

PROPOSED ROOTS & AFFIXES FOR THE ITHKUIL SUCCESSOR LANGUAGE (Version 0.1, March 16, 2019)

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This document presents proposed roots (with their associated Stems and Specifications) for the forthcoming Ithkuil successor language. For those roots with associated affixes, the affixes are provided as well. Some of these roots and affixes have been previewed in the separate redesign document.

1.0 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 either 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, the three stems being 3rd-person inanimate 'it', Collective, and 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'.

	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
Col	-V-	2	MONADIC
Abt	-V-	3	MONADIC

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

The Specifications of each of these two roots is illustrated below 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’.

2.0 General Demonstrative Root: -Ç-

-Ç- [General Demonstrative Root]		affix form: see DCD affix -ç
BASIC	‘this / the one at-hand / the one in question’ referring to entities, situations, abstract notions, etc. (depending on the Ca complex); [STA:] to be this/what is under discussion / [DYN:] to do this/what is under discussion	STEM 1: this (one) near, at, by, or associated w/ speaker STEM 2: that (one), near, at, by or associated w/ addressee STEM 3: that (one yonder), not near, at, by or associated with either speaker or addressee
CONTENT	that which is the essence or essential point or meaning of this/what is at-hand	
CONSTITUTIVE	that which is the form/structure or physical manifestation of this/what is at-hand	
OBJECTIVE	the object/entity/situation/idea, etc. being referred to by this/what is under discussion or at-hand	
INTENTIVE	the purpose or point of what is being referred to by this/what is under discussion or at-hand	

INFORMAL stems: circumstantial/context-of-the-moment

FORMAL stems: official, (quasi-)permanent, inherent, or conventionalized context

Using cases, the above root provides translations for phrases such as “thus”/“in this/that manner”, “there”/“in that place/location”, “Yes”/“It is that”, “No”/“It is not that”, “some / some of that”, etc.

3.0 Copular Root: -T-

The scope of this root’s usage is narrow. It is used only in contexts requiring ontological or epistemic equivalence/identity. e.g., “I am your father.” It is **not to be used** in the following circumstances:

- when “be” means “be named/called”, e.g., “*My dog is [named/called] Toto.*” (Use stem meaning “be named; be called; have an appellation”)
- when “be” initiates an adjectival phrase, e.g., “*Rain is beneficial.*” (Use adjectival case or a verbal stem, e.g., “to (be of) benefit”)
- when “be” indicates a spatio-temporal relation, e.g., “*The box is on the table*” (Use stem signifying the specific relation, e.g., “be on the top surface of”)
- when “be” means “occur / happen / take place”, e.g., “*Wednesday is the best day for shopping.*” (Use stem meaning “occur, take place, happen”)
- when “be” means “exist (ontologically)”, e.g., “*Such is life*”, “*I think, therefore I am.*” (Use stem meaning “existent entity; to ontologically exist”)
- when “be” indicates exemplary membership in a set, e.g., “*A hammer is a tool.*” (Use stem meaning “exemplify; be an example of” or “be a type of”)
- when “be” indicates composition, e.g., “*Rain is water.*” (Use stem meaning “to consist of”)

IFL Stems: the copular relation/equivalence is circumstantial/contextual; **FML** Stems: the copular relation/equivalence is inherent/inalienable/permanent

-T- ‘BE (i.e., copular identificaton) / EQUIVALENCE’				
		STEM 1	STEM 2	STEM 3
1	BASIC	(to be ontologically the) self-same entity (as) (i.e., [to be] simply another name for the self-same entity)	be epistemically equivalent to or (functionally) identified/identifiable as; be (functionally) the same as; be equal to	to be epistemically synonymous/tantamount/convertible to
2	CONTENT	to be ontologically the self-same entity (as) in terms of essence, sense of identity, behavior, personality, mind, etc.	be epistemically equivalent to or (functionally) identif(ied/-iable) as in terms of essence, sense of identity, behavior, personality, mind, etc.	to be epistemically synonymous/tantamount/convertible in terms of essence, sense of identity, behavior, personality, mind, etc.
3	CONSTITUTIVE	to be ontologically the self-same entity (as) in terms of appearance, physical manifestation or construction	to be epistemically equivalent to or (functionally) identif(ied/-iable) as in terms of appearance, physical manifestation or construction	to be epistemically synonymous/tantamount/convertible to in terms of appearance or outward physical manifestation
4	OBJECTIVE	what X ontologically is (as opposed to being something else), X’s natural identity, X’s existence as X; to be X as itself (as opposed to something else)	what X is epistemically equivalent to (as opposed to something else), X’s natural identity, X’s existence as X; to be X as itself (as opposed to something else)	(to be)what X is epistemically synonymous, tantamount, or convertible to (as opposed to something else), X’s convertibility to
5	INTENTIVE	the desired consequences/purpose of being oneself; CPT=the consequences thereof	the desired consequences/purpose of being equivalent to; CPT=the consequences thereof	the desired consequences/purpose of being synonymous, tantamount, or convertible to; CPT=the consequences thereof

4.0 Some Additional Common Roots: -J-, -RT- and -RD-

-J- ‘TRANSFER OF POSSESSION / GIVE / RECEIVE’	
BASIC	transfer (of) possession of an item; an occurrence/instance/act of giving & taking an item; to engage in an act of giving & taking a gift (the complementary nature of such act can be underscored by use of CPL valence)
CONTENT	the process/act of giving and taking of a particular item [focus on the item being transferred, irrespective of the parties involved]
CONSTITUTIVE	the process/act of transferring an item between one party and another [irrespective of what is given]
OBJECTIVE	an item transferred by one to another; to be an item transferred from one party to another
INTENTIVE	(result in being) the item in the possession of the recipient and no longer in the possession of the giver

STEM 2: an act of giving; to give

STEM 3: an act of receiving; to receive

INF stems: temporary/circumstantial/incidental transfer of possession of an item/entity

FML stems: (quasi-)permanent transfer of possession of a gift

-RT- ‘DESIRE / WANT’		Suffix form: -tr- (see next page)
STEM 1		
1	BASIC	an affective (i.e., unwilling) state of want/desire [affective state + object of desire]; to want something, to desire something
2	CONTENT	the internal, psychological, proprioceptive manifestation of being in a state of desire; to experience such a state
3	CONSTITUTIVE	the outwardly discernible manifestations of a state of desire; to have the “look” of (i.e., outwardly manifest the signs of) being in a state of desire
4	OBJECTIVE	entity wanted/desired, a want, a desire; to be the entity wanted/desired
5	INTENTIVE	the state of being driven/motivated to act on one’s desire; to (be driven to) act on one’s desire

STEM 2: (to) wish/hope for something

STEM 3: an aspiration + thing aspired to; to aspire to something

FORMAL stems: Stem 1) request + entity requested

Stem 2) a preference; to prefer something

Stem 3) a demand; to demand

-RD- ‘CAPACITY / ABILITY / CAPABILITY’		Suffix form: -rd- (see next page)
STEM 1		
1	BASIC	the physical capability/ability to do something particular; to be able (i.e., have the or physical capability/ability) to do something particular
2	CONTENT	the physical capability/ability; to be able (= have the or physical capability/ability)
3	CONSTITUTIVE	(to be) the particular (nature of the) physical capacity/ability needed
4	OBJECTIVE	(to be) the task/endeavor requiring a certain physical capacity/ability to perform/accomplish
5	INTENTIVE	the (desired/expected) outcome of a task requiring a particular capability/ability to perform/accomplish

STEM 2: (to have) the physical stamina, fortitude or strength (needed) to do something

STEM 3: (to have) the physical prowess or finesse or specialized physical skill (needed) to do something

INF stems: The capability/strength/stamina/prowess/finesse needed is circumstantial, i.e., the party does or does not happen to have such

FML stems: The capability/strength/stamina/prowess/finesse needed is consciously acquired by specialized training or experience, etc.

5.0 MODALITY AFFIXES

(Type-1 functions as a modality; Type-2 as a descriptive, e.g., *the desired wine, the capable man, the chosen box, the agreed-upon job*)

-rt	DSD: Desiderative modalities
1	want to/that; desire to/that
2	hope to/that, wish to/that; Type 2: dream about / long to
3	request/ would like to/that / if you please
4	feel like / up for / be inclined to
5	envy / covet
6	deign to / acquiesce to / assent to
7	be willing to, not mind, be open to, be OK with
8	would rather / prefer to
9	demand to/that

-rd	CPC: Capacitative modalities
1	can/be able = have phys. ability/capacity to
2	can/be able = have oppty to
3	can/could = have the potential to / possibility of
4	can/be able = offer to / volunteer to
5	can/be able = have knowledge/skill needed to
6	can/be able = be permitted to
7	let / allow to / permit that
8	suggest that / propose to
9	take advantage of (the opportunity to)

-rb	DBV: Deliberative modalities
1	be devoted/committed to
2	have impression/feeling that
3	think (believe) that
4	remember to
5	consider, think about --> CPT: decide/resolve to, make up one's mind to to
6	be resigned to
7	dare to
8	choose to
9	help to, aid in, assist with

-rg	ATP: Anticipatory modalities
1	tend to / be apt/prone to / be characterized by X-ness
2	be prepared/ready to
3	promise to / swear to / vow to
4	look forward to / eagerly await
5	free to, available to
6	anticipate / expect to/that
7	intend to / plan on/ shall
8	(be) face(d) with
9	be predisposed to, be destined to

-rk	OBG: Obligative/necessitative
1	must / have to
2	should / ought to
3	be supposed/expected to, would be best if
4	feel driven/compelled to / feel a need to
5	need to / be necessary that/to
6	agree to
7	attempt to / try to
8	be forced/coerced to
9	to be fated/destined to

-rp	AVS: Aversive ("short-cut" negations of other modalities)
1	forget to
2	avoid / shy away from
3	fear to / dare not
4	hinder, interfere with
5	prevent / prohibit / not let
6	refrain/abstain from
7	dread, not look forward to
8	be forced to / ...unwillingly
9	would rather not / prefer not to

6.0 Coordinative and Connective Affixes

-n	CAQ: Coordinative/Additive with Quasi-Sequentiality
1	...and (in a quasi-sequential series, with topic in common [as well as main verb if a subsequent main verb is missing]): <i>Sam <u>visited</u> Clara and (then/subsequently visited) Jane every Sunday; <u>Sam</u> visited Clara and [Sam then/subsequently] danced with Jane every Sunday.</i>
2	...and (in a quasi-sequential series, with all morphology in common with first member of series other than as non-default marked or differently-marked than first member): <i>When Sam shopped for toys, he looked at (AGG sets of miniature replica) cars, soldiers, animals, and marbles-DCT</i> [i.e., all items were AGG sets of miniature-replicas, except the marbles which were a look-alike DCT set].
3	...and (in a quasi-sequential series where verb participants are in common but case relationships are not and must be inferred) <i>He saw, entered, and conquered the city.</i>
4	...and (in a quasi-sequential series, with no assumed commonality of morphology between sequential referents, i.e., X + Y + Z...) <i>Sam attended college and Jeff broke his wrist.</i>
5	[same as Degree 4 except neutral/unspecified as to whether X is simultaneous vs. subsequent to a previous referent; as such, it can be utilized as an equivalent to English neutral (i.e., ambiguous) “and” where simultaneity/concurrency vs. sequentiality is unspecified, or irrelevant.
6	...as well as something else / ...as well as other things, too
7	X and so forth / X and so on / X and all that / X and whatever else
8	...and furthermore, X / ...and what’s more, X / ...and moreover, X
9	X, too / also, X / additionally, X / ...as well

