

DESIGN FOR A NEW LANGUAGE BASED ON ITHKUIL (Version 0.8.7, June 26, 2019) by John Q.

This document presupposes familiarity on the part of the reader with existing Ithkuil grammar, as well as familiarity with the previous versions of this design document. This document updates the previous version 0.7 and reflects the following changes made since that version:

- I have re-introduced a section on pronunciation, allophony, and orthography. The voiceless palatal fricative /ç/ has been eliminated as a phoneme, while the bilateral voiceless fricative /h/ has been introduced as a phoneme (spelled -ĭ-). The sound [ç] will still exist as the allophonic pronunciation of word initial -**hy**- (phonemically /hj/). The sound [h] will also be an allophonic pronunciation of word initial /hl/. Additionally, the uvular approximant -**ř**- (/ʁ/) has been reintroduced as a phoneme. I've also introduced a new word-initial consonant conjunct spelled **hyw**-, to be pronounced [çw]. These changes have entailed a revision to the details of Slot I, several adjuncts, as well as numerous previously published roots.
- The rules for a self-segregating morphology (i.e., parsing rules) have been completely revised to a new system utilizing pitch accent. As a result, the glottal-stop and /h/ have been freed up to be used inter-vocally in other Formative slots besides Slot I. This, along with the introduction of -**ř**-, has allowed another revision of the morpho-phonological Slot structure of the language for the purposes of greater morpho-phonological conciseness. Version has now been combined with Designation in Slot I, and the structure of Slots X and XI have been revised.
- Due to the above changes, the following single phonemes cannot be roots: -ʔ-, -**h**-, -**ĭ**-, -**w**-, or -**y**-, although each of these may appear within phonotactically permitted conjuncts as roots, e.g., -**pĭ**-, -**ĭkr**-, -**ĭt**-, -**gw**-, or -**ndy**-, etc.). Additionally, the glottal-stop cannot occur anywhere within a root, and the consonant -**h**- can only appear as the last consonant within a conjunct root, e.g., -**rh**-, -**lvh**-, etc., but not *-**h**-, *-**hl**-, *-**hrt**-, *-**vhr**-, etc. These same rules given for -**ĭ**-, -**w**-, -**y**-, -**h**-, and the glottal-stop also apply to their use in **V_XC_S** affixes.
- Version, Incorporation Type, and Delineation for the incorporated stem, all previously shown in Slot VI, are now marked separately within other slots; the old Slot VI is now eliminated. Meanwhile, the **V_IC_I** incorporated stem complex which had previously comprised Slot IV, has now been separated into two independent Slots (**V_I** in Slot IV, **C_I** now in Slot V). Thus, there has been no need to renumber slots from previous versions of this document.
- The category of Context has been consolidated with the **C_A** complex in Slot VIII, causing the **C_A** values to be revised.
- Placing Context within the **C_A** complex has freed up syllabic stress to be used to simplify the Case and Illocution+Sanction values in Slot XIII. Word-initial stress is eliminated as a distinct stress patterns. The four patterns are now as in Ithkuil: ultimate (i.e., word-final), penultimate (i.e., 2nd-from-last), antepenultimate (i.e., 3rd-from-last), and pre-antepenultimate (i.e., 4th-from-last). As usual, words having an insufficient number of syllables to display these patterns must have syllables added via alternate morpho-phonological options for various slots or employ substitute morphology.
- Slot XII now holds either the **C_M** mood affix or the **C_C** case-scoping affix. Mood may also be shown as a vocalic affix in Slot X or Slot XI.
- Formatives now have a fourth stem, “Stem Zero”, available to refer to the overall “stemless” meaning of the raw root itself in all five Specifications.
- The single-affix adjunct is re-introduced.
- I have re-introduced from Ithkuil the personal reference category of Mixed 3rd Party, meaning a party consisting of both animate and inanimate entities. Also, the assignment of particular reference categories to the stems of the two personal-reference roots, -**N**- and -**V**- has been modified.
- In Sec. 5.0, I have added some additional detail about use of RECIPROCAL valence.

1.0 PHONOLOGY

1.1 Phonemic Inventory

	LABIAL	LABIO-DENTAL	LABIO-VELAR	APICO-DENTAL	INTER-DENTAL	APICO-ALVEOLAR	ALVEOLAR RETROFLEX	ALVEOLO-PALATAL	PALATAL	VELAR	UVULAR	GLOTTAL	LATERAL
STOP	p b			t d						k g		'	
FRICATIVE		f v			ʈ ɖ	s z		ʃ ʒ			x	h	ɭ
AFFRICATE						c ʒ		č j					
NASAL	m			n						ŋ			
LIQUID	FLAP / TRILL						r						
	NON-FLAP												l
APPROXIMANT			w						y		ɻ		

	FRONT		CENTRAL		BACK	
	unrounded	rounded	unrounded	rounded	unrounded	rounded
HIGH	i	ü				u
MID	e	ö			ë	o
LOW			a		ä	

1.2 Pronunciation Notes and Allophony

Vowels: -a- is pronounced [a], -ä- is [a] or [ɔ], -e- is [ɛ] or [e] (but only [e] at the beginning of a vocalic conjunct), -ë- as [ɤ] or [ə] when stressed but [u] is recommended when unstressed; -i- is pronounced either [ɪ] or [i] (but only [i] at the beginning of a vocalic conjunct and only as [ɪ] when preceded by -y-), -o- is [ɔ] or [o] (but only [o] at the beginning of a vocalic conjunct), -ö- is [œ] or [ø] (but only [ø] at the beginning of a vocalic conjunct), -u- is [ʊ] or [u] (but only [u] at the beginning of a vocalic conjunct and only as [ʊ] when preceded by -w-), -ü- as [y] or [ɯ] (but only [ɯ] when preceded by -y- or -w-).

The dental -n- assimilates to velar [ŋ] before -k-, -g-, and -x- (but not before -ř-); therefore, phonemic -ñ- is not permitted before -k-, -g-, and -x-.

The fricative -x- may be pronounced with either velar or uvular articulation [x] or [χ]. The liquid -l- may be velarized (pronounced as the “dark”-l of American English *tall*) when immediately followed by -ñ- or -x-, as long as care is taken not to allow the velarization to affect the quality of a preceding vowel-form.

The apico-alveolar-retroflex rhotic -r- is a single tap/flap [ɾ], which becomes a trill [r] when geminated. When followed by a consonant in the same word, it may be pronounced as an apico-alveolar-retroflex approximant [ɹ], similar to (but further forward in the mouth than) the postalveolar [ɹ] of standard English.

The uvular -ř- is an approximant [ʁ] as in colloquial French or German; when geminated it is either [ʁ:] or can be strengthened to a uvular trill [ʁ]. Care should be taken to ensure the pronunciations of -př- and -tř- are differentiated from -px- and -tx-.

The following forms containing -h- have various allophonic pronunciations:

- -h- in syllable-final position may be pronounced [ç] following a front vowel or a diphthong ending in -i.
- -hy- is pronounced [ç], while -hyw- is pronounced [çw]
- -hl- may be pronounced either [ɮ] or as voiceless lateral fricative [ɮ̥]
- -hll- is either [ɮɮ] or [ɮː], -hr- is [ʁ], -hrr- is [ʁʁ]
- -hw- is [w̥, ʌ], -hm- is [m̥], -hn- is [n̥]
- -hlw- is [ɬw], -hrw- is [ʁw] or [ɹw], -hmw- is [m̥w], -hnw- is [n̥w]
- -hly- is [ɬj], -hry- is [ʁj] or [ɹj], -hmy- is [m̥j], -hny- is [n̥j].
- Word-initial or word-final -ph-, -th-, -kh-, -ch-, -čh- are pronounced as aspirated stops/affricates [p^h, t^h, k^h, ts^h, tʃ^h]. Within a word, they are pronounced as in English *haphazard*, *at-hand*, *backhanded*, *it's here*, and *church hall*.

1.1.2 Orthographic conventions: The phonemic inventory table on the previous page indicates the system of romanization. Penultimate stress is unmarked; non-penultimate stress is marked by a diacritic on the vowel (or syllabic consonant) carrying the stress, as follows: a vowel with no diacritic takes the acute accent; a vowel with diaeresis changes it to a circumflex accent (e.g., **ö** → **ô**). The grave accent is used on the second character of a disyllabic vowel conjunct to distinguish the conjunct from a diphthong (e.g., -**au**-); this grave accent changes to acute if the second vowel of the conjunct is stressed. The grave accent is also used over the vowel -i- when it is unstressed as the initial member of a vocalic conjunct following a consonant (e.g., -**Cia**-, -**Cio**, etc.) — this is to remind the speaker/reader that this -i- is to be pronounced long /i:/ in order to distinguish such syllables from syllables of the form **Cy+V** (e.g., *karesya* vs. *karésia*, *ávelkyo* vs. *ávelkìo*).

1.1.3 Phonotactics: A draft version of a detailed phonotaxis document has been released separately.

2.0 MORPHO-PHONOLOGICAL STRUCTURE OF A FORMATIVE

The following chart shows the slot structure of a Complex Formative, i.e., a formative containing an incorporated stem, followed by a second chart showing the slot structure of Simple Formative (i.e., one not containing an incorporated stem):

Slot Structure of a Complex Formative (i.e., Incorporated Stem is present)

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
C_D	V_R	C_R	incorporated stem			$(C_S V_X \dots ')$	C_A	$(V_X C_S \dots)$	$((V_N / V_{M1} / V_{T1})$	$(V_F / V_L / V_E / V_{M2} / V_{T2})$	C_C / C_M	V_C / V_K	$('C_B)$
Designation + Version of main & inc stem	Specification + Function + Stem of main root	main Root	Specification + Function + Stem of incorp. root + Incorporation Type + delineation	incorp. root	Format of inc. stem + case alteration	$V_X C_S$ affixes in reversed form	Config + Affil + Extens. + Perspective + Essence + Context	$V_X C_S$ affixes	Valence or Aspect or Mood	Phase or Level or Effect or Mood or Aspect	Case Scope or Mood **	Case or Illocution + Sanction	Bias
Consonant form beginning with glottal stop or h-			same as V_R in Slot II; glottal stop = Type 1 incorp., no glottal stop = Type 2.; + h* = Slot VII affixes apply to incorp. stem		same as Slot XII V_C -w- / -y-* = case alteration for Format	Apply to main stem but not to C_A . The last V_X in the series requires a glottal stop to indicate end of Slot.	If C_A = default then either Mood from Slots X / XI or Case-Scope from Slot XII can be shown here under special circumstances**	Apply to main stem + C_A	Modular Slot: Mood or Aspect forms appear only if Valence = MNO	Modular Slot	This slot shows C_C if Slot XIII shows V_C , and shows C_M if Slot XIII shows V_K .	consonantal infix + vocalic infix Distinction between V_C vs. V_K shown by syllabic stress pattern	if present, must be preceded by a glottal stop

* See the notes in Sections 3.4.1 and 3.4.2 (Page 9) on affixing a glottal stop and/or -h- in Slot IV; also, see note in Sec. 3.6 (Page 10) on affixing -w- or -y- in Slot VI.

** See Special Notes in Sections 3.8 (bottom of Page 11) and 3.12.3 (Page 15) for details on showing Mood or Case-Scope in Slot VIII.

Slot Structure of a Simple Formative (i.e., no Incorporated Stem)

I *	II *	III	IV *	V *	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
(C_D)	(V_R)	C_R	V_R	$(' \text{ or } w/y + V_{R2} \text{ or } 'w/ 'y + V_{R2})$		—							
Designation + Version , h w y	Specification + Function + Stem of main root	main Root	Specification + Function + Stem of main root If Slots I and II are filled, Slot IV = \tilde{e} and Slot V is empty.	glottal stop to show FML designation add $w V_{R2} / y V_{R2}$ to show CPT version add $'w V_{R2} / 'y V_{R2}$ to show FML + CPT V_{R2} = the 2nd "half" of V_R vowel form from Slot IV if V_R is a disyllabic conjunct. If V_R is a single vowel or diphthong, V_{R2} is a reduplication of the initial vowel.		(empty slot)	Slots VII through XIV same as above						

* If C_R in Slot III is phonotactically permissible in word-initial position, then Slots I and II will be empty and their info presented in Slots IV and V instead. Conversely, if C_R cannot phonotactically appear in word-initial position, then Slots I and II are filled, Slot IV will be \tilde{e} - and Slot V will be empty.

2.1 A Self-Segregating Morphology

The rules establishing a self-segregating morphology for the language have been completely revised compared to previous versions of this document. The language will now employ a pitch accent as the means by which word boundaries may be parsed. The details of this pitch accent are given below:

1. All unstressed syllables of a word prior to the stressed syllable carry neutral (MID-toned) pitch. Beginning with the stressed syllable, the remainder of the word must carry a single non-MID pitch contour, as described in Rule 2 below.
2. Beginning with the stressed syllable of the word, a word may carry ANY of the following pitch contours at the speaker's discretion: FALLING, HIGH, RISING-FALLING, FALLING-RISING. Additional pitch contours may be used in the following circumstances:
 - If the sentence carries INTERROGATIVE Illocution, the speaker may optionally utilize RISING pitch on the last word of the interrogative clause.
 - For clauses with non-NARRATIVE Register, the first and last word of the register clause may optionally be marked by LOW tone (in which case it is not necessary to utilize the end-register adjunct).

