</tbody>
</table>

34 \#labial
35 \#alveolar
36 \#palatal
37 \#velar
38 \#glottal
39 \#ejective
40 \#plosive
41 \#affricate
42 \#fricative
43 \#nasal
44 \#liquid
The combination of ejective plosives and voiced fricatives, but no voiced or aspirated plosives, is unusual in human language, but does occur in the Kamchatkan language Itelmen. In syllable-final and word-final position, p, t, k have no audible release, [pʼ tʼ kʼ], as in Malay, Cantonese, and other languages of Southeast Asia. Thus a t followed by an s in the next syllable is not equivalent to ts, and so remains ts rather than c in Frommer’s preferred orthography: \( \text{fizisit\text{̟}sre} [\text{fi.ˈzɪ.sɪt\text{̟}.sɾɛ}] \) (not *fizisicr [fi.ˈzɪ.sɪ.t\text{̟}sɾɛ]) "before this year".\[^{10}\]

### 4.3.1 Comparison with the consonants of English

The plosives p t k and the affricate ts are tenuis, as in Spanish or French. Most English dialects have aspirated consonants in words like pie, tie, kite, which if imitated would result in a strong foreign accent. Na’vi p, t, k are instead like the sounds in English spy, sty, sky.\[^{11}\] Stops without audible release, such as Na’vi final p, t, k, occur in English in words such as aptly, at least, actor. However, some English dialects also have such sounds in word-final position, as Na’vi does, especially in casual speech.\[^{12}\] The glottal stop, written with an apostrophe, is the catch in the middle of the word uh-oh!; some people also use it for the apostrophe in Hawai’i. Cockney English is well known for using a glottal stop for t in words like bottle. This is the effect that the name Na’vi should have: two syllables, not three. What makes the glottal stop difficult is that it may begin words: ‘even’ is "a child", even "children". In languages which have this distinction, such as Arabic, a glottal stop in initial position is much more forceful than it is in uh-oh, and may sound like a tiny cough. The r is flapped, as in much of Irish and Scottish English, as well as in Malay and in Spanish pero "but". It sounds a bit like the tt or dd in the American pronunciation of the words latter, ladder. Na’vi ng and ts (g and c) are common in English in words such as cats and sing (not finger!). However, in Na’vi they may occur at the beginning of a word, as in tsa "that" and nga "you".\[^{13}\] The ejectives are not inherently difficult, but few English speakers have a model to imitate. You may want to review the Wikipedia article.\[^{14}\]

### 4.4 Syllable structure

Na’vi syllables may be as simple as a single vowel, or as complex as skzawng "moron" or fngap "metal", both double-consonant–vowel–consonant (CCVC). The fricatives and the affricate, f v ts s z h, are restricted to the onset of a syllable; the other consonants may

---

occur at either the beginning or at the end. However, in addition to appearing before vowels, /ts/ may form consonant clusters with any of the unrestricted consonants (the stops and liquids/glides) apart from ', making for 39 possible clusters at the beginning of a syllable, as in /ajskxawng/ /aj.sk'aun/ "morons" or /lefngap/ /le.fnap/ "metallic". Other sequences occur across syllable boundaries, such as /na'vi/ /na.vi/ "person", /ikran/ /ik.ran/ "banshee", and /atxkxe/ /at.ka/ "land". When a consonant that could form either an onset on a coda appears between vowels, it is normally the onset of the following syllable. Atokirina', for example, is /a-to-ki-ri-na/. However, there are exceptions: mimetic /kxangang/ "boom!" (crack of thunder) is /kxang-ang-ang/, as the second and third syllables are echoes of the first. In careful enunciation, syllable divisions sometimes follow the morphology of a word. For example, /ayoe/ "we" is formed from the plural prefix /ay- and the pronoun /oe "I"; and in careful speech it may be syllabified /ay-o-e [ai̯oe]. However, in rapid speech the default consonant-vowel pattern takes over and it is pronounced /a-yo-e [aˈjoɛ], and in most words the default /CV/ pattern takes over even in careful speech: Verbal VC infixes are apparently always divided between syllables, as V.C, for example in /so-li/ and /sa-pi/, from /si/ "do". There are a few root roots with a distinction between a diphthong followed by a vowel (VC.V) and a simple vowel followed by /y or w plus the vowel (V.CV); for instance, /tswayon/ "fly" contains the diphthong ay, /tsway-on/, whereas /layon/ "black" and /irayo/ "thank you" do not: /la-yon, i-ra-y-o. The distinction is perhaps not very robust, but it is noted in the dictionary. Not all vowels are created equal. Whereas the seven simple vowels and four diphthongs occur in any type of syllable, the syllabic consonants only occur in consonant-vowel syllables, as in /vrrtep/ (vrr-tep) "demon". Nouns ending in a diphthong or a syllabic consonant also take the case endings used after consonants, not those used after the simple vowels. In addition, two identical simple vowels may not occur in a row. That is, *me-e-vi and *a-a-pxa are not found; they reduce to /mevi/ and /apxa/.

4.5 Sound change

The most notable form of sound change in Na’vi is a kind called lenition. This is a weakening that the plosive consonants undergo after certain prefixes and prepositions, as in Irish. In this environment, the ejective plosives /px tx kx/ become the corresponding plain plosives /p t k/; the plain plosives and affricate /p t ts k/ become the corresponding fricatives /f s h/; and the glottal stop /' disappears entirely. This is basically equivalent to dropping down a row in the consonant chart above.

56 #consonant_cluster
57 #stop
58 #liquid
59 #mimesis
60 #morphology
61 #consonant
62 #consonant
63 #dictionary
64 #Case
65 #lenition
66 #prefix
67 #preposition
68 http://en.wikibooks.org/wiki/Irish
Consonant lenition

<table>
<thead>
<tr>
<th>Underlying</th>
<th>Weakened</th>
</tr>
</thead>
<tbody>
<tr>
<td>px</td>
<td>p</td>
</tr>
<tr>
<td>tx</td>
<td>t</td>
</tr>
<tr>
<td>kx</td>
<td>k</td>
</tr>
<tr>
<td>p</td>
<td>f</td>
</tr>
<tr>
<td>ts</td>
<td>s</td>
</tr>
<tr>
<td>t</td>
<td>s</td>
</tr>
<tr>
<td>k</td>
<td>h</td>
</tr>
<tr>
<td>’</td>
<td>—</td>
</tr>
</tbody>
</table>

Because of lenition, the singular and plural forms of nouns can appear rather different. For example, the plural form of po "s/he" is ayfo "they", with the p weakening into an f after the plural prefix ay-, and after the preposition ro "at", tsa "that" takes the form sa. Lenition is also salient in interrogative words, as they each come in two forms based on the interrogative element pe: tupe, pesu "who?", kempe, pehem "do what?", krpe, pehrr "when?", tsengpe, peseng "where?".[note 17] The nasal consonants m, n, ng tend to assimilate to a following stop, so that ting mikyun "to listen" (lit. "give an ear") is generally pronounced as if it were tim mikyun, ting nari "to look" (lit. "give an eye") as if it were tin nari, zenke "mustn’t" as zengke, and lumps "why?" as lumpe. Vowel sequences consist of dissimilar vowels only. Na’vi does not have vowel length, and this means that derived sequences of similar vowels contract into one. For example, when feminine -e is added to tute "person", the result contracts to tuté "female person", with the only difference being stress placement. Similarly, the dual number me- of eveng "children" contracts to meveng "two children". On the other hand, when two i’s come together in the approbative inflection of si "to do" in ngaru irayo si ei’i oe "I thank you", a y is inserted to separate them: Ngáru iráyo seiyí oe. Double consonants may occur at syllable boundaries; however, while the plural (ay-) of yerik "hexapede" is transcribed ayyerik for ease of reading, in pronunciation it is little different from *ayerik.

With the informal pronoun oe "I" and its derivatives, the o reduces to a /w/ sound whenever the stress shifts to the e: Òel /ɔ.ɛl/ "1st",[note 18] but oéru /ərɯ/ "to me" and ayóeng /ajˈɛn/ "all of us".[note 19] There are other instances of sound change to avoid sequences that don’t occur in Na’vi, though the details are not known. For example, the syllabic consonants cannot follow their non-syllabic homologs: though /lʃ/ occurs in lrriok "a smile", *lll and *rrr are not found. Thus the perfective infix <oi> affects the root of pltxe "to say, to speak": p<oi>ltxe becomes poltxe "spoke". The vowels of short grammatical words

---

69 #wh-question
70 #assimilation
71 #stop
72 #vowel_length
73 #dual
74 #approbative
75 #approbative
76 #approbative
77 #grammatical_word
are sometimes elided before a lexical word\textsuperscript{78} or phrase that begins with a vowel, at least in song, for instance si "and" in 's-ayzisitā kato' "and the rhythm of the years" and lu "to be" in 'a l-ayngakip' "who is among you"; the same may happen of unstressed vowels of grammatical prefixes, as the i of ni-aw "only" in 'han’aw txo' "so (ha) only (ni’aw) if (txo)". These examples fit the meter of a song, but similar things occur in fluent speech, for example 'rā’si!' for rā’ā si' "don't do it!" and 'nayweng' for niayoeng "like us".

4.6 Spoken samples

There are three online recordings of Frommer speaking extended amounts of Na’vi, which give a good indication of its pronunciation. They can be found in the texts\textsuperscript{79}. After reading this Wikibook, you should be able to understand all three.

\textsuperscript{78} #lexical_word
\textsuperscript{79} #Spoken_texts
5 Nouns

Na’vi nouns are inflected according to the following template: \( \text{NUMBER}^1 \text{+ STEM}^2 (\text{GENDER}^3) - \text{CASE}^4 \) Gender is optional and uncommon, even for pronouns 'he' and 'she', but number and case are required. There are no articles like "a" or "the", though there is a suffix for "some" that appears before the case ending.

5.1 Number

In Na’vi, plurals are only used if there are at least four objects.

<table>
<thead>
<tr>
<th>Number</th>
<th>Prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Singular(^6)</td>
</tr>
<tr>
<td>2</td>
<td>Dual(^7)</td>
</tr>
<tr>
<td>3</td>
<td>Trial(^8)</td>
</tr>
<tr>
<td>4+</td>
<td>&quot; Plural(^9)&quot;</td>
</tr>
</tbody>
</table>

Nouns show greater number\(^10\) distinctions than human languages do: besides singular\(^11\) and plural\(^12\), they not only have special dual\(^13\) forms for two of an item (eyes, hands, lovers, etc.), which are not uncommon in human language (English has a remnant in "both"), but also trial\(^14\) forms for three of an item, which in human languages are only found with pronouns. A plural is more than dual or trial; that is, four or more. For example, in "the wings of a banshee", tsyal "wing" is plural (ikranå syal), because banshees (ikran) have four wings, but in "the wings of a bird", tsyal cannot be plural syal, but only dual mesyal, because birds have only two wings. When number is unknown, for example when asking
how many of something there are, the plural is used, as in English: Q: "How many children do you have?" A: "One." When quantity is specified with a number, then the singular form is used. (See Numbers\textsuperscript{15}.) And when number is established, it need not be repeated: *Menga lu skxawng* "you two are idiots"; *aynga lu karyu* "y'all are teachers" (plural *karyu*). The prefixes trigger lenition, which is indicated in the table above by the "+" signs rather than the hyphens that usually mark prefix boundaries. Trials are not common, but occur for example in *pxehilvan* "the three rivers" (*kilvan* "river"). In nouns which undergo lenition, the plural prefix may be dropped, so the plural of *tokx* "body" may be either *aysokx* (the "full plural") or *sokx* (the "short plural"). In the dual and trial, lenition of a glottal stop may result in a sequence of two e's, in which case they contract: *'evenga* "a child", *pxeveng* "three children".

### 5.2 Gender

Na’vi does not have grammatical gender\textsuperscript{16}. However, where desired, masculine individuals may be distinguished by the suffix -an, and feminine ones by -e:

<table>
<thead>
<tr>
<th>Masculine</th>
<th>-an</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feminine</td>
<td>-e</td>
</tr>
</tbody>
</table>

For example, *tsmuk* or *tsmúktu* is "sibling", *tsmukán* "brother", and *tsmuké"sister*. However, gender is not generally used unless there is some reason for distinguishing it.

### 5.3 'Some'

The suffix -o, which has the role of "some" in the pronouns *tuteo* "somebody" and *'uo* "something", may be used with other nouns too, as with *ketuwong* "alien" in,

_Lu ketuwong oni'aw._

"It's just some alien."

---

\textsuperscript{15} #Numbers  
\textsuperscript{16} #gender
5.4 Case

Nouns are declined for case depending on their function in the sentence: subject (intr and erg), object (acc), recipient (dat), possessor (gen), and topic (top), like the English pronoun "I, me, my, mine". The case markers each have two to three forms (allomorphs), the distribution of which is somewhat variable:

<table>
<thead>
<tr>
<th>Case forms</th>
<th>full</th>
<th>reduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intransitive</td>
<td>(unmarked)</td>
<td></td>
</tr>
<tr>
<td>Ergative</td>
<td>-il</td>
<td>-l</td>
</tr>
<tr>
<td>Accusative</td>
<td>-it</td>
<td>-ti</td>
</tr>
<tr>
<td>Genitive</td>
<td>-ð, -yð</td>
<td></td>
</tr>
<tr>
<td>Dative</td>
<td>-ur</td>
<td>-ru</td>
</tr>
<tr>
<td>Topical</td>
<td>-iri</td>
<td>-ri</td>
</tr>
</tbody>
</table>

Apart from the genitive, which does not follow the pattern of the other cases, the case suffixes have full (vowel-initial) forms after orthographic consonants (consonants, syllabic consonants, and diphthongs), and reduced (consonant-initial) forms after simple vowels. In addition, the accusative and dative cases have short forms in which their final vowel is dropped; this would appear to depend on the rhythm of speech and perhaps formality rather than anything grammatical. Nouns are not double-marked for case. Attributives do not agree, in case or number, with the nouns they modify, and this holds for possessive pronouns and genitive nouns as much as it does for adjectives. So while "my spear" in

---

17 #case  
18 #intr  
19 #erg  
20 #acc  
21 #dat  
22 #gen  
23 #topic  
24 #allomorph  
25 #intransitive  
26 #intr  
27 #ergative  
28 #erg  
29 #accusative  
30 #acc  
31 #genitive  
32 #gen  
33 #dative  
34 #dat  
35 #topic  
36 #topic  
37 #attributive  
38 #pronouns
citation form is *oeyätukru*, in the ergative case it is *oeyätukrul*, with only *tukru* "spear" marked for the ergative.

### 5.4.1 Subject and object

Core nouns are declined in a tripartite case system, which is quite rare among human languages, though found in Nez Perce. In a tripartite system, there are distinct forms for the object of a clause, as in "Neytiri hunted a hexapede"; the agent of a transitive clause which has such an object, as in "Neytiri hunted a hexapede"; and the argument ("subject") of an intransitive clause, which does not have an object, as in "Neytiri is sleeping".[8]

An object is marked with the accusative suffix -it/-t/-ti, and an agent with the ergative suffix -ìl/-l, while an intransitive argument has no case suffix. That is, the ergative and accusative tend to occur as a pair, whereas a single argument has no case inflection. Translating our English examples:

"Neytiri is sleeping" *Neytiri herahaw*

<table>
<thead>
<tr>
<th>Neytiri</th>
<th>h&lt;er&gt;ahaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>(name)</td>
<td>sleep&lt; ipfv&gt;</td>
</tr>
<tr>
<td>intr&lt;47&gt;</td>
<td></td>
</tr>
</tbody>
</table>

"Neytiri hunted a hexapede" *Neytirilyerikittolaron*

<table>
<thead>
<tr>
<th>Neytiri-l</th>
<th>yerik-it</th>
<th>t&lt;ol&gt;aron</th>
</tr>
</thead>
<tbody>
<tr>
<td>(name)-erg&lt;49&gt;</td>
<td>hexapede-acc&lt;50&gt;</td>
<td>hunt&lt; pfv&lt;51&gt;</td>
</tr>
</tbody>
</table>

The use of such case forms leaves the word order of Na'vi largely free, for example, agent-object-verb (AOV) or object-verb-agent (OVA):

*Oeyä tukru*txe’lanittivakuk*"Let my spear strike the heart"*

<table>
<thead>
<tr>
<th>Oeyä tukru-l</th>
<th>txe’lan-</th>
<th>t&lt;iv&gt;vakuk</th>
</tr>
</thead>
<tbody>
<tr>
<td>my spear&lt;erg&lt;53&gt;</td>
<td>heart-acc&lt;54&gt;</td>
<td>strike&lt; sjv&lt;55&gt;</td>
</tr>
<tr>
<td>(A)</td>
<td>(O)</td>
<td>(V)</td>
</tr>
</tbody>
</table>

*Katottäftxu oeI"I weave the rhythm"*

<table>
<thead>
<tr>
<th>kato-t</th>
<th>täftxu</th>
<th>oe-l</th>
</tr>
</thead>
<tbody>
<tr>
<td>rhythm-acc&lt;56&gt;</td>
<td>weave</td>
<td>I- erg&lt;57&gt;</td>
</tr>
<tr>
<td>(O)</td>
<td>(V)</td>
<td>(A)</td>
</tr>
</tbody>
</table>

When evident from context, the subject need not be stated: "Oe trram na’ring-mi tarmok. Tsole’a syetute-t. "Yesterday I was in the forest, saw a Trapper".
Oe
I. intr

spret-t
Trapper-acc

bsole'a
saw

tarmok
was

na rinn-mi
forest-in

day-past

day-past
5.4.2 The genitive

A genitive case\(^{61}\) in -ä/-yä can be seen in oeyä tukru "my spear" above. English expresses the genitive with either '-s (the pianist’s hands) or with of (the hands of the clock). Unlike the other cases, the genitive shows the relationship of nouns to each other, rather than between a noun and a verb. Although sometimes called a "possessive", the genitive has a broader range of use than actual possession:

\[
\begin{align*}
Na’viyä & \text{ buyu hapxì} \\
& "You are part of the People" \\
na’vi-yä & l(uy)u & hapxì \\
\text{people-gen}^{62} & \text{ be'< } & \text{ part }
\end{align*}
\]

\[
\begin{align*}
kifkeyit & \text{ Eywa’evenɡä} \\
& "the world of Pandora" \\
kifkey-it & eywa’-e­venɡ+yä \\
\text{world-acc}^{64} & \text{ Gaia-child-gen}^{65}
\end{align*}
\]

Multiple genitives may occur, one after the other, as in

\[
holpxay ayzekwâyä feyä \\
"the number of their fingers"
\]

\[
\begin{align*}
hol-pxay & \\
few-many & ay-zekwâ-yä \\
& pl\text{^66}-finger- \text{ gen}^{67} & f[ey]-yä \\
& \text{ they- gen}^{68}
\end{align*}
\]

and

\[
Agli’uфа əwngeyä ’eylanä a’e­wan \\
"In the words of our young friend"
\]

\[
\begin{align*}
ay-li’-’u-fa & \\
pl\text{^69}-say-thing-per & awng[el]-yä \\
& we- \text{ gen}^{70} & ’eylan-ä \\
& friend- \text{ gen}^{71} & a-’e­wan
\end{align*}
\]

\[
\begin{align*}
\text{attr}^{72}-\text{young}
\end{align*}
\]

Note that they do not occur in any particular order.

---

\(^{61}\)\#genitive

\(^{66}\)\#pl

\(^{67}\)\#gen

\(^{68}\)\#gen

\(^{69}\)\#pl

\(^{70}\)\#gen

\(^{71}\)\#gen

\(^{72}\)\#attr
5.4.3 The dative

The dative is prototypically used for giving something to someone, marking a recipient, or doing something for someone, marking a benefactor: *Nga Na’vi yomtìyìng* "You will feed the people"

\[\text{nga you. intr} \quad \text{na’vi-ru the.people- dat} \quad \text{yom+tiyìng will.feed (to.eat+give)}\]

More generally, it is used for the direction or end point of an action, as in *poruting-nari "look at him"*. However, it is also used in situations, so-called dative constructions, where an English speaker might not expect it:

\[\text{Oe-ru txoa livu. } \text{"Forgive me"} \quad \text{Ngaru lu fpom srak? } \text{"Hello, how are you?"}\]

\[\text{oe-ru I- dat} \quad \text{txoa forgiveness be〈sjv〉} \quad \text{lu be well.being ques〈tion〉} \quad \text{fpom srak? You- be well.being ques〈tion〉}\]

(Literally, "May there be forgiveness for me" = "May I have forgiveness")

(Literally, "Is there well-being for you?" = "Do you have well-being?")

Such constructions contain verbs such as *lu "be"* that involve little overt action, including more concrete concepts of having. When one has something for someone, a double dative is used:

\[\text{Lu oe-ru ayli’u fra-por.} \quad \text{"I have something (= words) to say, to everyone."}\]

\[\text{lu be I- dat} \quad \text{oe-ru I- dat} \quad \text{ay-li’u pl〈word〉} \quad \text{fra-por every-one- dat}\]

Note that word order and context help clarify who has something to say to whom: *lu oe-ru "I have"* is the default word order for a possessive dative, in contrast to the recipient dative.
Nouns

frapor. (See Word order\textsuperscript{85} in the chapter on Syntax\textsuperscript{86}.) The dative is also used with objects/recipient of 'do' + noun constructions and causative verbs, which will be covered in the chapter on Verbs\textsuperscript{87}. That is, whereas in English one assists someone (accusative), in Na’vi \textit{fko si srung tuteoru} one \textit{does} assistance to someone (dative).

5.4.4 The topic and the topical case

A \textit{topic}\textsuperscript{88} indicates the background context of a clause, and the topic marker -\textit{ri}/-\textit{iri} is somewhat equivalent to (though much more common than) English "as for", "concerning", "regarding", etc. Topics are not grammatically required, but are used to structure the presentation of what one has to say. The topic marker preempts the case of the noun: that is, when a noun is made topical, it takes the -\textit{ri}/-\textit{iri} suffix rather than the case suffix one would expect from its grammatical role. For example, in,

\begin{center}
\textit{Oeriontu teya l\text{"{a}}ngu}
\end{center}

\begin{center}
\begin{tabular}{l}
\textit{Oe-ri} \\
\textit{I- top}\textsuperscript{89}
\end{tabular} 
\begin{tabular}{l}
\textit{ontu} \\
nose
\end{tabular} 
\begin{tabular}{l}
\textit{teya} \\
full
\end{tabular} 
\begin{tabular}{l}
\textit{lk\text{"{a}}ng\text{"{a}}ru} \\
be< pej\textsuperscript{90}>
\end{tabular}
\end{center}

"My nose is full [of his distasteful smell]",

since the topic is "I", the subject "nose" is associated with "me": That is, it's understood to be "my nose" without stating that explicitly.\textsuperscript{[note 22]} Note that "nose" itself is unmarked for case, as it's the subject of the intransitive verb "to be". Such a topic-comment\textsuperscript{91} structure sets up the background of the sentence, what the speaker intends to speak about with the rest. (Thus the term 'topic-comment': what the speaker intends to talk about, followed by what s/he has to say about it.) This construction takes some of the pressure off of the case system, with the result that not too many nouns need to be marked with the same case:

\begin{center}
\textit{Sipawm\textit{iri}oe ngaru seiyi irayo}
\end{center}

\begin{center}
\begin{tabular}{l}
\textit{si-pawm-iri} \\
pl+ nomz\textsuperscript{92}-ask- top\textsuperscript{93}
\end{tabular} 
\begin{tabular}{l}
\textit{oe} \\
I
\end{tabular} 
\begin{tabular}{l}
\textit{nga-ru} \\
you- dat\textsuperscript{94}
\end{tabular} 
\begin{tabular}{l}
\textit{s<ei>i} \\
do< approb\textsuperscript{95}>
\end{tabular} 
\begin{tabular}{l}
\textit{irayo} \\
thank
\end{tabular}
\end{center}

"Thank you for the questions" (lit. "As for the questions, I thank you")

\begin{tabular}{l}
85 \#Word\textunderscore order \\
86 \#Syntax \\
87 \#Verbs \\
88 \#topic \\
89 \#topic \\
90 \#pej \\
91 \#topic \\
92 \#nomz \\
93 \#topic \\
94 \#dat \\
95 \#approb
\end{tabular}

28
As with other cases, -iri is restricted to the noun at the base of the noun phrase\(^96\), regardless of the word order of that phrase:

\textit{Li’fyari leNa’vi ‘Rrtami, vay set ‘among a fra’u zera’u ta ngrrpong\u{u}.}
<table>
<thead>
<tr>
<th>Nouns</th>
<th>li’fy-a-iri</th>
<th>ke-na’vi</th>
<th>’Rra-mì</th>
<th>voy</th>
<th>set</th>
<th>‘almong</th>
<th>a</th>
<th>fra-u</th>
<th>z&lt;er&gt;a’u</th>
<th>ta</th>
<th>ngr&lt;er&gt;pongu</th>
</tr>
</thead>
<tbody>
<tr>
<td>language-top</td>
<td>adj&lt;top&gt;</td>
<td>people</td>
<td>Earth-in</td>
<td>until</td>
<td>now</td>
<td>unfold&lt;past&lt;adj&gt;</td>
<td>sbrd&lt;ipfv&gt;</td>
<td>every-thing</td>
<td>come&lt;from</td>
<td>root-group</td>
<td></td>
</tr>
</tbody>
</table>

97 #topic
98 #adj
99 #past
100 #pfv
101 #sbrd
102 #ipfv
"Everything that has gone on with Na'vi until now on Earth has come from a grassroots movement."

(lit. "As for the Na'vi language on Earth, everything that until now has unfolded comes from a base group")

Here the word lì'fyə "language" is modified by leNa’vi "Na’vi" and 'Rrtami "on Earth", yet the suffix appears on that first word. This -iri can also behave as a more typical case, linking the noun phrase to the verb, rather than setting up a topic as an introduction for the rest of clause to comment on:

Pxan livu tzo ni’aw oe ngari
<table>
<thead>
<tr>
<th>pxan</th>
<th>l&lt;iv&gt;u</th>
<th>txo</th>
<th>ni'aw</th>
<th>oe</th>
<th>nga-ri</th>
</tr>
</thead>
<tbody>
<tr>
<td>worthy</td>
<td>be&lt;sjv&gt;</td>
<td>if</td>
<td>adv&lt;104-one</td>
<td>I</td>
<td>you-top&lt;105&gt;</td>
</tr>
</tbody>
</table>

---

103  #sjv
104  #adv
105  #topic
"Only if I am worthy of you" (lit. "Only if I be worthy in regard to you")

Nguru seiyi oe irayo ngeyü pxesipawmiri
<table>
<thead>
<tr>
<th>nga-ru</th>
<th>s(e)i</th>
<th>oe</th>
<th>irayo</th>
<th>ng[e]-yä</th>
<th>pxe+tl-pawm-iri</th>
</tr>
</thead>
<tbody>
<tr>
<td>you- dat</td>
<td>do&lt; approb</td>
<td>I</td>
<td>thank</td>
<td>you- gen</td>
<td>tri+ nomz questioned-top</td>
</tr>
</tbody>
</table>

106 #dat
107 #approb
108 #gen
109 #tri
110 #nomz
111 #topic
"I thank you for (in regards to) your three questions"

5.4.5 The absolutive

The absolutive form of a noun is an unmarked case form. In Na’vi, both the intransitive subject and the citation (dictionary) form are unmarked. However, the absolutive is also used after a preposition, as after ne "to" in kā ne kelku (also kā kelkune) "go home",[note 24] and it occurs when a noun stands in parallel (in apposition) to another, regardless of the case of the other noun. For example, in 'eylanur awngeyä Peyral "to our friend Beyral", 'eylan "friend" but not Peyral takes the dative case; compare awngeyä Peyralur "to our Beyral".

5.4.6 Case allomorphs

Except for the genitive, which is discussed below, and the "long" accusative, which is invariable, all case suffixes have a full form which begins with a vowel, and a reduced form in which that vowel is dropped. The full form is found after consonants and syllabic consonants, and the reduced form is found after simple vowels. Diphthongs take the shortest form that is syllabic; in the case of the dative, that means either the full or reduced form, -ur or -ru.[note 25]
### Case form distribution (apart from gen\textsuperscript{112})

<table>
<thead>
<tr>
<th>Case forms</th>
<th>erg\textsuperscript{113}</th>
<th>short acc\textsuperscript{114}</th>
<th>long acc\textsuperscript{115}</th>
<th>dat\textsuperscript{116}</th>
<th>top\textsuperscript{117}</th>
</tr>
</thead>
<tbody>
<tr>
<td>full form after consonant</td>
<td>hetuwong\textsuperscript{i}</td>
<td>yerikit</td>
<td>ketuwongti</td>
<td>'eylanur</td>
<td>skxawng\textsuperscript{i}ri</td>
</tr>
<tr>
<td></td>
<td></td>
<td>txe'lanit</td>
<td>Kelutralti</td>
<td></td>
<td>kem\textsuperscript{r}i</td>
</tr>
<tr>
<td>after syllabic consonant</td>
<td>trr\textsuperscript{il}</td>
<td>'ewl\textsuperscript{lit}</td>
<td>trri\textsuperscript{ti}</td>
<td>tr\textsuperscript{ur}</td>
<td>tr\textsuperscript{iri}</td>
</tr>
<tr>
<td></td>
<td>'ewl\textsuperscript{lit}</td>
<td>'ewl\textsuperscript{iti}</td>
<td>'ewl\textsuperscript{ur}</td>
<td>'ewl\textsuperscript{hiri}</td>
<td></td>
</tr>
<tr>
<td>syllabic form after diphthong</td>
<td>ting\textsuperscript{ayl}</td>
<td>kifkey\textsuperscript{i}</td>
<td>pay\textsuperscript{ti}</td>
<td>pay\textsuperscript{ur}</td>
<td>pay\textsuperscript{ri}</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reduced form after pure vowel</td>
<td>tukru\textsuperscript{l}</td>
<td>ayli'ut</td>
<td>swir\textsuperscript{ati}</td>
<td>na'viru</td>
<td>l'fyari</td>
</tr>
<tr>
<td></td>
<td>Neytiri\textsuperscript{l}</td>
<td>katot</td>
<td></td>
<td></td>
<td>fyaw\textsuperscript{intxuri}</td>
</tr>
</tbody>
</table>

\textsuperscript{113} erg
\textsuperscript{114} acc
\textsuperscript{115} acc
\textsuperscript{116} dat
\textsuperscript{117} topic
The difference between the long and short forms of the accusative would appear to be one of register rather than of grammar. For instance, a quick response to the greeting *oel ngatikameie* "I see you", with the long form of the accusative, is *kame ngat*,[9] with the short form.[note 26] However, it may also provide for euphony, for example in *ayli’uthorentisi* "the words and rules (ACC)"*, from *lì’u* "word" and *koren* "rule". The dative also has a long and short form, though apparently only on pronouns. For instance "to me" may be either *oeru* or *oer*, and "to them" *foru* or *for*. There are a few exceptions to this pattern.

*Kemri* "rule. *top*"[119] is given as an alternate of *kemiri* in a proverb, where meter may play a role, just as *si* "and" and *lu* "be" may be reduced to *s* and *l* before a vowel in song, without that being a general rule of the grammar. A colloquial contraction of *tsa’u* "that", *tsaw*, has case forms *acc*[120] *tsawt* and *top*[121] *tsawri*, but these may just be retentions of the forms of the full words, *tsa’ut* and *tsa’uri*, where they are regular. The forms of the genitive pattern somewhat differently, and here it is an initial *consonant* of the suffix which drops. Nouns which end in a simple *front* or central vowel, *i, i, e, ä, a*, take the suffix *-yä*, as in

- *aymokryä* of voices, *tsawkeyä* of the sun, *ayzekwëyä* of fingers, *tompayä* of the rain,
- but the suffix *-ä* appears after consonants, syllabic consonants, diphthongs, and the back/rounded vowels *u, o*:
- *ayzisitä* of the years, *txonä* of the night, *trrä* of the day, *kifkeyä* of the world, *fili’uä* of this word.

Changes in the noun stem occur in some nouns; in addition, the final *a* or *o* vowel of pronouns changes to *e* when genitive *-yä* is added:

- *ngëyä* your (from *nga*), *feyä* their (from *fo*).