-m	CAS: Coordinative/Additive with Simultaneity/Concurrency/Concomitancy
1	...and (at the same time, with topic in common [as well as main verb if a subsequent main verb is missing]): <i>Sam <u>visited</u> Clara and (simultaneously/concurrently visited) Jane every Sunday; <u>Sam</u> visited Clara and [Sam simultaneously/concurrently] danced with Jane every Sunday.</i>
2	...and (at the same time, with all morphology in common with first member of series other than as non-default marked or differently-marked than first member)
3	...and (at the same time where verb participants are in common, but case relationships are not and must be inferred) <i>He simultaneously saw, entered, and conquered the city.</i>
4	...and (at the same time, with no assumed commonality of morphology between referents, i.e., X + Y + Z...) <i>Sam attended college and concurrently Jeff broke his wrist.</i>
5	...and (as a simultaneous/concurrent consequence of the preceding)...
6	...as well as [at the same time] something else / ...as well as other things, too
7	X and so forth [at the same time] / X and so on [at the same time] / X and [at the same time] all that / X and whatever else [at the same time]
8	...and furthermore, X [at the same time] / ...and [at the same time] what’s more, X / ...and [at the same time] moreover, X
9	X, too [at the same time] / also, X [at the same time] / additionally, X [at the same time] / ...as well [at the same time] = “in addition to what’s been previously stated about the referent, X also applies simultaneously/concurrently to that referent”

-nz	IOR: Inclusive “OR”
1	...and/or (quasi-sequentially, with topic in common [as well as main verb if a subsequent main verb is missing]): <i>Sam either visited Clara or ([subsequently] visited) Jane every Sunday or both; Sam visited Clara or [Sam (subsequently)] danced with Jane every Sunday or both.</i>
2	...and/or (quasi-sequentially, with all morphology in common with first member of series other than as non-default marked or differently-marked than first member)
3	...and/or (quasi-sequentially where verb participants are in common, but case relationships are not and must be inferred) <i>He either saw, entered, or conquered the city or all three.</i>
4	...and/or (quasi-sequentially, with no assumed commonality of morphology between referents) <i>Sam either attended college or Jeff broke his wrist or both.</i>
5	[same as Degree 4 except unknown/unspecified/irrelevant as to whether both referents occur simultaneously/concurrently if, in fact, both referents occur.]
6	[same as Degree 4 but with both referents occurring simultaneously/concurrently if, in fact, both referents occurred.]
7	[same as Degree 3 but with both referents occurring simultaneously/concurrently if, in fact, both referents occurred.]
8	[same as Degree 2 but with both referents occurring simultaneously/concurrently if, in fact, both referents occurred.]
9	[same as Degree 1 but with both referents occurring simultaneously/concurrently if, in fact, both referents occurred.]

-mn	PXR: Partially Exclusive “OR” [where there are 3 or more coordinative referents]
1	[same as CAQ/1 affix above, but with partially exclusive “or”, where, among three or more referents, 2 or more of the referents may quasi-sequentially occur, but not all of them]
2	[same as CAQ/2 affix above, but with partially exclusive “or”, where, among three or more referents, 2 or more of the referents may quasi-sequentially occur, but not all of them]
3	[same as CAQ/3 affix above, but with partially exclusive “or”, where, among three or more referents, 2 or more of the referents may quasi-sequentially occur, but not all of them]
4	[same as CAQ/4 affix above, but with partially exclusive “or”, where, among three or more referents, 2 or more of the referents may quasi-sequentially occur, but not all of them]
5	[same as CAQ/5 plus CAS/5 affix above, but with partially exclusive “or”, where, among three or more referents, 2 or more of the referents may occur, but not all of them, where simultaneity vs. sequentiality of the referents is either unknown, unspecified, or irrelevant]
6	[same as Degree 4 but with the referents occurring simultaneously/concurrently if, in fact, more than 1 referent occurs.]
7	[same as Degree 3 but with the referents occurring simultaneously/concurrently if, in fact, more than 1 referent occurs.]
8	[same as Degree 2 but with referents occurring simultaneously/concurrently if, in fact, more than 1 referent occurs.]
9	[same as Degree 1 but with the referents occurring simultaneously/concurrently if, in fact, more than 1 referent occurs.]

-mz	XOR: Exclusive “or” and Contrastive Adverbials
1	“xor” (with topic in common[as well as main verb if a subsequent main verb is missing]): <i>Sam either visited Clara or ([subsequently] visited) Jane every Sunday, but not both; Sam visited Clara or [Sam (subsequently)] danced with Jane every Sunday (but not both).</i>
2	“xor” (with all morphology in common with first member of series other than as non-default marked or differently-marked than first member)
3	“xor” (where verb participants are in common, but case relationships are not and must be inferred) <i>He either saw, entered, or conquered the city (but only did one of these).</i>
4	“xor” (with no assumed commonality of morphology between referents) <i>Sam either attended college or Jeff broke his wrist (but only one or the other occurred).</i>
5	but [= on the contrary, X]
6	but (rather) [= substituting X]; “X, instead”
7	or X, else X [= “otherwise, X”, “if not that, then X”]
8	or X [= and interchangeable with]
9	...or something (else), ...or whatever (else)

-l	CTR: Adverbial Contrastiveness
1	but, yet, still [= nevertheless = despite the aforementioned]
2	X, however...; X, on the other hand...; as an exception to the aforementioned, X...
3	besides, X [= in addition to the aforementioned, X]; not just the aforementioned, but also X
4	X notwithstanding, ignoring X for the moment, without taking X into account; aside from X; with the exception of X
5	except (for) X; but (not) X; excluding X
6	even X; or even X; X still (e.g., thicker still)
7	not even X
8	focusing exclusively on X, taking only X into account for the moment, in reference solely to X, in regard only to X, as for X alone
9	exclusive to X; only applying to X; (as) applicable only to X

A negative XOR coordinative/connective “neither...nor” exists within the redesigned Negation Affix below.

6.1 Negation Affix

Since the scope of $V_X C_S$ affixes can now be manipulated by ordering of affixes, the use of Type-3 affixes, as well as the distinction between Slot VII versus Slot IX placement, it is no longer necessary to distinguish Ithkuil’s NA1, NA2, NA3, and NA4 affixes. Consequently, the negation affix has been redesigned.

-r	NEG: Negation and Negative Coordinatives/Connectives
1	emphatic relative negation contrary to expectation: on the contrary, ... is not/does not X at all!; no X whatsoever (despite any assertion otherwise)!
2	emphatic relative negation: ... is not/does not X at all!; no X whatsoever!
3	relative negation contrary to expectation: on the contrary, ... is not/does not X; no X (despite any assertion otherwise)
4	relative negation: ... is not/does not X; no X
5	neither the preceding nor X; none of the preceding nor X
6	absolute negation: ... is not/does not X; no X
7	absolute negation contrary to expectation: on the contrary, ... is not/does not X; no X whatsoever.
8	emphatic absolute negation: ... is not/does not X at all!; no X whatsoever!
9	emphatic absolute negation contrary to expectation: on the contrary, ... is not/does not X at all!; no X whatsoever (despite any assertion otherwise)!

The following three sentences illustrate the difference between various degrees of the CAS (and by extension the CAQ) affix:

<i>The apple, too, is something red.</i>	be.something.red-STA apple-STA-CAS/ 1 (or -CAS/ 2)
<i>There is something red and also (there's) an apple.</i>	be.something.red-STA apple-STA-CAS/ 6 (or -CAS/ 8)
<i>There is something red and/which is also an apple.</i>	be.something.red-STA apple-STA-CAS/ 9

6.2 Dealing with 'if...' Clauses: The Redesigned DEPENDENT Case

Related to the semantic notion of coordinatives and connectives, is the association between dependency clauses and contingency clauses, or "if...then" constructions. I have analyzed the semantics of Ithkuil's DEPENDENT, PROVISIONAL, and POSTULATIVE cases, as well as the successor language's proposed IRRESPECTIVE case ("whether or not X").

These cases all have an underlying semantic commonality which can be expressed by the dependency phrase '*...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. It strikes me that in most communicative circumstances, such a generalized "if..." clause should be sufficient in itself to convey the desired notion of dependency.

So rather than force the speaker into semantic nuances differentiating this common dependency phrase into four distinct noun cases, it seems better to allow such nuances to be expressed optionally by a $V_X C_S$ affix applied to a single, more general noun case. I am therefore collapsing Ithkuil's DEPENDENT, PROVISIONAL, and POSTULATIVE cases and the successor language's IRRESPECTIVE case into one single DEPENDENT case, which will then utilize the following optional affix to distinguish the semantic relationship between the dependency noun/phrase and the contingency noun/phrase.

-ňň	DPC: Dependent Circumstances (specifies the nature of the dependency signified by the redesigned DEPENDENT case)
1	<p>The contingency clause will only take place if the dependent noun/clause is true, but will not take place if the dependency noun/clause is false. e.g.,</p> <ul style="list-style-type: none"> • <i>Break the glass only in case of fire.</i> • <i>She'll come to the party only if Oswaldo the Clown is there.</i>
2	<p>The contingency clause will take place if the dependent noun/clause is true, but will not take place if the truth value of the dependency noun/clause is unknown, e.g.,</p> <ul style="list-style-type: none"> • <i>I'll break the glass only if I'm certain there's a fire [i.e., I will not break it if I'm unsure whether there's a fire or not].</i> • <i>If Oswaldo the Clown is there, she'll attend (i.e., if it is unknown whether Oswaldo't there, she will not attend).</i>
3	<p>The contingency clause will take place if the dependent noun/clause is true, but it is unknown/uncertain if it will take place if the truth value of the dependency noun/clause is unknown, e.g.,</p> <ul style="list-style-type: none"> • <i>I'll break the glass in case there's a fire [i.e., but I don't know whether I'll break it if I'm unsure whether there's a fire or not].</i> • <i>If Oswaldo the Clown is there, she'll attend (i.e., if it is unknown whether Oswaldo't there, she may not attend).</i>
4	<p>The contingency clause will take place if the dependent noun/clause is true, but it is unknown/uncertain if it will take place if the dependency noun/clause is false, e.g.,</p> <ul style="list-style-type: none"> • <i>I'll break the glass if there's a fire [but I may also break it even if there isn't a fire].</i> • <i>If Oswaldo the Clown is there, she'll attend (i.e., if he isn't there, it is unknown whether she'll attend or not).</i> <p>[Note the following two "inverse" examples where the dependency clauses are negatives, i.e., 'if it does not rain' and 'if Oswaldo isn't there']:</p> <ul style="list-style-type: none"> • <i>We'll go for a walk, depending on the rain (i.e., if it doesn't rain we'll walk, but if it does rain, we may still walk or may decide not to walk).</i> • <i>She'll attend if Oswaldo the Clown is not there, but may or may not attend if he is there.</i>
5	<p>The contingency clause will take place regardless of whether the dependent noun/clause is true or false, e.g.,</p> <ul style="list-style-type: none"> • <i>Break the glass whether or not there's fire.</i> • <i>She'll attend the party regardless of whether Oswaldo the Clown is there.</i>
6	<p>The contingency clause will take place if the dependent noun/clause is true, and will not take place if the dependency is false, but it is unknown/uncertain if it will take place if the truth value of the dependency noun/clause is unknown, e.g.,</p> <ul style="list-style-type: none"> • <i>I'll break the glass in case there's a fire [i.e., and will not break it if there's no fire, but I don't know if I'll break it if I'm unsure whether there's a fire or not].</i> • <i>If Oswaldo the Clown is there, she'll attend (i.e., and will not attend if he's not there, but if it is unknown whether Oswaldo't there, she may not attend).</i>
7	<p>The contingency clause will take place if the dependent noun/clause is true or if it is unknown/uncertain, but will not take place if the dependency is false, e.g.,</p> <ul style="list-style-type: none"> • <i>I'll break the glass in case there's a fire [i.e., I'll break it if there's a fire or if I'm uncertain whether there's a fire, but will not break it if I know there is no fire].</i> • <i>If Oswaldo the Clown is there, she'll attend (i.e., she'll attend if he's there or if she doesn't know if he's there, but won't attend if she knows he's not there).</i>