In general, the choice of pitch may match what the speaker is naturally comfortable with using from their own native language, subject to these rules.

3. Once a pitch has been chosen for the stressed syllable, it must be pronounced continuously through to the end of the word without change to a different contour (i.e., each word will have only one non-MID pitch contour).
4. If a word carries word-initial stress (i.e., it does not begin with neutral MID pitch), and is not at the beginning of a breath group, then it must carry a pitch whose initial tone is different than the final tone of the previous word, so that two identical tones are not juxtaposed at the boundary between two words. In practice, this means the following rules apply between two adjacent words within the same breath group (i.e., they are not separated from each other by a pause in speech), where the second word carries word-initial stress or is monosyllabic:
 - When preceded by a word with either FALLING, RISING-FALLING, or LOW pitch, a monosyllabic word or word with word-initial stress must have either FALLING, FALLING-RISING, or HIGH pitch.
 - When preceded by a word with either HIGH, RISING, or FALLING-RISING pitch, a monosyllabic word or word with word-initial stress must have either RISING, RISING-FALLING, or LOW pitch.
5. In unusual situations (e.g., singing a song) when pitch-accent is unavailable or undesirable as a means of parsing word boundaries and the placement of pauses between words is unrealistic, then a special parsing adjunct of the form 'V' may be placed before any word to be parsed, where 'V' represents a single vowel between two glottal stops, the particular vowel indicating the syllabic stress of the following word, as follows:
 - 'a' indicates the following word is monosyllabic
 - 'e' indicates the word bears ultimate stress
 - 'o' indicates the following word bears penultimate stress
 - 'u' indicates the following word bears antepenultimate stress
 - 'i' indicates the following word bears pre-antepenultimate stress

3.0 ANALYSIS OF FORMATIVE SLOTS

3.1 SLOT I: C_D — Designation of Main Stem (+ Designation of Incorporated Stem)

This slot shows Designation values for both the main stem and any incorporated stem as well.

C_D — Designation/Version		No Incorp. Stem	Incorp. Stem is INF/PRC	Incorp. Stem is FML/PRC	Incorp. Stem is INF/CPT	Incorp. Stem is FML/CPT
Designation & Version of Main Stem	INF/PRC	, *	hl	hll	hlw	hly
	FML/PRC	h	hr	hrr	hrw	hry
	INF/CPT	w	hw	hm	hmw	hnw
	FML/CPT	y	hy	hn	hmy	hny

* A word-initial glottal stop is pronounced but is unwritten.

3.2 SLOT II: V_R — Function × Stem × Specification

Each root has six associated stems (three for each of the two Designations).

	STEM 1		STEM 2		STEM 3		“STEM 0”		
	STA	DYN	STA	DYN	STA	DYN	STA	DYN	
BASIC	a	ai	ä	au	ao	ia / ua	aì	aù	“Stem Zero”: These forms are available when necessary to refer to the “stemless” overall conceptual meaning of the raw root, irrespective of a particular stem. For many stems, this will be unnecessary, as the basic overall meaning of the root corresponds to the meaning of Stem One.
CONTENTIAL	e	ei	ë	eu	eo	ie / ue	eì	eù	
CONSTITUTIVE	o	oi	ö	ou	oa	io / uo	oì	où	
OBJECTIVE	u	ui	ü	iu	oe	iö / uö	öì	öù	
INTENTIVE	i	ëi	ea	ëu	ae	ië / uë	ëì	ëù	

Specifications (NOTE: the descriptions below are illustrated using the example stems “ARTISTIC ENDEAVOR”, “BELIEF/BELIEVE”, and “MEASURE(MENT)”)

BSC	BASIC: A holistic instantiation of a root, prior to the application of one of the other eight Specifications, essentially encompassing the meanings of the CTE, SCV, OBJ, and where appropriate, the FND and/or INT specifications below. For roots representing naturally “activized”, “time-unstable”, dynamic, or psychologically verb-like notions, the BASIC nominal formative would mean “an instance/occurrence of X”, while the BASIC verbal formative would mean “(an instance/occurrence of) X(-ing) happens”. For roots representing naturally “reified”, “time-stable”, stative, or psychologically noun-like notions, the BASIC nominal formative would mean “an X (being present)” or for “non-count” entities, “an (unspecified/certain) amount/volume of X”, whereas the BASIC verbal formative would carry a STATIVE interpretation meaning “(an) X be present” / “[there] be (an) X”; the expansion of this meaning verbally would be accomplished using other Specifications and/or DYN Function.
CTE	CONTENTIAL: This specification complements the CONSTITUTIVE specification below. The physical or non-physical “content” or essence or purposeful function or idealized/abstract/platonic form thereof, as opposed to its mere physical form/shape, e.g., <i>the content of a piece of art</i> [what it represents or is an image/statue of]; <i>the water within a river</i> [regardless of its channel or course]; <i>the communicative content of a message</i> [regardless of the means/medium by which it is conveyed]; <i>something (made of/in) iron</i> [its form/shape as opposed to merely being an example of the substance]; <i>a room as a functional/habitable space, established by its socially communicated purpose or discernible by its design, furnishings, decor, etc.</i>
CSV	CONSTITUTIVE: The form (physical or non-physical) in which an entity/state/act actually expresses itself, is shaped, or is realized, as opposed to its functional/purposeful content, i.e., “what constitutes X”, e.g., <i>a work of art</i> [as constituted by it being a painted canvas, sculpted marble, etc., irrespective of what the image is or what/who the statue is of]; <i>the course of a river</i> ; <i>the form/medium (written, spoken, recorded, etc.) of a message</i> [irrespective of what it communicates], <i>something iron (focus on it being of a particular material/substance regardless of its form/shape)</i> , <i>a room as a contained volume of space established by conjoined walls and ceiling</i> [regardless of its purpose, dimensions, layout, design, furnishings, or decor].
OBJ	OBJECTIVE: Target or “object” or product associated with the act/state/event, , e.g., <i>what an artist creates</i> (in this case synonymous with INTENTIVE-COMPLETIVE below, <i>a work of art</i>), <i>the entity/person/institution that forms the object/source of one’s belief</i> , <i>what one measures</i> (the object, span, gap, etc. to be measured)
INT	INTENTIVE: (to be) the use/purpose/intent of an instance of the BSC holistic instantiation of X; = desired/expected resulting use/outcome/consequences of act, e.g., <i>envisioned/planned work of art</i> ; <i>a desired belief (what the believer wants his/her belief to be / tries to hold as a belief)</i> ; <i>expected measurement result, to obtain (expected) measurement result.</i> With CPT Version, this specification becomes resultative, showing the result/outcome/impact/consequences associated with the act/state/event, e.g., <i>finished work of art</i> ; <i>a belief (what the believer actually holds as their belief)</i> ; <i>resulting measurement, to obtain the actual measurement.</i>

Four Specifications have been eliminated from the previous versions of this document: the FACILITATIVE, the FOUNDATIONAL, the EXPERIENTIAL, and the PREREQUISITIVE. Their functionality will instead be expressible as follows:

- The FACILITATIVE can be expressed by either REA/5 or REA/6 affix or via stem incorporation.
- The FOUNDATIONAL and the PREREQUISITIVE can be expressed via stem incorporation or via the following new affix:

-px	PRQ: PREREQUISITE
1	the ingredients (needed) for making/creating/crafting X
2	the originating source of X
3	the initiating cause/reason for X
4	the circumstance/situation/event which does lead to X or does make X a foregone conclusion
5	the circumstance/situation/event which may lead to X or may make X a foregone conclusion
6	precursor/prerequisite requirement before X can be/happen
7	presumed circumstance or assumption underlying or forming the specific/tangible basis/foundation for X
8	assumption underlying or forming the abstract basis/foundation for X
9	abstract/intellectual/philosophical premise/idea underlying or forming the abstract basis for X

- The EXPERIENTIAL can be expressed by the following new affix:

-tx	SNX: SENSORY EXPERIENCE or REACTION
1	physical tactile feeling/sensation of touching or being touched by X (being in physical/tactile contact with X)
2	other-than-tactile sensation of witnessing/undergoing/being in the situation involving X
3	physical feeling/sensation of undergoing/being in the situation involving X
4	emotional reaction to (visually and/or aurally) witnessing X
5	emotional reaction to undergoing X
6	subjective experience of (visually and/or aurally) witnessing X (emotional, physical and post-experiential contemplative reactions)
7	subjective experience of undergoing X (emotional, physical and post-experiential contemplative reactions)
8	subjective experience of being in the situation involving X (emotional, physical and post-experiential contemplative reactions)
9	post-experiential subjective assessment / contemplative reaction to having witnessed/undergone/being involved with X

3.3 SLOT III: C_R — The Root

The root is a single consonantal form, from one to six consonants in length. Any multi-consonant root must be phonotactically permissible (e.g., none of the following could be roots: *-kg-, *-nč-, *-zrb-, *-tpk-, *-fmst-). No root may contain a glottal-stop, nor can the single consonants -ʔ-, -h-, -w- or -y- be roots (however, multi-consonant roots ending in -h-, -w- or -y- are permissible (e.g., -vh-, -gw-, -rpy-), as are combinations containing -ʔ- (e.g., -pʔ-, -ʔtr-, etc.). Over 8000 roots are possible.

3.4 SLOT IV: V_I — Function x Stem x Specification of Incorporated Root plus Incorporation Type and Delineation

V_I infix values are the same values as for the V_R infix in Slot II. They show Function, Stem, and Specification for the C_I incorporated root in Slot V following. Additionally, Slot IV shows Incorporation Type and Delineation, which are discussed separately below.

3.4.1 Incorporation Type: There are two types of stem incorporation. Type-1 incorporation implies a circumstantial relationship between the incorporated stem and the main stem (equivalent to placing the incorporated stem into a case-frame instead). Type-2 incorporation is derivational (i.e., lexicalizing). Just as Type-2 V_xC_s affixes create the semantic equivalent of a new English translation (by creating a new semantic gestalt), so formatives with Type-2 stem incorporation will establish the equivalent of a new lexico-semantic gestalt. This is analogous to English forms like *polar bear*, where the form names a new animal rather than stating where a particular bear originates or is situated. Likewise, English *elephant seal* establishes a whole new lexico-semantic gestalt rather than merely describing some sort of metaphorical relationship between elephants and seals.

NOTE: Type-2 incorporation is unmarked. Type-1 incorporation affixes a glottal stop to V_I. If V_I is a single vowel or a diphthong, the glottal stop follows V_I. However, if V_I is disyllabic, the glottal stop is infixes between the two vowels; thus, -a becomes -aʔ, -ai becomes -aiʔ, but -ua or -au becomes -uʔa or -aʔu.

3.4.2 Delineation: This refers simply to whether the reverse-form C_sV_x affix(es) in Slot VII are applied to the main stem or to the incorporated stem. If they apply to the main stem (or there is no incorporated stem), this is unmarked. If they apply to the incorporated stem, this is marked by adding an -h- to V_I (or after V_Iʔ if there is a glottal stop showing Type-1 incorporation).

NOTE: When an -h- is affixed to V_I, the -h- is placed following V_I if V_I is a single vowel or diphthong; but if V_I is a disyllabic conjunct, then -h- is infixes between the two syllables of V_I; thus, -a becomes -ah, -ai becomes -aih, but -ua or -au becomes -uha- or -ahu- and -uʔa- or -aʔu- becomes -uʔha- or -aʔhu-. If affixation of -h- causes a phonotactically impermissible conjunct to occur with an immediately following consonant, an epenthetic vowel is added following the -h-; if V_I is a single vowel, reduplicate this vowel following the -h-, however, if V_I is a diphthong, reduplicate only the initial vowel of the diphthong. This includes affixing the -h- to a single vowel followed by a glottal stop; thus, -ai becomes -aiha-, -aʔ becomes -aʔha-, -aiʔ becomes -aiʔha-.

3.5 SLOT V: C_I — the Incorporated Root

The incorporated root, C_I, is the same as any standard C_R root. For formatives with no incorporated stem, this slot and Slots IV and VI will be empty.

3.6 SLOT VI: V_F — Format of Incorporated Stem

Format signifies the incorporated stem's semantic relationship to the main stem. The V_F infix values are the same as the V_C vocalic Case affixes in Slot XIII. For Formats corresponding to Cases 37 through 68, the V_F infix takes an additional affix of **-w-** (or **-y-** if V_F is **-u-** or a diphthong ending in **-u-**). This **-w-** / **-y-** affix corresponds to the the syllabic stress variation used for showing Case in Slot XIII.