### 5.5 The vocative

Na’vi does not have a case suffix for nouns used to address someone, a function called the vocative[124], but instead use a *particle*[125] *ma*, which occurs before the name or term of address: *Ma Neytiri, herahaw snak?* "Neytiri, are you sleeping?", rather like archaic or poetic "O!" in English. It occurs before the noun phrase, and is never suffixed: *Ma oeyä ‘eylan!* "My friend!"; *ma smukan si smuke "O brothers and sisters", fti oe neto rikx, ma skzaung! "Get away from me, moron!". *Ma* is obligatory with people and *Eywa* (God), but optional with animals. For example, it is used ceremonially with animals one has killed in a hunt,[note 27] but may be omitted when talking to one’s *pa’li* (horse). It may thus indicate a degree of politeness vs. intimacy. With collective nouns, such *Na’vi* "the People" and *tsampongu* "war party", in which the singular form is used for multiple people, a collective

---

118 #register
119 #topic
120 #acc
121 #topic
122 #front_vowel
123 #stem
124 #vocative
125 #particle
vocative suffix -ya is found as an alternative for ma: Mawey, na’viya, mawey! "Calm, people, calm!";
frapoya! "(hey) everybody!".

5.6 Diminutives

It is not clear if Na’vi has a regular system of diminutives, but there are some compounds with hi’i "little, small" that have this function. For example, tanhi "star" appears to derive from atan "light" and hi’i, and hi’ang "bug" appears to be similarly derived from ioang "animal". The words for "son" and "daughter", ‘itan and ‘ite, are based on a different root: they are the masculine and feminine derivations of ‘ita "a little, a bit". Affectionate terms would appear to not be related. "Mommy" and "daddy" are sa’nu and sempu, short for sa’nok "mother" and sempul "father".

126 #diminutive
6 Pronouns

Na’vi pronouns include *personal pronouns*, used for persons and other animate nouns, and *demonstrative pronouns*, used for inanimate nouns and to distinguish "this" from "that".

6.1 Personal pronouns

Na’vi personal pronouns encode clusivity\(^1\). That is, there are different words for "we" depending on whether the speaker is including the person spoken to or not. There are also special forms for "the two of us" (oeng "you & me", moe "s/he & me"), "the three of us", etc. Pronouns do not inflect for gender; although it’s possible to distinguish "he" from "she", the distinction is optional.
<table>
<thead>
<tr>
<th>Pronouns</th>
<th>sing.</th>
<th>dual</th>
<th>trial</th>
<th>plural (4+)</th>
<th>generic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusive</td>
<td>óe</td>
<td>mór</td>
<td>pxór</td>
<td>ayór</td>
<td>fór</td>
</tr>
<tr>
<td>Inclusive</td>
<td>—</td>
<td>oêng</td>
<td>pxông</td>
<td>ayoêng, awngá</td>
<td>fko</td>
</tr>
<tr>
<td>2nd person</td>
<td>ngá</td>
<td>mengá</td>
<td>pxengá</td>
<td>ayngá</td>
<td></td>
</tr>
<tr>
<td>3rd person animate</td>
<td>pó</td>
<td>mefó</td>
<td>pxefó</td>
<td>ayló, ló</td>
<td></td>
</tr>
<tr>
<td>3rd person inanimate</td>
<td>(use demonstratives)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2 #singular
3 #dual
4 #trial
5 #plural
6 #clusivity
7 #clusivity
8 #person
9 #person
10 #animate
11 #person
12 #inanimate
Fo is the "short plural" form of po; ayfo is the explicit plural. Ayoeng (pronounced aywéng) and awnga are both contractions of the historical plural *ay-oe-nga. "One" as a pronoun is fko:

<table>
<thead>
<tr>
<th>Zéne</th>
<th>fko</th>
<th>n&lt;iv&gt;ûme</th>
<th>ni-trán</th>
</tr>
</thead>
</table>
| must | one | learn<sjv> | adv<14>-
much |

"There is much to learn" (lit. "One must learn much")

Po can mean he, she, or it, but only if animate; for inanimate and abstract nouns, a demonstrative pronoun such as ts’a (or ts’a’u, tsaw) "that" must be used. "He" and "she" can optionally be differentiated as poan and poe; this may be done to distinguish two referents in the same context, as normally both are translated simply as po. It is not known if the other pronouns can also do this. The formal forms of "I" and "you" are óhe and ngengá, which likewise take the me- and ay- prefixes. The inclusive forms are derived from these with si "and":

<table>
<thead>
<tr>
<th>Formal</th>
<th>sing.</th>
<th>dual</th>
<th>trial</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusive</td>
<td>óhe</td>
<td>móhe</td>
<td>pxóhe</td>
<td>ayóhe</td>
</tr>
<tr>
<td>Inclusive</td>
<td>—</td>
<td>óhe ngengási</td>
<td>móhe ngengási, óhe mengengási</td>
<td>(various&lt;note&gt;28&lt;/note&gt; combinations)</td>
</tr>
<tr>
<td>2nd person</td>
<td>ngengá</td>
<td>mengengá</td>
<td>pxengengá</td>
<td>ayngengá</td>
</tr>
</tbody>
</table>

Generally when formal pronouns are used, the verb<15> is inflected for formality as well.

### 6.2 Demonstrative pronouns

For demonstrative<16> pronouns and their compounds, such as fi’u "this", ts’a’u” "that", and sa’u “saw "those", see the chapter on questions<17>. Of the simple pronouns, *tsa can be used as an independent pronoun "that, it (inanimate)", but it does not occur in the intransitive case, and may be restricted in the grammatical roles it plays. Note that when demonstrative pronouns modify a noun, they may do so directly as "pre-nouns", in which case they indicate relative location: tsatute "that person", fitute "this person".

---

13 #sjv
14 #adv
15 #Infixes_pre-I
16 #demonstrative
17 #Questions
6.3 Case

Pronouns inflect for case\(^{18}\) as nouns do:

\(\text{Oél ngáti kämeie}\)

\[
\begin{array}{ccc}
\text{Oé-il} & \text{nga-ti} & \text{kam\(\langle\text{ei}\rangle\)e} \\
1- \text{erg}^{19} & \text{you- acc}\(^{20}\) & \text{See}\langle \text{approb}\(^{21}\rangle)
\end{array}
\]

"I (am glad to) See you" (a greeting)[note \(29\)]

There are some changes in pronouns when case endings are added. The final vowel becomes \(e\) before the genitive \(-yä\) : \(oéyä\) "my", \(ayoéyä\) "our", \(ngéyä\) "thy", \(ayngéyä\) "your", \(péyä\) "her/his", \(féyä\) "their", \(awngeyä\) "our" (inclusive plural), \(ohengeyä\) "our" (formal inclusive dual; note that the \(si\) is lost with inflection), etc. The exclusive pronouns based on \(oe\) are generally contracted to /\(\text{we}\)/ when inflected for case, though they may remain /\(\text{o.e}\)/ with careful enunciation. The inclusive pronouns based on \(oeng\) revert to their historical form \(*\text{oe-nga}\) when inflected, so that the ergative is \(oéngal\), not \(*\text{oengil}\). Although not all forms are attested, it appears that otherwise the inflections are the same as those on nouns.
<table>
<thead>
<tr>
<th>Case</th>
<th>intr&lt;sup&gt;22&lt;/sup&gt;</th>
<th>erg&lt;sup&gt;23&lt;/sup&gt;</th>
<th>short acc&lt;sup&gt;24&lt;/sup&gt;</th>
<th>long acc&lt;sup&gt;25&lt;/sup&gt;</th>
<th>gen&lt;sup&gt;26&lt;/sup&gt;</th>
<th>short dat&lt;sup&gt;27&lt;/sup&gt;</th>
<th>long dat&lt;sup&gt;28&lt;/sup&gt;</th>
<th>top&lt;sup&gt;29&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclu-</td>
<td>oe</td>
<td>oel</td>
<td>?</td>
<td>oeti</td>
<td>oeyä</td>
<td>oer</td>
<td>oeru</td>
<td>oeri</td>
</tr>
<tr>
<td>sive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclu-</td>
<td>oeng</td>
<td>oengal</td>
<td>oengat</td>
<td>oengati</td>
<td>oengeyä?? awngar</td>
<td>awngaru</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>sive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>nga</td>
<td>ngal</td>
<td>ngat</td>
<td>ngati</td>
<td>ngeyä</td>
<td>ngar</td>
<td>ngaru</td>
<td>ngari</td>
</tr>
<tr>
<td>person</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>po</td>
<td>pol</td>
<td>pot</td>
<td>?</td>
<td>peyä</td>
<td>por</td>
<td>poru</td>
<td>fi'uri</td>
</tr>
<tr>
<td>animate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>tsaw&lt;sup&gt;note 31&lt;/sup&gt;</td>
<td>tsal</td>
<td>tsat</td>
<td>tsati</td>
<td>tseyä</td>
<td>tsar</td>
<td>tsaru</td>
<td>tsari</td>
</tr>
</tbody>
</table>

22 #intr
23 #erg
24 #acc
25 #acc
26 #gen
27 #dat
28 #dat
29 #topic
Of the two forms of the inclusive plural, *ayoeng* and *awnga*, the latter is shorter when inflected: ergative *ayoengal* /aɪ.ˈwɛ.ŋal/ vs. *awngal* /au̯.ˈŋal/. Pronouns also take adpositions, as in *oehu, ngahu, pohu* "with me, you, him/her", *tsane* "to it". *Tsaw* has the irregular form *sat* after the (non-leniting) preposition *ftu*: *ftu sat* "(away) from that".
7 Adpositions

Besides case, the role of a noun in a clause may be indicated with an adposition. This may occur either as a preposition before the noun, as in English, or as a suffix at the end of the noun, as in Chinese, Japanese, and Korean, a greater degree of freedom than human languages allow. For example, "with you" may be either \textit{hu nga} or \textit{ngahu}. When used as suffixes, they are much like the numerous cases found in Hungarian and Finnish.

7.1 Attested adpositions

Adpositions may be stressed when they occur as prepositions, but not as suffixes, where they have no effect on the stress of the noun.

<table>
<thead>
<tr>
<th>Adp.</th>
<th>Len.</th>
<th>English</th>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>āo</td>
<td>−</td>
<td>&quot;under&quot;</td>
<td>āo \textit{Utral} Aymokriyā</td>
<td>under the Tree of Voices</td>
</tr>
<tr>
<td>eo</td>
<td>−</td>
<td>&quot;before (place), in front of&quot;</td>
<td>eoayon</td>
<td>before us</td>
</tr>
<tr>
<td>io</td>
<td>−</td>
<td>&quot;above&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>uo</td>
<td>−</td>
<td>&quot;behind&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fa</td>
<td>−</td>
<td>&quot;with&quot;, &quot;by means of&quot; (instrument)</td>
<td>ayli ˈfuˈlɛyanà</td>
<td>in the words of a friend</td>
</tr>
<tr>
<td>fkip</td>
<td>−</td>
<td>&quot;up among&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fpi</td>
<td>+</td>
<td>&quot;for the sake of&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ftu</td>
<td>−</td>
<td>&quot;from&quot; (direction)</td>
<td>Note irregular \textit{ftu} sat &quot;from that&quot;</td>
<td></td>
</tr>
<tr>
<td>hu</td>
<td>−</td>
<td>&quot;with, together with&quot; (accompaniment)</td>
<td>\textit{Eywa nga hu}\textit{Eywa}</td>
<td>Gaia (be) with you with Eywa</td>
</tr>
<tr>
<td>ilà</td>
<td>+</td>
<td>&quot;via, along, by&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 \#adp
2 \#preposition
3 \#suffix
4 http://en.wikibooks.org/wiki/Chinese
5 http://en.wikibooks.org/wiki/Japanese
6 http://en.wikibooks.org/wiki/Korean
7 http://en.wikibooks.org/wiki/Hungarian
8 http://en.wikibooks.org/wiki/Finnish
<table>
<thead>
<tr>
<th>Adp.</th>
<th>Len.</th>
<th>English</th>
<th>Example</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ka</td>
<td>—</td>
<td>&quot;across&quot;</td>
<td>aynga</td>
<td>among you</td>
</tr>
<tr>
<td>kip</td>
<td>—</td>
<td>&quot;among&quot;</td>
<td>aymgokip</td>
<td>near the cliff</td>
</tr>
<tr>
<td>kxamlä</td>
<td>—</td>
<td>&quot;through (the middle of)&quot;</td>
<td>(kxam &quot;the middle&quot; lā &quot;via&quot;)</td>
<td>(also a verb, &quot;to approach&quot;)</td>
</tr>
<tr>
<td>lok</td>
<td>—</td>
<td>&quot;close to&quot;</td>
<td>lokiwyk, iwykdok</td>
<td>in a moment</td>
</tr>
<tr>
<td>luke</td>
<td>—</td>
<td>&quot;without&quot;</td>
<td>lu lukekyu</td>
<td>be without harm</td>
</tr>
<tr>
<td>maw</td>
<td>—</td>
<td>&quot;after&quot; (in time)</td>
<td>mawhitrá</td>
<td>in a moment</td>
</tr>
<tr>
<td>mi</td>
<td>+</td>
<td>&quot;in&quot;, &quot;on&quot;</td>
<td>mite lan Rrtamí fítrrámi</td>
<td>in the heart(s) on Earth on this day</td>
</tr>
<tr>
<td>mikam</td>
<td>—</td>
<td>&quot;between&quot;</td>
<td>(mi &quot;in&quot; kxam &quot;the middle&quot;)</td>
<td></td>
</tr>
<tr>
<td>mungurr</td>
<td>—</td>
<td>&quot;except&quot;</td>
<td>éyktanmungurr</td>
<td>except the leader</td>
</tr>
<tr>
<td>na</td>
<td>—</td>
<td>&quot;like&quot;, &quot;as&quot;</td>
<td>naayskxe mi telan rel nauniltiranyu</td>
<td>like stones in my heart (simile) a picture as an avatar (form)</td>
</tr>
<tr>
<td>ne</td>
<td>—</td>
<td>&quot;to&quot; (direction)</td>
<td>teriran ayoc aynogá tsenge a tsanepo karmá</td>
<td>we are walking your way the place to which she was going</td>
</tr>
<tr>
<td>nemfa</td>
<td>—</td>
<td>&quot;into&quot;</td>
<td>(from ne mi+fa)</td>
<td></td>
</tr>
<tr>
<td>pxaw</td>
<td>—</td>
<td>&quot;around&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pxel</td>
<td>—</td>
<td>&quot;like&quot;, &quot;such as&quot;</td>
<td>sute pxelnga</td>
<td>people such as you</td>
</tr>
<tr>
<td>ro</td>
<td>+</td>
<td>&quot;at&quot; (location)</td>
<td>rojápa, rohelku</td>
<td>at the top, at home</td>
</tr>
<tr>
<td>si</td>
<td>—</td>
<td>&quot;and&quot; (phrases)[note 33]</td>
<td>ttrá sitxóná, aylí'ut horen tisi</td>
<td>of day and night, words and rules</td>
</tr>
<tr>
<td>sin</td>
<td>—</td>
<td>&quot;on&quot;, &quot;onto&quot; (?)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sre</td>
<td>+</td>
<td>&quot;before&quot; (time)</td>
<td>srese'a</td>
<td>prophesize</td>
</tr>
<tr>
<td>ta</td>
<td>—</td>
<td>&quot;from&quot; (generic)</td>
<td>aungia taEywa</td>
<td>a sign from Eywa</td>
</tr>
<tr>
<td>takip</td>
<td>—</td>
<td>&quot;from among&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tafkip</td>
<td>—</td>
<td>&quot;from up among&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>teri</td>
<td>—</td>
<td>&quot;about, concerning&quot;</td>
<td>terilí'fya leNa'vi plítxe</td>
<td>talk about the Na'vi language</td>
</tr>
<tr>
<td>vay</td>
<td>—</td>
<td>&quot;up to&quot; (space or time)</td>
<td>vayset vaykrr</td>
<td>up to now, still, (with a negative verb) not yet until</td>
</tr>
</tbody>
</table>
Various locative and temporal adverbs are derived from these: ne’im "toward the back", nefā "upwards", nekl "downwards"; ta’em "from above";[note 34] mawkrr "after, afterwards"; srekrr "before, beforehand". Note also kā neto "go away (toward the distance)" and tok misko "be there in the distance", both perhaps based on the particle to "than". Srese’a "to prophesize" is literally "to foresee", sre+tse’a. There are words besides traditional adpositions that have the same dual preposition/suffix use, such as si "and" and pe+, -pe "which?", though the latter case is a dual prefix/suffix (peu, ’upe "what?"—see Questions9), never a preposition. Though a prefix, the adverbial nī- "-ly" functions as a generic adposition: nifya’o alaw "in a clear manner". It may be used where no specific adposition is correct; mī fyā’o, for example, would mean literally "in the way, on the path", not *"in the manner".

7.2 Lenition and the ambiguity of short plurals

When used as prepositions, certain of these trigger lenition10, marked "+" in the table above. One of the leniting prepositions is mī "in", as in mī sokx "in the body", from tokx "the body". This may cause some ambiguity with short plurals: mī sokx could also be short for mī aysokx "in the bodies". When mī is used as a suffix, however, the noun is not lenited.
<table>
<thead>
<tr>
<th></th>
<th>noun</th>
<th>preposition + noun</th>
<th>noun-suffix</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Singular</td>
<td>tokx</td>
<td>&quot;body&quot;</td>
<td>mì sokx</td>
<td>&quot;in the body&quot;</td>
<td>tokxmi</td>
</tr>
<tr>
<td>Short plural</td>
<td>sokx</td>
<td>&quot;bodies&quot;</td>
<td>&quot;in the bodies&quot;</td>
<td>sokxmi</td>
<td>&quot;in the bodies&quot;</td>
</tr>
<tr>
<td>Long plural</td>
<td>aysokx</td>
<td>mi aysokx</td>
<td>aysokxmi</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lenition and the ambiguity of short plurals
8 Adjectives

Na’vi adjectives\(^1\) may modify a noun directly, in an attributive\(^2\) role, such as "the blue cat", or indirectly, linked to the noun with a verb like "to be" in a predicative\(^3\) role, as in "the cat is blue" or "the cat became blue".

8.1 Predicative adjectives

Predicative adjectives are not marked in any special way, except that they occur with a copula\(^4\) like the verbs lu "be" or slu "become":

\[
\begin{align*}
\text{kilvan} & \quad \text{ngim} & \quad \text{lu} \\
\text{river} & \quad \text{long} & \quad \text{be}
\end{align*}
\]

"The river is long"

Other word orders also work: kilvan lu ngim, lu ngim kilvan, ngim lu kilvan, etc. This bare form is also used with the verb ‘efu "feel" for internal states, such as

\[
\begin{align*}
oe' & \text{efu som } "I \text{ am hot}" \\
oe' & \text{efu nitram } "I \text{ am happy}"
\end{align*}
\]

8.2 Attributive adjectives

In their attributive role, adjectives may occur either before or after the noun they modify. Such adjectives are marked by a particle a, which only occurs when an adjective modifies a noun directly in this way, and which appears on the side closest to the noun,[note 35] another feature that is unusual by the standards of human languages. For example, "a long river" can be expressed either as ngima kilvan,

\[
\begin{align*}
\text{ngim-a} & \quad \text{kilvan} \\
\text{long- attr}^5 & \quad \text{river}
\end{align*}
\]

\^1 #adjective  
\^2 #attributive  
\^3 #predicate  
\^4 #copula  
\^5 #attr
Adjectives

or as kilvan angim,

\[
\begin{align*}
\text{kilvan} & \quad \text{a-ngim} \\
\text{river} & \quad \text{attr}^9\text{-long}
\end{align*}
\]

When more than one adjective modifies a noun, they may appear on either side, as in,

\[
\begin{align*}
oeyä & \quad \text{ean-a} \\
\text{my} & \quad \text{blue- attr}^7 \\
tzim & \quad \text{butt} \\
a-tsawul & \quad \text{attr}^5\text{-big}
\end{align*}
\]

"my big blue butt"[10]

The \text{a} affix is optional for derived \text{le-} adjectives after a noun: \text{trr lefpom} or optionally \text{trr alefpom "a peaceful day"}, but \text{lefpomatrr}. When an adjective begins or ends with the vowel \text{a}, the attributive \text{a} blends into it. So, for example, \text{snùmìna "stupid" only changes when it follows a noun: snumìna, asnumìna, and apxā "great" does not change at all: skxawng apxā, apxā skxawng "a big moron"}. Adjectives are not inflected. That is, they do not agree with the noun they modify, as in

\text{Sì 'ekong te'lanā le-Na'vi}

"and the beat of the hearts of the People",

\[
\begin{align*}
si & \quad \text{'ekong} \\
\text{and} & \quad \text{beat} \\
\text{ay} + \text{txe'lan} + \text{yā} & \quad \text{le-na'vi} \\
\text{pl}^9 \text{+ beat} + \text{gen}^{10} & \quad \text{adj}^{11}\text{-people}
\end{align*}
\]

where only the noun \text{te'lan "hearts"}, not the adjective \text{le-Na'vi "Na'vi"}, takes the genitive suffix \text{-yā} or the plural prefix \text{ay+}. Similarly, in the topic \text{li'fyarileNa'vi "as for the Na'vi language"}, only \text{li'fyar "language" takes the topical case -iri}. Adjectives may remain as such when their noun is made into an adverb:

\[
\text{fya'o letrrrr "an everyday manner"}
\]
\[
\text{nifya'o letrrrr "in an everyday manner"}
\]

This is common with the noun \text{fya'o}, and helps clarify the multiple readings of a simple adverb. For example, the adverb \text{nilaw, from the adjective law "clear, understandable"}, is ambiguous; \text{Po poltxe nilaw} may mean either "She spoke clearly" or "Clearly, she spoke."
However, po poltre nifya’o alaw (she spoke in a clear manner) can only mean "She spoke clearly."

8.3 Comparison

Comparative constructions are marked by the grammatical particle\(^{12}\) to; where this occurs, there is no need for the word ni’ul "more". Thus sîltsan means "good", but when it appears with to it should be translated "better":

"S/he is better than me"

Po to oe lu sîltsan or

Lu po sîltsan to oe or

Sîltsan lu po oeto or

Oeto po lu sîltsan or

Oeto sîltsan lu po etc.

Ni’ul "more" is used when there is no direct comparison with to, as in txur ni’ul "(be) stronger!". The superlative ("-est") is conveyed with the compound particle frato "than everything."

Tsole’a syeptute atsawl frato mi sirey.

\(^{12}\) #grammatical_particle
"(and we) saw the biggest Trapper I've ever seen" (lit. 'than all in (my) life')

Two adjectives are inherently superlative, *swey* "best" and 'e'al "worst".

### 8.4 Other attributives

Adjectives are not the only things which can modify a noun. Numbers, for example, also require the attributive *a* in such situations:

"awatipawmīri "regarding one (particular) question" ("aw "one").

Nouns may also modify nouns; for this they do not take *a* but rather the genitive case -yā. The genitive is used for possession, but also for more general association. The syntactically free (discourse-determined) word order of adjectives in a noun phrase holds for these other attributives as well:

- *tompayākato* "the rain's rhythm" (tompa 'rain', kato 'rhythm')
- *Utral Aymokriyā* "the Tree of Voices" (utral 'a tree', mokri 'a voice')

However, in the case of a prepositional phrase, a genitive suffix on the noun may be ambiguous. The attributive *a* can clarify, though it is written as a separate word, as it governs a multi-word phrase rather than a single numeral or adjective:

*Ngeyā teri fay tele a aysānumerī ngar irayo seiyi ayo e niwotx*

---

17 #phrase
Adjectives

nga+yä teri fi-
ay+txele 
ay-
nga-ru irayo seivi ay-oe ni-wotx

you-
gen18 about this- sbrd20
pl19+matter pl21, you-
instruction dat23

thank do< approb24>

all
"We all thank you for your teachings concerning these matters"

Here teri faytele "concerning these matters" is an attributive, marked by a, of ngeyä aysänumeri "your teachings", for effectively "your about-these-matters teachings". Relative clauses are clauses that modify a noun; the same attributive a is used:

_Ftxey ’awpot aNa’vuru yomtiying_

"Choose one (’awpo) who will feed the People (Na’vi)"

That is, "choose a will-feed-the-people individual". See the section on relative clauses in the chapter on syntax for further explanation.
9 Numbers

As the Na’vi have four digits per hand, they have a base-eight\(^1\) ("octal") number system. Until recently, they only counted up to sixteen, their number of fingers and toes, any number greater than that being simply \textit{pxay} "many".\(^{[11]}\) There are numerals\(^2\) for the numbers one through eight. Above that, one counts \textit{eight-one} for nine, \textit{eight-two} for ten, etc., until sixteen, which is \textit{two eights}. At sixty-four (eight eights), a new numeral comes in, \textit{zam}, which is the octal equivalent of decimal 'hundred'.

9.1 Cardinal numbers
<table>
<thead>
<tr>
<th>units</th>
<th>decimal</th>
<th>octal</th>
</tr>
</thead>
<tbody>
<tr>
<td>'aw</td>
<td>one</td>
<td>1</td>
</tr>
<tr>
<td>múne</td>
<td>two</td>
<td>2</td>
</tr>
<tr>
<td>pxey</td>
<td>three</td>
<td>3</td>
</tr>
<tr>
<td>tsing</td>
<td>four</td>
<td>4</td>
</tr>
<tr>
<td>mrr</td>
<td>five</td>
<td>5</td>
</tr>
<tr>
<td>pákap</td>
<td>six</td>
<td>6</td>
</tr>
<tr>
<td>kíñá</td>
<td>seven</td>
<td>7</td>
</tr>
<tr>
<td>vol</td>
<td>eight</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>'teen' 'decimal</th>
<th>octal</th>
</tr>
</thead>
<tbody>
<tr>
<td>voláw</td>
<td>nine</td>
</tr>
<tr>
<td>vomván</td>
<td>ten</td>
</tr>
<tr>
<td>vopéy</td>
<td>eleven</td>
</tr>
<tr>
<td>vosíng</td>
<td>twelve</td>
</tr>
<tr>
<td>vomárr</td>
<td>thirteen</td>
</tr>
<tr>
<td>vofú</td>
<td>fourteen</td>
</tr>
<tr>
<td>vó-hú</td>
<td>fifteen</td>
</tr>
<tr>
<td>mévol</td>
<td>sixteen</td>
</tr>
</tbody>
</table>

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>vol</td>
<td>eight</td>
</tr>
<tr>
<td>mévol</td>
<td>sixteen</td>
</tr>
<tr>
<td>pxévol</td>
<td>twenty-four</td>
</tr>
<tr>
<td>tsívol</td>
<td>thirty-four</td>
</tr>
<tr>
<td>mór-vol</td>
<td>forty</td>
</tr>
<tr>
<td>púvol</td>
<td>forty-eight</td>
</tr>
<tr>
<td>kívol</td>
<td>fifty-six</td>
</tr>
<tr>
<td>zam</td>
<td>sixty-four</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>'hundreds' 'decimal</th>
<th>octal</th>
</tr>
</thead>
<tbody>
<tr>
<td>zam</td>
<td>64</td>
</tr>
<tr>
<td>mézam</td>
<td>128</td>
</tr>
<tr>
<td>pxézam</td>
<td>192</td>
</tr>
<tr>
<td>tsízam</td>
<td>256</td>
</tr>
<tr>
<td>mórzam</td>
<td>320</td>
</tr>
<tr>
<td>púzam</td>
<td>384</td>
</tr>
<tr>
<td>kízam</td>
<td>448</td>
</tr>
<tr>
<td>vózam</td>
<td>512</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>'hundreds' 'decimal</th>
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</tr>
</thead>
<tbody>
<tr>
<td>zam</td>
<td>64</td>
</tr>
<tr>
<td>mézam</td>
<td>128</td>
</tr>
<tr>
<td>pxézam</td>
<td>192</td>
</tr>
<tr>
<td>tsízam</td>
<td>256</td>
</tr>
<tr>
<td>mórzam</td>
<td>320</td>
</tr>
<tr>
<td>púzam</td>
<td>384</td>
</tr>
<tr>
<td>kízam</td>
<td>448</td>
</tr>
<tr>
<td>vózam</td>
<td>512</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>'eights' 'decimal</th>
<th>octal</th>
</tr>
</thead>
<tbody>
<tr>
<td>vol</td>
<td>eight</td>
</tr>
<tr>
<td>mévol</td>
<td>sixteen</td>
</tr>
<tr>
<td>pxévol</td>
<td>twenty-four</td>
</tr>
<tr>
<td>tsívol</td>
<td>thirty-four</td>
</tr>
<tr>
<td>mór-vol</td>
<td>forty</td>
</tr>
<tr>
<td>púvol</td>
<td>forty-eight</td>
</tr>
<tr>
<td>kívol</td>
<td>fifty-six</td>
</tr>
<tr>
<td>zam</td>
<td>sixty-four</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>'hundreds' 'decimal</th>
<th>octal</th>
</tr>
</thead>
<tbody>
<tr>
<td>zam</td>
<td>64</td>
</tr>
<tr>
<td>mézam</td>
<td>128</td>
</tr>
<tr>
<td>pxézam</td>
<td>192</td>
</tr>
<tr>
<td>tsízam</td>
<td>256</td>
</tr>
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</tr>
<tr>
<td>púzam</td>
<td>384</td>
</tr>
<tr>
<td>kízam</td>
<td>448</td>
</tr>
<tr>
<td>vózam</td>
<td>512</td>
</tr>
</tbody>
</table>
The second series above continues with *mevoláw 'two-eights-one', *mevomún 'two-eights-two', etc.; the units are similarly suffixed to the other multiples of eight. Thus all numbers up to at least *kivohín 'sixty-three' (octal 77) are single words. Numbers between *zam and *mezam (one-hundred twenty-eight, octal 200) are not attested. The 'hundreds' continue with *pxezam etc. Higher orders are *vozam 512 (octal 1000: thus *mevozam for octal 2000 etc.) and *zazam 4096 (octal 10,000: thus *mezazam for octal 20,000 etc.). When a number modifies a noun, the singular form is used for the noun. In addition, as an attributive, the number itself requires the attributive affix *a:

*zisit amrr "five years",

*wáw tipawmíri "regarding one (particular) question",

*munea *eveng "two children"

(compare *meveng "children" when there are two of them).

9.2 Ordinal numbers

Ordinal numbers take the (unstressed) suffix -ve. However, the forms are somewhat irregular; they are generally based on the short/combining forms of the numerals, but "third" and "eighth" are based on the long/final forms.

<table>
<thead>
<tr>
<th>units</th>
<th>decimal</th>
<th>octal</th>
</tr>
</thead>
<tbody>
<tr>
<td>*'áwve</td>
<td>first</td>
<td>1st</td>
</tr>
<tr>
<td>*múve</td>
<td>second</td>
<td>2nd</td>
</tr>
<tr>
<td>*pxéyve</td>
<td>third</td>
<td>3rd</td>
</tr>
<tr>
<td>*tsive</td>
<td>fourth</td>
<td>4th</td>
</tr>
<tr>
<td>*mírve</td>
<td>fifth</td>
<td>5th</td>
</tr>
<tr>
<td>*púve</td>
<td>sixth</td>
<td>6th</td>
</tr>
<tr>
<td>*kíve</td>
<td>seventh</td>
<td>7th</td>
</tr>
<tr>
<td>*vólve</td>
<td>eighth</td>
<td>10th</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>'teens'</th>
<th>decimal</th>
<th>octal</th>
</tr>
</thead>
<tbody>
<tr>
<td>*voláwve</td>
<td>ninth</td>
<td>11th</td>
</tr>
<tr>
<td>*vomúve</td>
<td>tenth</td>
<td>12th</td>
</tr>
<tr>
<td>*vopéyve</td>
<td>eleventh</td>
<td>13th</td>
</tr>
<tr>
<td>*vosive</td>
<td>twelfth</td>
<td>14th</td>
</tr>
<tr>
<td>*vomírve</td>
<td>thirteenth</td>
<td>15th</td>
</tr>
<tr>
<td>*vofúve</td>
<td>fourteenth</td>
<td>16th</td>
</tr>
<tr>
<td>*vohíve</td>
<td>fifteenth</td>
<td>17th</td>
</tr>
<tr>
<td>*mévolve</td>
<td>sixteenth</td>
<td>20th</td>
</tr>
</tbody>
</table>

The series continues with *mevoláwve "seventeenth (21st)", etc. *Zamve (*zave ?) is not attested. As these are adjectives, they take *a when modifying nouns directly: *a'áwve / *'áwvea, etc.