8	<p>Likelihood of the contingency clause taking place is unknown/unpredictable because the dependent noun/clause's truth value is unknown/unpredictable, e.g.,</p> <ul style="list-style-type: none"> • <i>She may show up depending on her attitude.</i> • <i>Her attending the party depends upon Oswaldo the Clown being there (however, it is unknown whether it is Oswaldo's presence or his absence that determines whether she attends).</i>
9	<p>The contingent clause represents only a precautionary/preparatory measure because the dependent noun/clause's truth value is unknown/unpredictable, e.g., <i>We have umbrellas in case of rain. She's carrying a gun in case Oswaldo the Clown is there.</i></p>

The following chart more systematically illustrates the distinctions between the nine degrees of the affix:

The contingency		If the Dependency Value is . . .				If the Dependency Value is . . .		
		true	unknown	as desired by contingency party		true	false	unknown
1	will occur	x			but will not occur		x	
2	will occur	x			but will not occur			x
3	will occur	x			and/but may (not) occur			x
4	will occur	x			and/but may (not) occur		x	
5	will occur	x			and will also occur		x	
6	will occur	x			but may (not) occur if dependency uncertain, and will not occur		x	
7	will occur	x	x		but will not occur		x	
8	will occur			x	however, dependency value is unknown to speaker			
9	will occur		x		as a precaution			

The reader may note that, for the contingency clauses listed, there are no negative values, i.e., "X will NOT occur if...". This is by design. Such negative contingencies are expressed by simple negation of the contingency phrase, via the previously presented negation affix. Similarly, the dependency clause (expressed in the DEPENDENT case) may also be negated if semantically required.

The best feature of this new DEPENDENT case is that one can normally use it without the DPC affix to say in general 'I'll come, depending on what day of the week it is', or, if necessary, specify the nature of the dependency by using the DPC affix, e.g., 'I'll come but only if it's a certain day of the week'.

7.0 ROOTS AND AFFIXES FOR MOTION AND SPATIAL POSITION

English has the ability to create succinct “moving images” of complex trajectories, paths, treks, and in-situ movements by simple juxtaposition of locative/directional particles (i.e., prepositions acting mostly as adverbial particles). For example, imagine the manager of a basement nightclub talking to a friend on the sidewalk outside his club. He invites the friend to the small patio outside the back of the club, which one finds by descending into the club, going past the dance floor, up a flight of stairs, and down a long hallway to the back door. He does so by saying, ‘*Come on down inside up along through out to the back.*’

This new language will allow a speaker to create similar succinct “moving images”. Each motion root (whether referring to in-situ or translative motion) will have a corresponding $-V_xC_S$ affix of the same form (e.g., if the root for ‘OBLIQUE LINEAR MOTION’ is **-KR-**, it will have a corresponding suffix **-kr.**) Each of these suffixes will then have the following nine degrees:

1	Interior perlative motion/movement in a manner described by the suffix’s corresponding root among/within an external/surrounding/underlying (quasi-)static medium. For translative motion suffixes, implies motion along a course described by the suffix’s corresponding root where the course is set, determined, or prescribed by an externally surrounding/underlying medium/channel, etc.
2	Interior motion/movement: static or translative movement/motion in a manner described by the suffix’s corresponding root while inside another object/entity (where, unlike the perlative degree, the exterior object/entity does not define/prescribe/determine the course of the moving object/entity)
3	Implies entry from an exterior space/medium/context into an interior space/medium/context
4	Implies continued/continuous movement in a manner described by the suffix’s corresponding root; for translative motion suffixes, implies continued/continuous motion along a course/direction described by the suffix’s corresponding root
5	Motivational “on” as in “come on”, “go on”, “move on” - implies/reinforces need/impetus to begin/keep moving in the manner or direction described by the suffix’s corresponding root without stopping
6	Implies a single motion in a manner described by the suffix’s corresponding root across from one point/side of the contextual space to another; for translative motion suffixes, implies a single motion along a course/direction described by the suffix’s corresponding root across a gap/gulf/space from one place to another
7	Implies exit from an interior space/medium/context out to an exterior space/medium/context
8	exterior motion/movement: static or translative movement/motion in a manner described by the suffix’s corresponding root while outside another object/entity (where, unlike the perlative degree, the other object/entity does not define/prescribe/determine the course of the moving object/entity)
9	exterior perlative motion/movement outside of, over, next to, alongside, “above”/“under” an adjacent (quasi-)static surface/medium; for translative motion suffixes, implies motion on a course described by the suffix’s corresponding root along, over, parallel to, around, “above”/“under”, or tracking/following an adjacent (quasi-)static surface/medium

For Degree 6, the various Modulative suffixes as well as Phase can be used to describe repeated, ongoing movement/motion, e.g., back-and-forth, to-and-fro, side-to-side, up-and-down, in-and-out, out-and-back, etc.

Besides movement/motion Roots, roots denoting any spatial referent/area would also have corresponding suffix-forms utilizing this pattern (e.g., front side, rear area, top area/space, area below/underneath, etc.).

IMPORTANT NOTE: Suffixes based on Translative Motion and Spatial Position roots have a particular semantic feature: **Type 1 suffixes correspond to Stem 2** of the root, whereas **Type 2 suffixes correspond to Stem 3** of the root.

7.1 Translative Motion Roots: Roots involving translative motion will be modeled after the following basic root:

-TR- ‘PATH-ORIENTED, QUASI-LINEAR TRANSLATIVE MOTION’ Suffix form: -tr-		
STEM 1		
1	BASIC	an act of translative motion (i.e., changing location through spacetime) from one place to another [comprising the motion and the entity moving]; to move (i.e., change location through spacetime) from one place to another [comprising the motion and the entity moving]
2	CONTENT	The process of movement itself from one place to another; to be moving from one place to another
3	CONSTITUTIVE	The path/trajectory/course/route followed between two places; to move along/through the path/trajectory/course/route from one place to another
4	OBJECTIVE	The entity moving from one place to another; to be the entity moving from one place to another
5	INTENTIVE	The purpose (i.e., desired outcome) for an act of translative motion; to move from one place to another for a specific purpose/reason. [CPT version = (to achieve) the desired outcome thereof]

STEM 2: Same as Stem 1 except that the perspective is on motion to(ward) the topical referent of the sentence or clause, i.e., “come; approach”; CPT = “arrive”

STEM 3: Same as Stem 1 except that the perspective is on motion away from the topical referent of the sentence or clause, i.e., “go; go away; move away”; CPT = “leave; depart”

INFORMAL stems refer to a circumstantial, context-of-the-moment movement; FORMAL stems refer to planned travel, a formal traversal, a dedicated journey, a pre-planned route, etc.

The above root therefore generates translations for English *move* (from one place to another), *go*, *come*, *approach*, *leave*, *depart(ure)*, *travel*, *journey*, *traveler*, *destination* (in the sense of being the purpose of a journey).

Roots (and suffixes) following the same model as **-TR-** above include the following:

- PR-** ‘VERTICAL QUASI-LINEAR TRANSLATIVE MOTION’, i.e., movement up/down; Stem 2 = ‘ascent/ascend; going (straight) up; rise/raise’; Stem 3 = ‘descent/descend; going (straight) down; “drop”; lower(ing)’
- KR-** ‘OBLIQUE VERTICAL QUASI-LINEAR MOTION’, i.e., ascending/descending at an angle/slant’; Stem 2 = oblique ascent; Stem 3 = oblique descent
- DR-** ‘HORIZONTAL PLANAR TRANSLATIVE MOTION’, i.e., movement along a line/path on a horizontal plane between the topical referent and a second location; Stem 2 = ‘approach, getting nearer’; Stem 3 = ‘recede/receding, getting farther away’
- FR-** ‘PARALLEL TRANSLATIVE MOTION’, i.e., movement along same path/trajectory as the topical referent; Stem 1 = parallel movement in same direction alongside topical referent; Stem 2 = parallel movement alongside but in opposite direction to topical referent
- BR-** ‘PERPENDICULAR-PLANAR TRANSLATIVE MOTION’, i.e., movement along a line/path “across” one’s forward path or field of vision, moving laterally (i.e., horizontally perpendicular) to the positional/orientational position or path of the topical referent (i.e., analogous to watching something moving in a line across a screen held in front of one’s eyes); Stem 2 = movement from left-to-right relative to the topical referent; Stem 3 = movement from right-to-left relative to the topical referent.
- GR-** ‘OBLIQUE LATERAL TRANSLATIVE MOTION’, i.e., moving laterally at an oblique angle on same horizontal plane as the topical referent; Stem 2 = lateral movement at an oblique angle approaching (i.e., getting nearer to) the topical referent; Stem 3 = lateral movement at an oblique angle moving away from (getting farther away from) the topical referent.
- GL-** ‘HORIZONTAL-PLANAR RANGE OF MOTION’, i.e., random directed movement within/throughout a 2-dimensional horizontal plane.
- DL-** ‘VERTICAL-PLANAR RANGE OF MOTION’, i.e., random directed movement within/throughout a 2-dimensional vertical plane.

- KL**- ‘PERPENDICULAR-PLANAR RANGE OF MOTION’, i.e., random directed movement within/throughout a 2-dimensional vertical plane perpendicular to the perspective of the topical referent (i.e., lying “across” one’s visual field or directional path, analogous to a painting or flat screen held up in front of a person).
- PL**- ‘TRANSLATIVE MOTION ALONG PRABOLIC/ARC-LIKE TRAJECTORY RELATIVE TO GRAVITY’
- BL**- ‘MOTION IN A CURVE’
- FL**- ‘MOTION IN A PLANAR CIRCULAR PATH’
- TL**- ‘GENERIC/OBLIQUE 3-DIMENSIONAL RANGE OF MOTION’, i.e., 3-D pervasive movement throughout or within a volume of space

7.2 Spatial Position/Location Roots: Roots involving spatial position/orientation/direction will be modeled after the following basic root:

-F- ‘SPATIAL POSITION, LOCATION, ORIENTATION, DIRECTION’ Suffix form: -f-		
STEM 1		
1	BASIC	spatial position of an entity; to be situated/located at
2	CONTENT	The act of physically occupying a/the position/location in space; to physically occupy a/the position in space
3	CONSTITUTIVE	A/the position/location in space occupied by an entity; to be a/the position/location in space
4	OBJECTIVE	The entity situated/located at; to be the entity situated/located at
5	INTENTIVE	The purpose (i.e., desired outcome) for an act of being spatially positioned/located; to be spatially positioned/located for a specific purpose/reason. [CPT version = (to achieve) the desired outcome thereof]

STEM 2: Direction relative to the observer (i.e., linear directional path between an object and the observer)

STEM 3: Area, general vicinity of a particular position/location relative to the observer, whether 2-dimensional or 3-dimensional according to the situational context

INFORMAL stems refer to a circumstantial, context-of-the-moment position/location; FORMAL stems refer to a dedicated, fixed, (quasi-)permanent, “official” position/location. Roots (and suffixes) following the same model as **-F-** above include the following based on a 3-dimensional X/Y/Z axial grid:

- T**- ‘POSITION/LOCATION AT 0 / 0 / 0’, i.e., “right here”; at the center point of the observer’s 3-dimensional spatial frame of reference.
- TY**- ‘POSITION/LOCATION AT 0 / 0 / +Z’, ‘above the observer’
- TW**- ‘POSITION/LOCATION AT 0 / 0 / -Z’, ‘below the observer’
- P**- ‘POSITION/LOCATION AT 0 / +Y / 0’, ‘in front of the observer’
- K**- ‘POSITION/LOCATION AT 0 / -Y / 0’, ‘behind the observer’
- S**- ‘POSITION/LOCATION AT +X / 0 / 0’, ‘to the right of the observer’
- Z**- ‘POSITION/LOCATION AT -X / 0 / 0’, ‘to the left of the observer’