NOTE: When **-w-** or **-y-** is affixed to V_F , it is placed following V_F if V_F is a single vowel or diphthong; but if V_F is a disyllabic conjunct, then **-w-** or **-y-** is infixed between the two syllables of V_F ; thus, **-a** becomes **-aw-**, **-ai** becomes **-aiw-**, but **-ua** or **-au** becomes **-uya** or **-ayu-**. The affixation of **-w-** or **-y-** following a single vowel or diphthong naturally requires an epenthetic vowel to immediately follow; if V_F is a single vowel, reduplicate this vowel following the **-w-** or **-y-**, however, if V_F is a diphthong, reduplicate only the initial vowel of the diphthong.

3.7 SLOT VII: $-C_S V_X-$ Affixes

This optional slot holds one or more standard $-V_X C_S$ affixes **in reversed form**: $-C_S V_X-$. **NOTE:** Slot VII affixes apply only to the main stem (or the incorporated stem as per the delineation in Slot VI). They do not have scope over the C_A information in Slot VIII or any subsequent slots.

degree	Type 1	Type 2	Type 3
1	a	ai	ia / ai
2	e	ei	ie / eì
3	o	oi	io / oì
4	u	ui	iö / öì
5	i	ëi	ië / ëì
6	ü	iu	uö / öù
7	ö	ou	uo / où
8	ë	eu	ue / eù
9	ä	au	ua / aù
0	ae	ëu	uë / ëù

Type 1: circumstantial

Type 2: derivational

Type 3: applies to previous $C_S V_X$ affix only (or the following affix if it is the first in the slot.)

Degree 0: unspecified degree

C_A stacking: There are two specialized $-V_X$ values, **-üa** and **-üe**, used to indicate that the following $-C_S$ consonant-form is to be interpreted as a C_A complex (see next page) whose info is stacked or layered on the formative's primary C_A complex; **-üa** indicates the C_A complex applies to the main stem, while **-üe** means it applies to the incorporated stem.

NOTE: The last $C_S V_X$ affix in Slot VII must carry a glottal stop, so the listener will know where Slot VIII begins. The glottal stop follows a Type-1 or Type-2 V_X , but is infixed between the two syllables of a Type-3 V_X ; thus, **-a** becomes **-a'**, **-ai** becomes **-ai'**, but **-ua** or **-au** becomes **-u'a** or **-a'u**. (See special note in Sec. 3.12.3 for an exception to this rule.)

Note: There are several constraints on the form of a $V_X C_S$ affix beyond standard phonotactic constraints. To avoid being confused with consonant-forms used in other Slots, no $V_X C_S$ affix can contain a glottal-stop or begin with **h-**. Additionally, the following lone consonants cannot occur as $V_X C_S$ affixes: the glottal stop, **-h-**, **-l-**, **-w-**, or **-y-**.

3.8 SLOT VIII: The C_A complex — 9 Configurations + 4 Affiliations + 6 Extensions + 4 Perspectives + 2 Essences + 4 Contexts

AFFILIATION		CONFIGURATION		EXTENSION		PERSPECTIVE		ESSENCE		CONTEXT		
CSL	[zero] / l ¹	UNI	[zero]	DEL	[zero]	M	[zero]	NRM	[zero]	EXS	[zero]	
ASO	t ² / l ⁻²	DPX	ñ (nt) ³	PRX	s	P	t (m) ⁷	RPV	C _A gemination	FNC	l, h (ly) ⁸	
VAR	r	DCT	f (v) ^{4,5}	ICP	z ⁵	N	k (m) ⁷	Geminate in following order: 1. The Extension affix; if zero, 2. the Affiliation affix (but see footnote 8); if zero, 3. geminate the Configuration affix; if zero, 4. geminate the Perspective affix; if zero, 5. the Context affix (see footnote 8)			RPS	r, h (ry) ⁸
COA	ř	AGG	ť (đ) ^{4,5}	ATV	š	A	p (m) ⁷				AMG	w (řy) ⁸
		SEG	m ⁴	GRA	ž ⁵							
		CPN	n (nk) ³	DPL	x, l, t ^{4,6}							
		COH	t (d) ^{4,6,7}									
		CST	k (g) ^{6,7}									
		MLT	p (b) ^{6,7}									

- ¹ If all six C_A subcategories are zero (i.e., CSL-UNI-DEL-M-NRM-EXS), then the CSL form becomes standalone **l** (which geminates to **ll** if Essence is RPV).
- ² Standalone ASO form is **t!** (which geminates to **tt!** or **t!!** if Essence is RPV); when combined with a non-zero form from another C_A subcategory, the ASO form becomes **l-**.
- ³ Because the forms ***ñk** and ***np** are not phonotactically permissible, the DPX+DEL+P form ***ñk** becomes **ntk**, and the CPN+DEL+A form ***np** becomes **nkp**.
- ⁴ If Configuration is UNI (i.e., zero), the value of DPL Extension is **x**. However, if Configuration is other than UNI (i.e., non-zero) then the value of the Configuration + DPL Extension cluster changes as follows: DCT (**f**) + DPL = **v**, AGG (**ť**) + DPL = **đ**; if Perspective is non-zero, then COH (**t**) + DPL = **!** (i.e., COH + DPL + P = **!t**, COH + DPL + N = **!k**, COH + DPL + A = **!p**); however, if the Perspective is zero (i.e., MONADIC), then COH (**t**) + DPL + M (zero) = **tx-**. When combined with the remaining DPX, SEG, CPN, CST, and MLT Configurations, DPL Extension = **t** (i.e., **-ñt-**, **-mt-**, **-nt-**, **-kt-**, **-pt-**)
- ⁵ The DCT form **f** voices to **v** when followed by Extension forms **z** or **ž**. Two special forms exist for the awkward AGG+ICP **ť + z** and AGG+DPL **ť + ž**. The former combination becomes **mf** and the latter becomes **ňf** (since the forms **đz** and **đž** are not phonotactically permitted).
- ⁶ The COH, CST, or MLT Configuration forms **t, k, p** voice to **d, g, b** whenever the Extension and Perspective forms are zero, in order to disambiguate them from the P, N, and A Perspective forms **t, k, p**. The COH, CST, or MLT forms **t, k, p** also change to **d, g, b** if followed by the ICP or DPL Extension forms **z** and **ž**. Additionally, when the COH forms **t** and **d** combine with Extension forms **s, z, ž**, the resulting forms become **c, ž, č** and **j** as phonologically expected.
- ⁷ If Extension is zero, and the Configuration forms **t, k, p** are each followed by their identical P, N, and A Perspective forms **t, k, p**, then each of the latter forms become **m** to avoid each combination being mistaken for a geminated form.
- ⁸ Standalone FNC, RPS, AMG forms are in parentheses (**ly, ry, řy**), to disambiguate them from standalone Affiliation forms CSL/UNI/DEL/M/NRM/EXS **l** and VAR/UNI/DEL/M/NRM/EXS **r** (and to avoid standalone **w**). With RPV essence, these geminate to **lly, rry, řřy** respectively. The FNC form **l** and the RPS form **r** both change to **h** when each is immediately preceded by an Affiliation form having an identical consonant (and in the case of RPS, when preceded by COA ř); this is to prevent ambiguities, impermissible triple-geminates, or an impermissible ***řr** combination. Thus, ASO/FNC = **lh**, ASO/RPV/FNC = **llh**, VAR/RPS = **rh**, VAR/RPV/RPS = **rrh**, COA/RPS = **řh**, COA/RPV/RPS = **řřh**.

SPECIAL NOTE: If the C_A value is default **-l-** (UNI-CSL-DEL-M-NRM-EXS), see Sec. 3.12.3 for a special rule on moving the C_M Mood affix or the C_C Case-Scope affix from Slot XII into Slot VIII in place of the C_A affix.

3.9 SLOT IX: $-V_X C_S$ - Affixes

This optional slot holds one or more standard $-V_X C_S$ affixes. The format of the affix is not reversed as in Slot VII. **NOTE:** Slot IX affixes apply to the main stem and have scope over the C_A information in Slot VIII. The V_X values and types are the same as those of Slot VII, however, the last affix in Slot IX does not take any glottal stop (unlike Slot VII affixes).

3.10 SLOT X: V_N or V_{T1} (or V_{M1}) — Valence or Aspect (or Mood)

This is a slot primarily shows Valence. However, if Valence is default MNO, the slot may instead mark Aspect (or Mood under special circumstances explained in Sec. 3.11).

C_V Valence infixes

MNO	PRL	CRO	RCP	CPL	DUP	DEM	IMT	CNG	PTI	IDC	MUT
[zero] / a	e	o	u	i	ü	ö	ë	ä	ao	eo	oa

When showing Mood or Aspect in Slot X, the vocalic forms used for these are different than those used in Slot XI (which is why Slot X forms are designated V_{M1} and V_{T1} vs. their Slot XI counterparts designated V_{M2} and V_{T2}). See the charts for Slot XI below to see the Slot X forms.

NOTE: If either Slot XI or XII is filled, Slot X must also be filled (i.e., MNO must be marked with its alternative value **-a-**).

3.11 SLOT XI: $V_P / V_L / V_E / V_{T2}$ (/ V_{M2}) — Phase or Level or Effect or Aspect (or Mood)

This is a modular slot showing either Phase or Level or Effect or Aspect. Level operates in conjunction with the COMPARATIVE case plus a set of $-V_X C_S$ suffixes specifying the nature of the comparison. Effect conveys the speaker's subjective intent behind an utterance, i.e., whether the utterance is beneficial or detrimental to some party or parties. There are three effects: NEUTRAL, BENEFICIAL, and DETRIMENTAL, in turn associated with a particular party or argument. NEUTRAL (i.e., unspecified Effect) is zero-marked. Effect may also be indicated using a $-V_X C_S$ suffix, an affixal adjunct, or via a personal-reference adjunct.

In addition to Phase, Level, Effect or Aspect, Slot XI (as well as Slot X) can show the category of Mood under the following circumstances: Mood is normally shown as a consonantal affix C_M in Slot XII; however, if V_K in Slot XIII is unmarked default CNF/PPS and either Slot X or Slot XI is otherwise available due to default/zero V_N , V_P , V_L , V_E , or V_T values, Mood may be shown as a vocalic affix V_{M1} in Slot X, or as a vocalic affix V_{M2} here in Slot XI. (**NOTE:** The Slot XII C_M Mood affix can also move to Slot VIII under certain circumstances explained in Sec. 3.12.3.)

Here are the affix values for the various Slot XI categories:

PHASE V_P	
CTX	(wai)
PCT	wei
ITR	woi
REP	wui
ITM	wěi
RCT	wiu
FRE	wou
FRG	weu
FLC	wau

EFFECT V_E	
neutral	[zero]
1 / BEN	yai
2 / BEN	yei
3 / BEN	yoi
all / BEN	yui
unknown	yěu
all / DET	yi <u>u</u>
3 / DET	yo <u>u</u>
2 / DET	ye <u>u</u>
1 / DET	ya <u>u</u>

LEVEL V_L	Relative	Absolute
(none)	[zero]	[zero]
MIN	wao	yao
SBE	weo	yeo
IFR	woa	yoa
DFC	woe	yoe
EQU	wea	yea
SUR	wöe	yöe
SPL	wöa	yöa
SPQ	weö	yeö
MAX	waö	yaö

MOOD V_M / C_M	V_{M1} Slot X	V_{M2} Slot XI ¹	C_M Slot XII ^{2,3}
[null = nominal formative]	[zero]	[zero] / (') <u>ë</u>	[zero]
FAC	(a')	(') a	h
SUB	e'	(') e	hl
ASM	i'	(') i	(h)kn
SPC	o'	(') o	(h)ky
COU	u'	(') u	(h)tn
HYP	ö'	(') ö	(h)ty

- V_{M2} affixes take a preceding glottal-stop following a Slot X form ending in a vowel; if the Slot X form instead ends in **-h**, no glottal-stop precedes V_{M2} .
- See the special note in Sec. 3.12.3 for an explanation as to how C_M can move from Slot XII to Slot VIII under special circumstances.
- If Slot X contains V_N Valence and Slot XI is empty, non-FAC & non-SUB C_M values must be preceded by **h-** (so that the Slot X + Slot XII form is not mistaken for a $V_X C_S$ affix).

NOTE: Ithkuil's IMPLICATIVE and ASCRIPTIVE moods have been eliminated in this new language; instead use INFERENTIAL illocution coupled with whichever other Mood best describes the factuality status of the underlying assumption.

V_T Infixes — Aspect (absence of aspect on a formative is zero-marked). The Slot X form is used if Valence = MNO.