9.3 Converting between octal and decimal

Conversion from English decimal to Na’vi octal numbers can be tedious. It may be easier to count on your fingers by tucking in your pinkies so that you have the same eight fingers as a Na’vi has: English "ten" is therefore 1 set of hands plus 2 extra fingers, or Na’vi 12 *vomun. Converting from Na’vi back to English is more straightforward, if you think of the Na’vi number as so-many eights plus so-many: Na’vi "72", for example, would be "seven eights (7\times8=56) and two", or English 58. Because eight is a power in binary arithmetic, many of the Na’vi numbers are also binary units which may be familiar from computing; *vozam (octal 1000), for example, is decimal 512.
9.4 Derivations of numbers

Numerals form various derivatives, such as 'awpo "an individual", ni'auve "first(ly)"
(as in, "I was here first"), 'awsitęng "together" (one-make-same), kawtu "no-one" (not-
one-person), kawkrr "never" (not-one-time), ni'aw "only" (one-ly), and ni'awtu "alone"
one-person-ly), all from 'aw "one"; also nimun "again" (second-ly) and perhaps muntxa
"mated" from mune "two". There are two words for "once", 'awlie and 'awlo, the difference
of which is not clear. "Twice" is melo.
10 Questions

Na’vi, like English, has two ways of asking questions: "yes-no" questions for simple affirmation or denial, as in "Are you going?", and "wh-" questions¹ asking for elaboration, such as "Where are you going?".¹[^36] There are also numerous series of words that answer wh-questions: "Here", "There", "Nowhere", "Everywhere", "Elsewhere", "The same place", etc.

10.1 Yes-no questions

Yes-no questions may be asked with the question marker² *srake?*, *srak?*,[^37] though sometimes intonation³ alone is used.

_Ngaru lu fpom srak?_

"Are you well?" (lit. "Do you have peace?")

or, when repeating a question to oneself after being asked,

_Srake tsun oe fayupxaret tslivam niftue?_

"Whether I can easily understand these messages?"

Such questions may be answered simply *srane"yes" or *kehe"no*. *Srake* is not equivalent to English question tags like "isn't that right?", which aim to elicit agreement more than information. The Na’vi question tags are *ke fifya srak?"(is it) not this way?", *kefy a srak?"isn't it?", or *kefyak? for short. Yes-no questions can also be worded with the verb *ftxey"choose", here functioning as a conjunction⁴ "whether", with *fu ke"or not". Thus instead of *srake nga za’u?"Are you coming/will you come?", one may ask,

_Ftxey nga za’u fu-ke?_

"Are you coming or not?"

<table>
<thead>
<tr>
<th><em>ftxey</em></th>
<th><em>nga</em></th>
<th><em>za’u</em></th>
<th><em>fu-ke</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>whether</td>
<td>you</td>
<td>come</td>
<td>or-not</td>
</tr>
</tbody>
</table>

[^36]: #wh-question
[^37]: #question
[^38]: #intonation
[^39]: #conjunction
10.2 Wh-questions

Information questions are asked with question words based on the leniting interrogative morpheme \(pe^+, -pe\) "which?". These need not occur at the beginning of a clause:

\[
Oeru\ pelun?\ (or\ oeru\ lumpe?)
\]

"Why me?"

to which an actual explanation is expected (unless the question is rhetorical). \(Pe\)-words such as \(pelun/ lumpe\) are only used for questions, not as relative pronouns\(^5\) as in "I don't know why it was me". (For that, see the chapter on syntax\(^6\).) \(Pe^+, -pe\) may be used with any noun, but it generally occurs with one of half a dozen common generic nouns, such as \(tute\ "person"\) for \(pesu/ tupe\ "who?"\) and \(u\ "thing"\) for \(peu/ 'upe\ "what?"\). Many of these nouns act also as adverbs, and the resulting question words are adverbial, as in

\[
peseng,\ tsengpe\ "where?",\ from\ tsenge\ "(at a) place"
\]

\[
pehrr,\ krrpe\ "when?",\ from\ krr\ "(at a) time"
\]

\[
pefya,\ fyape\ "how?",\ from\ fya\'o\ "(in a) manner"
\]

\(Peu/ 'upe\) is generally used for concrete objects, a more restricted range than "what?" in English. For actions and ideas, more specific words are used, such as

\[
Kempe\ si\ nga?\ (also\ Pehem\ si\ nga?)
\]

"What are you doing?"

based on \(kem\ "deed"\), or

\[
Peli\'u\ poltxe\ nga?\ (also\ Li\’upe\ poltxe\ nga?)
\]

"What did you say?"

based on \(li\’u\ "word"\).

10.3 Answer words

Paralleling the \(pe^+\) and \(-pe\) question words, and potentially answering them, are words based on "pre-nouns". These are morphemes that have concrete independent meaning, like "this" or "that", but which are found prefixed to nouns, such as the demonstratives\(^7\) \(fi\- "this"\) and \(tsa- "that"\):

\[
pelun\ (or\ lumpe)\ "why?\ which\ reason?"
\]

\[
filun\ "this\ reason",\ faylun\ "these\ reasons"
\]

\[
tsalun\ "thus,\ that\ reason",\ tsaylun\ "those\ reasons"
\]

---

\(^5\) #relative_pronoun
\(^6\) #Syntax
\(^7\) #demonstrative
Other pronouns are *kaw-* "no" ("not one"), *fra-* "every", *fue-* "kind", *la-* "other", and *teng-* "same". There is also a suffix -o "some" that combines with many of these same answer words. Not all combinations are attested.
<table>
<thead>
<tr>
<th>Questions</th>
<th>Thing</th>
<th>One</th>
<th>Person</th>
<th>Place</th>
<th>Time</th>
<th>Action</th>
<th>Kind</th>
<th>Manner</th>
<th>Reason</th>
<th>Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interrogative</td>
<td>'upe</td>
<td>tupe</td>
<td>tsengpe</td>
<td>krrpe</td>
<td>kempe</td>
<td>fnepe</td>
<td>fyape</td>
<td>lunte</td>
<td>li'upe</td>
<td></td>
</tr>
<tr>
<td>what?</td>
<td>pesu</td>
<td>peseng</td>
<td>pehrr</td>
<td>pehem</td>
<td>pefnel</td>
<td>pefya</td>
<td>pelun</td>
<td>peli'u</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distal</td>
<td>tsasu</td>
<td>tsatseng</td>
<td>tsakrr</td>
<td>tsakem</td>
<td>tsafo</td>
<td>tsafr</td>
<td>fyal</td>
<td>tsali'u</td>
<td></td>
<td></td>
</tr>
<tr>
<td>that, those</td>
<td>that one</td>
<td>there</td>
<td>then</td>
<td>that, those</td>
<td>such a</td>
<td>thus</td>
<td>that reason</td>
<td>that</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximal</td>
<td>fi'u</td>
<td>fipto</td>
<td>fitseng</td>
<td>segl</td>
<td>fikem</td>
<td>fifnel</td>
<td>fifya</td>
<td>filun (?)</td>
<td>fili'u</td>
<td></td>
</tr>
<tr>
<td>this</td>
<td>this one</td>
<td>here</td>
<td>now</td>
<td>this</td>
<td>such a</td>
<td>thus</td>
<td>this reason</td>
<td>this</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indefinite</td>
<td>'uo</td>
<td>tuteo</td>
<td>tsengo</td>
<td>krro (?)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>ke'u</td>
<td>kawtu</td>
<td>kawtseng (?)</td>
<td>kawkrr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusive</td>
<td>fra'u</td>
<td>frapo</td>
<td>fratseng</td>
<td>frakrr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>lapo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interrogative</strong></td>
<td>Thing</td>
<td>One</td>
<td>Person</td>
<td>Place</td>
<td>Time</td>
<td>Action</td>
<td>Kind</td>
<td>Manner</td>
<td>Reason</td>
<td>Word</td>
</tr>
<tr>
<td>------------------</td>
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<tr>
<td>'upe</td>
<td>'upe</td>
<td>'upe</td>
<td>'upe</td>
<td>'upe</td>
<td>'upe</td>
<td>'upe</td>
<td>'upe</td>
<td>'upe</td>
<td>'upe</td>
<td>'upe</td>
</tr>
<tr>
<td>someone else</td>
<td>someone else</td>
<td>elsewhere</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Same</strong></td>
<td>teng'ua</td>
<td></td>
<td></td>
<td>tengkrr</td>
<td>tengfya</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>same thing</td>
<td>same one</td>
<td>while</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Po might be the third-person animate pronoun po, and thus contrast with tu for people only. The table merely shows the more common forms; fi- (and its plural fiay- "these", commonly shortened to fay-) and tsa-, along with its plural tsay-, may combine as a prefix to any noun: fayvrrtep "these demons", tsayhetuwong "those aliens".[note 38] (Tsa’u, however, is pluralized as other pronouns, aysa’u or sa’u.) Pe combines with other nouns as well, either as a prefix or a suffix. As usual for affixes, they are unstressed, and they do not need the attributive a: compare fayvrrtep with kea txep / txep ake "no fire" and ke txep "not a fire". Nouns combined with pre-nouns still behave as nouns, for example with case: fili’u u ral "the meaning of this word". An exception to the stress pattern is Fitr lu trrpeve? "Which day (of the week, etc.) is it today?", where a suffix -pe is stressed before the ordinal suffix -ve. The such/kind series based on fnel governs the genitive of a noun: tsafnel syulangä "such a flower, that kind of flower". Such phrases may be reduced, with the prenoum + fnel becoming a compound prenoun: pefnesyulang? "which (type of) flower?" – fifnesyulang, tsafnesyulang "such a flower"; plural fafnesyulang, tsafnesyulang.
11 Verbs

Na’vi verbs are conjugated for tense\(^1\) but not for person\(^2\). That is, they record distinctions like "I am, I was, I would", but not like "I am, we are, s/he is". Conjugation relies exclusively on infixes\(^3\), which are like suffixes but go inside the verb. "Hunt", for example, is táron, but "hunted" is toláron, with the infix \(<ol>\).[note 39]

11.1 Infixes

There are two positions for infixes: between the consonant and vowel of the first syllable, and between the consonant and vowel of the final syllable.[note 40] For example, the phonetically simple verb káme "see into, understand", and the more complicated steftxaw "examine", take the first and second position infixes \(<ol>\) and \(<uy>\) as follows:[note 41]

<table>
<thead>
<tr>
<th>Root</th>
<th>position 1</th>
<th>position 2</th>
<th>positions 1 and 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>káme</td>
<td>koláme</td>
<td>kámuye</td>
</tr>
<tr>
<td>Parsed</td>
<td>k&lt;ol&gt;ame</td>
<td>kam&lt;uy&gt;e</td>
<td>k&lt;ol&gt;am&lt;uy&gt;e</td>
</tr>
<tr>
<td>Form</td>
<td>steftxaw</td>
<td>stoleftxaw</td>
<td>steftxuyaw</td>
</tr>
<tr>
<td>Parsed</td>
<td>st&lt;ol&gt;eftxaw</td>
<td>steftx&lt;uy&gt;aw</td>
<td>st&lt;ol&gt;eft&lt;uy&gt;aw</td>
</tr>
</tbody>
</table>

Note that the infix comes directly before the vowel, and so after any consonant cluster like the \(st\) and \(ftx\) in ste-ftxaw. The infix also occurs before whatever functions as the vowel, including \(ll\) and \(rr\). For example, the \(<ol>\) inflection of fŕrfen "visit" is folŕrfen. In monosyllabic words like lu "be", si "do", new "want", and tspang "kill", however, all infixes appear in that one syllable, retaining their relative order:

<table>
<thead>
<tr>
<th>Root</th>
<th>position 1</th>
<th>position 2</th>
<th>positions 1 and 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>néw</td>
<td>noléw</td>
<td>nuyéw</td>
</tr>
<tr>
<td>Parsed</td>
<td>n&lt;ol&gt;ew</td>
<td>n&lt;uy&gt;ew</td>
<td>n&lt;ol&gt;&lt;uy&gt;ew</td>
</tr>
<tr>
<td>Form</td>
<td>tspáng</td>
<td>tspoláng</td>
<td>tspuyáng</td>
</tr>
<tr>
<td>Parsed</td>
<td>tsp&lt;ol&gt;ang</td>
<td>tsp&lt;uy&gt;ang</td>
<td>tsp&lt;ol&gt;&lt;uy&gt;ang</td>
</tr>
</tbody>
</table>

---

1 #tense
2 #person
3 #infix
Moreover, when the vowel of the infix matches the vowel of such a verb, it may look like a suffix: *luyu* "be" (luyu, not *lu-yu), *sivi* "do" (sivî, not *si-vi). This is clearer in speech than in writing, because the stress stays on the root vowel: luyû (not *lûyu), sivî (not *sivî). Similarly when a penultimate syllable mirrors an infix: lônû "release", lolônû "released" (lonônû, not *lo-lonû). If there is no initial consonant, the infix still comes before the vowel:

*Tsampongut Tsu’teyl ivoeyk.*

<table>
<thead>
<tr>
<th>tsam-pongu-t</th>
<th>Tsu’tey-l</th>
<th>ivoeyk</th>
</tr>
</thead>
<tbody>
<tr>
<td>war-party- acc⁴</td>
<td>(name)- erg⁵</td>
<td>lead sjv⁶, [note 42]</td>
</tr>
</tbody>
</table>

"Tsu’tey will lead the war party."

In first position more than one infix may occur. When both convey temporal information, they fuse together (see below); however, when one infix has a more concrete function, such as a reflexive (acting on oneself), then it precedes the temporal infix(es). Adding such a "pre-first" infix *us* to the words above, and filling all three slots, we get:
<table>
<thead>
<tr>
<th>Root</th>
<th>káme</th>
<th>steftzáw</th>
<th>néw</th>
<th>tspáng</th>
<th>éyk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>kusolámuye</td>
<td>stusoleftxuyáw</td>
<td>nusoluyéw</td>
<td>tspusoluyáng</td>
<td>usoluyéyk</td>
</tr>
<tr>
<td>Parsed</td>
<td>k&lt;us&gt;ob&lt;am&gt;uy&lt;e&gt;</td>
<td>st&lt;us&gt;ob&lt;eftx&lt;y&gt;am&lt;us&gt;ob&lt;y&gt;ew</td>
<td>tsp&lt;us&gt;ob&lt;y&gt;amg</td>
<td>&lt;us&gt;ob&lt;y&gt;cyk</td>
<td>&lt;us&gt;ob&lt;y&gt;cyk</td>
</tr>
</tbody>
</table>
However, it is rare to encounter forms this complex.

### 11.2 Pre-first position: Valence

The "pre-first" infix position is taken by infixes for non-temporal distinctions such as valence⁷ (changing the number of arguments of the verb).

<table>
<thead>
<tr>
<th>Active participle⁸ ( actv⁹)</th>
<th>us</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive participle¹⁰ ( pass¹¹)</td>
<td>own</td>
</tr>
<tr>
<td>Reflexive¹² ( refl¹³)</td>
<td>òp</td>
</tr>
<tr>
<td>Causative¹⁴ ( caus¹⁵)</td>
<td>eyk</td>
</tr>
</tbody>
</table>

The participles are active, as in *ikran atusaron* "a hunting banshee" and *ioang apuslltxe* "a talking animal", and passive, as in *yerik atawnaron* "a hunted hexapede" and *ayli’u apawnlltxe* "spoken words", from *taron* "hunt" and *plltxe* "speak".⁸ The active participial infix *us* is found in forms such as *kérusey* "dead", from *ke* "not" and *rey* "live" (that is, "not-living"), and *txántslusam* "wise", from *txan* "much" and *tslam* "understand" (that is, "much-understanding"). The passive *awn* is found in *niawnomum* "as is known", from *omun* "know" and the adverbial prefix *ni-*. Like their English translations in *-ing* and *-en*, Na’vi participles have characteristics of both verb and adjective, and may modify a noun: *ruséya tûte* "a living person", *tûte atslusám* "an understanding person".⁹

*Hetuwong îlawngeyä swotutska’a, fte kilkivulat keruseya tskxet.*
<table>
<thead>
<tr>
<th></th>
<th>ay+ke-tute-wong-il</th>
<th>awngä+yä</th>
<th>swotu-it</th>
<th>ska’a</th>
<th>fče</th>
<th>klite+k+iw+ulæke-r+ius+ey-a</th>
<th>tskxe-it</th>
</tr>
</thead>
<tbody>
<tr>
<td>pl</td>
<td>not-person-</td>
<td>we. incl</td>
<td>sacred.place-</td>
<td>destroy</td>
<td>so.that</td>
<td>not-live&lt;</td>
<td>rock-&lt;</td>
</tr>
<tr>
<td></td>
<td>alien- erg²⁷</td>
<td>gen²⁸</td>
<td>acc²⁹</td>
<td></td>
<td></td>
<td>actv²²&gt;</td>
<td>attr²³</td>
</tr>
</tbody>
</table>

**Notes:**
- #pl
- #erg
- #incl
- #gen
- #acc
- #sjv
- #actv
- #attr
- #acc
"The aliens destroy our sacred place to dig up dead rock."

Na’vi participle only work as adjectives, not as nouns. That is, *rusey* translates "living" in "the living earth", but not in "the living is good here". For this latter nominal (noun) meaning, add the nominalizing۲۵ prefix *ti-:*

*Korën a’áwve tiruséyä’ awsiteng*

"The first rule of living together" (the Golden Rule)

<table>
<thead>
<tr>
<th>verb</th>
<th>participle</th>
<th>nominalizer</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>koren</td>
<td>a’áwve</td>
<td>*ti-*r&lt;us&gt;ey+yä</td>
<td>together</td>
</tr>
</tbody>
</table>

{Tiruséy} "living" is distinct from *tirey* "life", as in *mi sirey* "in (my) life". While the existence and exact meaning of *ti-* derivatives is unpredictable, *ti-<us>* gerunds are regular, and may be used with any verb. Likewise, the participle is not used for adverbs. Whereas in English one may say "she ran away laughing", in Na’vi that would be "she ran away *while*(she was) laughing", with *tengkrr* "while" and the imperfective *h<er>angham* for "(she was) laughing". A reflexive۳۰ indicates that the subject performs the action on his or her self. For example, *oe yur* is "I wash (something)", and *oel yur ki’ongit* is "I wash the (sp.) fruit", whereas "I wash myself" is reflexive *óe yápur (y<áp>ur)*, not transitive *oel yur oeti*. *Win* is "fast", *win si* is to make fast (that is, to rush or hurry something), and *win sápi* is to make oneself fast (that is, to rush or hurry along). A causative۳¹ makes an intransitive verb transitive۳². For example, *latem* means "change" in the sense that 'something changes'; but to actively change something is *leykatem*. "To begin" is similar:

*Sngolä’i (sng<ol>ä’i) tikangkem* "the work began"

*Oel sngeykolä’i (sng<eyk<ol>ä’i) tikangkemit* "I began the work"

In some cases, the causative requires a different English translation, such as *sleyku* "produce" from *slu* "become". However, there are other strategies for while "feed" is a causative translation of *yom* "eat", if the meaning of feeding is providing food, the Na’vi word is not *geykom* "make eat" but *yomting* "give (ting) "eat". The use of the causative depends on the meaning and transitivity of the verb; see the section on transitivity۳۳ for details.
11.3 First position: Tense, aspect, and mood

Following these, but still in the penultimate syllable, are infixes for tense, aspect, and mood. With one exception (the subjunctive after a modal verb, see below), these are optional. That is, they are used to clarify things such as tense, but tend to be dropped when they can be understood from context.

<table>
<thead>
<tr>
<th>Na’vi aspect</th>
<th>Na’vi tense</th>
<th>Na’vi mood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfective(^{34})</td>
<td>Future(^{38}) (fut(^{39}))</td>
<td>Subjunctive(^{48}) (sjv(^{49}))</td>
</tr>
<tr>
<td>ol</td>
<td>ay</td>
<td>iv</td>
</tr>
<tr>
<td>Imperfective(^{36})</td>
<td>Immediate future(^{40}) (imm(^{41}))</td>
<td>Inten-</td>
</tr>
<tr>
<td>er(^{1})</td>
<td>iy</td>
<td>tional(^{50}) (intent(^{51}))</td>
</tr>
<tr>
<td>Perfective(^{35})</td>
<td>Present(^{42}) (pres(^{43}))</td>
<td></td>
</tr>
<tr>
<td>ol(^{1})</td>
<td>(un-marked)</td>
<td></td>
</tr>
<tr>
<td>Perfective(^{37})</td>
<td>Recent past(^{44}) (rec(^{45}))</td>
<td></td>
</tr>
<tr>
<td>ipfv(^{1})</td>
<td>im</td>
<td></td>
</tr>
<tr>
<td>Perfective(^{36})</td>
<td>Past(^{48}) (past(^{47}))</td>
<td></td>
</tr>
<tr>
<td>ipfv(^{1})</td>
<td>am</td>
<td></td>
</tr>
</tbody>
</table>

These appear after the previous set of infixes. So with the future infix \(ay\), "they will wash themselves" is fo yūpayur \(y′āp′ay′ur\).

11.3.1 Tense

Tense\(^{54}\) is the easiest of these concepts for an English speaker. However, whereas English has three tenses, past present and future,\(^{[note 45]}\) Na’vi has five, with the addition of a recent past ("just did") and an immediate future ("about to do"):

- taron \(\text{hunt}\) "hunts"
- t\(t\)ar\(t\)on \(\text{hunt< past}^{55}\) "hunted"
- t\(t\)im\(t\)ar\(t\)on \(\text{hunt< rec}^{56}\) "just hunted"
- t\(t\)iy\(t\)ar\(t\)on \(\text{hunt< imm}^{57}\) "is about to hunt"
- t\(t\)ay\(t\)ar\(t\)on \(\text{hunt< fut}^{58}\) "will hunt"

Na’vi past and future are used for general statements about events in the past or future, as in English; they are not necessarily remote in time. There is no absolute timeframe involved; whether something is considered recent or immediate depends on the judgement...
of the speaker. An example of the immediate future iy is ni-Ìnglisì p<i>y>i<lttxe oe "I' ll speak in English now", at which point the speaker switches to English, or tiyetzaw oe "I'll be right back". More than one tense may be used in a verb. For instance, the recent past and immediate future double up in,

\[ Oe-l \quad po-t \quad tsp<i>y>i<ang \]

"I was just about to kill him."

11.3.2 Aspect

unmarked taron "hunts"

imperfective t<er>aron "hunts, hunting"

perfective t<ol>aron "hunts, hunted"

Aspect\(^{63}\) is a more difficult concept. There are two in Na’vi, a perfective\(^{64}\), used when one views the action as a simple event, as if one were on the outside of the action looking in; and an imperfective\(^{65}\), used when one views the action as having some component structure or flow, as if one were inside with the action. This distinction is not easily found in English, but there are parallels. For instance, if I were to say, "I went to the bookstore," your response is likely to be something like, "so? what did you get?". This is because I presented the event as a simple whole—perfective—and the implication is that we've now moved on to the next thing that happened. However, if I were to say, "I was going to the bookstore," your response is more likely to be, "and? what happened on your way?". This is because I presented the event as open ended—imperfective—and the implication is that we are still dealing with what happened during that event, even though it's the same event in both cases. Even closer are constructions based on verbs of perception, such as "I saw him sit for an hour", with "sit" in the perfective (he sat for an hour, and I witnessed the whole event), and "I saw him sitting for an hour", with "sit" in a kind of imperfective (he sat for some time, of which I witnessed an hour—an internal portion of the event). Or more vividly, if more violently, "I saw the accused stab the victim" (I saw the crime in its entirety; I'm presenting it as a point in time) and "I saw the accused stabbing the victim" (I saw a part of the action as I passed by). In Na’vi, however, aspect may occur on the main verb, and may take place in the past, present, or future. An example of the Na’vi perfective is tsl<ol>am "got it" or "understood", from tslam "understand"—the (unmarked) tense is
either present tense or irrelevant; the point being communicated is that the understanding is a complete event, a point in time.\footnote{46} An example of the imperfective is *tërvëiran ayoe ayngane* "we are walking your way"; here the action is in process, a current in time. Although the English translation suggests present tense, the Na’vi could actually be past or future: "we were walking your way (past imperfective) when we (suddenly) got it (past perfective)". Tense and aspect need not be marked when they have been established, or if they can be understood by context. For example, in

*Oel hu Txewì ttram na’ringit tarmok. Tsole’a ...*
Oe-l hu Txewi trr-am na’ring-it t<ae>m>ok. Ts<ol>e’a ...
"Yesterday I was with Txewi in the forest, (and we) saw ...",
the first clause sets up the context of the past tense, so the verb 'saw' can be marked as
simply perfective, not as past perfective. However, both may be made explicit, and in such
cases aspect is combined with the tense infixes:

recent-pass imperfective oe t/立法力>ron "I was just hunting"
past imperfective oe t/立法力>ron "I was hunting"
recent-pass perfective oe tsll/立法力>am "I just got it"
immediate-future perfective oe tsll/立法力>yam "I'm about to get it"

As noted in the chapter on Phonology, verbs with syllabic consonants may be irregular
when inflected for aspect. If the aspectual infix ends in the analogous simple consonant (ol
for ll or er for rr), and the syllable is not stressed, then the illegal sequence *lll or *rrr
reduces to a simple l or r, as in plltxe "speak", perfective *pobiltxe → poltxé. However, if
the syllable is stressed, then the infix, which cannot be stressed, drops out, resulting in a
homonym with the uninflected form, as in firfen "visit", imperfective *f<er>rrfen → firfen.

11.3.3 Mood

There are four moods in Na’vi: an unmarked mood (the indicative) used when making
an ordinary assertion, an imperative mood used for making commands, a subjunctive used
when one is stating something that is not certain, and an intentional to show that an
action is purposeful. The imperative, as in English, has no affix: Kāl "go!" The subjunctive
is little used in English, but is found in a few set expressions such as "if I were you" (not
*am you), "God bless you" (not *blesses), "I move that the meeting be adjourned" (not
*is adjourned), etc. The Na’vi subjunctive is formed with the infix iv, but is much more
common than in English, used whenever one wishes, fears, or suspects that something might
or must be so, but cannot say that it is so. It is found for example in

Oeri tingay ál txe lan it tivakuk

<table>
<thead>
<tr>
<th>oe-ri</th>
<th>ti-ngay-il</th>
<th>txe lan-it</th>
<th>t&lt;iv&gt;akuk</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-top</td>
<td>nomz78 true- erg</td>
<td>heart- acc80</td>
<td>strike sjv81</td>
</tr>
</tbody>
</table>

"Let the truth strike my heart," literally "that the truth strike my heart."
Verbs

It is equivalent to the infinitive in English to show that something is done for a purpose, as in

_Sawtute zera’u fte fol Kelutralti skiva’a_
Tense, aspect, and mood

ay+taw-tute
pl$^{82}$+sky-person

z<er>a'u
come<ipfv$^{83}$>

fte
so.that

ay+po-il
pl$^{84}$+s/he-erg$^{85}$

kelku-utral-ti
home-tree-acc$^{86}$

destroy<sjv$^{87}$>
"The humans are coming to destroy Hometree"

The subjunctive is obligatory after modal verbs of obligation, ability, or desire, such as *zene* "must", *tsun* "can", and *new* "want". (See section *Modal verbs* below.) This is the only time that a tense, aspect, or mood marker is grammatically required. For example, in

*Trram kā na’ringur fte tsun tivaron yerikit.*
<table>
<thead>
<tr>
<th>təram</th>
<th>kā</th>
<th>na’ring-ur</th>
<th>fte</th>
<th>tsun</th>
<th>t.&lt;i&gt;iv&lt;/i&gt;.aron</th>
<th>yerik-it.</th>
</tr>
</thead>
<tbody>
<tr>
<td>day- past</td>
<td>go</td>
<td>forest- dat</td>
<td>so.that</td>
<td>be.able</td>
<td>hunt&lt; sjv</td>
<td>hexapede- acc</td>
</tr>
</tbody>
</table>

90  #past  
91  #dat  
92  #sjv  
93  #acc
"Yesterday (we) went to the forest so we could hunt a hexapede",
the past tense on kamä "went" and subjunctive on tsivun "be able" have been omitted, but
the subjunctive on tivaron cannot be. There is some overlap between the Na’vi subjunctive
and the English conditional mood\(^\text{94}\), in that the if-clause may take the subjunctive:

\[ P\text{xan livu txo ni’aw oe ngari, tsakrr nga Na’viru yomtiying } \]
<table>
<thead>
<tr>
<th>pxan</th>
<th>(iaw)</th>
<th>tzo</th>
<th>ni'aw</th>
<th>oe</th>
<th>nga-iri</th>
<th>tsa-krr</th>
<th>nga</th>
<th>na'vi-uru</th>
<th>yom-tijing</th>
</tr>
</thead>
<tbody>
<tr>
<td>worthy</td>
<td>be&lt;sjv, if adv I you-top that-time you people-dat give&lt;imm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
"Only if I be worth of you, will you then feed the people."

The subjunctive is also used as an optative\textsuperscript{100} to request that someone do or be allowed to do something, by expressing one's wish that they do it, as in,

\begin{verbatim}
Tiviran po ayoe-kip
\end{verbatim}

\begin{verbatim}
t<i>v>iran po ay-oe-kip
walk< sjv\textsuperscript{101} s/he pl-I-among
\end{verbatim}

"Let her walk among us[ excl\textsuperscript{102}],"

and it is used to give permission, for instance in responding with \textit{p<i>v>lltxe} "speak!" ("may you speak!") when someone announces they have something to say, or \textit{sp<i>v>aw oeti rutxe} "please believe me". This is similar to the imperative. There is no infix for a true imperative:

\begin{verbatim}
Kä! Kä! "Go! Go!"
\end{verbatim}

\begin{verbatim}
Pot lonu! "Release him!"
\end{verbatim}

\begin{verbatim}
Ikranti makto. 'Eko ta'em "Take the banshee. Attack from above."
\end{verbatim}

The pronoun may be stated overtly:

\begin{verbatim}
'Awpot set ftxey ayngal
\end{verbatim}

\begin{verbatim}
'awpot set ftxey ay-nga-l
one- acc\textsuperscript{103} now choose pl-you- erg\textsuperscript{104}
\end{verbatim}

"Now you choose one"

Negative imperatives ( prohibitives\textsuperscript{105}) are conveyed with \textit{rä'ä} "don't!".[note 47]

\begin{verbatim}
Tzopu rä'ä si! "Don't be afraid!"\[note 48
\end{verbatim}

\begin{verbatim}
Tsakem rä'ä si! "Don't do that!"
\end{verbatim}

Instead of the bare root of the imperative, the subjunctive may be used in its optative role to make what was historically a request or polite command, though the distinction is no longer maintained.[note 49]

\begin{verbatim}
Aynga neto rivikx!
\end{verbatim}

\begin{verbatim}
ay-nga ne-to r<i>v>iikx
\end{verbatim}

\begin{verbatim}
100 #optative
101 #sjv
102 #excl
103 #acc
104 #erg
105 #prohibitive
\end{verbatim}
"(May you all) step back!"

Similarly with the prohibitive:

*Neto rū ā kivā "Don't go away!"

The intentional mood is used for planned actions, contrasting with the (indicative) for things that one has no control over. It is only attested in the future tenses.

### 11.3.4 Other

Other reported temporal and aspectual forms include *tovaron*, *tevaron*, *telaron*, *tairon*. Their meaning is not known, and *tairon* at least would appear to be spurious, as the infix does not occur in its normal position. Two of the infixes are known elsewhere: they are suffixes in *trram* "yesterday" and *trray* "tomorrow", from *trr* "day", and in *txonam* "last night" and *txonay* "tomorrow night" from *txon* "night".