For mnemonic convenience, combinations of the above positional concepts are designated by corresponding combinations of the phonemes of the above X/Y/Z roots (-**TY**- and -**TW**- are shortened to -**Y** and -**W**):

- PY- 'POSITION/LOCATION AT $0 / +Y / +Z$ ', 'in front of and above the observer'
- PW- 'POSITION/LOCATION AT $0 / +Y / -Z$ ', 'in front of and below the observer'
- KY- 'POSITION/LOCATION AT $0 / -Y / +Z$ ', 'behind and above the observer'
- KW- 'POSITION/LOCATION AT $0 / -Y / -Z$ ', 'behind and below the observer'

- SP- 'POSITION/LOCATION AT $+X / +Y / 0$ ', 'to the right and in front of the observer'
- SK- 'POSITION/LOCATION AT $+X / -Y / 0$ ', 'to the right and behind the observer'
- SY- 'POSITION/LOCATION AT $+X / 0 / +Z$ ', 'to the right and above the observer'
- SW- 'POSITION/LOCATION AT $+X / 0 / -Z$ ', 'to the right and below the observer'
- ZB- 'POSITION/LOCATION AT $-X / +Y / 0$ ', 'to the left and in front of the observer'
- ZG- 'POSITION/LOCATION AT $-X / -Y / 0$ ', 'to the left and behind the observer'
- ZY- 'POSITION/LOCATION AT $-X / 0 / +Z$ ', 'to the left and above the observer'
- ZW- 'POSITION/LOCATION AT $-X / 0 / -Z$ ', 'to the left and below the observer'

- SPY- 'POSITION/LOCATION AT $+X / +Y / +Z$ ', 'to the right, in front, and above the observer'
- SPW- 'POSITION/LOCATION AT $+X / +Y / -Z$ ', 'to the right, in front, and below the observer'
- SKY- 'POSITION/LOCATION AT $+X / -Y / +Z$ ', 'to the right, behind, and above the observer'
- SKW- 'POSITION/LOCATION AT $+X / -Y / -Z$ ', 'to the right, behind, and below the observer'
- ZBY- 'POSITION/LOCATION AT $-X / +Y / +Z$ ', 'to the left, in front, and above the observer'
- ZBW- 'POSITION/LOCATION AT $-X / +Y / -Z$ ', 'to the left, in front, and below the observer'
- ZGY- 'POSITION/LOCATION AT $-X / -Y / +Z$ ', 'to the left, behind, and above the observer'
- ZGW- 'POSITION/LOCATION AT $-X / -Y / -Z$ ', 'to the left, behind, and below the observer'

- FT- 'POSITION BETWEEN/AMIDST/AMONG [IN A QUASI-PLANAR CONTEXT]', e.g., among others in a crowded room
- FK- 'POSITION BETWEEN/AMONG [IN A LINEAR UNIDIMENSIONAL CONTEXT]', e.g., between two others in a queue
- FP- 'INDEFINITE POSITION AMIDST/AMONG [IN A 3-DIMENSIONAL VOLUME]', e.g., among a sky full of balloonists
- VD- 'POSITION/STATE INTERTWINED/INTERMINGLED/INTERMIXED IN 2-DIMENSIONAL PLANAR CONTEXT [INDIVIDUAL COMPONENTS SEPARABLE/EXTRACTABLE]', e.g., the red marbles amidst a tabletop covered with different colored marbles
- VB- 'POSITION/STATE INTERTWINED/INTERMINGLED/INTERMIXED IN 3-DIMENSIONAL VOLUME [INDIVIDUAL COMPONENTS SEPARABLE/EXTRACTABLE]', e.g., the red marbles within a jar full of different colored marbles
- VZ- 'POSITION/STATE INTERTWINED/INTERMINGLED/INTERMIXED IN 2-DIMENSIONAL PLANAR CONTEXT [INDIVIDUAL COMPONENTS INSEPARABLE/PERMANENTLY COMBINED]', e.g., yellow paint spread onto a blue canvas to make a green area

-VG- ‘POSITION/STATE INTERTWINED/INTERMINGLED/INTERMIXED IN 3-DIMENSIONAL VOLUME [INDIVIDUAL COMPONENTS INSEPARABLE/PERMANENTLY COMBINED]’, e.g., sugar granules poured into a cup of coffee

7.3 Roots Designating Positionally-Defined Componential Parts Of A Whole

As seen above, Stem 3 of **-F-** type spatial position roots convey the meaning of “the area/vicinity around X”, so that the Stem 3 root of **-K-** above would mean “the area behind or in back (of)”. Nevertheless, as in Ithkuil, separate roots will exist to describe positionally-defined componential parts of an entity, to distinguish “the area behind or in back of” from “the rear/back part/side of” where the latter refers to a part of the entity itself. This allows one to distinguish phrases such as “behind the box” from “the back/rear side of the box.” Such positionally-defined componential roots are modeled on the following:

-FS- POSITIONALLY-DEFINED COMPONENTIAL PART’ Suffix form: -fs-		
STEM 1		
1	BASIC	positionally-defined part/section of an entity (e.g., side, front, top, bottom, rear, etc.); to be a positionally-defined part/section of an entity
2	CONTENT	The state/act of physically being/doing what a positionally-defined part/section of an entity is/does; to physically be/do what a positionally-defined part/section of an entity is/does
3	CONSTITUTIVE	A/the (relative) spatial position/location which defines/delineates a part/section of an entity; to be a/the spatial position/location which defines/delineates a part/section of an entity
4	OBJECTIVE	The entity of which the componential part/section is a part; to be the entity of which the componential part/section is a part
5	INTENTIVE	The purpose (i.e., desired outcome) for an act of being a positionally-defined part/section of an entity; to be a positionally-defined part/section of an entity for a specific purpose/reason. [CPT version = (to achieve) the desired outcome thereof

STEM 2: Inalienable, inherent, inseparable, “built-in” component part/section in relation to the whole

STEM 3: Alienable, separable, detachable component part/section in relation to the whole

INFORMAL stems refer to a circumstantial, context-of-the-moment position/location; FORMAL stems refer to a dedicated, fixed, (quasi-)permanent, “official” position/location.

Roots (and suffixes) following the same model as **-FS-** above include the following:

- CL-** ‘LINEAR UNI-DIMENSIONAL MIDDLE, CENTER [AS SEEN PARALLEL TO LONG AXIS OF ENTITY (OR HEIGHT-AXIS OF A “TALL” ENTITY)]’
- CR-** ‘LINEAR UNI-DIMENSIONAL MIDDLE, CENTER [AS SEEN PERPENDICULAR TO LONG AXIS OF ENTITY (OR HEIGHT-AXIS OF A “TALL” ENTITY)]’
- ŽL-** ‘PLANAR 2-DIMENSIONAL MIDDLE, CENTER [RUNNING VERTICALLY AND LATERALLY PARALLEL TO LONG (OR TALL) SIDE OF ENTITY]’
- ŽR-** ‘PLANAR 2-DIMENSIONAL MIDDLE, CENTER [RUNNING VERTICALLY PARALLEL BUT LATERALLY PERPENDICULAR TO LONG (OR TALL) SIDE OF ENTITY]’
- ŽŽ-** ‘PLANAR 2-DIMENSIONAL MIDDLE, CENTER [RUNNING VERTICALLY AND LATERALLY PERPENDICULAR TO LONG (OR TALL) SIDE OF ENTITY]’
- CC-** ‘CENTER POINT OF AN ENTITY, i.e., the zero-dimensional point most equidistant from all points on the periphery or surface of an entity
- NGR-** ‘SIDE/FLANK OF AN ENTITY’

- LPC- ‘FRONT PART OF AN ENTITY [RELATIVE TO ITS DIRECTIONAL ORIENTATION OR PRIMARY EXTERNAL INTERFACE]’
- RKÇ- ‘REAR/BACK PART OF AN ENTITY [RELATIVE TO ITS DIRECTIONAL ORIENTATION OR PRIMARY EXTERNAL INTERFACE]’
- NGY- ‘TOP/PEAK/SUMMIT OF AN ENTITY [RELATIVE TO ITS TYPICAL ORIENTATION UNDER GRAVITY]’
- MBW- ‘BOTTOM/FOUNDATION OF AN ENTITY [RELATIVE TO ITS TYPICAL ORIENTATION UNDER GRAVITY]’
- LGY- ‘UPPER PART/“HALF” OF AN ENTITY [RELATIVE TO ITS TYPICAL ORIENTATION UNDER GRAVITY]’
- RBY- ‘LOWER PART/“HALF” OF AN ENTITY [RELATIVE TO ITS TYPICAL ORIENTATION UNDER GRAVITY]’
- ST- ‘INTERIOR/INTERNAL PART/“INSIDE(S)”/“INNARDS” OF AN ENTITY’
- ZV- ‘EXTERIOR/EXTERNAL SURFACE/“OUTSIDE”/“SKIN” OF AN ENTITY’

The following roots relating to component parts/features of an entity are also modeled on the same root **-FS-**, even though they do not specify a particular spatial position relative to the whole:

- NZD- ‘EXTERNAL POINT-LIKE OUTWARD-FACING VERTEX/“CORNER” OF AN ENTITY’
- ZJ- ‘EXTERNAL QUASI-LINEAR EDGE OF AN ENTITY’
- ÑZR- ‘EXTERNAL QUASI-LINEAR JOINING OF SURFACES/“SEAM” OF AN ENTITY’
- XF- ‘EXTERNAL ATTACHMENT POINT OR FASTENING MECHANISM OF AN ENTITY’, i.e., handle, hook, latch, velcro patch, knob, peg, etc.
- ÇTL- ‘ROTATIONAL OR BENDING/SWIVEL POINT/JOINT OF AN ENTITY’

7.4 Additional Affixes for Use With Spatial and Translative Motion Roots

The following new affixes can be used with both motion and positional roots to provide added detail and specificity. Several of these affixes (e.g., ZZG, SPR, CRC), when combined with roots of motion, take the place of dedicated roots in Ithkuil. For example, the ZZG affix below combined with directional motion roots obviates the need for a root meaning ‘veer/switchback’, while the the CRC affix below obviates the need for roots describing corkscrew-like or even spiral paths (if augmented by certain Modulative affixes).