		Slot X Form V _{T1} ¹	Slot XI Form V _{T2}
RTR	RETROSPECTIVE	ai(ʔ)	wa
PRS	PROSPECTIVE	ei(ʔ)	we
HAB	HABITUAL	oi(ʔ)	wo
PRG	PROGRESSIVE	ui(ʔ)	wu
IMM	IMMINENT	ëi(ʔ)	wi
PCS	PRECESSIVE	iu(ʔ)	wü
REG	REGULATIVE	ou(ʔ)	wö
ATC	ANTECEDENT	eu(ʔ)	wë
ATP	ANTICIPATORY	au(ʔ)	wä

		Slot X Form V _{T1} ²	Slot XI Form V _{T2}
RSM	RESUMPTIVE	ah(ë)	ya
CSS	CESSATIVE	eh(ë)	ye
PAU	PAUSAL	oh(ë)	yo
RGR	REGRESSIVE	uh(ë)	yu
PCL	PRECLUSIVE	ih(ë)	yi
CNT	CONTINUATIVE	üh(ë)	yü
ICS	INCESSATIVE	öh(ë)	yö
SMM	SUMMATIVE	ëh(ë)	yë
IRP	INTERRUPTIVE	äh(ë)	yä

		Slot X Form V _{T1}	Slot XI Form V _{T2} ³
PMP	PREEMPTIVE	aih	(ʔ)ai
CLM	CLIMACTIC	eih	(ʔ)ei
DLT	DILATORY	oih	(ʔ)oi
TMP	TEMPORARY	uih	(ʔ)ui
MTV	MOTIVE	ëih	(ʔ)ëi
SQN	SEQUENTIAL	iuh	(ʔ)iu
EPD	EXPEDITIVE	ouh	(ʔ)ou
PTC	PROTRACTIVE	euh	(ʔ)eu
PPR	PREPARATORY	auh	(ʔ)au

		Slot X Form V _{T1} ²	Slot XI Form V _{T2}
DCL	DISCLUSIVE	aʔh(ë)	(ʔ)ao
CCL	CONCLUSIVE	eʔh(ë)	(ʔ)eo
CUL	CULMINATIVE	oʔh(ë)	(ʔ)oa
IMD	INTERMEDIATIVE	uʔh(ë)	(ʔ)oe
TRD	TARDATIVE	iʔh(ë)	(ʔ)ea
TNS	TRANSITIONAL	üʔh(ë)	(ʔ)öe
ITC	INTERCOMMUTATIVE	öʔh(ë)	(ʔ)öa
XPD	EXPEDITIVE **	ëʔh(ë)	(ʔ)eö
LIM	LIMITATIVE	äʔh(ë)	(ʔ)aö

¹ The glottal-stop shown in parentheses following the first nine Slot X forms appear only if Slot XI is empty (so that the Slot X+XII V_{T1}+C_C combination is not mistaken for a V_XC_S affix.)

² Final -ë- appears only if Slot XI is empty.

³ The glottal stop preceding these nine forms appears only if Slot X ends in a vowel. If Slot X ends in an -h or a glottal-stop, then no (additional) glottal-stop precedes the V_{T2} form.

NOTE: Slot X+XI forms such as -eʔe- or -oʔo- must be interpreted as being V_N + V_{M2}, Valence + Mood, as Mood is never shown in both slots simultaneously.

3.12 SLOT XII: C_M / C_C — Mood or Case-Scope

UNFRAMED verbal formatives take the C_M affix in this slot to show Mood. On the other hand, nominal formatives and FRAMED verbal formatives take the C_C Case-Scope affix in this slot. We will first describe the C_M Mood affix.

3.12.1 Mood: This affix is shown in the V_M/C_M table on the previous page. As described there, if V_K in Slot XIII is unmarked default CNF/PPS, Slot XIV is empty, and either Slot X or Slot XI is otherwise available due to default/zero V_N, V_P, V_L, V_E, or V_T values, Mood may instead be shown as a vocalic affix V_{M1} in Slot X, or as a vocalic affix V_{M2} here in Slot XI. The presence of a C_M affix in slot XII requires a non-zero value in Slot X; also, if Slot XI is zero, and the form in Slot X is a V_N Valence marker, then the C_M affix must be preceded by -h- (so that the Slot X + Slot XII form is not mistaken for a V_XC_S affix)

See the special note in Sec. 3.12.3 on the next page for an explanation of how the C_M affix can move to Slot VIII under certain circumstances.

3.12.2 FRAMED Relation: FRAMED verbs must show Mood in order to distinguish them from a nominal formative since they both take Case markers in Slot XIII. Therefore, FRAMED verbs in default FAC mood do not have the option to zero-mark FAC mood.

3.12.3 Case-Scope: Case is shown in Slot XIII. Formatives showing Case take the C_C infix in Slot XII to indicate the scope of the case-marked formative over adjacent formatives or the entire clause containing the case-marked formative. This is useful when there is a string of cases modifying another “head” formative; the C_C infix will specify which formative is modifying or has scope over which other formative.

Like the C_M affix, the presence of a C_C infix requires a non-zero value in Slot X. Also, if Slot XI is zero, and the form in Slot X is a V_N Valence marker, then the C_C affix must be preceded by **-h-** (so that the Slot X + Slot XII form is not mistaken for a $V_X C_S$ affix).

SPECIAL NOTE: Both the C_M affix and the C_C affix may optionally move to Slot VIII (the C_A Slot) in the following situation: If Slots X and XI are zero-marked and C_A in Slot VIII is default **-l-** (UNI-CSL-DEL-M-NRM-EXS), then the C_A is replaced by the C_M or C_C affix in Slot VIII, thus leaving Slot XII empty. (This rule allows the word to be one syllable shorter than usual). When so placed in Slot VIII, the C_C affix must take a preceding **-h-** (so it is not confused with a C_A form).

C_C Infix values

CC0	[zero] / (h)r *	X's noun-case associates with the $C_C = -w/-y-$ marked formative; in the absence of such, X's case is associated with the main verb (or framed verb if within a case-frame).	CCp	-(h)p-	X's case applies to the formative marked by $C_C = -(h)n-$
CCw	-(h)w- / -(h)y-	X is the formative to which all C_C -unmarked nouns in the clause are associated	CCt	-(h)t-	X's case is associated with the main verb (or framed verb if within a case-frame).
CCn	-(h)n -	X is the formative to which formatives in the clause marked with $C_C = -(h)p-$ are associated	CCk	-(h)k-	X's case is associated with the highest order Transrelative-marked noun.
CCs	-(h)s-	X's noun-case is associated with the first formative of the clause	CCz	-(h)š-	X's noun-case is associated with the last formative of the clause
CCm	-(h)m-	X's noun-case associates only with the immediately following formative	CCg	-(h)ñ-	X's noun-case associates only with the immediately preceding formative (or the following word if there are no other adjacent formatives)

* The zero form of CC0 can only occur if Slots X and XI are empty/zero and C_C has not been moved to Slot VIII.

3.13 SLOT XIII: V_C or V_K — Case or Illocution+Sanction

Nominal formatives and FRAMED verbal formatives take Case. UNFRAMED verbal formatives take Illocution + Sanction instead (see Sec. 3.13.2 below).

3.13.1 Case: The following are the 68 noun cases with their V_C case marker. In addition to V_C vowel-form, case is also now marked by syllabic stress (penultimate vs. ultimate). Case-accessor and inverse-accessor $V_X C_S$ affixes are also given. Note that these affixes are an exception to the standard $V_X C_S$ format. The V_X value is the same as the corresponding V_C case marker.

For case-accessors 1 through 36, the C_S form is **-ll** for Type-1 affixes and **-lw-** for Type-2 affixes; for 37 through 68 it **-lh** for Type-1 affixes and **-ly-** for Type-2 affixes. For inverse-accessors 1 through 36, the C_S form is **-rr** for Type-1 affixes and **-rw-** for Type-2 affixes; for 37 through 68 it is **-rh** for Type-1 affixes and **-ry-** for Type-2 affixes.

TRANSRELATIVE CASES			V_c	Description	case-accessor affix	inverse accessor affix
1	THM	THEMATIC	a	The (usually inanimate) party which is a participant to the verbal predicate which does not undergo any tangible change of state. Semantic role: CONTENT.	party acting as the THEME/CONTENT of X	that off/for which X functions as the THEME/CONTENT
2	ABS	ABSOLUTE	e	The party that/who is the target of, and/or undergoes, the effect/impact or change of state as a result of a tangible act/event. Semantic role: PATIENT.	the PATIENT to which/whom X happens	that which happens/is done to the PATIENT X
3	ERG	ERGATIVE	o	The animate party or inanimate force which initiates/causes an act/event which creates a tangible effect or change of state in a patient. Semantic role: AGENT or FORCE.	the AGENT who/that X's	that which the AGENT or FORCE X does/initiates
4	IND	INDUCIVE	u	The party who is the patient who undergoes the tangible effect, impact, or change of state of an act/event initiated/caused by that self-same party. Semantic role: AGENT+PATIENT.	the AGENT who/that X's him-/her-/itself	that which the AGENT X initiates/does to him-/her-/itself
5	AFF	AFFECTIVE	i	The party who undergoes an unwilling, affective experience, e.g., coughing, sneezing, feeling hot/cold, trembling, experiencing sensory input (tactile, olfactory, visual, aural, gustatory), proprioceptive states, psychological/emotional states, reflex reactions such as cringing, yawning, ducking, screaming in fright, etc. Semantic role: EXPERIENCER.	the EXPERIENCER or undergoer of X (as an affective experience)	that which the X undergoes as an affective experience
6	DAT	DATIVE	ü	The party which is the (intended) recipient of a verb of transference, transmission, or communication; the party at/to which a physically transferred entity, transmitted information, or a communicable entity is directed. Semantic role: RECIPIENT.	the RECIPIENT of X or of the act of X	that which the RECIPIENT X receives
7	EFF	EFFECTUATIVE	ö	The party who initiates a chain of causal events or who induces another party to act as an agent (specifiable via the ENB affix). Semantic role: ENABLER.	the ENABLER initiating an event chain leading to X	the event (chain) that the ENABLER X initiates
8	STM	STIMULATIVE *	ë	The party/entity/idea/thought/memory/situation or mental state which triggers an unwilling, affective response in another party. Semantic role: STIMULUS.	that which is the affective STIMULUS of X	that off/for which X is the affective STIMULUS
9	INS	INSTRUMENTAL	ä	The entity acting as means utilized by an explicit or implicit agent to implement/carry out the effect/impact of an act/event. Semantic role: INSTRUMENT.	the INSTRUMENT/MEANS by/via which X occurs	that by/via which X is the INSTRUMENT/MEANS

* The DERIVATIVE has been renamed the STIMULATIVE and now signifies only the STIMULUS of an affective state/act. The additional function of the Ithkuil DERIVATIVE case for signifying inanimate agential FORCES will now be conveyed using the ERGATIVE or EFFECTUATIVE cases, as appropriate. The inanimate status of the agent shall now be itself sufficient to distinguish its semantic role as FORCE as opposed to AGENT.

APPOSITIVE CASES			V _c	Description	case-accessor	inverse accessor
10	POS	POSSESSIVE	ai	The party which has alienable (i.e., removable or severable) possession of another noun in the sense of having physical control or oversight of that noun, whether by chance circumstance or deliberate manipulation.	the alienable/circumstantial possessor of X	that which X alienably or circumstantially possesses
11	PRP	PROPRIETIVE	ei	The party having alienable possession of another noun in the sense of quasi-permanent contextual control, ownership or oversight, whether by societal recognition, social convention, law, purchase or decree, which mere physical separation does not sever.	the owner of X; that to which/whom X belongs	that to whom/which X belongs; that which X owns
12	GEN	GENITIVE	oi	The party which has inalienable (i.e., irremovable, non-severable) possession of or association with another noun in the sense of having that noun as an inherent or intrinsic attribute, characteristic, physical part, or genetic (i.e., familial) bond.	the inalienable possessor of X	that which X inalienably possesses
13	ATT	ATTRIBUTIVE	ui	The party which inalienably experiences the effects of, or otherwise has an affective (see the affective case above) relationship with another noun, either as a temporary or permanent attribute, characteristic, or experience, whether physical or psychological, objective or subjective in nature.	that to which/whom X is an attribute/characteristic	that which X has as an attribute/characteristic
14	PDC	PRODUCTIVE	ëi	The party which is the creator, author or originator of another noun.	the originator/author/creator of X	that which X authored/created or originated
15	ITP	INTERPRETIVE	iu	The party acting as the subjective interpretational context of another noun, that is the noun by or through which another noun is subjectively interpreted or described.	the party by/thru which/whom X is interpreted/described	that which is described or interpreted by/thru X
16	OGN	ORIGINATIVE	ou	The party which is the literal or figurative source of another, or which is the native location, origin, or usual locative context for another.	the original or inherent location/source of X	that of which X is the original or inherent source/location
17	IDP	INTERDEPENDENT	eu	The party which has a coordinated, tandem, complementary or mutually dependent relationship with another. The relationship between the two nouns can be thought of as reciprocal in nature, i.e., each noun implies the other or needs the other to exist within its natural context	that with which, or to which, X has a complementary relationship	that which is the complementary relationship shared with X
18	PAR	PARTITIVE *	au	Indicates a quantitative or content-to-container relationship between the two nouns, e.g., <i>a cup of coffee</i> , <i>a box(ful) of books</i> , <i>a train(load) of refugees</i> , <i>twelve chairs</i> .	that of which X is its apportioned or enumerated contents	that which is X's apportioned or enumerated contents

* The PARTITIVE will now only appear in apposition to another noun; it will no longer operate independently to mean “some/a portion of X”. For this latter meaning, one must utilize the DGR, PTW, PTT, EXN, EXD, CNM, ROL/1, FEA/2, FEA/3 or similar affix, or incorporate X in PARTITIVE format into a noun referring to the container, amount, or degree of X.