### 11.3.5 Fused T.A.M. infixes

When tense, aspect, and mood infixes occur together, they fuse: The consonant of the aspect infixes within the tense, as recent past-imperfective *ₐrm* in *tirmaron* "(I) was just hunting", from *ₐ(r)m*; or the consonant of the tense or aspect infixes within the subjunctive mood:
### Aspect and tense in the indicative

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Tense</th>
<th>pfv</th>
<th>ipfv</th>
</tr>
</thead>
<tbody>
<tr>
<td>ind</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>fut</td>
<td>ay</td>
<td>aly</td>
<td>ary</td>
</tr>
<tr>
<td>imm</td>
<td>ly</td>
<td>lly</td>
<td>lry</td>
</tr>
<tr>
<td>—</td>
<td>—</td>
<td>ol</td>
<td>er</td>
</tr>
<tr>
<td>rec</td>
<td>im</td>
<td>ilm</td>
<td>lrm</td>
</tr>
<tr>
<td>past</td>
<td>am</td>
<td>alm</td>
<td>arm</td>
</tr>
</tbody>
</table>

### Aspect and tense in the subjunctive

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Tense</th>
<th>pfv</th>
<th>ipfv</th>
</tr>
</thead>
<tbody>
<tr>
<td>sjv</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>fut</td>
<td>iyev*</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>fut</td>
<td>iv</td>
<td>ilv</td>
<td>irv</td>
</tr>
<tr>
<td>past</td>
<td>inv</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

### Intentional mood

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Tense</th>
<th>pfv</th>
<th>ipfv</th>
<th>sjv</th>
</tr>
</thead>
<tbody>
<tr>
<td>in-tent</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>fut</td>
<td>asy</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>imm</td>
<td>asy</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>rec</td>
<td>?asm</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>past</td>
<td>?asm</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
The expected future subjunctive *iyv, however, is a problem, as *iy is not a possible syllable coda in Na’vi. This is solved by inserting an epenthetic\textsuperscript{128} vowel e: ‹iyev›; moreover, in the common expression \textit{kìyevamé} "see (you) soon", there is a degree of vowel assimilation\textsuperscript{129}, and both ‹iyev› and ‹íyev› are acceptable forms of this inflection. Note that because the vowel distinctions of the future and past tenses are lost, there are only three tenses rather than five in the subjunctive mood. Three-way combinations of tense, aspect, and mood (the dashes in the right-hand table) do not occur. Although the intentional mood is only attested in the future, it is possible that it may be used for the past or present, perfective or imperfective, or even in the subjunctive, though this would require an epenthetic vowel the way the future subjunctive does, or a compound as in compound tense.

\textsl{Aynagati hasyawnu ayoel}

\begin{center}
\begin{tabular}{lll}
ay-nga-ti & h\{asy\}awnu & ay-oe-il \\
pl\textsuperscript{130} -you- acc\textsuperscript{131} & protect\{fut\textsuperscript{132}, intent\textsuperscript{133}\} & pl\textsuperscript{134} -I- erg\textsuperscript{135}
\end{tabular}
\end{center}

"We will protect you."

With the negative, it indicates an intention that something not happen:

\textsl{Tafral ke lisjek oel ngéyá keye ’ungit.}
<table>
<thead>
<tr>
<th>ta-fi-ral</th>
<th>ke</th>
<th>l‹isyęk</th>
<th>oe-il</th>
<th>nga-gü</th>
<th>ke-ye’ung-it</th>
</tr>
</thead>
<tbody>
<tr>
<td>from-this-reason</td>
<td>not</td>
<td>obey imm</td>
<td>l- erg</td>
<td>you- gen</td>
<td>in-sanity- acc</td>
</tr>
</tbody>
</table>

136 #imm
137 #intent
138 #erg
139 #gen
140 #acc
"Therefore I will not heed your insanity."

The intention is that of the speaker, regardless of the subject of the verb:

_Nga kasyā_

\[
\begin{array}{ll}
\text{nga} & k\langle asy\rangleā \\
\text{you} & \text{go, fut }^{141}, \text{ intent }^{142}
\end{array}
\]

"You shall go."

_Ke zasyup li\'Ona ne krutu a mifa fu a wrrpa._
ke  z<asy>up  li'O na  ne  kru tu  a  mì+pa  fu  a  wrr-pa
not fall< fut\textsuperscript{143}, intent\textsuperscript{144} to enemy sbrd\textsuperscript{145} in+side or sbrd\textsuperscript{146} out-side
11.4 Second position: Affect

The second (final) infix position is taken by infixes for affect\(^{147}\): Speaker attitude, whether positive or negative; formality; and evidentiality\(^{148}\) to mark for uncertainty or indirect knowledge.

<table>
<thead>
<tr>
<th>Na’vi affect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive attitude(^{149}) (approb(^{150}))</td>
</tr>
<tr>
<td>Negative attitude(^{151}) (pej(^{152}))</td>
</tr>
<tr>
<td>Formal ceremonial(^{153}) (form(^{154}))</td>
</tr>
<tr>
<td>Evidential(^{155}) (evid(^{156}))</td>
</tr>
</tbody>
</table>

For example, in the greeting in the section on nouns, *Oel ngati kamei* "I See you", the verb *kame* "See" is inflected positively as *kamei*e to indicate the pleasure the speaker feels in the meeting. In the subsequent sentence, *Oeri ontu teya āngu* "My nose is full [of his smell]", however, the phrase *teya lu* "is full" is inflected negatively as *teya lāngu* to indicate the speaker's distaste at the experience. The affect can also be more indirect, as in,

*Ngaytxoa, fipānu oey tswolānga’ oel.*

"Sorry, I forgot this promise of mine."

\[
\begin{array}{llll}
ngay-txoa & ē-pānu-ti & oe-yā & tswolānga’ oe-il \\
true-forgiveness & this-promise-acc\(^{157}\) & I-gen\(^{158}\) & forget< pfv\(^{159}\)<< pej\(^{160}\)> I-erg\(^{161}\)
\end{array}
\]
The formal infix, which is used in ceremonial contexts, goes with the formal pronouns, though the reverse does not always hold: *Ngenga ... luyu set* "You are now ...". Only one affect inflection may be used per verb, so the choice depends on the speaker's priorities. For example, once formality is established, the ceremonial infix can be dropped, clearing the way for other affectual inflections even if the formal pronouns continue to be used. Although only one affect infix may appear, they may co-occur with first- or second-position infixes in the penultimate syllable:

*oe tirmar ei on* [hunt rec162. ipfv163. approb164.] "I was just hunting": The speaker is happy about the experience, whether due to success or just the pleasure of the hunt.

*po tay ar ang on* [hunt fut165. pej166.] "he will hunt": The speaker is anxious about or annoyed by the prospect.

The evidential indicates uncertainty or indirect knowledge, as in,

*Fpirmil oel futa aynga natsew tsive a fiut.*

"I was just thinking that you might want to see this."
<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>167</td>
<td>#rec</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>168</td>
<td>#ipfv</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>169</td>
<td>#erg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>170</td>
<td>#acc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>171</td>
<td>#sbrd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172</td>
<td>#pl</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>173</td>
<td>#evid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>174</td>
<td>#sjv</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>175</td>
<td>#acc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**fpirm il**

**oe-il**

**fitu-it-a**

**ay-nga**

**nats ew**

**tsiv e'a**

**fitu-it**
To reinforce the uncertainty, *krawm* "perhaps" may be added.

### 11.5 Special verbs

A few verbs have grammatical in addition to lexical uses.

#### 11.5.1 Be, have, and copulas

The verb *lu* is a copula\(^{176}\), meaning that it links two concepts together (like an equal sign), as in

\[ \text{fo lu kxani} \quad \text{"they are forbidden (here)",} \]

where it links a noun phrase and adjective;

\[ \text{Na'viyä, l'uyu hapxi} \quad \text{"(you) are part of the People"}, \]

where it links two noun phrases ("you" being understood); and

\[ \text{tsahik-u tzele lu} \quad \text{"the matter is for the Tsahik"}. \]

It is the copula *lu* that makes a predicate out of an adjective:

\[ \text{kilvan angim} \quad \text{"a long river"}, \]
\[ \text{kilvan ngim lu} \quad \text{"the river is long"}. \]

Other verbs with this behavior include the copulas *slu* "become" and *lam* "seem". *Lu* also functions as a verb of existence, equivalent to "there is" or "there are"

\[ \text{aungia l'o} \quad \text{u} \]

"there was a sign"

\[ \text{ke fparmil oel futa lu tute a tsun ...} \]

"I didn't think there was anyone who could ...".

When used with—and generally preceding—a noun in the dative, it has the more specialized sense of "have", as in

\[ \text{Lu oeru ikran} \]

"I have a banshee" (lit. "there is a banshee to me").

When used with a locative adposition, it shows existence in a place:

\[ \text{Pa’li lu uo utral.} \]

"The horse is behind a tree; there is a horse behind the tree."
\[ \text{'Angtsik lu lok ́awxx.} \]

\(^{176}\) #copula
\(^{177}\) #form
"The hammerhead is close to the cliff."

However, there is a separate idiom for being within a location: the transitive verb tok "to occupy, to be in a place", as above in

\textit{Oel hu Txewì trram na'ringit t<arm>ok}

"Yesterday I was with Txewì in the forest",

where the location takes the accusative case rather than an adposition.

### 11.5.2 Do

\(\text{Na’vi has a basic verb } si \text{ which means "do" or "make". Besides its basic use, as in kempe si nga? "what are you doing?", it is used in numerous expressions, and is the primary way of turning a noun into a verb:}

\[
\begin{align*}
\text{tsam} & \quad "\text{war}" & \quad \text{tsám si} & \quad "\text{make war}"
\\
\text{kélku} & \quad "\text{home}" & \quad \text{kélku si} & \quad "\text{dwell}" \quad (\text{lit.} \quad "\text{make (one’s) home}\")
\\
\text{tsap’álate} & \quad "\text{an apology}" & \quad \text{tsap’álate si} & \quad "\text{apologize}" \quad ("\text{make an apology}\")
\\
\text{iráyo} & \quad "\text{thanks}" & \quad \text{iráyo si / si irayo} & \quad "\text{thank}"
\\
\text{lrístok} & \quad "\text{a smile}" & \quad \text{lrístok si} & \quad "\text{smile}"
\\
\text{txópu} & \quad "\text{fear}" & \quad \text{txópu si} & \quad "\text{be afraid}"
\\
\text{Si} & \quad \text{forms idiomatic expressions with the organs of the senses:}
\\
\text{nári} & \quad "\text{eye}" & \quad \text{nári si} & \quad "\text{watch out, be careful}"
\\
\text{éltu} & \quad "\text{brain}" & \quad \text{éltu si} & \quad "\text{pay attention, quit goofing off}"
\end{align*}
\]

\(\text{Si} \text{ follows the noun, and though it may be separated from it (txópu rā́á si "Do not fear!"), the two words behave as an intransitive compound: The noun never takes the accusative suffix, and the subject of } si \text{ never takes the ergative.\footnote{50} When there is an object to the noun+si construction, it takes the dative, as in ngaru irayo si "thank you". Si can also be used with adjectives, such as teya "full" in kato oeru teya si "the rhythm fills me (with joy)". In citation form, the si in these set phrases is unstressed. However, it may acquire stress when inflected. For example, from tisraw "pain", there are intransitive tisraw si /tɪˈsraw si/ "be painful" and causative tisraw seyki /tɪˈsraw seˈki/ "cause pain". The noun or adjective may be dropped when context makes it clear:}

\[
\begin{align*}
\text{Nga tsap’álate soli srak?}
\\
\text{"Have you apologized?"}
\\
\text{Soli.}
\\
\text{"I have."
}\end{align*}
\]
11.5.3 Give

The verb "give", tìng, has a smaller number of idiomatic usages. It is combined with organs of the senses to indicate an attentive action of that sense. So from nari "eye" there is tìng nari ("tìnnari") "look at" (cf. tse’a "see"), and from mikyun "ear" there is tìng mikyun ("timmikyun") "listen" (cf. stawm "hear"). Somewhat less idiomatic are tìng tseng "back down" (lit. "give place"), pänuting "promise" (lit. "give a promise"), oejkting "explain why" (lit. "give the cause"), yomting "feed" (lit. "give to eat"), and teswoting "grant" (based on an unattested root).

11.5.4 Directional verbs

Na’vi has two verbs that indicate direction: kă "go" and za’u "come". These may combine with other verbs to give them a sense of direction, what in linguistics is called 'andative' and 'venitive'. For example, ȧ rip is "move" (move something, as with the hand); from it are kă’ārip "push" (move something away) and za’ārip "pull" (move something closer). Similarly, mûnge "convey" may be used as either "bring" or "take"; for "bring" specifically, it is combined with za’u to indicate direction toward the speaker: zamûnge. Similarly, kă combines with măkto "ride" for kămákto "ride out". These directional verbs are not restricted to combining with other verbs; kă is also attested with tsatseng "there" in käsatseng "out there".

11.5.5 Modal verbs

As in English, Na’vi has modal verbs178 (‘helping verbs’) which have a distinct syntax from other verbs. These are basic verbs of obligation, ability, or desire, such as zene "must", tsun "can", fmi "try", and new "want". They are followed by a regular verb, which must take the subjunctive mood, whereas English would use the infinitive, as above in zene fko nivume nîtxan "there is much to learn" and tsun tutet tspivang ko "they can kill a person, you know". Likewise oe new kivăä "I want to go" and fmayi oe ’iveyng "I will try to answer / try and answer". The subject is not repeated if it’s the same for the two verbs, but is required otherwise: Oe new nga kivăä "I want you to go" (lit. "I want (that) you should go") [note 51] Note that the subject of the modal is intransitive regardless of the lexical verb:[13]

Oe new yivom teyłut.
"I want to eat teyłu."

\[
\begin{array}{cccc}
\text{oe} & \text{new} & \text{yivom} & \text{teył-u} \\
\text{I. intr}^{179} & \text{want} & \text{eat}^{180} & \text{grubs- acc}^{181}
\end{array}
\]

178 #modal
179 #intr
180 #sjv
181 #acc
Also,

_Fmawnit menariyä ke tsun oe spivaw._

"I can't believe what my eyes are telling me."
<table>
<thead>
<tr>
<th>Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>fmawm-it</td>
</tr>
</tbody>
</table>

| news-acc | du 183+eye-gen | not | able | I | believe sjv 185 |

---

182 #acc
183 #du
184 #gen
185 #sjv
If there is an overt subject to the lexical verb, then it would be inflected for case as it would without the modal: *Oe new ngalgyvom teylut* "I want you to eat teylu".

### 11.5.6 Compound verbs

In compound verbs, only the verbal root inflects. For example, *zenke* "mustn't" is an abbreviation of *zene ke* "must not", and so both first- and second-position infixes appear in the *zen-* [needs confirmation]. On the other hand, in *pänuting* "promise", the verbal root is *ting* "give", so all infixes appear in that syllable. In the case of a two-verb compound, such as *yomting* "feed" ("eat" plus "give"), all infixes appear in the final verb root, in this case *ting*.[note 52]
12 Syntax

From the preceding chapters, you should be able to read and perhaps produce sentences like the following: "Eytukan gave the beautiful bow to Neytiri, I'm happy to say."\[14\]

The word order may change depending on the relative relevance of the participants, deference on the part of the speaker, and the like, as will be covered in the chapter on Discourse\[7\]; if the adjective moves, it may of course become lora. However, much more complex sentences than this are possible in Na'vi, and that is the subject of this chapter.

12.1 The negative

Negation, both of noun phrases and of clauses\[8\], is made with the negating particle ke, which appears before the negated element. Na'vi utilizes multiple negation\[9\], like kelu kawtu "there isn't no-one" (= there isn't anyone / there is no-one):

"This alien will learn nothing."\[note 53\]

---

1 #erg
2 #acc
3 #attr
4 #dat
5 #pfv
6 #approb
7 #Discourse
8 #clause
9 #double_negative
10 #fut
The vowel \( e \) elides in certain lexicalized expressions, such as \textit{kawtu} "no-one" above and \textit{kawkrr} "never". A longer form, \textit{kehe}, is used as an interjection\(^{11}\) when answering "no" rather than negating a noun or verb. Whereas \textit{ke} only occurs before the word or phrase it modifies, the adjectival forms \textit{kea} and \textit{ake} may occur before or after a noun: \textit{kea sāfpil} or \textit{sāfpil ake} "no idea". In the case of \textit{zene} "must", there are two negative constructions. "Mustn't (be obliged not to)" is \textit{zenke}, whereas the opposite order, \textit{ke zene} "don't have to" merely indicates a lack of obligation. Both take the subjunctive:

\begin{itemize}
  \item \textit{Nga zenke kivā!} "You must not go!"
  \item \textit{Nga ke zene kivā.} "You don't have to go."
\end{itemize}

Double negation does not (necessarily) hold across multiple clauses. In a following section\(^{12}\), for example, the sentence

\textit{Ke fparmìoelfutalututeatsunnì-Na'visetfìfyapivlltxe!}

"I didn't think that there was anyone who could speak Na'vi like this!"

is only negated in its independent clause, "I didn't think".

### 12.2 Conjunction

Various other particles such as conjunctions\(^{13}\) join phrases and clauses. Examples are \textit{sì} and \textit{últe} "and", \textit{fu} "or", \textit{slā} "but", \textit{na} "like, as" (\textit{na ayoeng} "as we (do), like us")\(^{[54]}\), \textit{san} (quote), \textit{sik} (unquote), \textit{fte} "so that, in order to", \textit{fteke} "lest". \textit{A} is used for relative clauses\(^{14}\), as in \textit{fute a tsun} "a person who can",\(^{[55]}\) \textit{futa} means "that" after a transitive verb, as in \textit{ke fparmil futa} "(I) didn't think that ...", \textit{fwa} means "that" after an intransitive verb, as in \textit{law lu oeru fwa} "It's clear to me that ...", and \textit{tsni} means "that" in \textit{ātrāle si tsnì} "(I) request that ...". The difference between \textit{sì} "and" and \textit{últe} "and" is that \textit{sì} joins phrases within a clause, while \textit{últe} joins clauses. Attested examples include \textit{trrā sì txonā} "of day and night", \textit{win sì txur} "fast and strong", and \textit{plltxē sì tiran} "to speak and walk", but \textit{kiyevame ulte Eyuva ngahu} "See you again, and may Eywa be with you". \textit{Sì} may also cliticize to the second noun phrase, as in the formal inclusive pronouns, or in

\textit{aylì'ut horentisi lì'fyaqā leNa’vi}

"(describe) the words \textbf{and} rules of the Na’vi language"

\begin{align*}
\textit{ay-li’-u-it} &\text{ pl}^{15}\text{-say-thing- acc}^{16} & \textit{ay+koren-ti-sì} &\text{ pl}^{17}\text{+rule- acc}^{18}\text{-and} & \textit{li’-fya-ya} &\text{ say-way- gen}^{19} & \textit{le-Na’vi} &\text{ adj}^{20}\text{-People}
\end{align*}

\(^{11}\) interjection  
\(^{12}\) Relative_clauses_with_empty_nouns  
\(^{13}\) conjunction  
\(^{14}\) relative_clause  
\(^{15}\) pl  
\(^{16}\) acc  
\(^{17}\) pl  
\(^{18}\) acc  
\(^{19}\) gen  
\(^{20}\) adj
Note that the accusative suffix -it/ti is attached to both conjoined nouns ayli’u and horen, and that the genitive lì'fyayă "the language's (words and rules)" governs both. The simple conjunction for "or" is fu. However, when the meaning is that either of two choices is equally acceptable or unacceptable, or that the speaker doesn't care which it is, the construction A, B, ke tsranten "(either) A (or) B, it doesn't matter" is used:

Yola krr, txana krr, ke tsranten.

"It doesn’t matter how long it takes."
<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>yol-a</em></td>
<td><em>krr</em></td>
<td><em>txan-a</em></td>
<td><em>krr</em></td>
<td><em>ke</em></td>
<td><em>tsranten</em></td>
<td></td>
</tr>
<tr>
<td>short-attr</td>
<td>time</td>
<td>great-attr</td>
<td>time</td>
<td>not</td>
<td>be.important</td>
<td></td>
</tr>
</tbody>
</table>

21 #attr
22 #attr
The conjunction slâ "but" joins two clauses,

'Zisît((o)) amrr ftolia ohe, slâzene fko niyevume nitzan.

"I studied for five years but there is much still to learn."
A translation of the text from the image is as follows:

```
year-? attr^23^5−five study^24^, I. form^25^ but must one learn^26^ fut^26^, learn^26^ adv^28^−much
```

The text appears to be a part of a larger work, possibly a lexical or morphological analysis, given the annotations and the structure of the entries. The annotations indicate parts of speech or transformations applied to the words, suggesting a focus on syntactic or morphological features.
whereas the adverb ngián "however" does not:

_Ayli’u ngian ni’it skepek lu._

"But you sound rather formal." (lit. "[your] words, however, are a bit formal.")

<table>
<thead>
<tr>
<th>ay-li’u</th>
<th>ngian</th>
<th>ni’it</th>
<th>skepek</th>
<th>lu</th>
</tr>
</thead>
<tbody>
<tr>
<td>pl²⁹-word</td>
<td>however</td>
<td>adv³⁰-bit</td>
<td>formal</td>
<td>be</td>
</tr>
</tbody>
</table>

Na’vi does not have a special infinitive form of the verb, like "to speak" in "teach him to speak". Instead, _fte _"so that" is used with the subjunctive. There are several examples below.

### 12.3 Reported speech

Quoted speech is introduced with the _quotative³¹_ particle _san_ and the unquotative particle _sìk_. Na’vi only allows _direct speech³²_, not indirect (reported) speech; that is, "He said, 'I will go'," but not "He said he would go." If the quotation occurs at either end of the sentence, then only one of the particles need be used:

_Poltxe oe, san zene ke uniltiranyu ke’uziva’u fitseng_.

---

29 #pl  
30 #adv  
31 #quotative  
32 #direct_speech
Say I must not dream-walker no-one come this-place.
"I have said, [quote] 'No avatar may come here'."

Here the end of the quotation is obvious, as the speaker finished speaking. However, if it occurs in the middle, so that there is non-reported material on either side, then both particles occur together as correlative\textsuperscript{36}: \[ Poltxe \ Eytukan \ san \ ae \ kay\ä \ sik, \ slä \ oel \ pot \ ke \ spaw. \]
say\(\text{\textless pfv}\text{\textgreater}^{37}\) \(\text{Egtukan san oe k\langle ag\rangle ä sik slä oe-l po-t ke spaw}^{38}\) \(\text{I go\langle fut\rangle}^{39}\) but \(\text{I- erg}^{40}\) s/he- acc\(\text{\textless unquot}\text{\textgreater}^{41}\) not believe
"Eytukan said he would go (lit. 'I will go'), but I don't believe him."

Practically speaking, however, an initial quote may still need *san*, as otherwise the audience might not realize that it's reported speech; it would require a context that makes that obvious before the first particle could be dropped. These particles can also be used for the words that make up thoughts. Because the quotation is retained verbatim, speakers may end up referring to themselves in the second or third person. For instance, if someone named Ateyo had been unable to respond to someone's questions, he might say,

*Rä'ä fpivil san oeyă sipawmîri Ateyo ke new oeru iveryng sik.*
<table>
<thead>
<tr>
<th>114</th>
<th>rä'ä</th>
<th>fp&lt;iv&gt;il</th>
<th>san</th>
<th>oe-yä</th>
<th>ay+t-</th>
<th>pawm-iri</th>
<th>Ateyo</th>
<th>ke</th>
<th>new</th>
<th>oe-ru</th>
<th>'iv&gt;eyng</th>
<th>sik</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>don't</td>
<td>think&lt;sjv&gt;</td>
<td>quote&lt;sup&gt;44&lt;/sup&gt;</td>
<td>I-gen&lt;sup&gt;45&lt;/sup&gt;</td>
<td>(name)</td>
<td>not want</td>
<td>I-dat&lt;sup&gt;49&lt;/sup&gt;</td>
<td>respond&lt;sjv&gt;</td>
<td>unquote&lt;sup&gt;51&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

43  #sjv
44  #quote
45  #gen
46  #pl
47  #nomz
48  #topic
49  #dat
50  #sjv
51  #unquote
"Don't think that I don't want to respond to your questions." *(Lit. 'Don't think, 'Ateyo doesn't want to respond to me about my questions'.)*

The word "whether" is used for indirect questions, and so like other wh- words is not translated directly; since it's used for yes-no questions, the Na'vi equivalent is *san srake ... sik*. That is, for "he asked whether they went", say *polawm po san srake fo holum sik* (or whatever the actual wording was) "he asked, 'Did they go?'". One construction in Na'vi is equivalent to an indirect question in English, "tell me whether (or not)"

*Piveng oer ftxey nga new rivey fuke.*

"Tell me if you want to live."
<table>
<thead>
<tr>
<th></th>
<th>eng</th>
<th>oe-ur</th>
<th>ftxey</th>
<th>nga</th>
<th>new</th>
<th>riv\ey</th>
<th>fu-ke</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>tell\sv</td>
<td>l- dat\s\v</td>
<td>choose</td>
<td>you</td>
<td>want</td>
<td>live\sv</td>
<td>or-not</td>
</tr>
</tbody>
</table>

52  #sjv
53  #dat
54  #sjv
12.4 Subordinate clauses

Some of the subordinating conjunctions, such as those indicating purpose, trigger the subjunctive in a dependent clause:

_Nari soli ayoe fteke nihawng livok._ [15]

"We _were careful not to get too close._"

<table>
<thead>
<tr>
<th>nari-s&lt;ol&gt;i</th>
<th>ayoe</th>
<th>fte-ke</th>
<th>nì-hawng</th>
<th>l&lt;iv&gt;ok</th>
</tr>
</thead>
<tbody>
<tr>
<td>eye-make&lt; pfv&gt;</td>
<td>we</td>
<td>so.that-not</td>
<td>adv&lt; adv&gt;</td>
<td>excessive</td>
</tr>
</tbody>
</table>

_Sáwtute zer’a u fte fol Kélutralti skiva’á._

"The humans are coming to (that they may) destroy Hometree."
saw-tute  z<er>a’u  fte  fo-l  kel-utral-ti  sk<iv>a’a
pl^{60}+sky-person  come< ipfv^{61}  so.that  pl^{62}+s/he- erg^{63}  home-tree- acc^{64}  destroy< sjv^{65}

60  #pl
61  #ipfv
62  #pl
63  #erg
64  #acc
65  #sjv
However, the independent clause\textsuperscript{66} is not always made explicit:

\textit{Txo new nga rivey, oe-hu.\textsuperscript{46}}

"(Come) with me if you want to live."

\begin{tabular}{llllll}
\textit{txo} & \textit{new} & \textit{nga} & \textit{rivey} & \textit{oe-hu} \\
\textit{if} & \textit{want} & \textit{you} & \textit{to.live}\textsuperscript{67} & \textit{me-with} \\
\end{tabular}

This can result in strings of subjunctive clauses:

\textit{Nga s\=anume sivi poru fte tsivun pil\=il\=ikxe si tiviran na ayoeng.}

"You will teach him so that he may speak and walk as we do."

\textsuperscript{66} #independent\_clause

\textsuperscript{67} #sjv

119
you nomz learn do-sjv him-dat so.that be.able converse and walk like pl I-you
Here the first verb, *sivi*, is subjunctive as a polite command, the second, *tsivun*, as the intended consequence of that command after *fte* ("teach him so that he may be able to), and the other two as dependents of the modal *tsun*.

### 12.5 Relative clauses

Na’vi does not have relative pronouns\(^\text{76}\) such as English *who, which, what*;\(^\text{[note 56]}\) instead, the attributive particle *a* is employed:

<table>
<thead>
<tr>
<th>tute</th>
<th>a</th>
<th>tsun</th>
<th>ni-Na’vi</th>
<th>plltxe</th>
</tr>
</thead>
<tbody>
<tr>
<td>person</td>
<td>sbrd(^\text{77})</td>
<td>be.able</td>
<td>adv(^\text{78})-Na’vi</td>
<td>speak</td>
</tr>
</tbody>
</table>

"a person who can speak Na’vi"

It wouldn’t matter if the phrase were "a thing which" (or "that"), "a time when", "a reason why", or "a place where"; all would use the same particle *a* to translate the English *wh*-word:

\(^{76}\) #relative_pronoun
\(^{77}\) #sbrd
\(^{78}\) #adv
<table>
<thead>
<tr>
<th>79</th>
<th>#past</th>
<th>80</th>
<th>#ipfv</th>
<th>81</th>
<th>#sbrd</th>
<th>82</th>
<th>#acc</th>
<th>83</th>
<th>#rec</th>
<th>84</th>
<th>#erg</th>
</tr>
</thead>
<tbody>
<tr>
<td>po</td>
<td>s/he</td>
<td>to</td>
<td>po</td>
<td>to</td>
<td>po</td>
<td>to</td>
<td>po</td>
<td>to</td>
<td>po</td>
<td>to</td>
<td>po</td>
</tr>
<tr>
<td>ke</td>
<td>go</td>
<td>ə</td>
<td>ke</td>
<td>go</td>
<td>ke</td>
<td>go</td>
<td>ke</td>
<td>go</td>
<td>ke</td>
<td>go</td>
<td>ke</td>
</tr>
<tr>
<td>ə</td>
<td>arm-a</td>
<td>ə</td>
<td>ə</td>
<td>ə</td>
<td>arm-a</td>
<td>ə</td>
<td>ə</td>
<td>ə</td>
<td>arm-a</td>
<td>ə</td>
<td>arm-a</td>
</tr>
</tbody>
</table>

Syntax
"I didn't see where she was going" (lit. "I didn't see the place to which she was going")

This a is the same morpheme as the a in attributive adjectives; indeed, relative clauses can be thought of as multi-word adjectives: The examples above might be more literally translated as "an able-to-speak-Na'vi person" and "a she-was-going-to-it place", with "able to speak Na'vi" and "she was going to it" being attributives (∼ adjectives). Indeed, attributive adjectives are simply reduced, one-word relative clauses;

siltsana tipawm "a good question"

is just a reduced form of

lu siltsan a tipawm "a question which is good".

Relative clauses are also similar in meaning to the participle:

\[
Palulukan\ atusaron\ lu\ lehrrap.
\]

\[
\begin{array}{cccc}
\text{palulukan} & \text{a-\text{t\text{\text{-}}\text{c\text{\text{-}}\text{us}}\text{\text{-}}\text{aron}}} & \text{lu} & \text{le-hrrap} \\
\text{thanator} & \text{attr}^{86}\text{-\text{hunt}\text{\text{-}}\text{actv}^{87}} & \text{be} & \text{adj}^{88}\text{-danger}
\end{array}
\]

"A hunting thanator is dangerous."

\[
\begin{array}{cccc}
\text{palulukan} & \text{a} & \text{\text{\text{-}}\text{ter\text{-}}\text{aron}} & \text{lu} & \text{le-hrrap} \\
\text{thanator} & \text{\text{-}sbrd}^{89} & \text{\text{-}hunt}\text{\text{-}ipfv}^{90} & \text{be} & \text{adj}^{91}\text{-danger}
\end{array}
\]

"A thanator that's hunting is dangerous."

A slightly more complex example of a relative clause is,

'Awpot set ft\text{\text{-}}\text{ey\text{-}ayngal\text{-}a} t-ayngakip, 'awpot a Na'\text{\text{-}viru\text{-}yomtiyiing.