-jj	BDM — IN SITU BODILY MOVEMENTS (augment with Type 3 ITN, RPN and/or Modulative suffixes if necessary)
1	with arms or non-ambulatory appendages waving/bending
2	with arms or non-ambulatory appendages making jerking, stop & start, choppy movements
3	with arms or non-ambulatory appendages making (seemingly) random/spasmodic/out-of-control movements
4	with main body of object/entity twisting or bending
5	with main body of object/entity making jerking, stop & start, choppy movements

6	with main body of object/entity making (seemingly) random/spasmodic/out-of-control movements
7	with legs or ambulatory appendages waving/bending
8	with legs or ambulatory appendages making jerking, stop & start, choppy movements
9	with legs or ambulatory appendages making (seemingly) random/spasmodic/out-of-control movements

-žd	ZZG — Secondary Zig-Zag Motion (augment with Type 3 ITN, RPN and/or Modulative suffixes if necessary)
1	short-period 2-D zig-zag motion on parallel-vertical plane relative to the direction of travel
2	varying-period 2-D zig-zag motion on parallel-vertical plane relative to the direction of travel
3	long-period 2-D/planar zig-zag motion on parallel-vertical plane relative to the direction of travel
4	short-period 2-D zig-zag motion on oblique plane relative to the direction of travel
5	varying-period 2-D zig-zag motion on oblique plane relative to the direction of travel
6	long-period 2-D/planar zig-zag motion on oblique plane relative to the direction of travel
7	short-period 2-D zig-zag motion on parallel-horizontal plane relative to the direction of travel
8	varying-period 2-D zig-zag motion on parallel-horizontal plane relative to the direction of travel
9	long-period 2-D/planar zig-zag motion on parallel-horizontal plane relative to the direction of travel

-bgy	SNW — Secondary Sine Wave-like Motion (augment with Type 3 ITN, RPN and/or Modulative suffixes if necessary)
1	short-period 2-D sine wave-like motion on parallel-vertical plane relative to the direction of travel
2	varying-period 2-D sine wave-like motion on parallel-vertical plane relative to the direction of travel
3	long-period 2-D/planar sine wave-like motion on parallel-vertical plane relative to the direction of travel
4	short-period 2-D sine wave-like motion on oblique plane relative to the direction of travel
5	varying-period 2-D sine wave-like motion on oblique plane relative to the direction of travel
6	long-period 2-D/planar zig-zag motion on oblique plane relative to the direction of travel
7	short-period 2-D sine wave-like motion on parallel-horizontal plane relative to the direction of travel
8	varying-period 2-D sine wave-like motion on parallel-horizontal plane relative to the direction of travel
9	long-period 2-D/planar sine wave-like motion on parallel-horizontal plane relative to the direction of travel

-vgw	SPR — Spin/Rotation of an Object (augment with Type 3 ITN, RPN and/or Modulative suffixes if necessary)
1	short-period (i.e., fast) spinning motion on parallel-vertical plane relative to the direction of travel (i.e., forward-rolling or pitch-like tumbling motion)

2	varying-period (i.e., variable-speed) spinning motion on parallel-vertical plane relative to the direction of travel (i.e., forward-rolling or pitch-like tumbling motion)
3	long-period (i.e., slow) spinning/revolving motion on parallel-vertical plane relative to the direction of travel (i.e., forward-rolling or pitch-like tumbling motion)
4	short-period (i.e., fast) spinning motion on perpendicular plane relative to the direction of travel (i.e., spiral vector in direction of travel)
5	varying-period (i.e., variable-speed) spinning motion on perpendicular plane relative to the direction of travel (i.e., spiral vector in direction of travel)
6	long-period (i.e., slow) spinning/revolving motion on perpendicular plane relative to the direction of travel (i.e., spiral vector in direction of travel)
7	short-period (i.e., fast) spinning motion on parallel-horizontal plane relative to the direction of travel (i.e., horizontally revolving/rotating)
8	varying-period (i.e., variable-speed) spinning motion on parallel-horizontal plane relative to the direction of travel (i.e., horizontally revolving/rotating)
9	long-period (i.e., slow) spinning/revolving motion on parallel-horizontal plane relative to the direction of travel (i.e., horizontally revolving/rotating)

-mky	CRC — Circular Motion/Path of an Object (augment with Type 3 ITN, RPN and/or Modulative suffixes if necessary)
1	while traveling in (a) short-period (i.e., fast/small) circle(s) on a plane perpendicular to the direction of travel (i.e., resulting in a corkscrew-like path)
2	while traveling in (a) short-period (i.e., fast/small) circle(s) on a plane vertically parallel to the direction of travel (i.e., where X rolls or tumbles along, e.g., a ball or a tumbleweed)
3	while traveling in (a) short-period (i.e., fast/small) circle(s) on a plane horizontally parallel to the direction of travel (i.e., resulting in a path of moving epi-cycles / “curlycues”)
4	while traveling in (a) mid-period (i.e., medium-sized/paced) circle(s) on a plane perpendicular to the direction of travel (i.e., resulting in a corkscrew-like path)
5	while traveling in (a) mid-period (i.e., medium-sized/paced) circle(s) on a plane vertically parallel to the direction of travel (i.e., where X rolls along, e.g., a ball or tumbleweed)
6	...while traveling in (a) mid-period (i.e., medium-sized/paced) circle(s) on a plane horizontally parallel to the direction of travel (i.e., a path of moving epi-cycles / “curlycues”)
7	...while traveling in (a) long-period (i.e., slow/large) circle(s) on a plane perpendicular to the direction of travel (i.e., resulting in a corkscrew-like path)
8	...while traveling in (a) long-period (i.e., slow/large) circle(s) on a plane vertically parallel to the direction of travel (i.e., where X rolls or tumbles along, e.g., a ball or tumbleweed)
9	...while traveling in (a) long-period (i.e., slow/large) circle(s) on a plane horizontally parallel to the direction of travel (i.e., resulting in a path of moving epi-cycles / “curlycues”)

-šgw	SDM — Miscellaneous In-Situ Motions of an Object (augment with Type 3 ITN, RPN and/or Modulative suffixes if necessary)
1	...while changing/re-arranging one’s bodily shape/formation/outline/configuration
2	...while making/undergoing sudden paroxysmic, spasmodic jumping/leaping/spiking/lurching movement(s) --> while shaking
3	...while expanding in overall-size (keeping all dimensions approximately proportionate to each other)
4	...while shrinking/contracting in overall-size (keeping all dimensions approximately proportionate to each other)
5	...while expanding in length
6	...while expanding in width/girth
7	...while expanding in height
8	...while extending (an) appendage(s) or protrusion(s) outward
9	...while contracting (an) appendage(s) or protrusion(s) inward

The following three affixes allow one to provide information similar to Hilbert-space coordinates in physics, i.e., the internal positional orientation of an object relative to an external observer, secondary to its overall motion through space

-rky	IPE — Internal Positional Orientation of a (Quasi-)Long Object Having an Orientational “End” or “Ends”
1	with X’s (an) orientational “end” facing toward the observer
2	with X’s orientational “ends” at an oblique angle to, but equidistant from (i.e., neither facing toward or away from) the observer
3	with X’s (an) orientational “end” pointing perpendicularly upward/upright/vertically upward relative to the observer
4	with X’s orientational “end(s)” changing position relative the observer
5	with the observer being unable to discern/determine the position of X’s orientational “end(s)” relative to the observer
6	with X’s orientational “ends” at an oblique angle to the observer with one end closer to observer than the other
7	with X’s orientational “end” pointing perpendicularly downward/upside-down/vertically downward relative to the observer
8	with X’s orientational “end(s)” pointing horizontally sideways relative to the observer (i.e., “lying flat with ends pointing left and right”)
9	with X’s (an) orientational “end” facing away from the observer

-rpy	PFE — Internal Positional Orientation of an Object Having an Orientational “Face” or “Front”
1	with X’s orientational “face” or “front” facing toward the observer
2	with X’s orientational “face” or “front” at an oblique angle to (i.e., neither facing toward or away from) the observer
3	with X’s orientational “face” or “front” pointing perpendicularly upward/upright/vertically upward relative to the observer
4	with X’s orientational “face” or “front” changing position relative the observer
5	with X’s internal orientation relative to the observer indeterminable due to the (seeming) lack of an orientational “face” or “front”
6	with the observer being unable to discern/determine the position of X’s orientational “face” or “front” relative to the observer
7	with X’s orientational “face” or “front” pointing perpendicularly downward/upside-down/vertically downward relative to the observer
8	with X’s orientational “face” or “front” pointing horizontally sideways relative to the observer
9	with X’s orientational “face” or “front” facing away from the observer

-rty	PFL — Internal Positional Orientation of a (Quasi-)Flat Object
1	with X’s “front/top” side visible to the observer but largely pointed away at a severe angle
2	with X’s “front/top” side visible to the observer but pointed away at an oblique angle
3	with X’s “front/top” side directly facing the observer
4	with X’s orientation being “edge-on” and at an oblique angle relative to the observer
5	with X’s orientation being “edge-on” and horizontal relative to the observer
6	with X’s orientation being “edge-on” and vertical relative to the observer
7	with X’s “back/bottom” side directly facing the observer
8	with X’s “back/bottom” side visible to the observer but somewhat pointed away at an oblique angle
9	with X’s “back/bottom” side visible to the observer but largely pointed away at a severe angle

8.0 New Affix For Use with Levels

This suffix is applied to the “Y” noun to which something is compared (the “than Y”). The “Y” noun is declined into the COMPARATIVE Case.

-mt	SCL: Standards for Comparison for Use with Levels
1	where X was previously less M (or M 'd less) than Y
2	where X was previously more M (or M 'd more) than Y
3	where X is still less M (or M 's less) than Y
4	where X is still more M (or M 's more) than Y
5	where X is now less M (or M 's less) than Y
6	where X is now more M (or M 's more) than Y
7	where X was previously as M (or M 'd as much) as Y
8	where X 's previous state of M-ness (or level of M-ing) relative to Y is unknown
9	where X 's previous state of M-ness (or level of M-ing) relative to Y is inapplicable or irrelevant

9.0 Verifiability/Trustworthiness Affix For Use with Illocution

-lk	VRF: Verifiability of Info & Trustworthiness of its Source
1	source trustworthy, info verifiable
2	source trustworthy, verifiability of info unknown
3	source trustworthy, info not verifiable
4	trustworthiness of source unknown, but info verifiable
5	trustworthiness of source unknown, and verifiability of info unknown
6	trustworthiness of source unknown, and info not verifiable
7	source untrustworthy, but info verifiable
8	source untrustworthy, and verifiability of info unknown
9	source untrustworthy, and info not verifiable

10.0 Two New Systemic Suffixes

The following two suffixes can be used in conjunction with the specialized **-üa/-üe C_A** suffixes to specify structures/networks/systems of increasing complexity/dynamism. For each degree below, use of Type 2 V_XC_S affixes indicates that the superset establishes a new gestalt (i.e., a higher-order pattern/configuration more cognitively simple or salient than the lower order pattern/configuration). The first of these suffixes is a redesign of Ithkuil's SPS Superset suffix:

-rs	SPS — Superset
1	configurative set of X where the number of individual members/nodes is sufficient to give rise to (sub-)patterns or potential sub-sets within the set
2	2nd-level superset containing X based on additional layer of infrastructure or additional order of complexity
3	Higher-order superset containing X based on additional layer of infrastructure or additional order of complexity and the set's internal sub-sets operate (quasi-) independently
4	Higher-order superset containing X based on additional layer of infrastructure or additional order of complexity and the set's internal sub-sets operate inter-dependently, i.e., the superset is now a complex system
5	High-order super-system, consisting of multiple levels of interdependent systems; the super-system manifests synergistic/emergent effects/properties
6	Same as Degree 4 except that the additional infrastructure/complexity gives rise to synergistic/emergent effects/properties
7	Same as Degree 3 except that the additional infrastructure/complexity gives rise to synergistic/emergent effects/properties
8	Same as Degree 2 except that the additional infrastructure/complexity gives rise to synergistic/emergent effects/properties
9	Same as Degree 1 except that the additional infrastructure/complexity gives rise to synergistic/emergent effects/properties

The second suffix establishes and describes networks, systems and their behavior:

-dd	SYS — Networks & Systems
1	X as an entity/element within a larger, interconnected/interdependent network of elements, the whole of which forms a niche/milieu/context/situation/setting
2	Same as Degree 1 where the complexity or natural configuration of the network establishes/constitutes a (quasi-)mechanistic system
3	Same as Degree 1 where the complexity or natural configuration of the network establishes/constitutes a dynamic/feedback-driven/self-sustaining system
4	Same as Degree 1 where the complexity or natural configuration of the network establishes/constitutes an autopoietic system
5	A feedback-driven/self-sustaining/autopoietic system based on X whose dynamism complexity generates/manifests synergistic/emergent effects/properties
6	Same as Degree 9 where the complexity or natural configuration of the network establishes/constitutes an autopoietic system
7	Same as Degree 9 where the complexity or natural configuration of the network establishes/constitutes a dynamic/feedback-driven/self-sustaining system
8	Same as Degree 9 where the complexity or natural configuration of the network establishes/constitutes a (quasi-)mechanistic system
9	an individual entity/element contextually bound to or associated with X within a larger, interconnected/interdependent network of elements, the whole of which forms a niche/milieu/context/situation/setting