ASSOCIATIVE CASES			V _c	Description	case-accessor	inverse accessor
19	APL	APPLICATIVE	ia / aì	The entity/act/event which constitutes the circumstantial, potentially one-time, temporary purpose of another entity/act/event. 'for the (circumstantial/temporary/one-time) purpose of X', 'being used (temporarily/circumstantially) as X'	the purpose/function/use to which X is circumstantially put	that which has X as its circumstantial, temporary use/function/purpose
20	PUR	PURPOSIVE	ie / eì	The entity/act/event which constitutes the inherent/innate/intrinsic purpose of another entity/act/event. 'for the (dedicated) purpose/function of X'	the intrinsic/inherent/innate purpose of X	that which has X as its intrinsic, inherent, innate purpose
21	TRA	TRANSMISSIVE	io / oì	Renamed from the BENEFACTIVE in Ithkuil, this case indicates the party for which/whom an entity/act/event occurs or is transmitted, with the intention that the entity/act/event be beneficial/detrimental to the named party. 'for (the benefit/detriment of) X'	that which/whom the intended benefit/detriment from X is for	that which is the intended benefit or detriment of (receiving/being impacted by) X
22	DFR	DEFERENTIAL	iö / öì	The entity for whose sake, or out of deference/respect to whom, an act/event occurs. 'for X's sake', 'out of deference for X', 'out of respect for X'	the one for whose sake, or out of deference/respect to whom, X occurs	that which occurs or is done out of respect/deference, or for the sake of, X
23	CRS	CONTRASTIVE	ië / èì	The party for which something is substituted, or of which another party/entity takes its place; 'instead of X', 'as a substitute for X', 'in place of X'	that which substitutes for X or takes X's place	that for which X is substituted or whose place X takes
24	TSP	TRANSPOSITIVE	uö / öù	The party on whose behalf something is/occurs.	that on whose behalf X occurs/is	that which is (done) on X's behalf
25	CMM	COMMUTATIVE	uo / où	The party in exchange for which, a reciprocal or complementary act/event occurs; e.g., <i>He paid 100 dollars in exchange for the tickets.</i>	that which is received in an act of exchange	that which is relinquished in an act of exchange
26	CMP	COMPARATIVE	ue / eù	The party being compared to another, translatable as 'as compared to', 'as opposed to', 'versus; with verbs it translates as 'whereas' or 'while' (in its synonymous usage to 'whereas'). Examples: <i>She chose the red one as opposed to the others, Sam drives a van versus Joe, who prefers a truck, At the party, she danced while/whereas I ate.</i>	that which is according to or pursuant to X; that which occurs as per, or in conformance to X	that, according to or pursuant to which, or as per or in conformance to which, X is/occurs
27	CSD	CONSIDERATIVE	ua / aù	The entity according to which, another entity is, or an act/event occurs.	that which is according to X	that which X is according to

ADVERBIAL CASES			V _c	Description	case-accessor	inverse accessor
28	CON	CONCESSIVE	aO	identifies a noun or phrase which gives rise to an implicitly expected result which does not occur. This translates in many ways such as 'despite,' 'in spite of,' 'notwithstanding,' 'although,' 'regardless of,' 'no matter what,' etc. Examples: In spite of his stupidity , he passed the test; The law notwithstanding , I will stand my ground; No matter how ignorant (they may be), they are welcome, Although a foreigner , we will let him in.	that, in spite of or regardless of which, X occurs/is	that which is/occurs in spite of or regardless of X
29	AVR	AVERSIVE	eO	Identifies a source or object of fear and/or avoidance. With nouns, it translates expressions such as 'for fear of,' 'in order to avoid,' or 'in avoidance of.' With verbs, it would translate English 'lest.' Examples: <i>She finished her plate for fear of my wrath, I traveled by night to avoid the sun. Hide the children, lest the clowns find them.</i>	that, in aversion to which, X occurs/is	that which is/occurs in avoidance or fear of X
30	CVS	CONVERSIVE	oA	Identifies an exception. When the exception is to a hypothetical situation, it translates as 'unless' in verbal phrases, and 'without' for nouns, e.g., Without peace , this society is doomed; <i>We'll be safe unless the clowns find us</i> . If applied to a real or actual situation, it translates as 'except (for),' 'but for,' 'but (not),' 'excluding,' 'if not for,' 'if it wasn't for,' 'if it wasn't on account of.' If not for the rain , we would have had a good time; <i>She loves everybody except clowns</i> ; <i>All pets are vermin, excluding dogs</i> ; <i>He eats almost anything but (not) spinach</i> .	that, if not for which, or but for which, or except for which, X (would) occur(s)	that which would be/occur but for, or if not for, or except for X
31	SIT	SITUATIVE	oe	Identifies a noun as the background context for a clause without implying any direct causative relationship between the background context and the associated or consequent act/state/event. It translates in many ways, e.g., Because of war , our planet will never be able to join the Federation; Given the presence of clowns , we must accept the corruption of our children; With my plan , we will defeat the enemy. Other translations include: 'inasmuch as / insofar as / to the extent that / taking X into account / in view of the fact that / given that / considering'.	that, because of which, or given which, X occurs/is	that which is/occurs because of, on account of, or given, X
32	FUN	FUNCTIVE	ea	Identifies a noun used to describe/characterize the manner in which an act/event/state occurs or exists, e.g., <i>She dances gracefully</i> ; <i>The boys ate with gusto</i> ; <i>That clown is speaking nonsense</i> ; <i>Father speaks with such fortitude</i> .	the manner in which X is/occurs	that which is/occurs in a manner described or characterized by X
33	TFM	TRANSFORMATIVE	öe	Identifies the outcome or final state of a process, often translatable by 'to,' 'until,' or 'into' in the sense of reaching a final state after undergoing some transformation. Examples: <i>The house burned to ashes</i> , <i>Mother reached a state of tranquility</i> , <i>The clowns will turn our children into slaves</i> , <i>Her father drank himself to death</i> .	that into which, X transforms/changes	that which is/occurs as a result of the transformation of X
34	CLA	CLASSIFICATIVE	öa	identifies a noun as a basis for arranging, sorting, classifying, or counting, e.g., <i>Place them in groups of three</i> , <i>The workers arranged the tables in rows</i> , <i>He lay down lengthwise</i> , <i>Can you count by fives?</i> , <i>I will sort them by color</i> . Also identifies the basis for recurring increments, e.g., <i>month by month</i> ; <i>day in, day out</i> ; <i>box upon box</i> , <i>clown after clown</i> .	the basis by which X is arranged, sorted, patterned or counted	that which is arranged, sorted, patterned, or counted by/via X
35	CSM	CONSUMPTIVE	eö	Identifies the entity consumed or used as a resource as a result of, or as a concurrent part of a process, e.g., <i>She cooks with tomatoes</i> , <i>The clown fed her an apple</i> , <i>He reads by candle(light)</i> .	that by which X is consumed or used up	that which is consumed in the process of X
36	RSL	RESULTATIVE	aö	Identifies a result/consequence, translatable as 'resulting in X', 'with X as a consequence', etc.	the result/consequence of which, X occurs/is	that which results from or is a consequence of X

SPATIO-TEMPORAL I			V _c	DESCRIPTION	case-accessor	inverse accessor
37	LOC	LOCATIVE	á	entity identified as the location of X or where X occurs; 'at / in / on / by X'	where X occurs/is (situated); X's location	that which is located, situated, or occurring at X
38	ATD	ATTENDANT	é	entity in whose presence something is/occurs	that in whose presence which, X is/occurs	that which is situated or occurring in X's presence
39	ALL	ALLATIVE	ó	entity toward which another entity is moving/approaching	where X is headed/going toward	that which is headed toward X
40	ABL	ABLATIVE	ú	entity away from which another entity is moving/receding	where X is coming from or moving away from	that which is coming from or moving away from X
41	ORI	ORIENTATIVE	í	entity (often a body part or sub-component) which serves as the "face" or surface or "front" or "head" of an entity in terms of external communication or interaction, or which serves as the forward "end" of a spatially orientated axis aligned to a vector of motion in terms of directional movement.	that which serves as X's orientational interface	that which is oriented, facing in the direction designated by X
42	IRL	INTERRELATIVE	û	signifies the directional/temporal orientation or position of an entity relative to another, i.e., a noun relative to whose position in space or time another noun is being described for purposes of spatial/temporal orientation, e.g., <i>He turned his back on me, It lies just west of the house, Tell me when the parade starts relative to my arrival.</i>	the place/time relative to which, X is/occurs	that which occurs relative to the place/time designated by X
43	INV	INTRATIVE	ô	Identifies a noun as being the spatio-temporal boundary point of a span or volume of space or a period of time, i.e, either the starting point or the ending point of a span of time or space. English translations include: 'as of X' / 'since X' / 'until X'; for spatial contexts, translates as "between there and here" / "between here and there")	the place/time since/until/between which, X is/occurs	that which occurs since, until, or between the place(s)/time(s) designated by X
44	NAV	NAVIGATIVE	â	entity whose literal or metaphorically inferred long axis serves as the direction of another entity's path, course, arc, or trajectory of translative motion	that which serves as X's directional trajectory, path or way	that which is traveling along the directional trajectory, path or way designated by X

SPATIO-TEMPORAL II			V _c	DESCRIPTION	case-accessor	inverse accessor
45	ASS	ASSESSIVE	ái	Specifies the increment of space or time or unit by which a contextual ratio of measurement is created, e.g., <i>He charges by the minute. It travels at 90 kilometers per hour. He earns \$25 per book.</i>	the spatial, temporal, or unit basis for the ratio by which X is measured, allotted, etc.	that which is measured via a ratio based on a spatial, temporal, or unit increment X.
46	CNR	CONCURSIVE	éi	indicates a “temporal locative” meaning ‘at or during the time of X’, i.e., the point or stretch in time at or during which an entity or an act/event exists or occurs.	when X is/occurs	that which is/occurs at a certain time X
47	PER	PERIODIC	ói	identifies the span of time / time frame at some point(s) during which, separate events, repetitions, or durationally segmented acts or states take place. Examples would be <i>He wrote the novel in six months, These clowns can corrupt your child within a few days, The woman has been ill a lot this year, For the last several concerts, my voice has been deteriorating.</i>	the time period or event during which X occurs	that which is/occurs during or within a time period X
48	PRO	PROLAPSIVE	úi	signifies the duration of an act, condition, or event, i.e., how long it takes or lasts, e.g., <i>He prayed through lunch, It rained all night, It took three days for the fever to break, She sang for an hour.</i>	(the time period or event constituting) the duration of X	that which lasts, endures, or takes up an amount of time X
49	PCV	PRECURSIVE	íu	Identifies an entity acting as a point in time prior to which an act, condition, or event occurs, e.g., <i>‘this city before the war’, ‘a presentation preceding the banquet’.</i>	the act/event or point in time, prior to which, X occurs	the act/event or point in time which is/occurs prior to X
50	PCR	POSTCURSIVE	óu	Identifies an entity acting as a point in time after which, following which, subsequent to which, an act, state, or event occurs, e.g., <i>‘this city before the war’, ‘a presentation preceding the banquet’.</i>	the act/event or time, after/following which or subsequent to which, X occurs	the act/event or time which is/occurs after or following or subsequent to X
51	ELP	ELAPSIVE	éu	identifies the amount of time that has passed or is expected to pass between the contextual present and the time of the act, condition, or event being spoken of. It corresponds to English ‘...ago’ or ‘...from now’. Examples would be <i>Four years ago I was a student; Going back three generations, women could not even vote; Four years from now, I will be a student; Looking ahead three generations, clowns will rule the world; I will be home in three days; Little did he know that two months later he’d be a rich man. The past vs. future distinction is determined from context, any aspectual morphology, or may be specified with the new TPL affix.</i>	the amount of elapsed time between X and a past or future act/event/time	the act/event/state which occurs X amount of elapsed time between then and the contextual present.
52	PLM	PROLIMITIVE	áu	Signifies the spatio-temporal boundary point of a span of time or space during which or within which something is expected to or must occur or be situated. Equivalent to English phrases: by the end of X / within the period ending in X / within the period ending with X / before X is over / before X is up / inside of (the period signified by) X	the time/event by which time X is/occurs	the act/event or point in time which is/occurs by the time of X