"Choose one among you (that is, 'one who is among you'), one who will feed the People."
now choose \textit{pl} to be one among People dat \textit{imm}
(Lit, "you-all choose an is-among-you individual, a will-feed-the-People individual")

Here, in 'awpot a Na'vuru yomtiqìng "one who will feed the People", the attributive a is not adjacent to the verb, and so cannot be attached to it in writing the way it is attached to adjectives. The attributive a is also used when a prepositional phrase modifies a noun. In English, "the cat in the hat" can be thought of as "the cat which is in the hat", with the verb 'to be' dropped. In Na'vi, though the 'be' need not be said, the a 'which' must be:

*Fìpoluvrrtep a misokx atsleng*

"It is a demon in a false body"
<table>
<thead>
<tr>
<th>102</th>
<th>#be</th>
<th>103</th>
<th>#attr</th>
<th>104</th>
<th>#attr</th>
</tr>
</thead>
<tbody>
<tr>
<td>126</td>
<td>fi-po</td>
<td>lu</td>
<td>vrrtep</td>
<td>a</td>
<td>mî+tokx</td>
</tr>
<tr>
<td></td>
<td>this-one</td>
<td>be</td>
<td>demon</td>
<td>attr</td>
<td>in+body</td>
</tr>
</tbody>
</table>
Similarly, *mesyalhu a ikran* "a banshee with (-hu) two wings". In cases where English uses a stranded preposition\(^{105}\), as in "someone to talk with", Na’vi needs to repeat the noun or a pronoun:

Ke lu kawtu a nulnivew oe pohu tireapivängkxo òo Utral Aymokriyä,[17]

"There’s nobody I’d rather commune with under the Tree of Voices"
ke lu ke-’aw-tu a ni-ul-neu ew \textsuperscript{adv} \textsuperscript{107} oe po-hu tirea-p-angkxo \textsuperscript{sjv} \textsuperscript{108} I him/her-with spirit-converse(sjv) \textsuperscript{109} under tree \textsuperscript{pl} \textsuperscript{110} voice-gen \textsuperscript{111}

\textsuperscript{106} #sbrd  
\textsuperscript{107} #adv  
\textsuperscript{108} #sjv  
\textsuperscript{109} #sjv  
\textsuperscript{110} #pl  
\textsuperscript{111} #gen
Or literally, "There isn't nobody that I'd more like to commune with them under the Tree of Voices." Similarly,

_Po tsane karmā a tsengit ke tsime’a oel._
|  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| **po** | **tsa-ne** | **k<arm>ä** | **a** | **tsenge-it** | **ke** | **tsim>e’a** | **oe-il** |
| she | it-to | go< past¹¹² | | place- acc¹¹⁵ | not | see< rec¹¹⁶ | I- erg¹¹⁷ |

---

¹¹² #past
¹¹³ #ipfv
¹¹⁴ #sbrd
¹¹⁵ #acc
¹¹⁶ #rec
¹¹⁷ #erg
"I didn't see where she was going."

Or literally, "I didn't see the place that she went to." The tsane could be dropped, though with a bit of ambiguity, as it would no longer be completely clear that the place was her destination. When a subject or object in the relative clause refers to the noun that it modifies, then it can be dropped:

*tsayerikit tolaron a tute "the person who hunted that hexapede" (it's not required to say in full *pol tsayerikit tolaron a tute "the person who he hunted that hexapede")

*fitutel tolaron a yerik "the hexapede which this person hunted" (rather than *fitutel pot tolaron a yerik "the hexapede which this person hunted it")

However, a noun in the dative or other case may not be dropped, though normally converted to a pronoun:

*lu poru mesyal a ikran "a banshee that has two wings" (lit. 'a banshee which to it there are two wings'), not *mesyal lu a ikran or *mesyal a ikran.

### 12.5.1 Relative clauses with empty nouns

In the previous examples, the relative clause modified a pronoun, *fu "this", which did little except to anchor the relative clause. By inflecting the pronoun for case, this allows the relative clause to play various roles in the sentence. For example, the pronoun may be in the accusative, *fu, which when followed by a plays the role of "that" in "I think that [X]":

*Ke fparmil oel futa lu tute a tsun ni-Na'vi set fifya pivlitxe!

"I didn't think that there was anyone who could speak Na'vi like that at this point!"
<table>
<thead>
<tr>
<th>ke</th>
<th>fpærmlil oel</th>
<th>fi-ù-t=a</th>
<th>lu</th>
<th>tute</th>
<th>a</th>
<th>tsun</th>
<th>mì-Na’vi</th>
<th>set</th>
<th>fi-ľya</th>
<th>p&lt;iv&gt;llţxe</th>
</tr>
</thead>
<tbody>
<tr>
<td>not think&lt;past¹¹⁸. ipfv¹¹⁹&gt; I-erg¹²⁰</td>
<td>this-thing-acc¹²¹ = sbrd¹²²</td>
<td>be</td>
<td>person</td>
<td>sbrd¹²³</td>
<td>be.able</td>
<td>adv¹²⁴- Na’vi</td>
<td>now</td>
<td>this-way</td>
<td>speak&lt; sjv¹²⁵&gt;</td>
<td></td>
</tr>
</tbody>
</table>
(Lit. "I didn't think this [X] thing", where [X] is "there is a can-now-thus-speak-Na’vi person").

As an accusative form, *futa* is used with an ergative agent when the main verb is transitive. With an intransitive clause, the form would be *fwa*, a contraction of *fi’u-a*.

Law lu oeru fwa nga mi reltseo nolume nitzan!

"It's clear to me that you've learned a lot in art."
law  lu  oe-ru  fi-'u-a  nga  mì  rel-tseo  n<ob>ume  ni-tran
clear  be  I-dat\textsuperscript{126}  this-thing-attr\textsuperscript{127}  you  in  image-art  learn\textsuperscript{<pfv>128,}  adv\textsuperscript{129}  great

\textsuperscript{126} #dat
\textsuperscript{127} #attr
\textsuperscript{128} #pfv
\textsuperscript{129} #adv
$Tsni$ is also used with an intransitive main verb such as $silpey$ "to hope" or noun $+ si$:

$Atzâle si tsnî livu oheru Uniltaron.$

"I (respectfully) request (that I have) the Initiation."
| 130 | #sjv  
| 131 | #form  
| 132 | #dat  

| ätxäle | si | tsmì | l\(\langle\text{iv}\rangle\text{u}^{130}\) | ohe-r\(\rangle\text{u}^{131}\) | unik-taron |
| request | make | that | be\(\langle\text{sjv}\rangle^{130}\) | I. form\(^{131}\)-dat\(^{132}\) | dream-hunt |
(If the "I" were spoken here, it would be of the form oe.) Both the tsnì and the subjunctive may be dropped, in which case a clause like "I hope" functions as a discourse particle\textsuperscript{133}, coordinate to the adjacent clause:

\textit{Silpey oe, layu oeru ye’rin silt'ana fmaun a tsun oe ayngaru tiving.}

"I hope I will soon have good news to give you."
Syntax

simple
hope
I
lay
you
-ru
ye
rin
silsan
a
fmawn
a
tsun
oe
ay
nga
ru
t
iving
be
fut
I-
dat
soon
good
attr
news
sbrd
can
I
give
pl
you
dat
give
sjv

134 #fut
135 #dat
136 #attr
137 #sbrd
138 #pl
139 #dat
140 #sjv
Other small grammatical words than pronouns may head the relative clause. One of them, *krr "time"*, behaves as an adverb in that it does not take case endings to show its relationship to the main verb:

*Tieyngit oel tolel a krr, aynaru payeng.*

"When I get an answer, I'll tell you."
Relative clauses

Note that the verb 'get' is perfective, even though it is not in the past, as I do not plan on telling you until the event of getting the answer is complete. Such subordinating words may also appear at the beginning of a sentence:

_Fwa sute pxel nga tsun oeyá hi’ia tingopit sivar fte pivltxe nilor fitxan oeru teya si._
fi‘u-a ay+tute pxel nga tsun oe-yä hi‘i-a ti- s‘iv’ar fte p‘iv’lxm‘i-lor fi- txan oe-ru teya si

this-sbrd pl150 person like you can I-gen151 little-attr152 nomz153 use so.that speak adv157-this-svj156 beautiful much I-full make

definitions:

149 #sbrd
150 #pl
151 #gen
152 #attr
153 #nomz
154 #acc
155 #sjv
156 #sjv
157 #adv
158 #dat
"I'm glad that people like you can use my little creation to speak so beautifully."

Here the independent clause is \textit{fi'u oeru teya si} "this fills me (with joy)". Combined with the adposition \textit{hu} "(together) with", this \textit{fwa} translates the English conjunction "although", and similar expressions based on \textit{tsafya} "that way" the conjunction "however (whichever way)". However, "however" in the sense "but" (as in this sentence) is a separate word, \textit{ngian}, as noted above.
13 Discourse

Beyond the level of syntax is discourse\(^1\). This is the influence that the practical requirements of speech have on grammar. Such influences include the relative frequency of words and phrases; context, mutual knowledge, and the flow of information in a conversation; and the intentions and feelings of the speakers. For example, the choice between long and short case forms and long and short plural forms may depend on such factors; other areas of grammar influenced by discourse factors include the choice between preposition and suffix; "free" word order; the choice between referring to something with a noun or with a pronoun; the omission of pronouns, tense, aspect, and mood when these are assumed to be understood; the choice between using the topic or a grammatically determined case for a noun phrase; the use of second-position (affect) infixes in a verb; and the transitivity of the verb.

13.1 Discourse particles

Various particles\(^2\) in Na'vi are used for addressing people, expressing emotion, and organizing a conversation. For example, *tse* is used to introduce an utterance, a mild announcement that one has something to say, like "now" or "well" in English. *Tut* is a particle of continuation; if someone asks for your name, or how you are, after answering you can add *ngaru tut? "and you?*\(^{3}\) The vocative particle *ma* was covered in the chapter on nouns\(^4\), and the question-tag particle *srake* in the chapter on questions\(^5\). Also considered particles are interjections\(^6\) such as *tewti! "wow!*", though other parts of speech may be used in this fashion, such as *tam* "to suffice" or "okay".

13.2 Affect

The second-position infixes\(^7\), covered in the chapter on verbs,\(^8\) are determined primarily by discourse phenomena: The emotional connection the speaker has with the event, how likely the statement is to be accurate, and how much respect the social situation calls for. There are also emotive particles\(^9\) that appear at the end of a clause and reflect the emotional connection the speaker feels about the topic of discussion or with the audience:

---

1  #discourse
2  #particle
3  #nouns
4  #questions
5  #interjection
6  #Infixed\_II
7  #chapter\_on\_verbs\_II
8  #particle
• Disparaging *pak*, as in *Tsamsiyu pak?* "Hah! A warrior! (you call that a warrior?)"

• A particle for surprise, exclamation, and encouragement, *nang* "oh my!", which typically occurs with *nîtxan* "so much", as in *sevin nîtxan nang!* "my aren't you pretty!" or "look how pretty you are!"

• A particle *ko* which elicits agreement, like the *eh* of Canadian English\(^9\) (in other English dialects, *ko* can be translated "let's", "okay!", "why don't you", "wouldn't you agree?", etc.), as in *makto ko!* "Let's ride!" and,

\[ \text{Tsun tutet tspivang ko} \]

\[
\begin{array}{lll}
\text{tsun} & \text{tute-t} & \text{tsp\textlangle iv\rangle ang} & \text{ko} \\
\text{be.able} & \text{person- acc}\(^{11}\) & \text{kill\langle sjv\rangle}\(^{12}\) & \text{eh}\(^{13}\)
\end{array}
\]

"They can kill a person, you know."

13.3 Omission of pronouns

Pronouns allow one to refer to something multiple times without repeating its name. However, Na’vi goes a step further: Pronouns tend to be used when switching from one referent to another, but otherwise dropped. That is, once the identity of a referent is established, pronouns aren’t necessary, even for the subject of a clause. This is familiar from English texting, but is not as common in conversation.\(^{[note 59]}\) In Na’vi, it is good conversational style as well. The identity of subjects may also be recovered from situational expectations. If a simple statement of a feeling is made, such as *’efu ngeyn* "feel(s) tired", it can be assumed that the subject is the speaker, *oe*, as one can only be sure of one’s own feelings; and if a question, *’efu ngeyn srak?*, it can be assumed that the speaker is inquiring about *’aynga* "you", as you’re the only one whose feelings you would know directly. For third persons, one would normally expect the evidential in *’ats\rangle*, as one can have no direct knowledge of the feelings of another person: *’efatsu ngeyn* "(s/he) seems tired"; *’efatsu ngeyn srak?* "do (they) seem tired (to you)?".

13.4 Register

Two language registers\(^{14}\) are attested in Na’vi. The formal ceremonial register has already been introduced; it’s characterized by formal pronouns and an infix to the verb. There is also a military register. This is characterized by clipped speech—clipped even by Na’vi standards—and abbreviated pronouns. For example,

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>#acc</td>
<td>12</td>
<td>#sjv</td>
</tr>
<tr>
<td>13</td>
<td>#eh</td>
<td>14</td>
<td>#register</td>
</tr>
</tbody>
</table>

146
Tìkan tawm atep!
"Target lost!"

Tìkannot function as an English passive; the closest in the normal register would be tìkan atawn atep "a lost target". In addition, the ì is dropped from genitive pronouns: oey (pronounced [wey]) "my", ngey "your", pey "her/his", etc.

### 13.5 Topic–comment

As was discussed in the section on case, Na’vi frequently uses a topic–comment structure, where a phrase is placed at the beginning of the sentence as the topic (background) for the comment which follows:

_Sipawmirioe ngaru seyi irayo_

\[
\begin{array}{cccc}
  \text{sì-pawm-iri} & \text{oe} & \text{nga-ru} & \text{s(ei)i} \\\n  \text{pl+ nomz} & \text{I} & \text{you- dat} & \text{do< approb}, \text{ thank}
\end{array}
\]

"Thank you for the questions" (lit. "As for the questions, I thank you")

However, a noun phrase is sometimes moved to the front of a clause without it taking the topic case:

_Fìswiräti, ngal pelun molunge fitseng?_

"This creature, why do you bring him here?"

\[
\begin{array}{cccc}
  \text{fì-swirä-ti} & \text{nga-il} & \text{pe-lun} & \text{m(o)lunge} \\\n  \text{this-creature- acc} & \text{you- erg} & \text{what-reason} & \text{bring< pfv}, \text{ this-place}
\end{array}
\]

Since the topical case can only be used with nouns, in order to topicalize a clause, it must be relativized to a dummy noun:

_Furì ni’Inglishi pamrel sivi, oeru tzoa livu._

"Excuse me for writing in English."
Discourse

\[ \text{this-thing-top} \text{ adv世界级 sound-image make\textcolor{red}{\footnotesize sjv}}\textcolor{red}{\footnotesize, } \text{I- dat pardon be\textcolor{red}{\footnotesize sjv}}, \]
(Lit. "as for writing in English, may I be forgiven").

13.6 Word order

expand 'focus'

Na'vi constituent order\(^{30}\) (subject–object–verb order) is syntactically free—that is, it is determined by discourse\(^{31}\) factors rather than by syntax\(^{32}\). The word order within a noun phrase\(^{33}\) (demonstrative-numeral-adjective-noun etc.) is similarly free. One of the few cases where a set word order is common is that lu tends to come at the beginning of a clause when it is used without a subject to mean "there is", a construction used for "to have": \textit{Lu oeru ikran} "I have a banshee". The basic (least marked) order is perhaps subject before object. Moving an argument to the front of a clause can be used to focus\(^{34}\) on it. For example,

\textit{Na'vi aygerikit yom} "The People eat hexapedes"

\textit{Aygerikit Na'vi yom} "Hexapedes (not direhorses) are eaten by the People"

That is, "hexapedes" are the point of the statement. (Na'vi does not have a passive voice\(^{35}\), which may perform a somewhat similar function in English.) This is the opposite of the topic, which would set the hexapedes up as the background for a following point:

\textit{Aygerikiri, Na'vi yom} "As for hexapedes, the People eat them."

Likewise, moving an argument from where it would be expected at the front of a clause to the end may give it more "punch":

\textit{Lu oeru kxetse} "I have a tail" (neutral statement)

\textit{Ngeyä kxetse lu oeru} "Your tail is mine!" (emphasis on mine)

As noted under dative case\(^{36}\) in the chapter on nouns\(^{37}\), the default word order of possession is lu "be" followed by the possessor in the dative, as in \textit{lu oeru} "I have". Along with context, this helps distinguish who is who in a multiple dative construction:

\textit{Lu oeru ayli' u frapor}.

"I have something (= words) to say, to everyone."

\begin{verbatim}
lu       oe-ru       ay-li' u       fra-po-r
be       I- dat\(^{38}\)   pl\(^{39}\)-word   every-one- dat\(^{40}\)
\end{verbatim}

\(^{30}\) #constituent_order
\(^{31}\) #discourse
\(^{32}\) #syntax
\(^{33}\) #phrase
\(^{34}\) #focus
\(^{35}\) #passive
\(^{36}\) #Dative
\(^{37}\) #Nouns
\(^{38}\) #dat
\(^{39}\) #pl
\(^{40}\) #dat
where *frapor* "everyone" can be understood to be the recipient because it is not adjacent to the verb.\[18\] Another factor in Na’vi word order is aesthetic. For example, *nga yáwne lu oér* "I love you" (lit. "you are beloved to me") has the order it does because it is considered the most euphonious. In proverbs and songs, meter is also a consideration. For example, in the *koréna áówve tiruséyá́ *awsité́ng* ("the first rule of living together", AKA the Golden Rule):

\[
\begin{align*}
\text{Hém ngeyá́ zénké fsóru lívú,} \\
tsáhem a ngáru prité́ ke lú \text{[note 60]}
\end{align*}
\]

### 13.7 Clause order

This kind of subordinating strategy is common among human fixed-order verb-final languages\[41\] such as Japanese\[42\], Korean\[43\], and Turkish\[44\]. Indeed, though these examples followed the English word order of subordinate clause following the noun it modifies, the human verb-final order of subordinate clause preceding the noun is also possible in Na’vi:

\[
\begin{align*}
\text{Tsun oe ngahu ní-Na’vi pivángkzo a fí’u oeru prte’ lu.} \\
\text{"It’s a pleasure to be able to chat with you in Na’vi."}
\end{align*}
\]
be.able I. intr⁴⁵ you-with Na’vi adv⁴⁶ Na’vi chat⁴⁷ sbrd⁴⁸ this-thing I- dat⁴⁹ plea-sure? be
Discourse

"this being-able-to-chat-with-you-in-Na’vi thing is a pleasure to me"

For example, "I didn’t see where she was going", po tsane karmā a tsengitke tsime’a oel above, could also be worded oel tsime’a ke tsengit apo karmā tsane, where po karmā tsane "she was going there" occurs on either side of the object tsengit "place". This contrast can be further seen in the following, where a relative clause is used to nominalize a clause in order for it to form a topic:

Ngaloeyä ’upxaret aysuteru fpole’ a fi’uri, ngaru irayo seiyi oe nitzan!

"Thank you very much for sending my message to people!"
<table>
<thead>
<tr>
<th>nga-l</th>
<th>oe-eyä</th>
<th>'apxare-t</th>
<th>ay+tute-</th>
<th>fp&lt;col&gt;e</th>
<th>a</th>
<th>fi-'u-ri</th>
<th>nga-ru</th>
<th>irayo</th>
<th>s&lt;ei&gt;i</th>
<th>oe</th>
<th>ni-tzan</th>
</tr>
</thead>
<tbody>
<tr>
<td>you-\text{erg}^{50}</td>
<td>I- \text{gen}^{51}</td>
<td>message-\text{acc}^{52}</td>
<td>ru \text{pl}^{53}</td>
<td>\text{person}^{54}</td>
<td>\text{pfv}^{55}</td>
<td>\text{sbrd}^{56}</td>
<td>this-thing-\text{top}^{57}</td>
<td>you-\text{dat}^{58}</td>
<td>thank</td>
<td>do\text{&lt;approb}^{59}</td>
<td>I. \text{intr}^{60}</td>
</tr>
</tbody>
</table>
or conversely,

*Furian*gal oeyä ‘upzaret aysuteru fpole’, ngaru irayo seiyi oe nitzan!
fi-'u-ri-a nga-l oe-eyä 'upxare-ru ay+sute- fp<obj> nga-ru irayo sceïi oe ni-txan

this-thing-top62- sbrd63 you-erg64 I-gen65 message-acc66 ay+sute- fp<obj> nga-ru irayo sceïi oe ni-txan

much
"Because" for the English clause order (verb-X because verb-Y) is either taweyk(a) (from oeyk "cause") or talun(a) (from lun "reason"). With the opposite clause order, the forms switch to aweykta and alunta.

13.8 Transitivity

Verbs in which transitive and intransitive forms imply different agents are made transitive with the causative\(^{74}\) infix \textlangle eyk\textrangle. For example, latem means "change", as an object changes by itself, as say the seasons change; if an external agent causes the change, however, the form is l\textlangle eyk\textrangleatem. Similarly sngã'i is "begin" in the sense that something happens on its own, as the rain begins; with an external agent, as in "I began work", the form is sng\textlangle eyk\textrangleã'i. However, with many verbs, transitivity does not imply a change in the acting agent. For example, pey may be either "wait" (intransitive) or "await" (transitive):

\textit{Niaynga oe perey niteng.}  
"Like you, I too am waiting."

\begin{verbatim}
 ni-ay-nga oe p\langle er\rangleey ni-teng
 adv\textsuperscript{75} - pl\textsuperscript{76} -you I wait\{ ipfv\textsuperscript{77} \} adv\textsuperscript{78} -same
\end{verbatim}

\textit{Oe tsun pivey trrit a nga taying ayoer(u) ni‘ul.}  
"I can await the day when you will give us more."

\textsuperscript{74} #causative  
\textsuperscript{75} #adv  
\textsuperscript{76} #pl  
\textsuperscript{77} #ipfv  
\textsuperscript{78} #adv
I can wait you give pl dat adv -more
Here the person waiting is the same, regardless of the transitivity of the verb, so the causative infix is not used. General action, without any specific object, as in English "I ate too much", is intransitive, whereas an implied but unstated object, as in "he ate some (of it)", is transitive. Thus,

\[\text{Oe } \text{taron}\]
"I hunt"

\[
\begin{array}{c}
\text{oe} \\
\text{I. intr}^{86}
\end{array}
\begin{array}{c}
taron \\
hunt
\end{array}
\]

Here the speaker is merely saying that hunting is an activity that they engage in; this equivalent to such intransitive clauses as "I walk". An overt object, on the other hand, requires that the agent be in the ergative case:

\[\text{Oel tolaron pa’lit}\]
"I hunted a direhorse"

\[
\begin{array}{c}
oe-l \\
\text{I- erg}^{87}
\end{array}
\begin{array}{c}
t<\text{o}l> \text{aron} \\
hunt< pfv>^{88}
\end{array}
\begin{array}{c}
pa’li-t \\
direhorse- acc^{89}
\end{array}
\]

If, however, the agent is in the ergative case, but there is no expressed object, then an omitted object is understood. So if asked about yerik, the speaker might say,

\[\text{Taron oe-l kop.}\]
"I hunt them too"

\[
\begin{array}{c}
taron \\
hunt
\end{array}
\begin{array}{c}
oe-l \\
\text{I- erg}^{90}
\end{array}
\begin{array}{c}
kop \\
as.well
\end{array}
\]

In the case a relative clause removed either the subject or object of a dependent clause, the case of the other, and the transitivity of the dependent verb, are unaffected:

\[\text{Ikran a tolaron oel tsawl lu nitzan.}\]
"The banshee I hunted was very big."

---

86 #intr
87 #erg
88 #pfv
89 #acc
90 #erg

158
ikran a tölaron oe-l tsawl lu nì-txan
banshee. intr91 sbrd92 hunt< pfv93> oe-l94 tsawl91 lu91 ni-txan
big be adv95-great
Here *ikran* is in the intransitive case because it is the subject of *lu* "to be"; however, *oel* remains in the ergative, since the object is understood from the context: *Ikran a tolaron pot oel tsawel lu nitzan* "the banshee which I hunted it was very big". The ergative case can also be dropped if the object is retain in a non-accusative case, as in a topic:

*Tifyawintxuri oeyā perey aynga niwotx.*

"You are all waiting for my guidance."

```
ti-fya-wintxu-ri  oeyā  p<er>ey  ayn-ga  ni-wotx
nomz96-way-show- top97  I-gen98  wait< ipfv99>  pl100-you  adv101-all
```

With an intransitive verb, the causative102 simply makes the verb transitive. For example, from *po holahaw* "he.INTR slept" we get *oel h<eyk>olahaw poti* "LERG put him.ACC to bed (made him sleep)". However, if the verb is already transitive, its subject (now the 'causee') becomes dative rather than accusative. That is, there may be up to three arguments, in the ergative, dative, and accusative cases. So, from *Neytiril yerikit tolaron* "Neytiri.ERG hunted a hexapede.ACC, we get:

*Eytukanil Neytiriru yerikit teykolaron.*

"Eytukan had Neytiri hunt a hexapede."

```
eytukan-il  neytiri-ru  yerik-it  t<eyk>olaron
(name)- erg103  (name)- dat104  hexapede- acc105  hunt< caus106> pfv107
```

Not all arguments are required; also, the causee can be included but made more peripheral by putting it in an adpositional phrase:

```
Eytukanil yerikit teykolaron. Also: Eytukanil fa Neytiri yerikit
teykolaron.

"Eytukan had a hexapede
hunted."  "Eytukan had a hexapede hunted by Neytiri."
```

96 #nomz  
97 #topic  
98 #gen  
99 #ipfv  
100 #pl  
101 #adv  
102 #causative  
103 #erg  
104 #dat  
105 #acc  
106 #caus  
107 #pfv
In English, the opposite of a causative is a passive\textsuperscript{116}. Na’vi does not have passives; something like "hexapedes are eaten" would be worded *fkol yom ayyerikit* "one eats hexapedes", with the pronoun *fko* "one". The difference between "hexapedes are eaten by the People" and "the People eat hexapedes" is essentially one of word order; since Na’vi word order is free, it can be changed without having to change the verb or the subject, as noted above.
14 Lexicon

Frommer had created a thousand words for Na’vi by the time Avatar was released. Although that number is relatively small, Frommer has stated that with further development the language could be used for everyday conversation.[19]

14.1 Common phrases

A few conversational items are

káme "to See" (to see into and understand a person)

oél ngåti káméie "I See you" (a greeting)

kámé ngåt "See you" (a shortened response)

kiyéváme "good-bye; See you soon"

kaltxì "hello"

ngaru lu fpom srak? "how are you?"

rutxé "please"

iráyo "thank you"

óe ngårui seiyiráyo "I thank you"

Fyape fko syaw ngårui "What's your name?" (lit., "How does one call you?")

Oeru syaw (fko) Atayo. Ngarutut? "(They) call me Atayo. And you?"

maw xìktay ayoc tìyåtxaw. "we'll be right back."

gawne "beloved"

nga yåwne lu oér "I love you"

óeru tzóa livú "forgive me"

Éywa ngåhu "God (Gaia) be with you"

gola krr, txana krr, ke tsrænten "It doesn’t matter how long it takes"

ngåri Náwma Sá’nok lörtok soleiyí "the Great Mother has smiled upon you"

ftxzåri ahyrtok ngårui "smiles to you on you celebration" (happy holidays, happy birthday, etc.)

lörtok ngårui "good luck!"
Lexicon

skxáwng! "moron!"
pxasìk "screw that!; no way!"
óé omún "I know"
tam "okay"
tslo lám "got it; understood."

tsún tivám "not bad/pretty good" (that should do / good enough)
silpey oe pxengaru srung soli "I hope I helped you"

X niNá’vi slu ’ipe? "how do you say X in Na’vi?"

Agyizayu pllxuye san... or Pllxuye agyizayu san... "Once upon a time..." (lit. "the ancestors tell (us)...")

Fifya pllxuye agyizayu. "This is what the ancestors tell." (closing to a story)

Oe tiyawn ngenga. "I love you"

Na’vi has insults, such as skxawng, and rude words, such as pxasìk, but no words considered obscene.

### 14.2 Compounds

Many words are created by compounding, which is effected by simply joining the elements together: kâmákto "to ride out", from kā "to go" and makto "to ride"; èltungawng (a species of hallucinogenic worm), from eltu "a brain" and ngaung "a worm"; fiéke "lest", from fte "so that" and ke "not". In compounds with a monosyllabic verb, it may be the second element which inflects, even when the inflection would be expected before that, as in yomtìng "to feed" (lit. "to give to eat"), where the first-position infix iy appears instead in the final syllable: yom-ìyiìng. Compounds are often truncated, for example prrnesyul "bud" from prrmnen "infant" + syulang "flower". Similarly, tute "person" is frequently compounded in an abbreviated form -tu, as in pamtseotu "musician" (lit. 'sound-art-person').

### 14.3 Ideophones

Na’vi has a few attested ideophones, words which mimic the sound or sensation of the thing they describe, such as krángangang "boom!", which appears to capture the initial explosion with the first syllable, and the reverberating effect of it with the subsequent syllables.

---

1. *#compound*
2. *#ideophone*
14.4 Idioms

Some Na’vi expressions are idiomatic or have been shortened to the point they are no longer directly understandable. For instance, *oeru teya si* means "I’m glad"; it’s short for *fpom oeru teya si* "joy fills me".

14.5 Loan words

The Na’vi vocabulary includes a few English loan words\(^3\), such as *’Rrta "Earth"*. Na’vi lacks the English sounds *b, d, g, ch, j, oy, qu, sh, th*, and the *s* sound in *fusion*. Therefore, when English words or names are adopted, these need to be replaced with Na’vi sounds. *B, d,* and hard *g* are replaced with *p, t, k,* as in *pätsì "badge", toktor "doctor"* (title), and *kunsìp "gunship"*; *sh* and the *fusion* sound are replaced with *s* and *z*, as in *kunsìp*, while *ch, j,* and soft *g* are replaced with *ts* or *tsy*, as in *pätsì* and *Tseyk "Jake"*.

14.6 Changing parts of speech

In English, word order is fixed subject-verb-object, number-adjective-noun, etc, but a word may be used as any of several parts of speech. For example, *"dance"* may be a noun or a verb (to dance a dance), *"yellow"* may be an adjective or a noun (a yellow apple, a deep yellow), *"fast"* may be an adjective or an adverb (we walked fast, we are fast), etc. Na’vi is the opposite: word order is largely free, but with a few exceptions, words are restricted to a specific part of speech. For instance, *srew* can only be a verb *"to dance"*; the noun is *tìsrew*. Likewise *rim* is *"yellow"* and *tìrim* *"the color yellow"*; *win* *"fast"* and *niwin* *"quickly"*. In general:

- Adjectives may be derived from nouns and verbs with *le-*: *hrrap "danger" → lehrrap "dangerous"*; *fngap "metal" → lefngap "metallic"*; *sar "use" → lesar "useful"*. Note also *leNa’vi "of the Na’vi, Na’vish"*. (The attributive *a-* is generally dropped before this *le-*)

- Adverbs are formed from all parts of speech with *nì-*: *ftúe "easy" → nìftúe "easily"*; *ayoeng "us" → nìayoeng "like us"*; *rim "yellow" → nìrim "in yellow"*; *silpey "to hope" → nìsilpey "hopefully"*, *awnomun "known" (omun "to know" → nìawnomun "as is known").*

- Abstract nouns may be derived from verbs and adjectives, and even from concrete nouns, with the prefix *tì-*: *rey "to live" → tìrey "life"*; *ngay "true" → tìngay, "truth"*.

- An agent of a verb (English *-er*) is indicated with *-yu*: *táron "to hunt" → táronyu "a hunter"* [\^note 62\]  

Affixation is common in Na’vi. Another strategy, *reduplication*\(^4\), is only attested in one word, the adjective *letrrrr "everyday, ordinary"*, from *trr "day"*, though *’engeng "even, level"* shows evidence of reduplication in the past. Not all apparent affixes necessarily are. Some are coincidence. For example, the word *tìran "to walk"* is a verb; the *tì* is part of the root, not the nominal prefix. The noun *"a walk"* would be *tìtìran*. Likewise

---

\(^3\) #loan  
\(^4\) #reduplication
meuia "honor" is singular, not dual\(^5\), which would be memeuia, and tswayon "to fly" is not future, which would be tswayaton. Note that some states described with adjectives in English are stative verbs\(^6\) in Na’vi, such as sim "be near", lim "be far", and fnu "be quiet". The first two have irregular adverbial forms, asim "nearby" and alim "far away", which presumably originated from an adverbial phrase ni-[noun] a sim etc. A few words belong to more than one part of speech. Most notable of these are words of time, such as krr "time" and trr "day", the derivatives of which function as both noun and adverb. Tsakrr, for example, doesn’t mean just "that time" but more commonly "then" (at that time), and fitrr isn’t just "this day" but also "today" (on this day).

### 14.7 Cognates

Numerous Na’vi words appear to be cognate\(^7\), though without any known method of derivation. For example, eyk is "to lead", oeyk "a cause", and 〈eyk〉 caus\(^8\); other words possibly related to each other are 'ewan "young" and 'eveng "child", or ke yey "not straight" (crooked) and kxyey "mistake".