Combining the above two suffixes with various configurations, affiliations, specifications, designations, contexts, as well as other suffixes (e.g., the Semantic Network suffix) would generate the following examples of usage:

X = ‘entertaining diversion/amusement’ would then give rise to a series such as ‘playground’ → ‘carnival’ → ‘amusement park’ → ‘adventure park’

X = ‘(living) bodily tissue’ → ‘bodily organ’ → ‘bodily system (e.g., musculo-skeletal, endocrine, immune, reproductive, etc.)’ → ‘living organism’ → ‘community/colony (of living organisms)’ → ‘biome’

X = ‘(natural) physical entity (i.e., thing existing/residing in natural setting)’ → ‘element of nature (including living and non-living entities)’ → ‘ecological niche; local eco-system’ → ‘Nature’ → ‘Gaia’

11.0 Miscellaneous Affixes

-rx	LET: ‘to let X be/happen/manifest. . .’
1	by deliberate inaction, not doing anything to prevent/stop it
2	by acting against one’s own interests
3	by deliberately inadequate preventative measures
4	by removal of hindrance/blockage, cessation of preventative measure
5	by one’s granting of permission
6	by unwitting/unknowing inaction, unwittingly not doing anything to prevent/stop it
7	by inadvertently/accidentally/unwittingly inadequate preventative measures
8	by underestimating, misjudging, failing to anticipate the situation leading to inadequate preventative measures
9	despite attempting to prevent it

-sm	ASQ: Aspectual Sequencing
1	before X (before start)
2	about to X / right before X (immediately before beginning)
3	start X-ing / the start or beginning of X
4	just started X-ing / right after the start of X
5	in the middle of X-ing / the middle part of X
6	about to stop X-ing / right before the end of X
7	stop X-ing / the end of X
8	just stopped X-ing / right after X (immediately after end)
9	after X (after the end)

-dv	EMU: Emulation
1	what is inferred to be X; seeming X, apparent X, what must be X
2	what is assumed/presumed to be X; assumed X, presumed X
3	what is utilized as (if it were) X; de-facto X
4	what is designated as being/doing X; designated X, entity named to be X
5	what is turned into, made into X; newly-transformed X, what-once-was-not-but-now-is X
6	what is treated as being, passed off as, asserted to be X (even though it is not); so-called X
7	what would be X (if some other condition/prerequisite were true); would-be X
8	what is hoped to be X; hoped-for X
9	what is wished to be X; wished-for X

-ç	DCD: Deictic Demonstratives
1	this X (at/by/near speaker); the X under discussion; the X at hand; in this manner/way, in the manner at hand, in said manner
2	that X (at/by/near addressee); the X at/by/near the addressee; in that manner/way, thus
3	that X yonder (away from both speaker and addressee); in that manner, thus
4	the previously mentioned X, the X known to speaker and addressee, the contextually specific/relevant/identified X, "the" X; in the manner under discussion or contextually known
5	[head of relative clause and/or the formative to which a later Obviative PRA refers]
6	[same as Degree 4 + head of relative clause and/or the formative to which a later Obviative PRA refers]
7	[same as Degree 3 + head of relative clause and/or the formative to which a later Obviative PRA refers]
8	[same as Degree 2 + head of relative clause and/or the formative to which a later Obviative PRA refers]
9	[same as Degree 1 + head of relative clause and/or the formative to which a later Obviative PRA refers]

-kt	IDF: Identificative
1	any (number of) [random selection - NOT quantitative/partitive “any”]; in any manner
2	almost any; in almost any (number of) way(s)
3	some X or other; in some way or other
4	some certain X ; in some certain way [identity unknown]
5	this X or that; a certain X or more; in this way or that [identity almost known – choices limited]
6	a certain / a particular; in a certain or particular way [identity ascertainable]
7	presumably this/that; apparently this X ; in that way presumably [tentatively identified]
8	a certain / a particular; in a certain or particular way [identity presumably known to addressee but not to speaker]
9	a certain / a particular; in a certain or particular way [identity known to speaker but (potentially) not to addressee]

-zm	ITG: Integrity of a Configurative Set
1	complete, whole, full [= the entirety of an expected/established/conventionalized configurative set without any members/parts/segments missing or removed]
2	functionally complete, whole, full [= members/parts/segments missing or removed from the expected/established/conventionalized set but functionality still OK]
3	nearly complete, nearly whole, nearly full [= some members/parts/segments missing or removed, possibly affecting the functionality/purpose of the whole somewhat]
4	somewhat incomplete, somewhat partial [= some members/parts/segments missing or removed, noticeably affecting the functionality/purpose of the whole]
5	partial [= members/parts/segments missing or removed from the expected/established configurative set so that the functionality/purpose/effect is compromised]
6	fairly incomplete, mostly incomplete [= members/parts/segments missing or removed so that the functionality/purpose/effect is significantly compromised]
7	incomplete, lacking [= members/parts/segments missing or removed to the extent that the functionality/purpose/effect is not achievable or possible]
8	decimated [= the integrity of the expected/established/conventionalized configurative set has been compromised to the point of unrecognizability/uselessness]
9	disorganized, unorganized, unsystematic [= no recognizable associations between members of a group of entities exist that would/could constitute a configurative set]

Examples of use: *a **full** meal, the **whole** library, a **partial** list, an **incomplete** story, **There are holes in** his account of what happened, the **decimated** platoon, An old man whose body **is falling apart**, a **partially** rebuilt city.*

12.0 ROOTS FOR EMOTIONAL STATES

The author has arranged individual emotional states by threes to create the three stems per root, based on similarity or a variation in intensity.

INFORMAL stems refer to the emotional state as affective (unwilled, involuntary, spontaneous, autonomic), while **FORMAL** stems refer to the emotion as consciously/deliberately willed, its verbal meaning being ‘to work oneself up deliberately into a [particular] emotional state’. Note that this use of FORMAL designation for many roots renders concepts that will often have little semantic utility in a real-world sense (e.g., the notion of *??‘deliberately/consciously willing oneself into a state of emotional shock’*); nevertheless, such forms are available in the language for the sake of lexico-morphological uniformity and easier memorization.

Roots for emotions are modeled after the following “generic” root referring to the concept of emotion itself.

-MV- ‘EMOTION(AL STATE)’		
STEM 1		
1	BSC	non-volitional (affective) emotional state; to be in a non-volitional (affective) emotional state (both internal, psychological manifestations and external, visible manifestations)
2	CTE	the internal psychological, and proprioceptive manifestation(s) of being in such a state; to experience such manifestations
3	CSV	the “look” of being in such a state. i.e., the outward (visible or externally discernible) manifestation of being an emotional state; to have the “look” of, (i.e., outwardly manifest the signs of) being in an emotional state
4	OBJ	entity/object/idea/situation that has triggered an emotional state; to be the entity/object/idea/situation that has triggered an emotional state [This should be carefully distinguished from the FOUNDATIONAL meaning below.]
5	INT	the state of being driven/controlled/motivated to act/do something by being in an emotional state; to be driven to (an) act based of one’s emotional state CPT=the consequential act carried out due to being in an emotional state; to carry out an act based on being in an emotional state

STEM 2
A corollary, variant, or associated emotional state to Stem 1.
STEM 3
A corollary, variant, or associated emotional state to Stems 1 and 2, usually more intense in degree or with greater physical/behavioral manifestations or effect on others

In addition to over 100 emotion roots, a specialized Emotion V_xC_S affix has been created to allow for the creation of positive, ambivalent, or negative emotional states associated with any semantically appropriate stem. Several of the more complex or obscure emotion roots from Ithkuil will instead be lexicalized in this language using this new Emotion affix. Details of this suffix are provided following the listing of emotion roots and their stems given below:

12.1 Desirable/Positive Emotions

green = will also be a bias category

-TKY-	1. feel(ing of) jollity/merriment/delight 2. feel(ing of) happiness/joy 3. feel(ing of) jubilation
-RPL-	1. feel(ing of being) upbeat / in a good mood 2. feel(ing of) being spirited, feeling “alive”, feeling uplifted 3. feel(ing of) mental/spiritual youthfulness and joi-de-vivre
-PTL-	1. feel(ing of) gleefulness/fun/amusement 2. feel(ing of) free-spiritedness/frivolity 3. feel(ing of) playfulness, gregariousness
-RTK-	1. feel(ing of) sympathy / commiseration 2. feel(ing of) compassion 3. feel(ing of) empathy
-NTK-	1. feel(ing of being) hopeful; anticipation of a beneficial outcome 2. feel(ing of being) encouraged 3. feel(ing of) optimism
-MY-	1. feel(ing of being) grateful, thankful 2. feel(ing of being) honored/privileged 3. feel(ing of being) beholden, wanting to give back
-RKY-	1. feel(ing of being) emotionally open/available/warm/inviting 2. feel(ing of) amiability/welcoming/accommodating/cordial 3. feel(ing of) amicability, friendliness, congeniality
-KTR-	1. feel(ing of being) resolved, resolute, determined against odds 2. feel(ing of) audacity; feel audacious 3. feel(ing of) tenacity; feel tenacious
-TTL-	1. feel(ing of) tolerance 2. feel(ing of being) accepting 3. feel(ing of being) trusting

-SMW-	1. feel(ing of) calm and rationality 2. feel(ing of) serenity, feel(ing of being) mentally/emotionally “refreshed” 3. feel(ing of) emotional well-being/peace of mind
-ZZ-	1. feel(ing of) enjoyment 2. feel(ing of) excitement 3. feel(ing of) thrill, “whee!”
-TPL-	1. feel(ing of being) self-satisfied/pleased with one self/gratified 2. feel(ing of) pride in oneself/self-pride 3. feel(ing of) self-confidence, self-esteem
-VTL-	1. feel(ing of) being pleased, feel(ing of) emotional gratification 2. feel(ing of) satisfaction, feel(ing) that all is going well/has gone well 3. feel(ing of) deep satisfaction in one’s good fortune
-LKP-	1. feel(ing of) relief/reprieve from a burden or from anxiety 2. feel(ing of) personal independence/autonomy/self-determination 3. feel(ing of) freedom
-LTPW-	1. feeling of peace of mind due to achieving solitude 2. peaceful euphoria of being alone with Nature’s beauty 3. serenity through solitude as a character trait
-RTR-	1. kindness, warm-heartedness 2. benevolent, helpful, beneficent 3. kindness, magnanimity, generosity
-GZZ-	1. feel(ing of) elation, feel(ing of being) on an emotional “high” 2. feel(ing of) euphoria, bliss 3. feel(ing of) ecstasy
-MPR-	1. feel(ing of) enthusiasm 2. feel(ing of) enthusiastic anticipation/looking forward to / feel one can’t wait for 3. feel(ing of being) lucky/auspicious/propitious