RELATIONAL CASES I			V _c	DESCRIPTION	case-accessor	inverse accessor
53	REF	REFERENTIAL	íá / aí	Identifies the general referent of another formative, translating such English terms as 'about,' 'regarding,' 'concerning,' 'in regard to,' 'in reference to,' 'pertaining to,' or 'as for.'	that which X is about or to which X pertains/regards	that which pertains to X or which is about or regards X
54	COR	CORRELATIVE	ié / eí	Indicates an abstract general relationship, association, or conjunction between one formative and another, including subjective, contextual, metaphorical, or symbolic associations. It translates general phrases such as 'relative to,' 'in relation to,' 'in correlation with,' 'in association with,' e.g., career goals , <i>the soup of the day</i> , <i>the direction of that road</i> , <i>The elapsed time relative to the distance determines the winner</i> , <i>Our next topic is sex and/in art</i> (i.e., the relationship between art and sex).	that which X is associated/relative to or in relation to	that which is associated with or relative to X
55	CPS	COMPOSITIVE	ió / oí	identifies a noun as being the literal or figurative substance or component(s) of which another is made, composed, formed, built or comprised. Example of usage would be <i>That statue was carved out of marble</i> , <i>She owns three gold(en) coins</i> , <i>We were caught in a web of lies</i> , <i>I use a wooden ladder</i> , <i>It was a house of cards</i> , <i>Three suits comprise his wardrobe</i> , <i>Joe detests styrofoam cups</i> .	that of which X is made/composed or consists of	that which consists of, is made of, or is composed of X
56	DEP	DEPENDENT	iô / ôí	identifies as formative as being the basis of a dependency phrase on which another formative or phrase acts as the contingency, translatable as ' ...if the circumstances regarding X are such to allow/warrant it ' where the final "it" refers to the original contingency noun/phrase whose existence/occurrence is (at least in part) determined by or contingent upon the dependency phrase. The exact nature of the dependency can be specified using the new DPC affix.	that upon which the existence/occurrence of X depends	that whose existence or occurrence depends on X
57	PRD	PREDICATIVE	uô / ôú	Identifies the non-causal basis, foundation, sustenance (literally or figuratively), or required existential condition for another noun or clause, translatable by the phrases 'based (up)on,' 'dependent (up)on' or 'relying on.' Examples of use are <i>a book dependent on a publisher</i> , <i>a man relying on charity</i> , <i>laws based in reason</i> , <i>success supported by corruption</i> .	that upon which X relies or is based upon	that which relies on or is based upon X
58	ESS	ESSIVE *	uó / ou	Identifies the role or name by which an entity is known or contextually identified. It translates English 'as/like' in the sense of naming or reference to the an entity's functional identity, e.g., <i>They called him a clown</i> , <i>The woman entered the club as an equal of any man</i> , <i>We consider you our only hope</i> , <i>Treat her as/like a princess</i> (because she is one), <i>He talks like a child</i> (because he is a child)..	that whose role is X, or what/who is named (as) X	that, in whose role/name, X is/occurs
59	ASI	ASSIMILATIVE *	ué / eú	Identifies a formative used as a context for analogy or metaphorical comparison to another formative; translatable as 'as/like' meaning 'as if (it were) X' in the sense of comparison or analogy between one thing and another that it is not, e.g., <i>She sings like a bird</i> , ; <i>Treat her as/like a princess</i> (= as if she were a princess), <i>He talks like a child</i> (even though he's an adult).	that which/who is/does like or as (it were) X	that, as if it were which, X is/ occurs
60	CFM	CONFORMATIVE	uá / aú	The entity pursuant to which, as per which, or in conformance with which, another entity is, or an act/event occurs.	that which is pursuant to, as per, or in conformance w/ X	that which X is pursuant to or in conformance with

* The SEMBLATIVE case is eliminated; its meaning of 'as if it were X', 'like X (even though it isn't X)' will instead be the meaning of the ASSIMILATIVE case, while those instances of the ASSIMILATIVE case where 'like X' means 'like X, because it is X' will now instead be an additional meaning of the ESSIVE case.

RELATIONAL CASES II			V _c	DESCRIPTION	case-accessor	inverse accessor
61	ACT	ACTIVATIVE	aó	Identifies the EXPERIENCER of a modal state, such as obligation, necessity, desire, hope, expectation, wishing, being able to, etc. functioning as the “subject” of a modal(ized) verb governing a hypothetical state (i.e., what is wanted, needed, expected, able to be done, etc.)	the one who experiences a modal state of X	The modal state which X experiences
62	SEL	SELECTIVE	eó	Identifies a contextually recurring time-period, as well as a string of recurring entities, e.g., <i>I visit him every three days; Each year, I travel to the Clown Planet; He works nights; By day, she is an artisan; The clowns visit us on Sundays; ...every third book; ...every green one.</i>	the recurring entity/period on/for/with which X occurs	that which is/occurs on a recurrent schedule or iteration X
63	COM	COMITATIVE *	oá	Identifies a formative that accompanies another, translatable as ‘(along) with’. When used with PARALLEL or COMPLEMENTARY valence, signifies that the formative is being used in the same (or a complementary) way or is undergoing the same (or a complementary) activity as the other formative it is associated with (i.e., the meaning of the CONJUNCTIVE case in Ithkuil).	that which accompanies X	that which X accompanies
64	UTL	UTILITATIVE	oé	Identifies a formative in the process of being used while some other activity or state is in progress. It does not imply the INSTRUMENT of an act as does the instrumental case. Examples: <i>the gun-wielding man, the umbrella-toting pedestrian, a girl with backpack (on).</i>	that which circumstantially uses/utilizes X	that which is used/utilized circumstantially by X
65	DSC	DESCRIPTIVE	eá	Identifies a formative as describing another formative in an adjectival manner, translatable as ‘characterized/describable as being like X; characterized/describable as having the quality/qualities of X’	that which is characterized or describable by/as X	that which characterizes or functions as a description for X
66	RLT	RELATIVE	ae	Identifies a formative (or case-frame) as constituting a relative clause associated with the preceding formative (or whatever formative is indicated by the DCD affix as being the head of the relative clause).	that which identifies or distinguishes X from other parties	the party identified by or distinguishable by X
67	TRM	TERMINATIVE	aé	Identifies a noun as being the goal of an act/event, e.g., <i>We seek a new planet; a desire to see his homeland; an academy for (making) champions</i>	X’s goal; what X pursues as a goal	the goal X;
68	VOC	VOCATIVE	ëu	Signifies a noun being used in direct address.	—	—

* The CONJUNCTIVE case has been eliminated. Use the COMITATIVE case + PARALLEL or COMPLEMENTARY valence instead.

3.13.2 V_K — Illocution and Sanction

Illocution and Sanction appear on UNFRAMED verbal formatives; nominal formatives or FRAMED verbal formatives take a V_C case infix in this slot instead. The V_K affix uses many of the same vowel forms as the V_C case infix, however, the syllabic stress pattern is distinct. While formatives with a V_C infix only take penultimate or ultimate stress, formatives with a V_K affix that looks like a V_C infix only take antepenultimate or pre-antepenultimate stress. Also, those V_K affixes which take pre-antepenultimate stress have an optional form which takes penultimate stress (in case the word doesn't have enough syllables to show pre-antepenultimate stress). Finally, the AXIOMATIC Sanction and null (i.e., unspecified) Sanction have special V_K forms which take ultimate stress.

V_K Illocution & Sanction infixes — 9 Illocutions x 9 Sanctions

	PPS	EPI	ALG	IPU	RFU		REB		CJT ⁵		EXV		AXM	[null] ⁶
stress →	antepenult.	antepenult.	antepenult.	antepenult.	pre-antepenult.	penultimate	pre-antepenult.	penultimate	pre-antepenult.	penultimate	pre-antepenult.	penultimate	ultimate	ultimate
CNF	(a) ¹	ai	ia/aì	ao	a	a'a	ai	aya	ia/aì	aye	ao	ayo	ayá	ayó
INF	e	ei	ie/eì	eo	e	e'e	ei	eya	ie/eì	eye	eo	eyo	eyá	eyó
ITU	o	oi	io/oì	oa	o	o'o	oi	oya	io/oì	oye	oa	oyo	oyá	oyó
REV²	u	ui	iö/öì	oe	u	u'u	ui	uya	iö/öì	uye	oe	uyo	uyá	uyó
HSY	i	ëi	ië/ëì	ea	i	i'i	ëi	ëya	ië/ëì	ëye	ea	ëyo	ëyá	ëyó
USP³	ü	iu	uö/öù	öe	ü	ü'ü	iu	iwa	uö/öù	iwe	öe	iwo	iwá	iwó
DIR	ö	ou	uo/où	öa	ö	ö'ö	ou	owa	uo/où	owe	öa	owo	owá	owó
IRG⁴	ë	eu	ue/eù	eö	ë	ë'ë	eu	ewa	ue/eù	ewe	eö	ewo	ewá	ewó
DEC	ä	au	ua/aù	aö	ä	ä'ä	au	awa	ua/aù	awe	aö	awo	awá	awó

¹ The CNF/PPS affix -a is elided if phonotactically permissible, in which case syllabic stress becomes penultimate (or the word becomes monosyllabic).

² REV = a new REVELATORY illocution; an assertion based on a dream, vision, altered mental state, or strong emotional or cognitive bias not based in reality.

³ USP = UNSPECIFIED illocution is new to this language; used to deliberately omit specifying the provenance of an assertion.

⁴ INTERROGATIVE illocution may alternately be shown by rising pitch accent on the final word of an interrogative clause (in which case a CNF illocution form is used).

⁵ Ithkui's THEORETICAL sanction is renamed the CONJECTURAL in this language.

⁶ Null sanction is used if the speaker wishes to leave Sanction unspecified. **NOTE:** if Sanction is shown via -V_XC₃ affix, Slot XIII displays default CNF/PPS value (-a).

NOTE: The POTENTIATIVE illocution introduced in a previous version of this document has been eliminated; instead use USP illocution in conjunction with an appropriate modality affix or formative indicating a hope/wish/desire/hortative, etc.

Hortatives (“if only.../were it so that...”) are expressed by the combination of DIRECTIVE Illocution + COUNTERFACTUAL Mood.

3.14 Slot XIV: Bias

A word-final Bias suffix is optional. If present, it must be immediately preceded a glottal stop (to prevent the Slot XIII+XIV form from being mistaken for a $V_X C_S$ affix).

Bias suffixes in this language will be the same consonant-form as an associated lexico-semantic root. For example, the root **-XXC-** ‘CONTEMPT’, will have an associated Bias suffix **-xxc**. All Bias roots and suffixes will be phonologically structured to contain continuant and sonorant consonants, so that they may be pronounced in an artificially prolonged fashion. Additionally, any stop or affricate consonants they contain may be artificially emphasized via aspirated or even glottalized (i.e., ejective) secondary pronunciation.

Bias affixes will be separable into autonomous consonantal adjuncts, which function much like English “supra-segmental” interjections such as “Phew!”, “Damn!”, “tsk-tsk”, “Pssshh”, “huh?”, “meh”, “hmmm”, etc.

4.0 ADJUNCTS

4.1 Modular Adjunct 1 (Primary purpose: to show Designation, Version, Valence, Phase, Level, multiple Effects and Aspects, and Mood)

This adjunct has three modular slots for any combination of Phase, Level, Effect, Aspect, or Mood, including multiple Effects or multiple Aspects. It can be applied to the main stem or the incorporated stem and can optionally show Valence as well. Slot 1 of this adjunct is convenient when used with a Simple Formative to eliminate the need to fill Slot V of the Formative.

The tell-tale sign of this adjunct is the absence of any full consonant forms; only **-h-**, **-w-**, **-y-**, and/or the glottal stop will be present.

Slot 2 of this adjunct is mandatory if subsequent slots are empty or if Slot 1 is filled. If Slot 3 is filled, Slots 1 and 2 may be elided.

Examples: *o*, *he*, *aiwi*, *yu*, *ho’yóu*, *iwoi’wi*, *hewe’weá*, *wí’yei’yo*

1	2	3	4	5
((C _D))	(V _N / V _{T1} / V _{M1})	(V _P / V _L / V _E / V _{T2} / V _{M2})	(’V _P / ’V _L / ’V _E / ’V _{T2} / ’V _{M2})	Stress [if word is multisyllabic]
Designation + Version	Valence or Aspect or Mood	Phase or Level or Effect or Aspect or Mood	Phase or Level or Effect or Aspect or Mood	Ultimate stress = adjunct applies to the incorporated stem Antepenult. stress = Slots 2 & 3 apply to the main stem; Slot 4 applies to the incorporated stem.
’ h w y	from Formative Slot X	from Formative Slot XI	from Formative Slot XI; must begin with glottal stop	

4.2 Modular Adjunct 2 (Primary purpose: detailed application of $V_X C_S$ affixes; also Phase, Level, Valence, Effects, Aspects and Mood)

Similar to the above, this adjunct shows Valence for either the main stem or an incorporated stem, and provides two modular slots for showing Phase, Level, Effect, or Aspect. However, this adjunct allows one modular slot to apply to the main stem; the second to the incorporated stem (or to the main stem too, if there is no incorporated stem).