---

\(^5\) #dual
\(^6\) #stative
\(^7\) #cognate
\(^8\) #caus
15 Texts

The publicly available texts in Na'vi include short snippets and phrases released in interviews, a couple spoken samples of the language provided with transcriptions, two poems, and a page from the Na’vi script of the film.

15.1 Phrases

Following are publicly released samples of Na’vi that were not used in the text of this Wikibook.

Fìskxawngìritsap’alutesängioe. "I apologise for this moron."[20]

\[
\begin{array}{c|c|c|c}
\text{fi-skxawng-iri} & \text{tsap’alute} & \text{s<âng>i} & \text{oe} \\
\text{this-moron- top}^1 & \text{apology} & \text{make } \text{pej}^2? & \text{I}
\end{array}
\]

Fayvrrtep fitsenge lu krani. "These demons are forbidden here."[20]

\[
\begin{array}{c|c|c|c}
\text{fi-ay-rrrtep} & \text{fi-tsenge} & \text{lu} & \text{krani} \\
\text{this- pl}^3\text{-demon} & \text{this-place} & \text{be} & \text{forbidden}
\end{array}
\]

Oeri ta peyä fahew akewong ontu teya lângu. "(Ugh,) my nose is full of his alien smell."[21]
<table>
<thead>
<tr>
<th>4</th>
<th>topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>gen</td>
</tr>
<tr>
<td>6</td>
<td>attr</td>
</tr>
<tr>
<td>7</td>
<td>pej</td>
</tr>
</tbody>
</table>
Phrases

Tawsip ngeyä lu sngeltseng. "Your ship is a garbage scow." [translation from Klingon][16]

<table>
<thead>
<tr>
<th>taw-sip</th>
<th>ngeyä</th>
<th>lu</th>
<th>sngel-tseng</th>
</tr>
</thead>
<tbody>
<tr>
<td>sky-ship</td>
<td>your</td>
<td>be</td>
<td>garbage+place</td>
</tr>
</tbody>
</table>

Ayftxozä lef pom ayngaru niwotx! "Happy Holidays to you all!"[22]

<table>
<thead>
<tr>
<th>ay-ftxozä</th>
<th>le-f pom</th>
<th>ayn- nga-r u</th>
<th>ni-wotx</th>
</tr>
</thead>
<tbody>
<tr>
<td>pl8-holiday</td>
<td>adj9-well.being</td>
<td>pl10-you- dat11</td>
<td>adv12-all</td>
</tr>
</tbody>
</table>

Mipa zisit lef pom ngaru! "Happy New Year!"[22]

<table>
<thead>
<tr>
<th>mip-a</th>
<th>zisit</th>
<th>le-f pom</th>
<th>nga-r u</th>
</tr>
</thead>
<tbody>
<tr>
<td>new- attr13</td>
<td>year</td>
<td>adj14-well.being</td>
<td>you. sg15- dat16</td>
</tr>
</tbody>
</table>

Li’fyä ngeyä silt san lei u nitran. "Your (use of) language is very good!"[22]

<table>
<thead>
<tr>
<th>li’-fyä</th>
<th>ngeyä</th>
<th>silt san</th>
<th>l(ei)u</th>
<th>ni-txan</th>
</tr>
</thead>
<tbody>
<tr>
<td>speak?-way</td>
<td>your</td>
<td>good</td>
<td>be&lt; approb17</td>
<td>adv18-great</td>
</tr>
</tbody>
</table>

'Auwea ultxari ohengeyä, Nawma Sa’nok lrrtok siveigi. "May the Great Mother smile upon our first meeting."[23]

8 #pl
9 #adj
10 #pl
11 #dat
12 #adv
13 #attr
14 #adj
15 #sg
16 #dat
17 #approb
18 #adv

169
<table>
<thead>
<tr>
<th>'awvea</th>
<th>ultxa-ri</th>
<th>ohe-nga-gä</th>
<th>nawm-a</th>
<th>sa’no’k</th>
<th>lrrtok</th>
<th>s&lt;iv&gt;ei’i</th>
</tr>
</thead>
<tbody>
<tr>
<td>first</td>
<td>meeting- top</td>
<td>1. form + young</td>
<td>great- attr</td>
<td>mother</td>
<td>smile</td>
<td>make&lt; sjv&gt;</td>
</tr>
</tbody>
</table>

19 #topic
20 #form
21 #gen
22 #attr
23 #sjv
24 #approb
"Lu awngar aytele apxay a teri sa’u piëltxe. "We have a lot to talk about." [note 63]
be incl \textsuperscript{25} awnga-ru
pl\textsuperscript{27} matter attr\textsuperscript{28} many sbrd\textsuperscript{29} about pl\textsuperscript{30} that-thing\textsuperscript{31} speak\textsuperscript{32}
Oeyä ikran slivu nga, tsakrr oeng ’awsiteng mivakto. "Be my banshee and let's ride together."[24]
oe-yü ikran sl<iv>u nga tsa-krr oe+nga 'aw-si-teng m<iv>akto
I-gen banned become<sjv> you that-time I+you one-make-same ride<sjv>
As the thanator charged towards us, Neytiri said something I will always remember.

\[\text{teng-krr palulukan me-oe-ne kwll sarmi, poltze Neytiril ayli'ut a frakrr 'ok seyâ layu oer.}\]

"As the thanator charged towards us, Neytiri said something I will always remember."

<table>
<thead>
<tr>
<th>teng-krr</th>
<th>palulukan</th>
<th>me-oe-ne</th>
<th>kwll</th>
<th>s&lt;arm&gt;i</th>
</tr>
</thead>
<tbody>
<tr>
<td>same-time</td>
<td>(name)</td>
<td>du(^{37})-I-to</td>
<td>charge</td>
<td>make&lt; past(^{38}). ipfv(^{39})</td>
</tr>
<tr>
<td>40</td>
<td>#pfv</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>#erg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>#pl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>#acc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>#sbrd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>#pl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>#gen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>#fut</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>#dat</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| say< pfv<sup>40</sup>, (name)-erg<sup>41</sup> | pl<sup>42</sup>-word | sbrd<sup>44</sup> all-time memory pl<sup>45</sup>+it-gen<sup>46</sup> be<sup>47</sup> fut | i-dat<sup>48</sup> | Neytiri-ìl ay-li’u-it a fra-krr 'ok ay+ts(e)-yā l<ay+w oe-ru |
15.2 Film script

A portion of the script of Jake, the human protagonist in the film *Avatar*, is visible in a short documentary on the making of the film. Three minutes in, there's a close-up of a page of Jake's Na'vi dialog, "Na'vi Dialog for Jake—3-13-2007", reproduced here. Stress is marked by underlining. Since the dialog is Jake's, it is likely that some of the Na'vi may be ungrammatical.[note 64]

Oel ngati kameie, ma Tsmukan, ulte ngaru seiyi ireiyo.

*I See you Brother, and thank you.*

---

49 http://i46.tinypic.com/29ekdqr.png
oe-il nga-ti kam<ci>e ma tsmuk-an ulte nga-ru s<ci>i ireiyo

I- erg\textsuperscript{50} you- acc\textsuperscript{51} See< approb\textsuperscript{52}> voc\textsuperscript{53} sibling- masc\textsuperscript{54} and you- dat\textsuperscript{55} make< approb\textsuperscript{56}> thanks
Ngari hu Eywa salen tirea, tokx ų'awen slu Na’viyá hapxì.

*Your spirit goes with Eywa, your body stays behind to become part of the People.*
nga-ri
you-top\textsuperscript{57}

hu

with

Gaia

proceed

spirit

body

remain

become

peop-gen\textsuperscript{58}

na’vi-yü

hapri

\textsuperscript{57} #topic

\textsuperscript{58} #gen
I have passed the tests.

I respectfully request the Dream Hunt.

Ätxiële si tsnì livu oheru Uniltaron.
<table>
<thead>
<tr>
<th>ätxäle</th>
<th>si</th>
<th>tsnì</th>
<th>lvîvu</th>
<th>ohe-ru</th>
<th>unil-taron</th>
</tr>
</thead>
<tbody>
<tr>
<td>request</td>
<td>make</td>
<td>that</td>
<td>5jv;</td>
<td>I. form</td>
<td>dream-hunt</td>
</tr>
</tbody>
</table>

65 #sjv
66 #form
67 #dat
Ma Eytukan, lu òeru ayh’u frapor.

Eytukan, I have something to say, to everyone.
<table>
<thead>
<tr>
<th></th>
<th>ma</th>
<th>eytukan</th>
<th>lu</th>
<th>oe-ru</th>
<th>ay-\textsuperscript{li} \textsuperscript{-} \textsuperscript{i}u</th>
<th>fra-po-ru</th>
</tr>
</thead>
<tbody>
<tr>
<td>68</td>
<td>voc\textsuperscript{68}</td>
<td>(name)</td>
<td>be</td>
<td>I- dat\textsuperscript{69}</td>
<td>pl\textsuperscript{70} - say-thing</td>
<td>every-one- dat\textsuperscript{71}</td>
</tr>
</tbody>
</table>

\textsuperscript{68} voc
\textsuperscript{69} dat
\textsuperscript{70} pl
\textsuperscript{71} dat
Ayll’u na ayskxe mì tê’lan.

The words are like stones in my heart.

---

Eo ayoeng lu txana tikawng.

A great evil is upon us.

---

Sawtute ze’ra’u fte fol Kelutralti skiva’a.

The Sky People [humans] are coming to destroy Hometree.
+taw-tute  z(ear)a’a  fte  fo-il  kelku-ultral-ti  sk(ew)a’a
pl77+sky-people  come< ipfv78>  so.that  they- erg79  home+tree- acc80  destroy< sjv81>
Piyähem fitseng ye’rin.

They will be here soon.

\[ \text{p} \langle \text{iyy} \rangle \text{ähem} \quad \text{fi-} \text{tsen} \text{ge} \quad \text{ye’} \text{rin} \]

arrive\langle imm^{82} \rangle \quad \text{this-place} \quad \text{soon}

Ayngari zene hivum, tx[...] (rest of line obscured)

You have to leave, or you will die.

\[ \text{ay} \text{-nga-ri} \quad \text{zene} \quad \text{h} \langle \text{iiv} \rangle \text{um} \]

pl^{83}-you-top^{84} \quad \text{must} \quad \text{leave} \langle \text{sv}^{85} \rangle

Ma Tsu’tey te Ro[...]

Tsu’tey of the Rongloa, son of [...] 

\[ \text{ma} \quad \text{tsu’tey} \quad \text{te} \]

voc^{86} \quad \text{(name)} \quad \text{of [in names]}

Na’vi ru [...] 

to the people [...] (handwritten)

\[ \text{na’vi-ru} \]

people- dat^{87}

Jake’s speech near the end of the movie, which Tsu’tey translated, is as follows. It was cut in places for the timing of the film, so it does not completely follow the English:

Fpole’ sawtutel ’upxaret

The sky people have sent us a message

[san] Ayoeri tsat new
tsun mivunge [sik].
they can take whatever they want [and no-one can stop them].

But we will send them a message.

You ride out [as] fast [as] the wind can carry you.

You tell the other clans to come.

For peng syeraw Toruk Makto.

You tell them toruk-makto calls [to them].

You fly now, with me,

ma smukan, ma smuke!

brothers, sisters!

and we will show the sky people

[that] they cannot take whatever they want [cannot do this]

fitsenge

[and that] this

and we will show the sky people

[that] they cannot take whatever they want [cannot do this]

fitsenge

[and that] this

l(u)awngeyä!

[that] they cannot take whatever they want [cannot do this]

fitsenge

[and that] this

l(u)awngeyä!

[that] they cannot take whatever they want [cannot do this]

fitsenge

[and that] this

l(u)awngeyä!

[that] they cannot take whatever they want [cannot do this]

fitsenge

[and that] this

l(u)awngeyä!

[that] they cannot take whatever they want [cannot do this]

fitsenge

[and that] this

l(u)awngeyä!

[that] they cannot take whatever they want [cannot do this]

fitsenge

[and that] this

l(u)awngeyä!
"I will look at this alien." (*stitxeftxaw* would also be appropriate here)

Yola *krr*, *txana krr*, *ke* *tsraten*.

"It doesn’t matter how long it takes."

*Pori zene klfrivo’ nga*.

"He is your responsibility."

Eytukan: *Tsampongut Tsu’teyil iveryk*.

"Ts’tey will lead the war party."

chant: *Srung si proru, ma* *Eywa*!

"Help her, *Gaea*!"

Mo’at: *Tiwirun po ayoekip*.

"Let her walk among us."

*Lu hasey*.

"It is finished."

There have been several attempts at working out the rest of the script. Some of these are summarized at LeanNavi.org [here](http://wiki.learnnavi.org/index.php?title=Na%27vi_from_Avatar_Movie). They likely include numerous errors.

### 15.3 Songs

Frommer translated four of Cameron’s songs into Na’vi. The *Hunting Song* is in the next section; here are the other three.

#### 15.3.1 Weaving Song

Note that several words occur in their short-plural form.

<table>
<thead>
<tr>
<th>The rhythm of rain and sun,</th>
<th>Tompayä kato, tsawkeyä kato,</th>
<th>tompa 'rain', kato 'rhythm' tsawke 'sun'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Of night and day,</td>
<td>Trrä sì txonä</td>
<td>trr day, txon night zisit year</td>
</tr>
<tr>
<td>The rhythm of the years,</td>
<td>S(i) ayzisitä</td>
<td>'ekong a beat, txe’lan heart</td>
</tr>
<tr>
<td>And the beat of the hearts,</td>
<td>Si 'ekong</td>
<td></td>
</tr>
<tr>
<td>Hearts of the People</td>
<td>te’lanä le-</td>
<td></td>
</tr>
<tr>
<td>People</td>
<td>Na’vi</td>
<td></td>
</tr>
</tbody>
</table>
Fills me, Oeruteyasi, teya full
Fills me. Oeruteyasi. Oeruteyasi.

I weave the rhythm
In yellow and blue,
The rhythm of the years,
The spiral of the lives,
Lives of the people,
Fills me,
Fills me.

Weave in yellow and blue,
The rhythm of the years,
The spiral of the lives,
Lives of the people,
Fills me,
Fills me.

15.3.2 Tree Song (Funeral Song)

This song appears in the movie. A fair amount of elision occurs, marked in parentheses.

We are all seeds / Of the Great Tree Whose strength is in our legs Like the mighty trunks, In our arms As sheltering branches, In our eyes The blue-flower Which unfolds to the sun. We are all seeds / Of the Great Tree Whose song is within us.

Utralā (a)Nawm / ayrina’ l(u) ayoeng, aysangek afkeu, Mī pun N(a) aysawnu, M(i) aynar Na seze A ’ong ne tsawke.

Uttralā (a)Nawm / ayrina’ l(u) ayoeng, A peyā tirol m(i) awnga.
15.3.3 Spiral Song

Music creates patterns
In the silence of the mind
As weavers do
In the physical world.

*Chorus:*
We sing to See
We See to sing
We sing our way
Down the eight paths
To the center.

The songs bind the thirteen spirals
Of the solid world
To the eight spirit paths
Like the threads of a Songcord.

Chorus

Pamtseol
ngop ayrenut
Mi ronsemä
tifnu
Tengfya ngop
säftxuyul
Mi hifkey.

Chorus

Awnga rol fte
kivame
Kame fte
rivol
Rerol tengkrr
kerä
Ilä fya’o avol

Ne kxamt-seng.

Aywayl yim
kifkeyä
‘Iheyut
avomrr
Sin tireafya’o
avol
Na waytelemä
hing.

15.4 Spoken texts

There are four online recordings of Frommer speaking extended amounts of Na’vi.
15.4.1 Short dialog


Half-way down the article is a sound recording of a short conversation, with English subtitles. The Na’vi is not documented; what follows likely contains some errors. Unintelligible segments are marked with ((double parentheses)).

Oel hu Txewì tram na’ringit tarmok.
*Yesterday I was with Txewì in the forest*

Tsole’a syeptutet atsawl frato mi sirey.
*and we saw the biggest Trapper I’ve ever seen.*

((L))u fo l((e))hrrap
*Those things are dangerous.*

Tsuntutet tspivang ko
*They can kill a person, you know.*

Oe ((o))num.
*I know.*

Nari soli ayoe [moe] fteke nihawng livok.
*We were careful not to get too close.*


15.4.2 Hunt Song

- BBC interview

In the 0818 broadcast, at time 3′30″, Frommer recites the second verse and chorus of the *Hunt Song* he translated for Cameron. The Na’vi text is as follows:[26]

<table>
<thead>
<tr>
<th>We are walking your way</th>
<th>Teriran ayoe ayniane</th>
<th>tiran to walk</th>
</tr>
</thead>
<tbody>
<tr>
<td>We are coming</td>
<td>Zera’u</td>
<td>za’u to come</td>
</tr>
<tr>
<td>We are singing your way</td>
<td>Rerol ayoe ayniane</td>
<td>rol to sing</td>
</tr>
<tr>
<td>So Choose</td>
<td>Ha ftxey</td>
<td>ftxey to choose</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Choose one among you</td>
<td>'Awpot set ftxey a wygląda l(u) ayngakip</td>
<td>'awpo an individual</td>
</tr>
<tr>
<td>Who will feed the People.</td>
<td>'Awpot a yom tìyìng</td>
<td>yom to eat, ting to give</td>
</tr>
<tr>
<td><em>Chorus</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Let my arrow strike true</td>
<td>Oeyä swizaw ningay tivakuk</td>
<td>swizaw an arrow, ngay true, takuk to strike</td>
</tr>
<tr>
<td>Let my spear strike the heart</td>
<td>Oeyä tukrul txe'lanit tivakuk</td>
<td>tukru a spear, txe'lan a heart</td>
</tr>
<tr>
<td>Let the truth strike my heart</td>
<td>Oeri tìng gayil txe'lanit tivakuk</td>
<td></td>
</tr>
<tr>
<td>Let my heart be true.</td>
<td>Oeyä txe'lan livu ngay.</td>
<td></td>
</tr>
<tr>
<td>You are fast and strong</td>
<td>Lu nga win sì txur</td>
<td>win fast, txur strong</td>
</tr>
<tr>
<td>You are wise</td>
<td>Lu nga tx-antslusam</td>
<td>txan much, to understand</td>
</tr>
<tr>
<td>I must be fast and strong</td>
<td>Livu win sì txur / oe zene</td>
<td></td>
</tr>
<tr>
<td>So only</td>
<td>Ha n(l)’aw</td>
<td>m’aw only, pxan worthy</td>
</tr>
<tr>
<td>Only if I am worth of you</td>
<td>Pxan livu txo m’aw oe ngari</td>
<td></td>
</tr>
<tr>
<td>Will you feed the People</td>
<td>Tsakrr nga Na’viru yom tìyìng</td>
<td></td>
</tr>
</tbody>
</table>

193
15.4.3 Public letter

- A public letter in Na’vi\(^{92}\) (2010 Jan 20) using basic vocabulary, read aloud by Frommer
  and with English subtitles.

The Na’vi is as follows. Stressed syllables are underlined.

<table>
<thead>
<tr>
<th>Na’vi</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ayeylanur oeyä si eylanur li’fyä</td>
<td>To all my friends and friends of the Na’vi language:</td>
</tr>
<tr>
<td>leNa’vi niwotx:</td>
<td>’eylan a friend, li’fyä a language (lit. ’way of speaking’), niwotx all of</td>
</tr>
<tr>
<td>Oel ayngati kameie, ma oeyä eylan,</td>
<td>I See you, my friends, and I thank you.</td>
</tr>
<tr>
<td>ulte ayngaru seiyi irayo.</td>
<td>kame to ”See”, to look into and understand, irayo thanks</td>
</tr>
<tr>
<td>Fpole’ ayngal oer fitxan niftxavang</td>
<td>I have heard the message you have sent me so passionately.</td>
</tr>
<tr>
<td>a ’upxaret stolawm oel.</td>
<td>fpe’ to send, fitxan so much (lit. ’this much’), niftxavang passionately,</td>
</tr>
<tr>
<td></td>
<td>’upxare a message, stawm to hear</td>
</tr>
<tr>
<td>Li’fyarile leNa’vi oel ’efu ayngeyä</td>
<td>I feel your love for the Na’vi language.</td>
</tr>
<tr>
<td>tiyawnit.</td>
<td>’efu to feel, tiyawne love (lit. ’beloved-ness’)</td>
</tr>
<tr>
<td>Ulte omum oel futa tifyawintxuri oeyä</td>
<td>And I know you are all waiting for my guidance.</td>
</tr>
<tr>
<td>perey ayngu niwotx.</td>
<td>ommum to know, tifyawintxu guidance, pey to wait</td>
</tr>
<tr>
<td>Spivaw oeti rutxe, ma oeyä eylan:</td>
<td>Please believe me, my friends.</td>
</tr>
<tr>
<td></td>
<td>spaw believe, rutxe please</td>
</tr>
<tr>
<td>oe new nitxan ayngaru fyawivintxu.</td>
<td>I want very much to guide you.</td>
</tr>
<tr>
<td></td>
<td>new to want, nitxan much, fyawintxu to guide</td>
</tr>
<tr>
<td>Slä niawnomum,</td>
<td>But as you know, (ni-?-omum, not currently parsable)</td>
</tr>
<tr>
<td></td>
<td>I must work together with those</td>
</tr>
<tr>
<td>zene oe ’awsiteng tikankem sivi fohu</td>
<td>’awsiteng together, tikankem si to work</td>
</tr>
</tbody>
</table>

\(^{92}\) http://masempul.org/upxare-niinglisi/
a Uniltirantokxit sì kifkeyit Eywa’evengā zamolunge awngar. who have brought us “Avatar” and the world of Pandora.

unil-tir-an-tokx an Avatar (lit. ’dream-walker body’), kifkey a world,

Eywa’-eveng Pandora (lit. ’child of Eywa’), za-munge bring hither

Foru ’upxare oel fpole’, I have sent them a message,

slä vay set ke pamähängem kea tì’eyng. but up to now no answer has arrived.

set now, pāhém to arrive, tì’eyng an answer

Niaynga oe perey nitàng. Like you, I too am waiting.

nitàng similarly

Tì’eyngit oel tolel a krr, When I receive an answer,

tel to receive

ayngaru payeng, I will let you know,

peng to tell

tsakrr paye’un sweya fya’ot and I will then decide the best way

pe’un to decide, swey best, optimal,

fya’o a way

a zamivunge oel ayngar aylì’ut horentisi to bring you the words and rules of Na’vi.

lì’u a word, koren a rule,

lì’fyayá leNa’vi.

Silpey oe, layo oeru ye’rìn siltsana fnawn a tsun oe ayngaru tiving. I hope I will soon have good news to give you.

silpey to hope, ye’rìn soon, siltsan good,

fnawn news, ting to give

Aylì’ufa awngeyä ’eylanä a’ewan In the words of our young friend Markus from Galway . . .

Markusì ta Ngalwey . . . ’ewan young

’Ivong Na’vi! Let Na’vi bloom!

’ong to bloom

Kiyevame ulte Eywa ngahu. Goodbye for now, and may Eywa be with you.
15.4.4 On this Night

- Eliyahu Ha-Na’vi\textsuperscript{93} (2010 Mar 21)

Traditional questions for Passover Seder.

*Fitxon na ton alahe niwotx pelun ke lu teng?*

"Why is this night unlike all other nights?"

\textsuperscript{93} http://whyisthisnight.com/na%27vi.mp3
Spoken texts

this-night like
ight
other
which
not be
same
Toniri alake, awngal yom hamsâ-t, yom matsa-t, ke tsranten; fitxon yom matsa-t ni’av.

"Other nights, we may eat either leavened or unleavened bread; this night we eat only unleavened bread."
<table>
<thead>
<tr>
<th>97</th>
<th>#pl</th>
<th>98</th>
<th>#topic</th>
<th>99</th>
<th>#attr</th>
<th>100</th>
<th>#erg</th>
<th>101</th>
<th>#acc</th>
<th>102</th>
<th>#acc</th>
</tr>
</thead>
</table>
| ay+txoni | a-lahe | awnga-il | yom | hameyiti | yom | matza-t | ke | tsranten |夜| 其他 | 吃 | 无 | 其他 | 吃 | 面包 | 吃 | 另外 | 面包 | 不 | 事
"Other nights, we eat all manner of greens; this night we eat only those which are bitter."
<table>
<thead>
<tr>
<th>ton-iri</th>
<th>alahe</th>
<th>awnga-il</th>
<th>yom</th>
<th>fksen-ti</th>
<th>le-rik</th>
<th>niwotx</th>
</tr>
</thead>
<tbody>
<tr>
<td>nights-as.for</td>
<td>other</td>
<td>we- erg\textsuperscript{104}</td>
<td>eat</td>
<td>vegetable.food-acc\textsuperscript{105}</td>
<td>adj\textsuperscript{106}-leaf</td>
<td>all</td>
</tr>
</tbody>
</table>

\textsuperscript{104} erg
\textsuperscript{105} acc
\textsuperscript{106} adj
<table>
<thead>
<tr>
<th>fitxon</th>
<th>yom</th>
<th>ay+tsa-it</th>
<th>a</th>
<th>lu</th>
<th>syāʾā</th>
<th>niʾaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>tonight</td>
<td>eat</td>
<td>pl107-that-acc108</td>
<td>that</td>
<td>be</td>
<td>bitter</td>
<td>only</td>
</tr>
</tbody>
</table>

107 #pl
108 #acc
Toniri adahe, awnga ke yemfpay si keng `awlo; fitxon yemfpay si melo.

"Other nights, we do not dip even once; this night we dip twice."
<table>
<thead>
<tr>
<th>ton-iri</th>
<th>alahe</th>
<th>awnga</th>
<th>ke</th>
<th>yem-f?-pay</th>
<th>si</th>
<th>keng</th>
<th>'aw-lo</th>
</tr>
</thead>
<tbody>
<tr>
<td>nights-for</td>
<td>other</td>
<td>we. intr</td>
<td>not</td>
<td>put-?-</td>
<td>do</td>
<td>even</td>
<td>one-time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>109</td>
<td></td>
<td>liquid</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tonight, we do two-time.

"Other nights, we dine either sitting upright or reclining; this night we eat reclining."

<table>
<thead>
<tr>
<th>fitxon</th>
<th>yemfpay</th>
<th>si</th>
<th>me-lo</th>
</tr>
</thead>
<tbody>
<tr>
<td>tonight</td>
<td>dip</td>
<td>do</td>
<td>two-time</td>
</tr>
<tr>
<td>ton-iri</td>
<td>alahe</td>
<td>awnga-ìl</td>
<td>yom</td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>nights-</td>
<td>other</td>
<td>we- erg</td>
<td>eat</td>
</tr>
<tr>
<td>as.for</td>
<td></td>
<td>acc</td>
<td></td>
</tr>
</tbody>
</table>

110 #erg
111 #acc
112 #ipfv
113 #adv
teng-krr  
same-time

t<er>uvon  
lean< ipfv\textsuperscript{114},

ke  
not

tsranten  
matter

fitxon  
tonight

yom  
eat

teng-krr  
while

t<er>uvon  
lean< ipfv\textsuperscript{115},

*Toniri alahe, awngal yom wutsot nifya’o letrrrr; fitxon yom ni’eoio.*

"Other nights, we dine normally; this night we dine with special rites."
<table>
<thead>
<tr>
<th>toniri</th>
<th>alahe</th>
<th>awnga-l</th>
<th>yom</th>
<th>wutso-it</th>
<th>ni-fya'o</th>
<th>le-ttr~ttr</th>
</tr>
</thead>
<tbody>
<tr>
<td>nights</td>
<td>other</td>
<td>we- erg</td>
<td>eat</td>
<td>meal- acc</td>
<td>adv, way</td>
<td>adj, day~</td>
</tr>
</tbody>
</table>

116 #erg
117 #acc
118 #adv
119 #adj
120 #redup
15.4.5 Earth Day

- Mipa ‘Upxare fpi Frapo mì Srr ‘Rrtayä\textsuperscript{122} (2010, Aprin 22)

Ma oeyä eylan, Fitrrmi letsranø—Trr ‘Rrtayä—new oe pivlttxe ayngaru san kaltxì sik ulte tiving ayngar lì’üt a ti’efumì oeyä lu lor frato mì lì’fyà leNa’vi: meoauniae. Fìli’ùà ral lu tìme’em sì tìrusey mì hìfkey na Nawma Sa’nökà hapxì, ’’uo a fpi rey’eng Eywa’evegmì ‘Rrtamì tsranø nitxan awngaru niwotx. Ngaytxoa, niawnømum ke lolu oer nìkeftxo mì soka srì ayxkxøm letam fte lì’fyàri awngeyà tikangkem sivi. Slà lu oer fnawøm asìltøsan: ye’rìn ’ìyi’a sànume a tsari klfro’ oe; mawkrì layeiu oer krr nì’ul fte ngivop aylì’ut sì tsayfnesànumvit a tsun frapor srung sivi fte nivume sì zìverok nìswey. Tsakrrvay, ayngeyà timweypeyri irayø seïyi oe, ulte fitrrä ftõxãri, sìlpøy oe, ayngaru prrte’ livu. Kìyevøme ulte Eywa ayngahu. Ta Pawl My friends, On this important day—Earth Day—I want to say hello to you and present to you the word that, in my opinion, is the most beautiful in the Na’vi language: meoauniae. The meaning of this word is “harmony, living in the world as part of the Great Mother,” something that matters a lot to all of us for the sake of The Balance of Life on both Pandora and Earth. My apologies: As you know, in recent days I have not had sufficient opportunity to work on our language. But I have some good news. My teaching responsibilities will soon end; after that I will have more time to create words and the kinds of lessons that can help everyone best learn and remember. In the meantime, I thank you for your patience, and I hope you enjoy today’s celebration. Goodbye and Eywa be with you. From Paul

\textsuperscript{121} #adv
The samples of Na'vi in this book are parsed with interlinear glosses\(^1\), following the conventions of the Leipzig Glossing Rules\(^{[27]}\), an international consensus on glossing texts for grammatical analysis. The gloss is the line or lines added below the text being analyzed, or between the text and its translation. The conventions cover two areas, the layout and punctuation of the parsed text, and the abbreviations using in parsing it.

### 16.1 Glossing layout

A glossed text will typically consist of:

1. the original Na'vi text in the first line, followed by
2. the same words, with each broken up into its constituent parts, called morphemes\(^2\),
   then—underneath and aligned with this—
3. a translation of each of those morphemes (the actual gloss), and finally
4. a running translation of the text in English.

The fundamental point of interlinear glossing is that each word be aligned with its gloss for legibility, and that each word be parsed into the same number of units in the second and third lines for unambiguous analysis. For example, the phrase for *poltxe oe* "I spoke with them" may be glossed as follows:

*For poltxe oe.*

\[
\begin{align*}
ay\ldotp opo\ldotp ru & \quad p\&ol\ldotp lltxe & \quad oe \\
PL^3\he/she\&- & \quad to\ldotp spe\ldotp ak\ldotp & \quad I\ldotp INTR^6 \\
\end{align*}
\]

"I spoke with them."

The first word, *for*, consists of three morphemes: a plural *ay* (which here has been dropped, though its effects remain), the third-person pronoun *po* "he/she", and the dative case suffix *-ru*, here shortened to *-r*. In the second line, where the word is broken down, these are presented in their full forms, *ay*+*po*-*ru*. The hyphen in *po*-*ru* shows that the *-ru* is a suffix. The plus sign in *ay* shows that, although a prefix, *ay* changes the following
root, in this case from *po* to *fo*.\[^{[note 66]}\] In the third line, each of these bits is glossed, retaining the punctuation of the second line: *ay+* as "PL+", an abbreviation for 'plural', *po* as "he/she", and -*ru* as "-DAT", an abbreviation for 'dative case'. Similarly in the second word, *poltxe*. Here the root form *plltxe* appears in the gloss. The angle brackets around *‹ol›* shows that it's an infix. The gloss for the infix, "*‹PFV›" (an abbreviation of 'perfective aspect'), appears at the end of the gloss "to.speak" because, in Na’vi, the position of an infix is determined by counting from the end of the verb.\[^{[note 67]}\] Note the gloss of *plltxe*: Because glossing is supposed to be a one-to-one conversion, the two words "to speak" are linked together with a period to show they correspond to a single word in Na’vi. The third word, *oe* "I", plays the role of an intransitive subject. Because that does not have a morpheme in Na’vi, there is no way to parse it in the second line. Therefore, in keeping with the one-to-one glossing principle, the gloss for intransitive case, INTR, is connected to the translation "I" with a period.\[^{[note 68]}\] Not all of these details will always be necessary, depending on the point of the gloss. So, for example, if the only point is to illustrate the perfective aspect, or which grammatical case the verb requires, the gloss may be reduced to:

For *poltxe* *oe*.

\[
\begin{array}{ccc}
fo-r & p\langle ol\rangle lltxe & oe \\
\text{they-to} & \text{speak} \langle \text{PFV}\rangle & \text{I}
\end{array}
\]

"I spoke with them."