12.2 Emotions Associated With Personal Relationships/Intimacy

-RKW-	<ol style="list-style-type: none"> 1. feel(ing of) romantic love 2. feel(ing of) filial love 3. feel(ing of) love for an institution, country, place, ideal, or other abstraction
-KPL-	<ol style="list-style-type: none"> 1. feel(ing of) aesthetic appreciation for something 2. feel(ing of) personal appreciation, admiration 3. feel(ing of being) supportive / feel(ing of) pride in another or others
-LTW-	<ol style="list-style-type: none"> 1. feel(ing of) fondness, affection 2. feel(ing of) a bond of fellowship, comradeship 3. feel(ing of) friendship
-RPY-	<ol style="list-style-type: none"> 1. feel(ing of being) part of something, feeling of belonging 2. feel(ing of) familiarity, feel(ing of being able to be) one's true self due to sense of familiarity with surroundings and the people present 3. feel(ing of) coziness, "home-sweet-home" feeling
-VPL-	<ol style="list-style-type: none"> 1. feel(ing of) surprise, floating-on-air, and joy when someone you love romantically tells you they love you in return 2. feel(ing of) emotional warmth plus relief plus pride plus awe at having reached the point in a relationship with another person where you truly understand and trust each other 3. feel(ing of) emotional solidity and depth of the mutual bond felt by persons in a longstanding, successful romantic relationship.
-TKR-	<ol style="list-style-type: none"> 1. feel(ing of being) worthy, deserving 2. feel(ing of) appreciated, recognized, honored 3. feel(ing of being) loved, adored, worshipped

-LPY-	<ol style="list-style-type: none"> 1. feel(ing of) gladness (= pleasure at other's happiness or good fortune) 2. feel(ing of) cheerfulness (= light-hearted good will toward others) 3. feel(ing of) desire to spread cheer among others
-RPKR-	<ol style="list-style-type: none"> 1. feel(ing of) embarrassment at receiving flattery 2. feel(ing of being) beholden or indebted to someone 3. feel(ing of being) humble, humility
-LTY-	<ol style="list-style-type: none"> 1. feel(ing of) tenderness/ protectiveness 2. feel(ing of being) nurturing/caring/nurse-like 3. feel(ing of) maternal- or paternal-love; love based on raising/nurturing/caring for someone
-RPR-	<ol style="list-style-type: none"> 1. feel(ing of) devotion 2. feel(ing of) personal loyalty 3. feel(ing of) allegiance/fealty
-MTL-	<ol style="list-style-type: none"> 1. feel(ing of) poignancy (= "aaw" reaction to an event characterized by irresistible cuteness) 2. feel(ing of) poignancy, feeling touched or moved by witnessing an act/event of compassion/tenderness/love, etc.) 3. feel(ing of having) the capacity to be easily moved
-LTR-	<ol style="list-style-type: none"> 1. feel(ing of being) romantic (i.e., preoccupied with idealized, fabulous notions of life, adventure, and love) 2. feel(ing of having) a head-in-the-clouds fantasy feeling, "dreaming" 3. feel(ing of being) lost in one's fantasies and daydreams

12.3 Ambivalent Emotions

-CG-	<ol style="list-style-type: none"> 1. feel(ing of) pity 2. feel(ing of) mercy 3. feel(ing of) charitableness, altruism, self-sacrifice
-ZT-	<ol style="list-style-type: none"> 1. feel(ing of) curiosity 2. feel(ing of) interest 3. feel(ing of) intrigued

-KŠŠ-	<ol style="list-style-type: none"> 1. feel(ing of being) judgmental 2. feel(ing of) contempt; morally superior feeling + disgust, anger, or resentment 3. feel(ing of) vindictiveness, feeling of an "injustice collector"
-KSD-	<ol style="list-style-type: none"> 1. feel(ing of) bittersweetness 2. feel(ing of) solace/comfort in the face of sadness or grief 3. feel(ing of) forbearance/fortitude/inner strength in the face of sadness

-ŽČ-	<ol style="list-style-type: none"> 1. feel(ing of) wistfulness/longing/yearning 2. feel(ing of) sentimentality/nostalgia 3. feel(ing of) saudade
-KFF-	<ol style="list-style-type: none"> 1. feel(ing of) nonchalance/indifference/disinterest/incuriosity 2. feel(ing of) disdain/dismissiveness 3. feel(ing of) apathy
-GŽT-	<ol style="list-style-type: none"> 1. feel(ing of) masochistic pleasure derived from being in pain 2. feel(ing of) masochistic pleasure derived from being humiliated 3. feel(ing of) masochism as a personality trait
-PSB-	<ol style="list-style-type: none"> 1. feel(ing of being) whimsical, care-free 2. feel(ing of being) capricious, feel like playing pranks 3. feel(ing of being) wanton, wayward
-FFSS-	<ol style="list-style-type: none"> 1. feel(ing of) passion 2. feel(ing of) infatuation/obsessiveness 3. feel(ing of) worship/adoration
-DK-	<ol style="list-style-type: none"> 1. feel(ing of) contemplation; feel contemplative 2. feel(ing of) pensiveness; feel pensive 3. feel(ing of) brooding; feel in brooding mood
-KLL-	<ol style="list-style-type: none"> 1. feel(ing of) surprise 2. feel(ing of) amazement, astonishment 3. feel(ing of) awe, wonder
-CD-	<ol style="list-style-type: none"> 1. feeling of love for existence / pantheistic love 2. feeling of inherent “connection” to or oneness with the universe through space and time 3. spirituality as a character trait / having a sense of connection and deep awareness of one’s hallowed place in the scheme of the universe
-MMÇÇ-	<ol style="list-style-type: none"> 1. feel(ing of) sudden clarity/understanding upon discovery of the solution to a problem/puzzle/mystery — the “a-ha!” moment 2. feel(ing of) personal triumph, that one has conquered a personal challenge 3. feel(ing of) victory, that one has vanquished an enemy
-JK-	<ol style="list-style-type: none"> 1. feel(ing of) willingness to take a risk, steeling one’s nerves against 2. brave, fearless 3. feel(ing of) intrepidity, courageousness

-BZT-	<ol style="list-style-type: none"> 1. feel(ing of) determination/earnestness 2. feel(ing of) eagerness/fervor, feel driven 3. feel(ing of) zeal/zealotry/fanaticism
-GZP-	<ol style="list-style-type: none"> 1. feel(ing of) emotionally reckless, impetuous, feel like taking risks 2. feel(ing of) mischievousness/devilishness/spontaneous non-conformity 3. feel(ing of) exhilaration / feeling of fear plus thrill at taking risk
-VZK-	<ol style="list-style-type: none"> 1. craving (i.e., a greedy hunger for food, adventure, power, money, salacious or forbidden experiences, etc.) 2. sexual lust 3. greed / avarice
-KSG-	<ol style="list-style-type: none"> 1. alert, senses-at-the-ready 2. feeling of wariness/suspicion (that something adverse may happen); be/feel wary, suspicious 3. feeling of watchfulness/vigilance; be/feel watchful/vigilant
-ZZJ-	<ol style="list-style-type: none"> 1. feel(ing of) fascination; be/feel fascinated 2. feel(ing of) enthrallment; be/feel enthralled 3. feel(ing of) entrancement, rapture; be/feel rapturous
-GZT-	<ol style="list-style-type: none"> 1. feel(ing of) impulsiveness; feel impulsive 2. feel(ing of) inspiration; feel inspired 3. feel(ing of) compulsion; feel compelled
-ÇÇÇ-	<ol style="list-style-type: none"> 1. feel(ing of being) startled 2. feel(ing of being) dazzled/astounded/spellbound, “wow!” 3. feel(ing of being) aghast/dumbfounded, feel stupefaction/stupor
-BZK-	<ol style="list-style-type: none"> 1. open to adventure/hungry for (new) experience 2. feeling the itch to travel; feel the call of faraway places (German <i>Fernweh</i>) 3. bittersweet loneliness of not being able to share the joy of an adventure with others
-ČB-	<ol style="list-style-type: none"> 1. feel(ing of being) daring, feel(ing) like taking a risk 2. (have) the nerve to, (have) the “cheek” to 3. feel(ing of) dauntlessness, “devil-may-care” attitude
-PSG-	<ol style="list-style-type: none"> 1. feel(ing of) smugness 2. feel(ing of) conceit, feel(ing of being) full of oneself 3. feel(ing of) narcissism, self-aggrandizement

12.4 Undesirable/Negative Emotions

-KSK-	<ol style="list-style-type: none"> 1. annoyance/irritation (caused by external event/state/situation/person) 2. anger, ire 3. rage, fury; feel furious
-JG-	<ol style="list-style-type: none"> 1. disappointment, feel let down 2. disillusion 3. jaded, cynical
-CT-	<ol style="list-style-type: none"> 1. sadness/grief 2. sorrow/lamentation 3. woefulness/despair/desolation
-PŠŠ-	<ol style="list-style-type: none"> 1. feel(ing of being) misunderstood 2. feel(ing of) indignation/being offended/feel insulted 3. feel(ing of) resentment, bitterness, being treated unfairly
-FSP-	<ol style="list-style-type: none"> 1. feel(ing of) frustration 2. feel(ing of being) disconcerted, defeated 3. feel(ing of) exasperation
-MVR-	<ol style="list-style-type: none"> 1. puzzlement as to why one is uncomfortable in a situation 2. feeling that something is wrong with a situation 3. restlessness/dissatisfaction that something is wrong w/ one's life
-RŃG-	<ol style="list-style-type: none"> 1. feel(ing of) self-directed annoyance/irritation 2. feel(ing of) self-directed disappointment/letdown (at failure to meet one's own expectations) 3. feel(ing of) anger at oneself over failure to meet one's own expectations
-GZT-	<ol style="list-style-type: none"> 1. feel(ing of) emotional numbness/ emotional weariness / emotional fatigue/saturation/burn-out 2. feel(ing of being) emotionally unavailable/closed/cold 3. feel(ing of being) stoic/repressed
-RKŠ-	<ol style="list-style-type: none"> 1. feel(ing of) emotional stress/pressure 2. feel(ing of being) at emotional breaking-point, feel(ing) that one "can't take it anymore" 3. feel(ing of being) on the verge of loss of control of one's composure or inhibitions [CPT Version = loss of emotional control; nervous breakdown)

-ŠŠŤÇ-	<ol style="list-style-type: none"> 1. repugnance/repellant feeling in reaction to sensory input 2. disgust at a situation or someone's behavior, words, etc. 3. shock/disbelief in the face of unexpected repugnance/horror
-GZZJ-	<ol style="list-style-type: none"> 1. uncertainty, feel unsure of oneself 2. discomfiture at being out of one's element or one's depth 3. self-doubt, lacking self-confidence, low self-esteem
-BVGR-	<ol style="list-style-type: none"> 1. feeling uninspired / "stuck in a rut" 2. mental lassitude, mental laziness 3. mental fatigue/weariness at the state one has let their life become; tired of the same stale dead-end routine
-JBR-	<ol style="list-style-type: none"> 1. feel(ing of) restlessness/disquietude 2. feel(ing of) nervousness / agitation 3. feel(ing of) hysteria/loss of emotional control
-ZGL-	<ol style="list-style-type: none"> 1. feel(ing of) regret/remorse/ruefulness over one's acts, behavior or words 2. feel(ing of) regret/remorse/pining over past might-have-beens or inactions 3. feel(ing of being) penitent, feel need to to make amends for past sins
-ŽGR-	<ol style="list-style-type: none"> 1. feel(ing of) apprehension, foreboding 2. feel(ing of) anxiety/nervousness/unease 3. feel(ing of) fear/trepidation /fright
-BZG-	<ol style="list-style-type: none"> 1. feel(ing of) melancholy/emotional malaise 2. feel(ing of being) glum / gloomy 3. feel(ing of) (monopolar) depression
-ZZV-	<ol style="list-style-type: none"> 1. feel(ing of) envy 2. feel(ing of) jealousy 3. feel(ing of) covetousness
-RMZ-	<ol style="list-style-type: none"> 1. feel(ing of being) sullen/moody/morose 2. feel(ing of being) churlish, antisocial, irascible 3. feel(ing of being) rebellious