There are also slots for $V_X C_S$ affixes for both a stem only and a stem plus its C_A . This adjunct, unlike formatives, allows each $V_X C_S$ affix to apply either to the main or incorporated stem. (Formatives assign both $V_X C_S$ slots to one or the other.) Bias may also be shown.

The tell-tale sign of this adjunct is the initial **hyw-** in Slot 1 (pronounced [çw]). If Slot 2 is present only Slots 1 and 2 are mandatory. If Slot 2 is empty, Slots 1, 3, and 4 are mandatory. Slots 4 through 6 require the presence of Slot 3. Examples: *hywas*, *hywoyáokti*, *hywewai'yé*, *hywi'artospai'ečisto*

1	2	3	4	5	6	7
hyw-	($V_X C_S...$)	($V_N / V_{T1} / V_{M1}$)	$V_P / V_L / V_E / V_{T2} / V_{M2}$	($'V_P / 'V_L / 'V_E / 'V_{T2}$)	($C_S V_X...$)	Stress
	applies to stem only, not to C_A insert glottal stop in/after V_X if affix applies to the inc. stem,	Valence or Aspect or Mood from formative Slot X	Phase or Level or Effect or Aspect or Mood from formative Slot XI; affix applies to main stem	Phase or Level or Effect or Aspect from formative Slot XI; affix applies to the incorporated stem; if no incorp. stem, affix applies to the main stem	[Note reversed form] applies to stem and C_A insert glottal stop in/after V_X if affix applies to the inc. stem	ult. stress = FML penult. = CPT antepenult. = FML+CPT

SPECIAL NOTE ON USE OF LONE TYPE-3 $V_X C_S$ AFFIX: If either Slot 2 or Slot 6 of this adjunct is filled by a single Type-3 $V_X C_S$ affix with no adjacent affix in the same slot, it indicates the affix has scope over the entire adjacent formative, i.e., including scope over slots X through XIV of the formative.

4.3 Modular Adjunct 3 (Purpose: Case-stacking and Illocution+Sanction; also Phase, Level, Valence, Mood, Effects, Aspects, Case-Scope & Bias)

This adjunct is the same as Modular Adjunct 1 above plus three additional slots. Slots 1, 2, 5 and 6 are mandatory. The presence of Slot 4 requires Slot 3 be present. The telltale sign of this adjunct is that the only full consonant form will be the C_C affix in Slot 5. Examples: *hem*, *ohú*, *ihpá*, *we'yorui*.

1	2	3	4	5	6	7
C_D	$V_N / V_{T1} / V_{M1}$	($V_P / V_L / V_E / V_{T2} / V_{M2}$)	($'V_P / 'V_L / 'V_E / 'V_{T2} / 'V_{M2}$)	(h) C_C *	V_C / V_K	Stress [if word is multisyllabic]
Designation + Version ' h w y	Valence or Aspect or Mood from Formative Slot X	Phase or Level or Effect or Aspect or Mood from Formative Slot XI	Phase or Level or Effect or Aspect or Mood from Formative Slot XI	Case Scoping from Formative Slot XII	Case or Illocution+Sanction from Slot XIII	As per rules for Formative Slot XIII to distinguish Case and/or Illocution/Sanction

* If Slot 1 is a glottal stop and Slots 3 and 4 are empty, then the Slot 5 C_C infix must be preceded by **-h-** (to distinguish it from a Personal Reference Adjunct below).

4.4 Single-Affixal Adjunct

1
C_SV_X(’V)
Note reversed form

This affix applies a single Type-1 or Type-2 V_XC_S affix (in reversed form) to a stem only, not including its C_A complex. If the affix is meant to apply to both the stem and its C_A complex, use a Type-3 V_X value. If C_S cannot phonotactically occur in word-initial position, then a Modular Adjunct No. 2 must be used instead.

NOTE: A glottal-stop following (or infixing within) the V_X portion of the affix indicates the affix applies to the incorporated stem. (See the Note in Sec. 3.7 on Pg. 10 within the V_X affix table for details on how to infix a glottal stop within V_X).

Examples: *ča, ksia, rte’e, tla’i, fkei’e*

4.5 Carrier Adjunct

This is a “shortcut” for a full carrier stem. The tell-tale sign of the adjunct is the initial **hm-/hn-** form, which can be distinguished from a formative by the presence of only one word-medial consonant form (whereas a formative beginning with **hm-/hn-** would minimally have three separate word-medial consonant-forms: C_R, C_I, and C_A). The end of the proper noun or foreign phrase can be indicated by the adjunct form **hyi**, if necessary.

hm / hn	V_R	C_A	V_C / V_K	Stress
hm = INF hn = FML	Function+Specification+Stem from formative slot II	Standard C _A complex from formative Slot VIII	Case or Illocution+Sanction same as formative Slot XIII	Ult. stress = CPT version

NOTE: There is no C_C case-scoping infix for this adjunct (i.e., it is default **CC0**). For non-default case-scoping, use a full carrier-stem.

Examples: *hmala, hmoesské, hníamtro*

4.6 Register Adjunct

These adjuncts are marked by word-initial **hy-** followed by a single vocalic form only. A non-NARRATIVE register clause may be pronounced with low pitch on the last word of the clause, in which case the register clause does not require the end-register final adjunct listed below.

Register	Initial Adjunct	Final Adjunct
DISCURSIVE (direct speech)	hya	(hyia)
PARENTHETICAL (parenthetical aside)	hye	(hyie)
COGITANT (silent thoughts)	hyo	(hyio)
EXEMPLIFICATIVE ('for example, ...')	hyö	(hyiö)

Register	Initial Adjunct	Final Adjunct
IMPRESSIONISTIC (subjective impression)	hyai	(hyau)
expression in the mathematical sub-language	hyoi	(hyou)
end of term/phrase governed by carrier stem/adjunct	—	(hyi)

4.7 Personal Reference Adjuncts

There are thirteen personal reference categories. Each personal-referent affixes distinguishes three Effects, NEUTRAL, BENEFICIAL and DETRIMENTAL, indicating whether the speaker considers the subjective context of the utterance to be beneficial, detrimental, or of neutral/unknown/unspecified impact to the referent.

		EFFECT			
		NEUTRAL	BENEFICIAL	DETRIMENTAL	
1m	monadic speaker	l	n	m	“I”
2m	monadic addressee	s	š	ž	“you (sg.)”
2p	polyadic addressee	z	t	d	“you (pl.)”
ma	monadic animate 3 rd party	r	p	b	“he” / “she” / “they (sg.)”
pa	polyadic animate 3 rd party	ň	k	g	“they (pl.)”
mi	monadic inanimate 3 rd party	x	ɟ	ɖ	“it”
pi	polyadic inanimate 3 rd party	ɟ	f	v	“they (inanimate)”
Mx	mixed animate/inanimate 3 rd party	ř	řř	ňň	mixed animate+inanimate “s/he+it”, “they+those”, “it+they”, “those+s/he”, etc.
Obv	Obviative/Resumptive	c	ss	zz	3 rd -party other than most recently referenced (used with SWR affix)
IPa	impersonal animate	č	šš	žž	“one” “you” “people” “a person” (French “on”; German “man”)
IPi	impersonal inanimate	ɟ	ff	vv	“something” “a thing” “things”
Col	Collective	ž	nn	mm	NOMIC 3 rd -party
Abt	Abstract	j	rr	xx	ABSTRACT 3 rd -party

The OBVIATIVE includes use as a “resumptive” personal referent. This allows the OBVIATIVE personal referent to refer back to a party named earlier in a complex sentence. Use the SWR switch-reference affix or the new DCD affix to specify which party in the sentence is being referenced.

At first glance, the consonantal values in the above table of personal reference categories may seem somewhat unsystematic in their distribution. However, the distribution of consonants has been designed to maximize the ability of the consonant-forms to combine with one another in phonotactically permissible (and easy-to-pronounce) ways:

1/NEU+2m/NEU	ls/sl	1/NEU+2m/BEN	lš/šl	2m/NEU+ma/NEU	sr / rs	1/BEN+2m/BEN	nš / šn	1/NEU+2m/NEU+ma/NEU	lsr / rsl
1/NEU+2p/NEU	lz/zl	1/NEU+2p/BEN	lt/tl	2m/NEU+pa/NEU	sň / ňs	1/BEN+2m/DET	nž / žn	1/NEU+2m/NEU+pa/NEU	rňl / lňr
1/NEU+ma/NEU	lr/rl	1/NEU+ma/BEN	lp/pl	2m/NEU+mi/BEN	stj / tjs	1/BEN+ma/BEN	pn *	1/DET+2p/NEU+ma/BEN	msp / psm
1/NEU+pa/NEU	lň/ňl	1/NEU+pa/BEN	lk/kl	2m/NEU+pi/BEN	sf / fs	1/BEN+ma/DET	bn *	1/BEN+2p/NEU+pa/BEN	ntk / nkt
1/NEU+mi/NEU	lx/xl	1/NEU+Obv/BEN	lss/ssl	2m/NEU+IPa/NEU	sč	1/BEN+pa/DET	ng / gn	2p/DET+ma/NEU+pi/NEU	lđr / rđd
1/NEU+pi/NEU	l / l	1/NEU+2m/DET	lž/žl	2p/NEU+ma/NEU	zr / rz	2m/BEN+pa/BEN	šk / kš	1/NEU+2m/BEN+pi/DET	lšv / švl
1/NEU+Obv/NEU	lc/cl	1/NEU+2p/DET	ld/dl	2p/NEU+pa/NEU	zň/ňz	2m/DET+pa/BEN	žk	2p/BEN+pi/NEU+ma/BEN	t p / p t / pt / tp

* The forms **-np-** and **-nb-** are phonotactically impermissible. If all combinations of two forms are phonotactically impermissible (e.g., ***-sšš-** / ***-ššs-** for 2m/NEU+IPa/BEN), then they cannot be combined and must appear as separate adjuncts. This also applies to the C₁+C₂ consonant conjunction in dual-referent personal reference adjuncts below.

4.7.1 Single-referent or Dual-referent personal reference adjunct

'	V _{C1} (') *	C ₁	(C ₂	(V _{C2}))	Stress (default stress = penultimate) *
	Case of Personal Referent 1; same infixes as formative Slot XIII	Personal Referent 1	Personal Referent 2 (if present)	Case of Personal Referent 2 (if present); same infixes as formative Slot XIII	ultimate = alt. case for V _{C1} antepenult.= alt. case for V _{C2} pre-antepenult.=alt. case for both V _{C1} & V _{C2}

Examples:

ot, iás, e'rf, olkui, ismeá, u'fdou, éapneo

* If there is no V_{C2} and the adjunct is monosyllabic, case alternation for V_{C1} is shown by adding **-'** to V_{C1}. Also, if there aren't enough syllables for antepenultimate stress, add **-'** to V_{C1} and use penultimate stress; to substitute for pre-antepenultimate stress, add **-'** to V_{C1} and use ultimate stress.

The tell-tale sign of this adjunct is its **'V-C-V** structure containing only one word-medial (or word-final) full consonant form. Combinations are permissible in the C₁ slot of a single-referent adjunct, e.g., *orls* 'you, me, and her'-ERGATIVE. For dual-referent adjuncts, the C₁+C₂ conjunct can consist of up to 2 individual referents per slot: so if there are 2 referents, C₁ goes with the V_{C1} case slot and C₁ goes with V_{C2}. For three referents, the first two go with V_{C1} and the third goes with V_{C2}. For 4 referents the first two go with the V_{C1} and the third and fourth go with V_{C2}. For example, *olše* '1m/NEU/ERG-2m/BEN/ABS, *orlške* '[ma/NEU+1m/NEU]/ERG - [2m/BEN+pa/BEN]/ABS.

4.7.2 Combination Personal-Referent Adjunct with Case-Stacking: This adjunct is available when needed to add Specification, Designation, **-V_XC_S** suffix information and aspectual information to one of the combination Personal Reference forms (e.g., for non-combination single-referent forms, one may use this adjunct or the new Personal-Reference root explained in Sec. 4.7.3). Additionally, this adjunct allows optional case stacking onto the personal referent form.