### 16.2 Glossing abbreviations

Morphemes which can be readily translated into English may be done so. However, this is not always possible: English has no good translation for the dative suffix, for example. Rather than writing "dative" each time, an abbreviation is used; these typically have three letters: DAT. They are generally written in small capitals, as here, to more easily distinguish abbreviations from actual translations. The following abbreviations may be found in this book:
<table>
<thead>
<tr>
<th>Gloss</th>
<th>Stands for</th>
<th>Na’vi morpheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>accusative case⁸</td>
<td>-it, -ti</td>
</tr>
<tr>
<td>ACTV</td>
<td>active participle⁹</td>
<td>(us)</td>
</tr>
<tr>
<td>ADJ</td>
<td>adjective¹⁰</td>
<td>le-</td>
</tr>
<tr>
<td>ADV</td>
<td>adverbial¹¹</td>
<td>ni-</td>
</tr>
<tr>
<td>AP-PROB</td>
<td>approbative affect¹²</td>
<td>(ei)</td>
</tr>
<tr>
<td>ATTR</td>
<td>attributive¹³</td>
<td>a-, -a</td>
</tr>
<tr>
<td>CAUS</td>
<td>causative¹⁴</td>
<td>(eyk)</td>
</tr>
<tr>
<td>DAT</td>
<td>dative case¹⁵</td>
<td>-ur, -ru</td>
</tr>
<tr>
<td>DEM</td>
<td>demonstrative¹⁶</td>
<td>-u</td>
</tr>
<tr>
<td>DIM</td>
<td>diminutive¹⁷</td>
<td>-tsyip</td>
</tr>
<tr>
<td>DIST</td>
<td>distal¹⁸</td>
<td>tsa-</td>
</tr>
<tr>
<td>DU</td>
<td>dual number¹⁹</td>
<td>me-</td>
</tr>
<tr>
<td>E</td>
<td>epenthetic morphe⁰²</td>
<td></td>
</tr>
<tr>
<td>ERG</td>
<td>ergative case²¹</td>
<td>-il</td>
</tr>
<tr>
<td>EVID</td>
<td>evidential²²</td>
<td>(ats)</td>
</tr>
<tr>
<td>EXCL</td>
<td>exclusive person²³</td>
<td>(various)</td>
</tr>
<tr>
<td>FAM</td>
<td>familiar register²⁴</td>
<td></td>
</tr>
<tr>
<td>FEM</td>
<td>feminine gender²⁵</td>
<td>-e</td>
</tr>
<tr>
<td>FORM</td>
<td>formal register²⁶</td>
<td>(uy)</td>
</tr>
</tbody>
</table>
17 Glossary of linguistic terms

- The **accusative case** is a grammatical case that marks the direct object of a verb. For example, in English the pronoun "I" becomes "me" when it's the object, as in "see me" (compare "I see"). In English, "me" is also used for the recipient, as in "give me" (that is, "give it to me"), as well as after a preposition ("with me, for me"). In Na'vi, these require different cases: unmarked oe tse'a "I see", accusative octitse'a "see me", dative oeruting "give me", and oehu "with me".

- **Adjectives** are a class of words which modify nouns, like "blue", "lazy", and "funny". In Na'vi, adjectives have two forms: an attributive form marked by a for modifying a noun directly, and a predicate form without a that is used with verbs like lu "to be" and slu "to become" to modify a noun indirectly: soma tsawke or tsawke asom "a hot sun", vs. tsawke lu som "the sun is hot".

- **Adposition** is a generic term for either a preposition, which comes before a noun, or the equivalent after a noun, a postposition. In describing Na'vi, the term is used for those small grammatical words which may be either a preposition or a suffix, such as hu "together with" in ku oe or oehu "with me".
**Adverbs** are a class of words which modify things other than nouns, such as verbs or even entire clauses\(^{26}\). Many Na’vi adverbs are marked with the prefix *ni-*, like *nìfte* "easily" from *ftue* "easy" (the English equivalent, for those who use it, is -ly), but there are also little adverbs without *ni-* such as *set* "now".

**Affect** is an inflection of a verb which conveys how the speaker feels about an event or state. It may be a pleasant emotion, as in "thank you so much!! (smiley face)", here called *approbative*\(^{27}\) affect; an unpleasant emotion, as in "that’s really messed up", here called *pejorative*\(^{28}\) affect; a degree of deference or ceremonial solemnity, called *formal*\(^{29}\) affect; or a degree of certainty or uncertainty about the truth of what is being said, conveyed by *evidential*\(^{30}\) affect.

An **affricate** is a consonant that changes its quality in the middle, starting off as a plosive\(^{31}\) but finishing as a fricative\(^{32}\). English affricates are *ch* (starts off as a *t*, finishes as an *sh*) and *j* (starts off as a *d*, finishes with the sound of *z* in *azure*). The Na’vi affricate is *c* (*ts*), which starts off as a *t* and finishes as an *s*. See diphthong\(^{33}\), a similarly transitioning vowel.

**Allomorphs** are different forms of a word or morpheme\(^{34}\) determined by the context in which it’s found. For example, the English article\(^{35}\) *a* has that form (that allomorph) before a consonant; before a vowel, a different allomorph is used, "*an*": That is, the "*an*" in "an apple" and the "*a*" in "a pear" are considered different forms of a single word.

**Allophones** are different forms of a sound of a language that are not meaningful for speakers of the language. In English, for example, there are two L sounds\(^{36}\), a "light L" in *leaf* and a "dark L" in *wool*, but if they were exchanged, the result would be a bad accent, not new English words. Na’vi likewise has two U sounds, one like English *food* (in many dialects, at least) and another like English *foot*; however, while this distinction is important in English (these are different English phonemes\(^{37}\)), in Na’vi they are mere details of pronunciation. Likewise, the Na’vi consonants *ptk* have allophones with no audible release\(^{38}\) at the end of a syllable or word.

An **alveolar** consonant is one where the tip of the tongue contacts the *alveolar ridge*, the part of the roof of the mouth just behind the gums. Alveolar consonants include [t, d, n, s, z, l, r].

**Approbative** affect is a verb form, *〈ei〉*, that marks positive speaker affect\(^{39}\). That is, if you feel good about the event you are describing, you might put *〈ei〉* inside the verb; this is the spoken equivalent of a smiley-face emoticon.
- A **grammatical argument** of a verb is a noun phrase\(^{40}\) that tells who or what performed the action, the action was performed on, etc.: subject, object, recipient, beneficiary, location, time, etc. A **core argument** is an argument that is required for a clause\(^{41}\) (sentence) to be complete. If a core argument is left out, the listener might wonder who/what did the action, or who/what it was done to. For example, if I were to say "shattered yesterday", you would wonder *what* shattered yesterday; the subject "the window" in "the window shattered yesterday" is thus not just an argument but a core argument. If I were to say "I shattered yesterday", providing one core argument, "I", it is clear that I shattered *something*; thus "the window" in "I shattered the window" is also a core argument. However, where or when the window shattered, as in "I shattered the window in the bedroom on Wednesday", are not considered central to the sentence. In Na’vi, core arguments generally take the intransitive\(^{42}\), ergative\(^{43}\), accusative\(^{44}\), and dative\(^{45}\) cases; non-core arguments may also take the dative, and well as numerous adpositions\(^{46}\), as in English "in the bedroom", "on Wednesday".

- An **article** is a word such as "a" or "the" in English. Articles do not exist in Na’vi: *tute* may be "person", "a person", or "the person", depending on the context.

- **Aspect** is a way that verbs represent time. Rather than locating an event or state in time, the way tense\(^{47}\) does, aspect describes "the internal temporal constituency of a situation", or in different words, is a way "of conceiving the flow of the process itself".\(^{[28]}\) Aspects in English include "I went, I used to go, I was going, I had gone" (all past tense\(^{48}\)); "I lose, I am losing, I have lost, I am going to lose" (all present tense\(^{49}\)); and "I will see, I will be seeing, I will have seen" (all future\(^{50}\)). What distinguishes these aspects within each tense is not (necessarily) when the event occurs, but how the time in which it occurs is viewed: as complete, ongoing, consequential, planned, etc. There are two verbal aspects in Na’vi, perfective\(^{51}\) and imperfective\(^{52}\), each of which is independent of the tense of the verb. That is, without context or a tense infix to disambiguate, it is not possible to say whether they occur in the past, present, or future.

- An **aspirated consonant** is one pronounced with a puff of air, as *pie, tie, chi* in English, but not equivalent sounds in French or Spanish, nor in English *spy, sty, sky*. For discussion, see the footnote in the section on consonants\(^{53}\) in the chapter on phonology\(^{54}\).
• **Assimilation** is a change in one sound to make it more similar to a neighboring sound. For example, the plural suffix -s in English cats is unvoiced [s], as it's adjacent to unvoiced [t], whereas the -s in dogs is voiced [z], as it's adjacent to voiced [g].

• An **attributive** is a word that modifies a noun. Adjectives are frequently attributive, as blue in blue sky (‘a sky that is blue’); however, other parts of speech may be as well. In spot remover, for example, spot is an attributive noun, as it modifies the noun remover (‘a remover of spots’). In English, verbs are typically made attributive through their -ing or -ed forms, as in washing machine (‘a machine that washes’). However, in Na’vi, verbs can be made attributive with the same particle a that adjectives use: tute a tsun kivä or tsun kivä a tute "a person who can go" (that is, ‘a can-go person’). Na’vi uses this strategy rather than the relative pronouns such as "who" that English uses.

• **Grammatical case** is an inflection (form) of a noun or pronoun that reflects its role in a sentence. In English, this is most easily seen in the pronouns: for the first-person pronoun, the case forms are "I", "me", and "my". "I" is used when the pronoun is the subject of the sentence, corresponding to the Na’vi intransitive and ergative case forms oe and oel; "my" to show possession or association with a noun, corresponding to the Na’vi genitive case form oeyä; and "me" for other roles, corresponding to the Na’vi accusative and dative case forms oeti and oeru, as well as adpositional forms such as huoe/oehu "together with me".

• A **causative** is a grammatical device that shows the action of the verb is caused by an external agent. English does not have a causative as such. Sometimes different phrasing is used: "I had a table made" vs. "I made a table (myself)"; sometimes simple transitivity is used: "I walked the dog" (caused the dog to walk) or "I boiled the water" (caused the water to boil); or a different verb may be used: "I killed a fly" (caused a fly to die).

• A **clause** is a simple sentence: A verb together with its associated phrases. "I pet my cat" is both a sentence and a clause (a verb with two noun phrases, its subject "I" and its object "my cat"). However, complex sentences may consist of several clauses, typically joined by conjunctions: "I really hope that you get to go and have a good time", for example, is three clauses: "I really hope that", "you get to go", [and] "(you) have a good time". It could be reworded as three simple sentences: "I really hope this: You get to go. You will have a good time."

• **Clusivity** is a nonce term for a distinction in words for "we", depending on whether they include the person spoken to (’you and I’: inclusive) or exclude the person spoken.

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55 #voiced
56 #voiced
57 #adjective
58 #relative_pronoun
59 #inflection
60 #person
61 #intransitive
62 #ergative
63 #genitive
64 #accusative
65 #dative
66 #adp
67 #transitive
68 #phrase
69 #conjunction
to ('they and I': exclusive). That is, exclusive "we" is purely first person, whereas inclusive "we" is a combination of first and second person.

- Words are said to be cognate when they can be traced back to the same historical form and so are related as cousins. For example, who (formerly hwa) and what are cognate in English, as are he and it (formerly hit); in both cases, the final -t was once the inflection for neuter gender. Likewise, words like twin, twine, twenty, twelve, and two are cognate.

- A compound word is a word formed by joining two or more other words, like "pancake".

- The conditional mood is a grammatical mood used to express that something would or could be the case if some condition were met, such as "I would go if I were you", or "you could do it if you tried". In Na'vi, the subjunctive mood may be used for the if clause.

- A conjunction is a grammatical word that joins phrases or clauses, such as and, or, but, if, than, because, etc. Na'vi has two conjunctions meaning "and": one, si, for joining phrases, and another, ulte, for joining clauses.

- A consonant cluster is a sequence of consonants in a word or syllable. In English, the word and syllable strengths has two consonant clusters, one at each end, /str/ and /ŋs/ (or for some people, /ŋkʃ/). In Na'vi, consonant clusters can only come at the beginning of a syllable, and then only if they start with a f, s, or ts. Other clusters can occur in the middle of a word where two syllables meet, as the /tv/ in Na'vi.

- Constituent order is the word order of the primarily elements of a clause, that is, the order of the verb and its subject and objects. English is fairly strongly constrained to have a subject-verb-object ("SVO") order; Japanese, on the other hand, is a verb-final language, with a subject-object-verb ("SOV") order. Na'vi can readily accommodate either pattern.

- A copula is a verb that equates one noun to another. The most common of these is "be", as in "the cat is a mammal"/"cats are mammals". Some languages, such as Japanese, have dedicated words for the copula. Na'vi however, like English, uses the same 'be' verb (lu) for the copula as it does for existence ("the cat is in the kitchen"). Another copula in Na'vi is slu "to become". In English, copulas require that the two pronouns take different cases ("I am me"; "I became me"), but in Na'vi, neither noun takes a case ending.

- Correlatives are grammatical words that work together to perform a single function. Examples from English are either ... or, both ... and, so ... as, more ... than. Na'vi has correlatives that English doesn't, such as san ... sik "quote ... unquote", but also lacks correlatives that English has. For example, instead of saying both "more ... than", in

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70 #person  
71 #gender  
72 #mood  
73 #subjunctive  
74 #grammatical_word  
75 #phrase  
76 #clause  
77 #word_order  
78 #clause  
79 #grammatical_word
Na’vi one would typically say just "than": \textit{po lu tsawl to oe} "he is big (= bigger) than me".

- The \textbf{dative case} is a grammatical case\(^{80}\) that marks the indirect object (recipient) of a verb. For example, in English the pronoun "I" becomes "me" when it's the recipient, as in "give me" (that is, "give it to me"); compare "I give"). In English, "me" is also used for the direct object, as in "see me", as well as after a preposition ("with me, for me"). In Na’vi, these require different cases: unmarked \textit{oe} tse’a "I see", dative \textit{oeruting} "give me", accusative \textit{oetise’a} "see me", and \textit{oehu} "with me".

In Na’vi, the dative is used for (1) the recipient or beneficiary of an action (to say, to give, to apologize, to thank, to call, etc.) and (2) the experiencer of a state (to be cold, to have, etc.)

- A \textbf{dative construction} is a clause (sentence) in which the subject takes the dative case\(^{81}\). An example in English is archaic "me thinks" (= "it seems to me"). Na’vi uses dative constructions to express ideas such as "to have": \textit{lu oeru} "I have" = "there is to me".

- A \textbf{demonstrative} is a grammatical word used to point out which of several things, times, or places one is referring to. A \textbf{distal demonstrative} is one, such as \textit{that}, \textit{there}, or \textit{then}, that indicates that the referent is appreciably distant, whereas a \textbf{proximal demonstrative} is one, such as \textit{this}, \textit{here}, or \textit{now}, that indicates that the referent is appreciably close. Of these, \textit{this} and \textit{that} (as well as their plurals, \textit{these} and \textit{those}) are pronouns\(^{82}\), as they can stand in for nouns, whereas \textit{here} and \textit{there}, \textit{now} and \textit{then} are adverbs\(^{83}\), as they place the action of the verb in space or time.

- A \textbf{dependent clause} is a clause\(^{84}\) that is dependent on (subordinate to) another clause or phrase\(^{85}\) for its meaning. In "I hope that you can make it", the clause \textit{you can make it} is dependent on the independent clause "I hope that"; similarly, in "all my friends who could make it", the clause \textit{who could make it} is dependent on the noun phrase \textit{all my friends} (see also relative clause\(^{86}\)). The process of making a clause dependent (subordinate) is called \textbf{subordination}, and a word such as \textit{that} that performs this function is called a \textbf{subordinator}.

- \textbf{Derivation} is the process of using the resources of a language to create new words. For example, from English \textit{walk} people have derived \textit{walker}, \textit{walk-about}, \textit{walkathon}, \textit{walkway}, \textit{walkie-talkie}, \textit{walk over}, \textit{walk through}, etc. Compare \textbf{inflection}\(^{87}\).

- A \textbf{diminutive} is a form of a word that indicates smallness of size, slightness of degree, or endearment. In English, \textit{cigarette} is a diminutive of \textit{cigar}.

- A \textbf{diphthong} is a vowel which changes quality as it's being pronounced. This may be a drastic change, as the \textit{ou} in \textit{cow}, the \textit{y} in \textit{sky}, or the \textit{oy} in \textit{coy}, or it may be a more subtle one, such as the \textit{a} in \textit{snake} or the \textit{ow} in \textit{crow}. See \textbf{affricate}\(^{88}\), a similarly transitioning consonant.
• **Direct speech**, AKA reported speech, is a literal quotation of what someone said: "He said, 'I will go'" is direct speech, whereas "He said that he would go" is indirect speech. Na’vi has only direct speech.

• **Discourse** is the use of living language, as in conversation. Some of the more subtle aspects of grammar cannot be understood by looking just at sentences, but only by looking at how those sentences are used in the larger context of discourse. For instance, most people would say that *turn the lights out* and *turn out the lights* mean the "same thing", but they tend to be used in different situations. An effect discourse has in Na’vi is in its word order,99 especially in its constituent word order.90

• A **discourse particle** is a particle whose role is in discourse rather than in syntax. Examples are *um, like, y’know, sorta*, none of which have a grammatical function in the traditional sense of the word.

• A **double (or multiple) negative** is the use of more than one negative word in a clause with a simple negative meaning, as in "I don't have none" or "I didn't never go". In English this has been considered substandard since the Victorian era, but it is normal in many languages, such as French and Spanish, and including Na’vi.

• **Dual number** is a grammatical number used for just two of something. For example, *menga* is "the two of you", and . Old English had the dual pronouns *wit "we two" / "the two of us" and *git "you two" / "the two of you*. Na’vi has these (*moe or *oeng "we two", *menga "you two"), but also dual nouns, as in *oeyū menari "my eyes".*

• **Eh** is a Canadian English discourse particle used for "ascertaining the comprehension, continued interest, agreement, etc., of the person or persons addressed" as in, "It's four kilometres away, eh, so I have to go by bike." In its role for eliciting agreement, it is similar to the Na’vi particle *ko.*

• **Ejectives** are consonants made with a popping sound caused by the Adam's apple moving up in the throat like a piston. In Na’vi they are written *px, tx, kx.*

• **Epenthesis** is the insertion of a sound into a word to make it easier to say, for example to conform to a language's phonotactics. For example, many of the actors in *Avatar* pronounce *nga "you"* with an epenthetic *g* sound in it, as if it were "ngga" (that is, with the 'ng' sound of *finger* rather than of *singer*), because in English we can't put *ng* at the beginning of a word.

• The **ergative case** is a grammatical case that marks the subject of a verb that also has direct object of a verb (that is, a transitive verb). In English the pronoun form "I" (called the nominative case) is used for both "I leave" and "I see it", but in Na’vi these require different cases: unmarked intransitive 101 *oe hum "I leave" and ergative

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89 #word_order
90 #constituent_order
91 #particle
92 #discourse
93 #syntax
94 http://en.wikibooks.org/wiki/Victorian_era
95 #number
96 http://en.wikibooks.org/wiki/Old_English
97 #discourse_particle
98 #phonotactics
99 #case
100 #transitive
101 #intransitive

221
oe tse’a pot "I see it". However, "I see" as a generic statement without an object would be intransitive oe tse’a.

- An evidential is a grammatical device that shows why a speaker believes that a reported event occurred. For instance, an evidential affix on a verb may indicate that the speaker personally witnessed the event, heard about it from someone else, inferred it from evidence left on the scene, saw it in a dream, etc.

- A flap consonant is one where the tongue briefly strikes the roof of the mouth, but isn’t held there the way it is for [t] or [d]. A flapped ar [ɾ] is found in Irish and Scottish English, and in Spanish in words like pero "but". US and Canadian English approximate a flap with the tt of "latter" and the dd of "ladder", so Na’vi /ɾ/, really an [ɾ], may sound like a [d] to American ears.

- Grammatical focus is the placement of an element in the foreground of the discourse, either as a way of introducing a new subject of discussion, or to contrast that with another. In English, focus may be accomplished by intonation (“No, he went to the store”) or by changing the word order ("The store is where he went"). This is the opposite of a topic, which is a backgrounded element of the discourse.

- A fricative consonant is a sound where the air coming out of the mouth is never stopped, but is quite noisy, like [f], [v], [s], [z], [h]. In Na’vi, such sounds can only come at the beginning of a word or syllable, never at the end.

- The future tense of a verb conveys that the event or state will happen or is yet to happen. Na’vi has two future tenses, ‹ay› for a generic future, and ‹ìy› for the immediate future. Na’vi uses its future tenses for such things whether or not English does; for instance, "when I leave" is oe h‹ay›um a krr in Na’vi, and "if he does" is txo pos‹ay›i, assuming tense is used at all, even though "will" is not allowed in English.

- General American, or GA, is the de facto standard of English in the United States, used for example in television news broadcasting.

- Grammatical gender is a grammatical division of nouns into groups, often based loosely on physical gender (male-female-inanimate). English only has grammatical gender in its pronouns he, she, it (‘masculine’, ‘feminine’, ‘neuter’) and who, what (‘common’, ‘neuter’). Na’vi does not have grammatical gender. However, when needed, a noun or pronoun can be made lexically masculine or feminine with the suffixes -an and -e.

- The genitive case is used to show association between two nouns. This includes possession ("the dog’s bone"), but also more generic association ("the dog’s ears", "the legs of the table"). The Na’vi genitive loosely translates English "’s" and "of". However, it is somewhat broader in usage, being how Na’vi forms attributive nouns. With pronouns, the final vowel changes to e: fo "they", feyä "their".

- A glottal consonant is one, such as [h], that is pronounced in the throat. The glottal stop is the catch in your throat when you say "uh-oh!". In Na’vi it is a typical consonant sound, as it is in Polynesian languages such as Hawaiian and Maori.

- A grammatical word, also known as a function word, is one that is used for a grammatical function rather than for a dictionary meaning. Examples are pronouns,
conjunctions\textsuperscript{109}, adpositions\textsuperscript{110}, particles\textsuperscript{111}, and many of the words vaguely called "adverbs\textsuperscript{112}". Compare lexical word\textsuperscript{113}.

- An ideophone, AKA mimesis, is a word that suggests its meaning by its very sound. Buzz, shush, bling, and hoppityhop (of a rabbit) are examples in English.

- Grammatical inflections are forms of a word that occur automatically as part of the grammar. For example, the inflections of the verb to walk are walk, walks, walking, and walked; the inflections of the pronoun I are I, me, my, mine. Compare derivation\textsuperscript{114}.

- The immediate future is a tense\textsuperscript{115} used to say that something is about to happen or is about to be. It is somewhat different than English "going to", which means that things are presently in motion for a future event.

- The imperative mood expresses a command that someone do something: Kä! "go!" See mood\textsuperscript{116}.

- Imperfective aspect: See perfective\textsuperscript{117}.

- The intransitive case is a case\textsuperscript{118} used in Na’vi for verbs which do not have a direct object (accusative case\textsuperscript{119}). There is no case suffix: oe new kivä "I want to go". Compare the ergative case\textsuperscript{120} in oel new tsa’ut "I want that".

- An infix is a meaningful bit put in the middle of a word. Infixes are rare in English, but they sometimes occur in informal speech. For instance, the infix ⟨ma⟩ gives a word an ironic pseudo-sophistication, as in sophisti\textit{ma}cated, saxo\textit{ma}phone, and ed\textit{ma}cation.

- An interjection is a word that expresses the speaker's emotion, but is not part of the grammar of the sentence, such as "hey!", "wow!", or "ouch!"

- An interlinear gloss is a translation aid that lies between a text and its translation, and lays out the structure of the text. See the appendix\textsuperscript{121} for details.

- Intonation is the variation of speaking tone that conveys emotional affect\textsuperscript{122}, hesitation, questions, commands, etc. In writing, we use punctuation to capture some of the intonation in speech.

- A labial consonant is one which involves the lips. They include [p, b, f, v, m]. ([f] and [v] also involve the teeth, but the lip is what moves.) [w] also involves the lips, but in addition the tongue approaches the soft palate, so it is also a velar consonant\textsuperscript{123}.

- Lenition is the "weakening" of speech sounds in some environments. For example, in US and Canadian English, /t/ and /d/ become a flap\textsuperscript{124} [ɾ] after a stressed\textsuperscript{125} vowel, so that latter and ladder are pronounced the same.

\textsuperscript{109} #conjunction  
\textsuperscript{110} #adp  
\textsuperscript{111} #particle  
\textsuperscript{112} #adverb  
\textsuperscript{113} #lexical_word  
\textsuperscript{114} #derivation  
\textsuperscript{115} #tense  
\textsuperscript{116} #mood  
\textsuperscript{117} #perfective  
\textsuperscript{118} #case  
\textsuperscript{119} #accusative  
\textsuperscript{120} #ergative  
\textsuperscript{121} #Appendix  
\textsuperscript{122} #affect  
\textsuperscript{123} #velar  
\textsuperscript{124} #flap  
\textsuperscript{125} #stress
• A **lexical word**, also known as a **content word**, is a word that is used for its basic dictionary ("lexical") meaning, such as nouns, verbs, and adjectives. Compare **grammatical word**\(^{126}\).

• **Light and dark L** describes the difference between the /l/ in English *leaf*, where only the front of the tongue is raised, and the /l/ of *all*, where the back of the tongue is also raised. In Na’vi, only light L is used.

• **Liquids** and **glides** are vowel-like consonants. In Na’vi, as in English, they are *l, r* (the liquids) and *w, y* (the glides).

• A **loan word** is a word that was taken from another language. "Pork", for example, is a loan into English from French, where it is simply the word for 'pig'. Na’vi has some English loans, such as *kunship "gunship"*.

• **Modal verbs** are special verbs with modal (mood-like\(^{127}\)) functions. That is, they indicate that a second verb does not describe an actual event, like "can go", "must go", "want to go", etc. In Na’vi, the second verb takes the **subjunctive**\(^{128}\) mood.

• **Mood** is a non-temporal inflection of verbs. Rather than identifying time, as **tense**\(^{129}\) does, or describing the flow of an event, as **aspect**\(^{130}\) does, mood encodes the degree of reality of an event. The normal, unmarked mood (called the **indicative**) is used for actual events, and events portrayed as or predicted to be real. There are two other primary moods in Na’vi, the subjunctive and imperative\(^{131}\), used for hypothetical events. The **imperative** is a command: If one says "sit down!", however, it does not follow that the person will actually sit down, so the sitting is not an actual event, only a desired one. Similarly, the **subjunctive** is used in English for things such as "if I were you" (I am not you) and "God bless you" (not *blesses: it is only a wish on my part, not a description of an actual event). In Na’vi, the subjunctive is used for expressions such as "I can go"; the verb "can" is in the normal indicative, because it describes reality, whereas "go" is in the subjunctive, because there is no implication that I actually will go just because I can. In the future tenses, Na’vi distinguishes an **intentional** mood for planned events from the indicative, which is preferentially used for predicted events which the speaker has no control over.

• A **morpheme** is a meaningful piece of a word. For example, the word "meaningful" is built up from three morphemes, "mean", "-ing", and "-ful". However, the word "word" is a single morpheme; there are no meaningful units within it apart from the sounds (phonemes\(^{132}\)) which make it up. In the **glossed**\(^{133}\) examples in this book, morphemes are separated by hyphens and other punctuation: *aylaru = ay-la-ru "to the others"*. **Morphology** is how morphemes\(^{134}\) are put together to form words.
• A **nasal stop** is a stop consonant\(^{135}\), such as /m/, /n/, or /ŋ/ where air escapes through the nose. The latter, the sound in English *song*, is called the **velar**\(^{136}\)**nasal** because the tongue touches the soft palate (the 'velum').

• A **negative** is a grammatical element that negates or denies another element of a sentence. English negatives begin with *n-*: "no", "not", "none", "never", etc.

• A consonant with **no audible release** is a **plosive**\(^{137}\) such as [p], [t], [k] that, to an English hear, sounds like it stops halfway through. The lips (for [p]) or the tongue (for [t], [k]) seal off the airstream, and during that closure a **glottal stop**\(^{138}\) is made, so that when they release again there is no audible sound. In English, this may occur for some speakers at the end of a word, like the *t* in "Don't ever do that!", where there is no puff of air between the *t* and the *d*; for others, it may be clearer in a word like *apt*, where there is no puff of air between the *p* and the *t*. Note that there *is* a puff of air after the *t* in *apt*: that is an audible release.

Ejectives\(^{139}\) must be released.

• A **nominalizer** is a grammatical element which turns a word into a noun, such as the -*ness* in *vagueness* or the -*tion* in *pronunciation*.

• **Noun incorporation** is the moving of a noun into a verb. For example, in English one could say "I picked some berries", or one could say "I went berry-picking". In the former case, the verb "picked" has an object, "berries", and so cannot take another. However, in the latter case, the object has been moved out of the way, tucked into the verb, so now a new object can be added: "I berry-picked some raspberries". This sounds a bit strange in English, but some languages use this strategy quite often. The focus is different: In "I picked some berries", the focus is on the berries, whereas in "I berry-picked" or "I went berry-picking", the focus is on the activity, and one could say that even if no berries were actually picked.

• A **numeral** is a simple number word. For example, *twenty* and *three* are both numbers and numerals in English; *twenty-three* is a number made from the numerals *twenty* and *three*. Na’vi has nine numerals for its base-eight\(^{140}\) numbering system: lower numerals for 'one' through 'eight', and a higher numeral for 'sixty-four' that corresponds to English *hundred*.

• Grammatical **number** indicates the countable quantity that a word represents. English has two numbers, **singular**\(^{141}\) for one and **plural**\(^{142}\) for not-one, on its nouns, pronouns, and verbs; Na’vi distinguishes four numbers, singular, **dual**\(^{143}\), **trial**\(^{144}\), and plural (four or more), on its nouns and pronouns, but not on its verbs.

• An **octal**, or **base-eight**, numbering system is one that uses eight as its primary unit, as opposed to a decimal system such as the one in English, which is base ten (decimal). The Na’vi have four fingers on each hand, for eight total, and so only have basic words
Glossary of linguistic terms

for one through eight. Nine is thus "eight and one", and seventeen is "two eights and one", the way in English we say "twenty-one", originally "two tens and one".

- The **optative** is a grammatical mood\(^{145}\) used to express wishes and desires, as in "long live the king!" and "bless you". In Na’vi, as (marginally) in English, the optative role is performed by the more general subjunctive\(^{146}\) mood.
- A **palatal** consonant is one in which the middle of the tongue touches or approaches the hard palate. The only palatal consonant in Na’vi in \(y\).
- A **participle** is a form of a verb that can be used as a noun or adjective, but which retains tense\(^{147}\) or aspect\(^{148}\) inflections like a verb. English has two participles, an **active** -\(ing\) participle used for **progressive aspect**\(^{149}\) (similar in some ways to the **imperfective**\(^{150}\) aspect), as in **he is doing**, **singing**, **eating** (when used for aspect), **the singing canary**, **the eating hour** (used as an **attributive**\(^{151}\), it’s **his doing**, **singing**, **eating** (used as a noun, called a "gerund"); and a **passive** -\(en/-ed\) participle used for both the **passive voice**\(^{152}\) and the **perfect aspect**\(^{153}\) (similar in some ways to the **perfective**\(^{154}\) aspect, though not as close as the name might suggest), as in **it has done**, **sung**, **eaten** it (aspect), **it is done**, **sung**, **eaten** (passive), it’s **a done deal**, **sung song**, **eaten food** (passive attributive).

The Na’vi participles, \(<\text{us}\>\) and \(<\text{awn}\>\), are active and passive but do not imply any tense or aspect; the explicit equivalent of English -\(ing\) and -\(en\) would be \(<\text{us}\>\langle\text{er}\rangle\) and \(<\text{awn}\>\langle\text{ol}\rangle\).

- A grammatical **particle** is a little immutable word that performs a grammatical function but isn’t in a particular word class like adverb\(^{155}\).
- The **passive voice** is used to show that the subject of the verb undergoes the action, as in **the food was eaten**, **the song was sung**. (The opposite, **they ate the food**, **they sang the song**, is called the **active voice**.) Na’vi has a passive participle\(^{156}\), as in **eaten food**, **a sung song**, but does not have passive clauses like "the song was sung by me". The functions of the English passive clauses are covered by changing the agent to fko "one" or by changing the word order\(^{157}\) of the clause.
- The **past tense** of a verb conveys that the event or state did happen. The past tense form of English verbs is -\(ed\), corresponding to Na’vi \(<\text{am}\>\) (generic past tense) and \(<\text{im}\>\) (recent past\(^{158}\)). However, English -\(ed\) may also be used to translate the Na’vi perfective aspect\(^{159}\), which isn’t a tense at all.
- Pejorative relates to the formation "of a less favourable meaning or of unpleasant connotations of a word."\[^{30}\]\(\text{[30]}\) In this book it is used for a Na’vi infix \(<\text{äng}\>\) that expresses

\(^{145}\) #mood

\(^{146}\) #subjunctive

\(^{147}\) #tense

\(^{148}\) #aspect

\(^{149}\) http://en.wikibooks.org//en.wikipedia.org/wiki/progressive_aspect

\(^{150}\) #imperfective

\(^{151}\) #attributive

\(^{152}\) #passive


\(^{154}\) #perfective_aspect

\(^{155}\) #adverb

\(^{156}\) #participle

\(^{157}\) #word_order

\(^{158}\) #recent_past

\(^{159}\) #perfective
negative speaker affect\textsuperscript{160}, not restricted to contempt, but including boredom, misery, or any negative emotion. The disparaging particle\textsuperscript{161} pak more explicitly capture a feeling of contempt.

- **Penultimate** means "next to last". The penultimate syllable in a word is the next-to-last (second-to-last) syllable; in "penultimate" that would be the "-ti-". **Penultimate stress** is stress\textsuperscript{162} on the penultimate syllable; examples from English are "examples" (the "-amp-") and "English" (the "Eng-").

- **perfective** and **imperfective** are the two verbal aspects of Na'vi. The perfective presents an event as an unanalyzed whole, while the imperfective does the opposite, placing one within the event. Or, metaphorically, the perfective is a snapshot, whereas the imperfective is a movie.

Aspect is independent of the tense of the verb. That is, without context or a tense infix to disambiguate, it is not possible to say whether a verb in the (im)perfective occurs in the past, present, or future. (See aspect\textsuperscript{163} for background.)

English does not have these aspects. However, in languages which do, one of the uses of the imperfective is to set a background scene, with the perfective describing actions within that scene, and this provides a decent approximation in English:

"John was reading when I entered."

Here 'entered' presents the totality of the situation referred to [...] the whole of the situation is presented as a single unanalyzable whole, with beginning, middle, and end all rolled into one; no attempt is made to divide this situation up into the various individual phases that make up the action of entry.\textsuperscript{[28]} This is the essence of the perfective aspect: an event presented as an unanalyzed whole.

'Was reading', however, is different. Besides being the background to 'entered', the form 'reading' presents an internal portion of John's reading, [with] no explicit reference to the beginning or to the end of his reading.\textsuperscript{[28]} This is the essence of the imperfective aspect. Or, to continue the citation, the perfective looks at the situation from outside, without necessarily distinguishing any of the internal structure of the situation, whereas the imperfective looks at the situation from inside, and as such is crucially concerned with the internal structure of the situation, since it can both look backwards towards the start of the situation, and look forwards to the end of the situation, and indeed it is equally appropriate if the situation is one that lasts through all time, without any beginning and without any end. This is why, within the past tense, perfective verbs are typically translated into English as simple past, like 'entered', whereas imperfective verbs are typically translated as 'was reading', 'used to read', and the like. (In English, it is easiest to illustrate aspect in the past tense. However, any tense is possible: Present "John is reading as I enter", future "John will be reading when I enter", etc. In each tense, the aspectual distinction is the same.)
This aspectual distinction is not decided by the events themselves, but in how the speaker views them or wishes to present them. The very same event may be described as perfective in one clause, and then imperfective in the next. For example,

"John read that book yesterday; while he was reading it, the postman came,"

where the two forms of 'to read' refer to the same thing. In 'John read that book yesterday', however, John's reading is presented as a complete event, without further subdivision into successive temporal phases; while in 'while he was reading it', this event is opened up, so that the speaker is now in the middle of the situation of John's reading, as it is in the middle of this reading that the postman arrives.\[28\]

The perfective and imperfective need not occur together; indeed they more often do not. However, it is difficult to describe them in English without an explicit contrast like "John was reading when I entered."

- **Grammatical person** distinguishes the person speaking ("first person"), the person spoken to ("second person"), and others ("third person"). In Na'vi, person is only indicated in pronouns, not in verbs. See also [clusivity]164.

- A **phoneme** is a meaningful sound in a language. For example, in English there are two "oo" sounds, the /u/ found in "food", and the /ʊ/ found in "foot". We can tell this is a meaningful difference, because if you change one for the other, you change the word. In Na'vi, however, this is not a meaningful distinction: [u] and [u] are both variants (called "allophones\[165\]") of the Na'vi vowel written "u". In transcription, distinct phonemes, such as English /u/ and /ʊ/, are written in slashes, as here; whereas allophones (sub-phonemes) are written in brackets. Thus we would say that [u] and [u] are allophones of the Na'vi vowel /u/.

- **Phonology** is how sounds are used in a language: what they are, where they occur, and how they change.

- **Phonotactics** is the arrangement of phonemes\[166\] (sounds) found in a language. In English, for example, /h/ never occurs at the end of a word, whereas it does in Arabic; similarly, /ŋ/ does occur at the beginning of a word in English, whereas it does in Na’vi.

  On the other hand, fricatives\[167\] such as /f v s z/ do occur at the ends of words in English, as in the word fricative itself, but do not do this in Na’vi. And while both /f/ and /m/ occur at the beginning of words in English, as in ffee and me, they do not occur there together, whereas they do in Na’vi fni "to try".

- A grammatical **phrase** is a word together with the words that modify it. A **noun phrase** is a noun and any adjectives, numerals, or relative clauses\[168\] associated with it, such as the clear blue skyl saw yesterday. Introduce a noun phrase with a preposition\[169\], as into the clear blue sky, and the result is called a **prepositional phrase**. A clause\[170\] is made up of a verb and various phrases connected to it.

- A **plosive** consonant is a sound such as [p], [t], [k], [ʔ] where the air flow is completely blocked.

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164 [clusivity]
165 [allophone]
166 [phoneme]
167 [fricative]
168 [relative_clause]
169 [preposition]
170 [clause]
• The **plural** is a grammatical number\(^{171}\) for quantities larger than, or other than, the dedicated number. In English, we have a bare singular\(^{172}\) for one of an object, like *cat*; the plural *cats* is thus used for numbers larger than one. Na’vi also has grammatical dual\(^{173}\) and trial\(^{174}\) numbers for two or three of an object; the Na’vi plural is thus used for quantities larger than three.

• A **predicate** is the part of a clause\(^{175}\) other than the subject; it includes the verb. (This subject-predicate structure of a clause is somewhat similar to a topic-comment\(^{176}\) structure.) In Na’vi, the form of an adjective\(^{177}\) depends on whether it is connected to the verb directly, a **predicative adjective** without any marking, or is found within a noun phrase\(^{178}\), an **attributive adjective** marked with the particle\(^{180}\) *a*.

• A **prefix** is a meaningful bit put at the beginning of a word. For example, the *un-* in *unlikely* is a prefix.

• A **preposition** is a little grammatical word\(^{181}\) that links a noun phrase\(^{182}\) to a verb or another noun phrase. For instance, in "I walked *by* the park *on* my way *to* the store *for* some bread", the prepositions *by*, *on*, *to*, *for* tie the noun phrases together with the verb "walked" into a clause\(^{183}\), with *by*, *on*, and *to* linking "the park", "my way", and "the store" to *where* I walked, and *for* linking "some bread" to *why* I walked.

Prepositions come before the noun. The generic term is adposition\(^{184}\); this word is used for Na’vi words which may be used as either prepositions or suffixes\(^{185}\).

• The **present tense** is the tense\(^{186}\) used for an action or state in the present moment. In English, verbs in the present tense are often used for future events ("I’m going to town tomorrow"), but in Na’vi, the future\(^{187}\) or immediate future\(^{188}\) tense would be used.

• **Prohibitive mood** is a negative imperative mood\(^{189}\). In Na’vi, prohibitives are indicated with the particle\(^{190}\) *rä‘ä* "don’t".

• A **pronoun** is a grammatical word\(^{191}\) that can stand in for a noun, a lexical word\(^{192}\). In English, there are two classes of pronouns, the so-called personal pronouns "I, we,
you, he, she, it, one, they", and the demonstrative\textsuperscript{193} pronouns "this, that, these, those". These behave differently when they modify another noun: compare "my book" (possession) vs. "this book" (location).

- **Received Pronunciation**, or RP, is the national standard of English in England, used to varying degrees in education and the media. It is based on the dialect of London.

- A **question marker** is a grammatical particle\textsuperscript{194} that marks a yes-no question. The Na’vi question marker is *srak*.

- A **quotative marker** is a grammatical particle\textsuperscript{195} or other device that signals the start of a quotation. It is like saying "quote" in English, but is used as a normal part of the language.

- The **recent past** is a tense\textsuperscript{196} used to say that something has just happened.

- **Reduplication** is the doubling of a phrase, a word, or an element of a word for grammatical effect. English makes little use of reduplication, but traces can be found in clauses like *he cried and cried, they ran and ran*, where it conveys an exhaustive affect.

- **Register** is a form of discourse\textsuperscript{197} specific to a social setting. At the "high" end there is formal, polite, and ceremonial language; at the "low" end, there is casual speech and slang. In English, the difference tends to be one of vocabulary: you may use different words, and discuss different things, when talking to your boss than talking with your friends. In Na’vi, very formal speech has an effect on the grammar as well.

- The **reflexive voice** is a form of the verb used to show that the subject acts on itself, as in the beloved command of older brothers, "Quit hitting yourself!"

- A **relative clause** is a dependent clause\textsuperscript{198} that modifies a noun. In English it will be introduced with a **relative pronoun**, as in "my friend *who* saw a mouse", "the day *when* I saw a mouse", "the room *where* I saw a mouse", "the mouse *that* I saw", etc. Na’vi relative clauses are introduced with the particle\textsuperscript{199} *a* rather than with a relative pronoun.

- **Relative tense** is tense\textsuperscript{200} that is past, present, or future relative to the moment under discussion, rather than relative to the moment of speaking. For example, in English we use **absolute tense** when we say, "I went to the store because I knew that my order would be in", with all the verbs (*went, knew, would*) in the past tense because they all occurred prior to the time we said that. If English had relative tense, that sentence would instead be "*I went to the store because I know that my order will be in*"; once we say "went", the point of reference switches to the time I went, and "know" is therefore in the present tense, because it is simultaneous with when I went.

- The **singular** is a special form of the noun that shows there is just one of the thing. In Na’vi, as in English, the singular is shown by the lack of an affix for one of the other grammatical numbers\textsuperscript{201}. 

\textsuperscript{193} #demonstrative
\textsuperscript{194} #particle
\textsuperscript{195} #particle
\textsuperscript{196} #tense
\textsuperscript{197} #discourse
\textsuperscript{198} #dependent_clause
\textsuperscript{199} #particle
\textsuperscript{200} #tense
\textsuperscript{201} #number
• A **stative verb** is one, such as "be", which does not indicate an action or process, but a state of being. In some languages, states such as "red" or "sad" are verbs rather than adjectives as they are in English.

• The **stem** of a word is the form an **affix** is attached to. It will be different from the **root** if it already contains affixes. For example, in "hopefully", "hope is both the root and the stem of "hopeful", and "hopeful" in turn is the stem of "hopefully".

• A **stop** consonant is one in which the tongue or lips block the mouth, *stopping* the air from passing through. If the air is stopped completely, as in /p, t, k/, the consonant is a **plosive**; if it is stopped in the mouth but escapes through the nose, as in /m, n, η/, the consonant is a **nasal**.

• A **stranded preposition** is a **preposition** that is not immediately followed by a **noun phrase**. In English this is found in verb phrases such as "to put up with", where "this is something I will not put up with" has two stranded prepositions, "up" and "with".

• **Stress** is the amount of force required to pronounce a **syllable** correctly in a word. For example, in *desert* the first syllable is stressed, whereas in *dessert* it is the second that is stressed. If you tap out the syllables of a word, the stronger taps correspond to stress.

• The **subjunctive mood** is used for hypothetical or desired actions or states, like "long live the king" and "bless you". See **mood**.

• **Subordination**: See **dependent clause**.

• A **suffix** is a meaningful bit put at the end of a word. For example, the -ful in *meaningful* is a suffix.

• A **syllable** is a rhythmic unit of a word. "Pentasyllabic", which means 'having five syllables', has five syllables: *PENT-a-syl-LAB-ic*. The first and fourth are pronounced more strongly than the others; they are said to be **stressed**. An **open syllable** is one that ends in a vowel, as in English *kudu*; a **closed syllable** ends in a consonant, as in English *dumdum*.

• A **syllabic consonant** is a consonant that forms the core of a **syllable**, or is a syllable by itself. Examples of the latter are English *bottle, button, and rhythm*; for most people in the US and Canada, the former is found in *church*. In Na’vi, there are two syllabic consonants, *ll* and *rr*, which can only occur at the end of a syllable, not in the middle as in *church*.

• **Syntax** is how words are put together in speech: how words form **phrases**, how **clauses** form phrases, and how clauses form sentences.
• **Tense** is the grammatical encoding of a point of time in a sentence, as in a verb. This contrasts with **aspect**, which is the grammatical encoding of the flow of time in a sentence. The five Na'vi tenses are the present, past, future, recent past, and immediate future. In the subjunctive mood, these reduce to three: present, past, and future.

See also relative tense.

• A **tenuis consonant** is a consonant, generally a plosive, that is not voiced, not aspirated, and not ejective. That is, it is a "plain" [p], [t], [ts], or [k].

• **Tone**, as used here, means the use of pitch to distinguish words, as Chinese does. Na'vi does not have tone, only intonation.

• A grammatical **topic** is an element of discourse that is set up as the background for the material which follows. Setting up a sentence with a topic and then elaborating on it is called a **topic-comment** structure. In English, this may be done with phrases such as "as for", or simply with intonation, as in "In English, this may be done ...", or as in "That dog, I can't hunt (with) him no more". Such structures are very common in Na'vi. This is the opposite of focus, which is a foregrounded element of the discourse.

• A **transitive** clause, or verb, is one with an overt object. For instance, "I ate today" is intransitive, as there is no particular object that can be associated with the verb, whereas "I eat teylu" is transitive. Some verbs, such as "run", can only be intransitive, as they can never take an object. A clause like "I ran a mile" may feel transitive in English, but I didn't actually do anything to that mile, and in Na'vi it would be treated as intransitive. Some verbs, such as ting "give", take two objects, including a recipient in the dative case; these are called ditransitive.

• **Trial number** is a grammatical number specifically for three of something: pxoe "the three of us", pxenga "the three of you", pxeveng "three children", etc.

• A **trill** is a rolled R, as in Spanish ¡Arriba! 

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215 #aspect
216 #present
217 #past
218 #future
219 #recent_past
220 #immediate_future
221 #subjunctive
222 #relative_tense
223 #plosive
224 #voice
225 #aspiration
226 #ejective
228 #intonation
229 #discourse
230 #intonation
231 #focus
232 #dative
233 #number
A tripartite system is one that uses three different cases for the 'subject' (argument) of an intransitive verb, the 'subject' of a transitive verb, and the object of a transitive verb. They are, respectively, the intransitive case, the ergative case, and the accusative case.

An unquotative marker is a grammatical particle or other device that signals the end of a quotation. It is like saying "unquote" in English, but is used as a normal part of the language.

Valence is the number of core arguments a verb takes. An intransitive verb has a valence of 1 (the subject: 'they eat'), a transitive verb a valence of 2 (agent and object: 'they see you'), and a ditransitive verb a valence of 3 (agent, recipient, and object: 'we give you them'). Some derivations of a verb change its valence. A passive or reflexive, for example, decreases its valence ('they see you' → 'you are seen'), while a causative increases its valence ('they eat' → 'you feed them'). By changing a verb to an adjective, a active participle effectively reduces a verb's valence to zero.

A velar consonant is one where the back of the tongue contacts the velum, the soft palate at the back of the mouth. Velar consonants include [k, ɡ, ŋ] and the [x] at the end of Bach. [ŋ] (the "eng" sound) is thus called a velar nasal. For [w], the tongue approaches the velum, but the lips also approach each other, so it is considered to be both velar and labial.

A verbalizer is an element that changes a word into a verb. Na’vi uses the verb si for this purpose.

A vocative is a special form of a noun used when addressing a person. Poetic English has a preposition "O" for the vocative; Na’vi uses ma. Note this ma is not used when talking about a person, only when talking to them.

A voiced sound is one, such as a vowel, in which the vocal chords vibrate. Say "fffff" or "sssss" with your fingers on your Adam’s apple, and you will feel nothing; do the same with "vvvvv" or "zzzzz" and you will feel a buzzing in your throat. Therefore [v] and [z] and voiced sounds, while [f] and [s] and unvoiced. Though harder to feel, plosives such as [b], [d], [g] are also voiced. Voiced plosives do not occur in Na’vi.
This phonetic use of the word "voice" is not to be confused with the grammatical concept of voice, as in passive voice\(^{251}\) and reflexive voice\(^{252}\).

- **Vowel height** is the distance between the tongue and the roof of the mouth when pronouncing a vowel. *Cat* and *dog* have 'open' vowels, as the jaw is open when they are pronounced. (This is why a doctor asks you to say "ah!" when looking at your throat, to get your tongue out of the way.) *Bee* and *zoo*, on the other hand, have 'close' vowels, as the tongue is close to the roof of the mouth. In between there are open-mid vowels in *neck* and *craw*, and close-mid vowels in *snake* and *crow*. (In English, the latter are actually diphthongs\(^{253}\), but they approximate close-mid vowels.)

- **Vowel length** is a distinction between long and short vowels. Latin and Hawaiian, for example, each distinguish words depending on whether the vowels within them are pronounced long or short. Na’vi does not have this feature, so two identical vowels may not occur next to each other.

- A **wh-question word** is a word such as *who, what, where, when, why, how* that asks for information. Na’vi might be said to have "pe-question words", as the equivalent words in Na’vi all contain the morpheme\(^{254}\) *pe*.

- **Word order** is the order of words in a phrase\(^{255}\), such as adjectives before or after a noun, or in a clause\(^{256}\), such as subjects before or after a verb. Na’vi word order is largely "free", meaning that it can change depending on how the speaker wishes to express or or emphasize something. The order of the verb and its core arguments\(^{257}\) is called constituent order\(^{258}\).
18 Bibliography

An early basic description of Na’vi by Paul Frommer is a short grammatical sketch,


Discussion on points of grammar and basic language lessons are presented on Frommer's blog,


The appendix of the so-called "Survival Guide" is the best published source of vocabulary:


Although most of the purported Na’vi in the main text is spurious (though it does include two of the four songs that Frommer translated into Na’vi for Cameron, the Hunting Song and the Weaving Song), the appendix is reasonably accurate, though significantly less reliable and complete than the dictionaries here at Wikibooks. That appendix is a copy of an early draught of Frommer's glossary that he has since modified. *Neu* "to want", for example, is now *new*. Some of the words for Na’vi foods which did not make it into the final cut of the film have been reassigned to new meanings, such as *kxener* "smoke". The LearnNa’vi community keeps a list of vocabulary with attested usage online here. *LearnNa’vi* also has a dictionary which may sometimes be more up to date than the one here.

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1 http://languagelog.ldc.upenn.edu/nll/?p=1977
2 http://languagelog.ldc.upenn.edu/nll/?p=1977
3 http://naviteri.org/
4 http://naviteri.org/
6 http://en.wikibooks.org/wiki/Special:BookSources/0061896756
19 Notes

1. Words are listed in the order in which they appear in the scriptment; followed in italics by Frommer’s adaptations. Acute accents indicate where Cameron had indicated stress.

2. Mo’at-’ite is the source of ‘ite "daughter", and Ckaha (Tskaha) is apparently the impetus for consonant clusters such as tsk.

3. Potentially the source of the positive affect infix <ei>

4. source of ‘itan "son"

5. It seems that no Terran language has quite these vowels. However, Czech\(^1\) has six of the simple vowel qualities (apart from /æ/), the diphthongs /au̯/ and /eu̯/ (plus /ou̯/), and the syllabic consonants /l/ and /r/, though the latter two allow for following consonant codas, as in vlk "wolf" and krk "neck", which are not possible in Na’vi.

6. For example, Swahili eua\(^2\) "to purify", Japanese aoi\(^3\) "blue/green", Hawaiian acäea (sp. small green fish) or—with a glottal stop—uauo'oa "distant voices".

7. Note that the e is open-mid\(^4\) while the o is close-mid\(^5\), and that there is no *oy.

8. In the film, syllabic ll is generally pronounced darkly by the actors. That makes it difficult to distinguish ll from u or ul.

9. For other countries, such as Jamaica, India, and Malaysia, either the details of English pronunciation were not available to the author, or there was too much variability to make normative statements.

10. There do not appear to be any words that are distinguished by this rather subtle contrast, so it will make no effective difference if you do not master it.

11. Hold a lit candle or lighter below your lips when you pronounce these words. The flame should flicker or even blow out when you say pie, tie, or kite, but not when you say spy, sty, sky. When speaking Na’vi, the flame should not flicker for pay, tag, kay any more than it does for spay, stay, kay, or for that matter for vay, may, nay.

12. These sounds are easy to pronounce. When you say ap, at, or ak, you will cut off the air flowing through your mouth with your lips or tongue. In Na’vi, you simply keep your lips or tongue in that position and turn it into a glottal stop before letting the air flow again.

13. This was one of the most difficult aspects of the pronunciation for the actors of Avatar. For tsə, try repeating "cats are" over and over, then drop the "ca" to extract the "tsar." For nga, try repeating "sung all", then drop the "su" to extract the "ngall".

14. The gist of the sounds is this: They are pronounced with air pressure from the throat rather than from the lungs. While the tongue or lips seal the mouth so that no air

\(^1\) http://en.wikibooks.org/wiki/Czech
\(^2\) http://en.wikibooks.org//en.wiktionary.org/wiki/eua
\(^3\) http://en.wikibooks.org//en.wiktionary.org/wiki/aoi
\(^4\) #vowel_height
\(^5\) #vowel_height
can escape, the Adam's apple is pushed upward, so that when the tongue or lips are released, the air escapes with a pop. Ejective \( px \) is more difficult for most people to pronounce than \( tx \) or \( kx \).

15. Though \( wy \) in syllable-final position are considered parts of a diphthong, as they only occur as \( ay \ ey \ aw \ ew \) and may be followed by another final consonant, as in \( skrawng \) "moron".

16. This differs from most European languages, which would syllabify \( ikran \) as "i-kran", with a released \([ k ]\), whereas in Na'vi it is \( ik\-ran \) and the \( k \) is unreleased \([ k' ]\).

17. An exception is glottal stop when it is required before \( rr \) or \( ll \), as in \( ro \ 'Rrta \) "on Earth", where glottal stop would normally drop after \( ro \), but can't here because \( rr \) cannot begin a syllable. In the case of consonant clusters, it is only the first consonant that undergoes lenition. For instance, the plural of \( tskxe \) "stone" is \( skxe \), not *skxe, and in the case of \( tsko \) "bow", double lenition (*sho) would not be possible, as */sh/ is not a permitted consonant cluster.

18. Though in the common greeting \( oel ngati kameie \), the shift occurs in the \( oel \) form (now /ˈwel/) as well.

19. This shift from /o/ to /w/ is blocked in the case of trial inclusive and dual and trial exclusive, because the resulting consonant clusters *mw *pxw would violate Na’vi phonotactics. So "for the two of us\([\text{INCL}]\)" is \( oengaru \) /we.ˈya.ru/ with three syllables, but "for the three of us" is \( pxoengaru \) /p’o.e.ˈya.ru/ with four.

20. See the appendix for an explanation of the glossing conventions used in these examples.

21. \( Ng \) is in the intransitive case because there is no object to the verb—or rather, because the semantic object is incorporated into the verb, which thus becomes intransitive. With a simple verb \( ting \) "to give", \( nga \) would become ergative: \( Ngalna’viru syuve \( t \) \( ting \) "you will give food to the People".

22. Compare \( oeyätukru \) "my spear" above.

23. The rest of the sentence will be explained in the remainder of this book.

24. Note that this is not the case in English, where the pronoun in "by/from/for me" is in the accusative/dative case.

25. The demonstrative pronoun \( tsaw \) is an exception, with \( tsawl, tsawt, \) and \( tsawr \), possibly because it is a contraction of \( tsa’u \), where these would be the expected case forms after \( u \).

26. Indeed, in the film, when the elders Eytukan and Mo’at speak to a public audience, they use the long -ti form of the accusative.

27. \( Ma \ tsmukan, oeru tzoo livu \) "my brother, forgive me"

28. These aren’t actually dual, trial, and plural pronouns, but rather combinations of two pronouns, \( ohe \) and \( ngenga \), either of which may be in any of the four numbers, for sixteen possible permutations from \( ohe ngengasi \) for just two people to \( ayohe ayngengasi \) for at least eight (the \( 4+ \) of us and the \( 4+ \) of you).

29. The "See" is capitalized in the script, as \( kame \) means to see into & understand a person, not simply "to see", which is \( tse’\a \). "How to Speak Na’vi", UGO Movie Blog, 2009 Dec 14
30. Assumed from the formal plural form *ayohengeyä*. The alternate informal plural is *awngeyä*.
31. *Tsa'u* inflects as a regular noun. Its shortened form *tsaw*, however, drops the *w* when inflected.
32. *Kxamlä* does not cause lenition, though its component *ilä* does.
33. Syntactically, *si* is a conjunction, and is used regardless of the presence of true adpositions or case, but it is included here because it may be either preposed or suffixed as the adpositions are.
34. Perhaps related to the *em* in *emza'u* "to pass a test, overcome a challenge".
35. Attached orthographically, but the fictional Na'vi is not a written language. Therefore it may be more accurate to say that the *a* appears between the adjective and the noun, but always adjacent to the adjective. Other than orthography, this is identical to its use in relative clauses below.
36. So named from the form of such questions in English: *who?*, *which?*, *what?*, *when?*, *why?*, *where?*, *how?*, etc.
37. A contraction of *srane* "yes" and *ke* "no" with similarities to archaic English "whether".
38. These may reduce to *tsa+* in verse, as in *tsayhem ṭ tsahem* "those (actions)", but the plural *g* is normally retained, as dropping it does not shorten the word significantly.
39. Infixes will be marked off with ⟨angle brackets⟩ when parsing words: *tolang*.
40. Technically, the first infix position is in the penultimate (next-to-last) syllable. However, because all existing Na’vi verb roots have only one or two syllables, and because only the verbal root is inflected within compounds, this is the first syllable for all practical purposes. If three- or four-syllable verb roots are introduced in the future, the description will need to be worded more precisely.
41. The meanings of these infixes, which do not translate well into English, will be explained later.
42. Note that, despite the fact that the infix appears at the front of the verb, its gloss appears at the end. The glosses of Na’vi infixes always come at the end of the verb, because this informs the reader that, in order to determine the position of the infix, one counts syllables from the end of the verb, not from the front.
43. These may also be called subject and object participles, as the nouns they modify are respectively the subject and the object of the clause. "Subject" in this case means both ergative and intransitive, and so aligns with English rather than with the tripartite alignment of Na’vi noun cases.
44. However, it will be seen in the chapter on syntax that all Na’vi verbs may behave in this fashion, not just participles.
45. Actually, the future "tense" in English doesn’t behave like the past or present, but more like a modal, so linguists consider English to have only two tenses, past and non-past. Na’vi, however, has true future tenses; it’s the present that is poorly defined in Na’vi.

10 #conjunction
11 #penultimate
12 #compound
13 #Syntax
46. With stative verbs such as "understand" (as opposed to more active verbs such as "hunt"), the perfective often has the meaning of acquiring that state; in this case, of achieving understanding. A similar idea is expressed in English by substituting the verb "get" for the verb "understand".

47. rā'ā : the stress on the second syllable

48. In the film, rā'ā si is pronounced rā'ši.

49. In the film, the subjunctive imperative tended to be used in more formal situations, such as addressing the assembled tribe.

50. It is not known if one can say po-l kelku-t s<ob>i "he made a home" with the case suffixes, in contrast with po kelku s<ob>i "he dwelled" without.

Note that English verb-preposition phrases have similar behavior: they behave as single words in that they have fixed, often idiomatic meanings, yet the can be separated from each other: "I looked up an old friend" vs. "I looked him up".

There is an exception to the noun-si word order, irayo si "thank". Irayo "thanks" is perhaps not a noun, and the reverse order, si irayo, is also found: ngaru s<ei>-yi oe irayo "I thank you".

51. Because new can be transitive, a more explicitly spelled out subordinate construction (see below) with a subject in the ergative can also be used, but is not common: Oe-l new fu-t-a (oe) k<iv>ä "I want that I should go". However, this option is not available with intransitive tsun and zene.

52. In longer compounds like zamunge "bring" (za + munge), the infixes appear in the final two syllables, but that would happen regardless since the first infix position is actually in the penultimate syllable.

53. The lack of case marking is yet to be explained.

54. Also ayl'i' u ayskxé mi te'län "the words (are) like stones in my heart"

55. This a is just the attributive a used for adjectives, used with tsun "be able" to form an attributive verb.

56. Na‘vi pe forms are only used to ask questions

57. The word tsane "to that" may be dropped out, for a more colloquial po karmā a tsenget ke tsime‘a oel.

58. In both questions, the dative case is used.

59. For example, "Saw you online and wanted to say hi. Hope everything is fine. Will try to call this week. BTW, Carol finally got in touch with me. Said she's been very busy. Didn't go to India after all. Went to Vegas instead. I can't figure her out. Guess she decided on gambling rather than the guru." Note that "I" and "she" are required when changing from Carol to the speaker and then back to Carol, but otherwise not much bothered with.

60. Lit., "Your actions must not be to one (= another), those which are not a pleasure to you"

61. A clause in which an erstwhile transitive verb behaves intransitively, with no argument in the ergative or accusative case, is called an anti-passive.

62. An exception in the film is toruk-makto "Great Leonopteryx rider" (makto is "to ride"), as this phrase was coined by Cameron before Frommer had designed the grammar.

63. Lit., "There are to us many matters that about them (we) may speak."
64. Not all the lines made it into the film; the "words are like stones" line, for example, was spoken in English.
65. Jake would seem to be mispronouncing this.
66. Traditionally, the plus sign marks compound words. However, this book follows Frommer in using them to show lenition\textsuperscript{15} and other sound changes.
67. In languages such as Filipino, infixes come at the beginning of a verb, so the gloss for the infix would appear in front of the gloss for the verb.
68. There actually is a way to mark this in the second line, with a hyphenated zero: oe-0, corresponding to a hyphenated gloss: "I-INTR. However, that convention has not been used in this book.
69. Note that even though it removes spots (plural), we call it a "spot (singular) remover". This is a feature of attributive nouns in English: a "question and answer section", even though there may be many questions and answers; a "thousand-foot cliff", even though it's a thousand feet high. Na'vi, however, allows plurals as normal.
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\textsuperscript{8} Chapter 22 on page 253
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