(C _D	V _R)	C ₁ + C ₂ (+ C ₃)	V _{C1}	pf / kf	(V _X C _S ...)	(V _{C2} or epenthetic -ë)	Stress
Designation+Version of Personal Referent ' h w y	Specification x Stem x Function	Combination Personal Referent	Case of Combination Personal Referent	pf = default kf = case alteration for V _{C1}	V _X C _S suffix 1 (2, 3, ...)	2nd case (i.e., stacked) of Combination Personal Referent	ultimate stress = case alt. for V _{C2}

The tell-tale sign of this adjunct is **-pf-** or **-kf-** appearing in what looks like the C_A slot of a Simple Formative (**-pf-** / **-kf-** are not possible C_A forms). Examples: *slepf, etkeakf, halxopfegwë, wibneikfalmúi*

4.7.3 The Two Personal Reference Roots: -N- and -V-

There are two personal-reference roots, for use when it is necessary to express the concept of a particular personal referent as a full formative. The three stems of the first root **-N-** correspond to the MONADIC animate parties: 1st-person ‘I’, 2nd-person ‘you (singular)’ and 3rd-person animate ‘s/he’/‘they (singular)’. Use perspective to create their POLYADIC equivalents (where 1st-person POLYADIC would be a word meaning something like “speakers such as me” or perhaps more accurately “me and other persons in the position of calling themselves ‘I’”). The category of Impersonal Animate can be expressed by using NOMIC perspective with the 2nd stem of this root, creating a word meaning “you” used in a collective sense (as in English ‘*You don’t spit into the wind*’).

The second root **-V-** refers to inanimate/collective/abstract entities, plus mixed animate and inanimate parties, the three stems being 3rd-person inanimate ‘it’, mixed animate/inanimate, and Collective/Abstract. Applying POLYADIC perspective to the first stem gives us the stem for inanimate “they/those”. Applying NOMIC perspective to the same stem gives us the Impersonal Inanimate referent ‘something’/‘things’. The 2nd stem MONADIC refers to a party comprised of a single animate entity plus a single inanimate entity, while the same stem with POLYADIC refers to more than one animate and/or inanimate entity contained within the party.

	ROOT	STEM	PERSPECTIVE
1m	-N-	1	MONADIC
2m	-N-	2	MONADIC
2p	-N-	2	POLYADIC
ma	-N-	3	MONADIC
pa	-N-	3	POLYADIC
IPa	-N-	2	NOMIC
Obv	-N-	3 *	NOMIC

	ROOT	STEM	PERSPECTIVE
mi	-V-	1	MONADIC
pi	-V-	1	POLYADIC
IPi	-V-	1	NOMIC
Mxm	-V-	2	MONADIC
Mxp	-V-	2	POLYADIC
Col	-V-	2	NOMIC
Abt	-V-	3	MONADIC

* When using the OBVIATIVE one may specify the party via use of the SWR switch-reference affix, the DCD affix, or Slot XIII **C_c** affix.

The Specifications of these two roots are illustrated on the next page for Stem 1 of **-N-**:

-N- INFORMAL: [generic personal referent]; FORMAL: '[the personal referent's] identity'			
		STEM 1 Nominal meaning	STEM 1 Verbal meaning
1	BASIC	'I (myself)'	'to be me/to be myself' / 'to do/act what/how I do [because it's me]'
2	CONTENT	'I (myself)' (as being my personality, mind, psyche, sentient thoughts, psychological sense of individuality, or "essence"; irrespective of my physical body)'	[same as above applied to Content meaning at left]
3	CONSTITUTIVE	'I (myself)' (as my physical body/embodiment/person, irrespective of personality, mind, psyche, sentient thoughts, psychological sense of individuality, or "essence")'	[same as above applied to Constitutive meaning at left]
4	OBJECTIVE	'entity with/on which I act or with which I associate (i.e., place, thing, person, etc. with/in/on which/whom I [inter-]acts)'; 'something/someone from/in my life/niche/environment'	'to be an entity in my life/niche/environment; to be something/someone that/who is in my life/niche/environment'
5	INTENTIVE	'my purpose in life; what I want to do/be'; CPT Version: 'my accomplishment(s); my legacy'	STA: 'to be my purpose in life; to be a sense of what I want to be/do' DYN: 'to pursue my purpose; pursue what I want to do'; DYN/CPT: "achieve my purpose(s); to accomplish what I set out to do'

The INFORMAL designation of the above stems refers to a temporary, incidental, or "situation-at-hand" context. The FORMAL counterparts refer to myself in an iconic, archetypal, quasi-permanent context, translatable as 'my identity'.

NOTE: The previous version 0.6 of this document presented a PSN affix **-n** to specify the personal reference category used with the Personal Reference root. That PSN affix is now eliminated, as the splitting of the personal reference root into two separate roots now renders such an affix unnecessary.

4.8 The Parsing Adjunct

See Section 2.1, paragraph No. 5 (on Page 5) for a description of this specialized adjunct.

5.0 MISCELLANEOUS DESIGN NOTES

5.1 Rethinking the use of RECIPROCAL Valence

The translation of sentences where the two parties in the reciprocal relationship are named by one referent, will now require use of the SBS suffix on the referent to indicate that separate parties within the named referent are participating in the reciprocal relationship, otherwise, the party named will be assumed as a whole to constitute one “side” of the reciprocal activity. The following examples illustrate how this use of RCP valence and the SBS suffix will function:

Write-RCP they-IND.

TRANSLATION: *‘They write (to an unnamed party and that other party presumably writes back).’*

Write-RCP they-IND-SBS/1.

TRANSLATION: *‘They write to each other.’* [i.e. , one member of the ‘they’-referent writes to another member of the ‘they’-referent and vice-versa]

If it is necessary to specify a specific case-relationship for one or both parties in the reciprocal relationship, it will be necessary to name the parties separately so that appropriate cases can be assigned. For example:

write-RCP (S)he-IND you(sg.)-TSP

TRANSLATION: *You (two) write on behalf of each other. (LITERALLY: (S)he writes on behalf of you and vice-versa.)*

talk-RCP man-IND child-DAT clown-REF

TRANSLATION: *The man and the child talk to each other about the clown. OR The man and the child discuss the clown.*

talk-RCP they-IND clown-REF

TRANSLATION: *They talk about the clown (with somebody else). OR They discuss the clown(with somebody).*

talk-RCP they-IND-SBS/1 clown-REF

TRANSLATION: *They talk to each other about the clown. OR They discuss the clown.*

If necessary to specify that the reciprocity is of a “back (and forth)” nature, where first one party initiates an action which is subsequently paralleled back to the first party, one should utilize ITC aspect. Furthermore, one can use the ITN and/or the RTN suffix and/or Phase to provide additional detail if necessary. Additionally, the SWR affix can be utilized to specify that a referenced formative is the same as one of the reciprocal parties, e.g.,

talk-RCP man-IND child-DAT man-REF-SWR/5

TRANSLATION: *The man and the child talk to each other about the man* [i.e., the man being talked about is the same man who is talking with the child].

5.2 “Tense”-Like Connotations of Various Aspect/Extension Combinations

The following Aspect + Extension or Aspect 1 + Aspect 2 combinations will now be formalized to indicate “tense”-like information on a verb:

RTR Aspect + DEL Extension = ‘has been/done’	PRS Aspect + DEL Extension = simple future tense
RTR Aspect + PRX Extension = ‘has been (doing) [and may still be (doing)]’	PRS Aspect + PRX Extension = ‘will be/do & may already be (doing)’
RTR Aspect + ICP Extension = ‘began to be’ / ‘began doing’	PRS Aspect + ICP Extension = ‘will begin to be’ / ‘will start doing’
RTR Aspect + ATV Extension = ‘finished being/doing’	PRS Aspect + ATV Extension = ‘will finish being/doing’
RTR Aspect + GRA Extension = ‘gradually developed into being/doing’	PRS Aspect + GRA Extension = ‘will develop into being/doing’
RTR Aspect + DPL Extension = ‘gradually stopped being/doing & is/does no longer’	PRS Aspect + DPL Extension = ‘will gradually stop being/doing’
RTR Aspect + PCS Aspect = ‘just now finished being/doing’	PRS Aspect + PCS Aspect = ‘just about to be/do’
RTR + HAB Aspects + DEL Extension = ‘used to be/do but no longer’	PRS + RTR Aspects = ‘will have’ (e.g., <i>By then he will have done it.</i>)
RTR + HAB Aspects + PRX Extension = ‘used to be/do and may still be (doing)’	PRS + HAB Aspects + DEL Extension = ‘will now be (doing) but not yet’

There is also a new suffix for specifying when an event occurs relative to another event or relative to the contextual “present” of an utterance. This new affix may be used on its own or in conjunction with the existing TPP affix to provide specific tense-like information.

-It	RTI — Relative Timeline Indicator
1	<p>X is/occurs after the relative/contextual present of a statement (as may be defined by TPP affix) but is considered completed or no longer applicable after-the-fact from the speaker’s present viewpoint, e.g.,</p> <ul style="list-style-type: none"> • <i>Flowering plants had not yet developed / were yet to develop during the Cambrian geological period</i> (but they have developed since). • <i>The enemy’s code will still be unbroken / will have yet to be broken by the time they attack us</i> (but it will be eventually broken) • <i>The boy later realized / had not yet realized the clown was lying about the Clown Planet</i> (but he realizes it now). (TPP/3) <p>(Note how English translations of this affix may require use of a negative not present in the original.)</p>
2	<p>X is/occurs after the relative/contextual present of a statement (as may be defined by TPP affix) and its occurrence is still outstanding/impacting the speaker’s present viewpoint, e.g.,</p> <ul style="list-style-type: none"> • <i>Hurry! The bus is yet to depart / has not yet departed.</i> (lack of TPP affix implies present context) • <i>By leaving your seat just now to get a soda, you’ve missed (seeing) / have not seen the magician do his disappearing act.</i> (TPP/4) • <i>The boy hasn’t (yet) realized the clown was lying about the Clown Planet.</i> (TPP/3) <p>(Note how English translations of this affix may require use of a negative not present in the original.)</p>
3	<p>X continues to occur or have an effect in the relative/contextual present or has begun during or prior to the relative/contextual present and will continue into the future of that same relative/contextual present, e.g.,</p> <ul style="list-style-type: none"> • <i>She was (still) sleeping when I left the apartment.</i> (TPP/3 or TPP/4) • <i>She’ll (still) be sleeping when I arrive.</i> (TPP/6 or TPP/7) • <i>Civilizations rise and fall but the Euphrates River keeps rolling along.</i> (NOMIC or TPP/5) • <i>I’ve been watching TV all day.</i> (lack of TPP affix implies present context) • <i>We’ll be watching the apartment all night.</i> (TPP/7)

4	<p>X continues to occur or have an effect in the relative/contextual present or has begun during or prior to the relative/contextual present and will continue into the future of that same relative/contextual present, but does not continue into, or have a retrograde effect/impact on the speaker's contextual present, e.g.,</p> <ul style="list-style-type: none"> • <i>She was (still) sleeping when I left the apartment.</i> (TPP/3 or TPP/4) (but she's no longer sleeping now) • <i>She'll (still) be sleeping when I arrive.</i> (TPP/6 or TPP/7) (but she's not sleeping yet) • <i>I've been watching TV all day.</i> (lack of TPP affix implies present context) (but I'm not doing so now) • <i>We'll be watching the apartment all night.</i> (TPP/7) (but we're not doing so yet)
5	<p>X has been/done so in the past and will again in the future, but not being/doing so at present, e.g.,</p> <ul style="list-style-type: none"> • <i>the once-and-future king</i> • <i>I did it before and I will do it again.</i>
6	<p>X begins to be/occur before the relative/contextual present of a statement (as may be defined by TPP affix) and continues to be/occur during that same relative/contextual present but does not impact the speaker's contextual present, e.g.,</p> <ul style="list-style-type: none"> • <i>The band had started playing / The band was now playing (then, but no longer).</i> • <i>The war will have begun.</i> (TPP/6 or TPP/7) (then, but not now). • <i>Dody the (one-and-only) sentient dinosaur (due to a freak mutation), had watched the giant meteor approach his home, whose name 65 million years later would be Chicxulub, with a sense of dread.</i> (TPP/1)
7	<p>X begins to be/occur before the relative/contextual present of a statement (as may be defined by TPP affix) and continues to be/occur during that same relative/contextual present, e.g.,</p> <ul style="list-style-type: none"> • <i>The band has started playing / The band is now playing.</i> • <i>The war will have begun.</i> (TPP/6 or TPP/7) • <i>Dody the (one-and-only) sentient dinosaur (due to a freak mutation), watched the giant meteor approach her home, whose name 65 million years later would be Chicxulub, with a sense of dread.</i> (TPP/1)
8	<p>X is/occurs before the relative/contextual present of a statement (as may be defined by TPP affix) and the consequences of its occurrence are still outstanding/impacting the speaker's present viewpoint, e.g.,</p> <ul style="list-style-type: none"> • <i>The bus had (already) departed when/by the time I arrived.</i> (TPP/3) • <i>The bus will have (already) departed by the time I arrive.</i> (TPP/7)
9	<p>X is/occurs before the relative/contextual present of a statement (as may be defined by TPP affix) but is considered completed or no longer applicable after-the-fact from the speaker's present viewpoint, e.g.,</p> <ul style="list-style-type: none"> • <i>The river had (already) dried up when/by the time the settlers arrived.</i> (TPP/2 or TPP/3) • <i>The Sun will have (already) gone nova when/by the time we develop interstellar ships.</i> (TPP/8)