-FKT-	<ol style="list-style-type: none"> 1. feel(ing of being) flustered at not knowing how to react or what to think/do 2. feel(ing of) embarrassment due to social faux pas/misstep 3. feel(ing of being) foolish, feel(ing of) guilt/shame over playing the fool 	-VDR-	<ol style="list-style-type: none"> 1. feel(ing of) worry/ feel(ing of being) preoccupied/concerned over 2. feel(ing of) dread (anticipation of something negative/detrimental) 3. feel(ing of) feel(ing of) angst
-GVV-	<ol style="list-style-type: none"> 1. feel(ing of) puzzlement, perplexity 2. feel(ing of) confusion, feel one doesn't understand a situation correctly 3. feel(ing of) bewilderment 	-ZDR-	<ol style="list-style-type: none"> 1. feel(ing of) emotional emptiness/hollowness/shalowness 2. feel(ing of being) unemotional / lacking emotion / feel nothing 3. feel(ing of) cavaliness/lack of empathy
-KTP-	<ol style="list-style-type: none"> 1. feel(ing of being) spiteful, vindictive 2. feel(ing of being) begrudged, feel rancorous. unforgiving, holding a grudge 3. feel(ing of being) vengeful / feel a desire for revenge 	-RGZ-	<ol style="list-style-type: none"> 1. feel(ing of being) flustered due to conflicting sensory/emotional input 2. feel(ing of) emotional overload/feel need to "take a break" emotionally 3. feel(ing of being) emotionally overwhelmed / swooning
-TMW-	<ol style="list-style-type: none"> 1. feel(ing of being) cheated 2. feel(ing of being) victimized/used/violated 3. feel(ing of being) traumatized 	-VGY-	<ol style="list-style-type: none"> 1. feel(ing of) shame 2. feel(ing of) guilt 3. feel(ing of) self-hate/self-loathing over one's own failings/wrongdoings
-KNY-	<ol style="list-style-type: none"> 1. feel(ing of) stinginess, feel stingy 2. feel(ing of) selfishness 3. feel(ing of) uncharitableness, uncompassionate, miserliness 	-PMW-	<ol style="list-style-type: none"> 1. feel(ing of) stubbornness, obstinacy 2. feel(ing of) unyielding, steadfast 3. feel(ing of) intransigence/implacability
-JD-	<ol style="list-style-type: none"> 1. feel(ing of being) mean/malicious/malevolent/ill-willed 2. feel (a desire to be) cruel or sadistic 3. feel(ing of) sadistic pleasure at another's pain or torment 	-RNNŽ-	<ol style="list-style-type: none"> 1. feel(ing of) doubt, dubiousness (= uncertainty as to whether to believe) 2. feel(ing of) skepticism 3. feel(ing of) disbelief, incredulity
-PSP-	<ol style="list-style-type: none"> 1. feel(ing of) bashfulness, timidity 2. feel(ing of) shyness 3. feel(ing of) stagefright 	-MMPF-	<ol style="list-style-type: none"> 1. feel(ing of) doubt (= feel misgivings, feel one is being fooled or doesn't have all the facts) 2. feel(ing of) suspicion (that someone/something is not what it seems) 3. feel(ing of) caution (= feeling that one may be in unsafe situation)
-LLČ-	<ol style="list-style-type: none"> 1. feel(ing of) dismay 2. feel(ing of) alarm, surprise (at negative occurrence/experience) 3. feel(ing of) shock/reeling (from unexpected bad news/experience) 	-ZDW-	<ol style="list-style-type: none"> 1. feel(ing of) dejection, downheartedness, crestfallenness 2. feel(ing of) rejection 3. feel(ing of) heartbreak
-GVR-	<ol style="list-style-type: none"> 1. feel(ing of) awkwardness 2. feel(ing of) embarrassment 3. feel(ing of) humiliation 	-KÇÇP-	<ol style="list-style-type: none"> 1. feel(ing of) pessimism/feeling that things are not, or will not turn out, okay 2. feel(ing of) defeatism, feel defeatist 3. feel(ing of) paranoia, feel paranoid

-JGL-	<ol style="list-style-type: none"> 1. feel(ing of) world-weariness (German: <i>Lebenskrankheit</i>) 2. feel(ing of) Weltschmerz 3. feel(ing of) feeling of futility in the face of realizing the transience and seeming meaninglessness of life and the universe 	-VGR-	<ol style="list-style-type: none"> 1. feel(ing of being) full of nervous energy, feel manic 2. feel(ing a) need to lash out or to make a scene, 3. feel(ing of being) nihilistic, feel like destroying/defacing the sublime
-XPL-	<ol style="list-style-type: none"> 1. feel(ing of being) distracted, distraction, feel difficulty in focusing or paying attention, feel unable to get one's mind off something 2. feel(ing of being) unaware/ignorant of what's going on in a situation 3. feel(ing of being) unaware/ignorant of what's going on in the world or in life 	-ZZVV-	<ol style="list-style-type: none"> 1. feel(ing of) boredom 2. feel(ing of) impatience 3. feel(ing of) irritability/being easily-angered, being on-edge
-SG-	<ol style="list-style-type: none"> 1. feel(ing of being) indecisive 2. feel(ing of being) fickle, vacillating 3. feel(ing of being) irresolute, lacking commitment, half-hearted 	-FFXX-	<ol style="list-style-type: none"> 1. feel(ing of) dislike/distate 2. feel(ing of) loathsomeness/abhorrence/repugnance/detesting 3. feel(ing of) hate/hatred/enmity
-FSL-	<ol style="list-style-type: none"> 1. feel(ing of) mental fatigue/weariness at the state one has let their life become; tired of the same stale dead-end routine... 2. feel(ing of) worthlessness, uselessness 3. feel(ing of being) suicidal 	-XTL-	<ol style="list-style-type: none"> 1. feel(ing of) aesthetic fatigue/saturation; exposure to so much beauty that one ceases to appreciate it 2. feel(ing of) compassion fatigue 3. feel(ing of) futility, feel that all one's efforts are for naught in that they make no difference
-PXL-	<ol style="list-style-type: none"> 1. feel(ing of) reluctance/disinclination, feel(ing of) a desire to avoid/eschew 2. feel(ing of) unwillingness/aversion 3. feel(ing of) opposition, feel desire to stand against/oppose 	-LN-	<ol style="list-style-type: none"> 1. feel(ing of being) lonesome, wanting company/companionship 2. feel(ing of) loneliness, feel a lack of love/friendship 3. feel(ing of) invisibility (as if no one ever even notices you)
-VKR-	<ol style="list-style-type: none"> 1. feel(ing of) resignation, no further willingness to fight, giving up 2. feel(ing of) helplessness/inefficacy/inability 3. feel(ing of) renunciation, desire to turn one's back on the world and become a hermit 	-XTL-	<ol style="list-style-type: none"> 1. feel(ing of) pettiness, feel(ing of) unwarranted concern for trivial matters 2. feel(ing of) fussiness, finickiness (= spirit of uncooperativeness over trivial matters) 3. feel(ing of) a need to meddle/interfere/ "butt in"
-VZG-	<ol style="list-style-type: none"> 1. feel(ing of being) like a stranger in one's own life, like one does not understand oneself 2. feel(ing of) alienation from self and others (resigned disgust with oneself and one's inability to understand the world) 3. feel(ing of) disconnection or inability to relate to the world, feeling emotionally "adrift" (i.e., a quiet combination of boredom and resignation and bewilderment) in relation to the world 	-VTR-	<ol style="list-style-type: none"> 1. feel(ing of) sadness or melancholy in the face of happiness due to knowing the happiness is transient/ephemeral 2. feel(ing of) sadness or melancholy in the face of happiness due to knowing others are not happy 3. feel(ing of) inability to feel/enjoy happiness even upon achieving one's desires due to believing one does not deserve happiness
-RKR-	<ol style="list-style-type: none"> 1. feel(ing of) aloofness 2. feel(ing of) emotional superiority/maturity/feeling "above it all" 3. feel(ing of) disgust/spite at the inferiority/stupidity of other people 	-TÇÇÇ-	<ol style="list-style-type: none"> 1. light-hearted or innocent amusement at another's behavior or words 2. mean-spirited amusement at another's behavior or predicament 3. Schadenfreude

12.5 The EMO Emotion Affix

The EMO affix can be used to identify/specify an emotion particular to any appropriate stem indicating a state, act, or event. In this way, it is not necessary to have separate roots/stems for the application of an emotion to narrow, individual semantic contexts. As an example, one might think it useful for this language to specify the special feeling/sense of helplessness/surprise/suspicion/anger one feels when one is being, or has been unjustly undermined or discredited. But instead of creating a root for such a specialized emotion, one can instead apply the appropriate degree of the EMO suffix to the stems of the following (as-yet-hypothetical) root:

1. to undermine another's power/authority
2. to discredit belief in something
3. to debunk, expose as fiction or charlatantry

-mv	EMO: Emotion Associated with a State, Act, Event
1	feel(ing of) positive/desirable emotion associated with being or having been X'd or undergoing X
2	feel(ing of) ambivalent/complex emotion associated with being or having been) X'd or undergoing X
3	feel(ing of) negative/undesirable emotion associated with being or having been) X'd or undergoing X
4	feel(ing of) positive/desirable emotion associated with witnessing X
5 *	feel(ing of) ambivalent/complex emotion associated with witnessing X
6	feel(ing of) negative/undesirable emotion associated with witnessing X
7	feel(ing of) negative/undesirable emotion associated with being/doing X
8	feel(ing of) ambivalent/complex emotion associated with being/doing X
9	feel(ing of) positive/desirable emotion associated with being/doing X

In this manner, we can create a word whose meaning is “(to feel) the negative/undesirable emotion one feels when one is undermined”. The EMO suffix also allows us to create a word “(to feel) the ambivalent emotion one feels when undermining/having undermined another” signifying the combination feelings of justice served/regret at having to hurt another which accompany the act of undermining someone.

The following states/act/events (which will be eventually signified by specific roots/stems) carry significant emotional entailments which can be specified using the EMO affix, rather than having separate roots/stems naming the particular emotion(s) involved:

- a betrayal
- conveying sarcasm
- being shunned or left out
- being ostracized

- contemplation of one's mortality
- failure in performing a task
- loss of one's former abilities/skills/prowess
- loss of prestige/fame/status
- exposure of one's own hypocrisy
- one's negligence/failure to perform an expected moral duty or obligation
- an act of forgetfulness with negative consequences
- a social faux pas
- being unexpectedly put on the spot when one is unprepared
- discovering one has misread/misinterpreted/misjudged someone/something after having already acted on one's initial interpretation/judgment
- changing one's mind after the consequences of one's previous opinion/belief have already occurred
- witnessing something inappropriate or taboo
- witnessing something one wishes they hadn't
- a privacy violation
- sexual harassment/a violation of one's body
- verbal/psychological abuse
- criticism
- rejection
- teasing
- bullying
- unwanted attention/notoriety/infamy
- overwork, too much on one's plate
- finally understanding a previously confusing/complex situation but only after it's too late
- discovering one's risk-avoidance or over-cautiousness was needless and created a lost opportunity
- maintaining a pretense, fooling others into believing a falsehood
- discovery in hindsight that a well-intentioned act has backfired due to having unintended/unforeseen consequences more harmful than if nothing had been done at all
- testing one's limits; pursuing a task/experience that one isn't certain as to whether one is prepared or qualified
- discovering that achieving a long-awaited vengeance/vindication is hollow/meaningless due to personal maturation or present irrelevance of the original circumstances
- discovering one can get past, and need not succumb to feelings of defensiveness or "victimhood" upon being criticized, maligned, slandered, or disrespected
- taking a "stay"-cation instead of a vacation
- completion of a long period of personal introspection contemplation, deliberation or meditation resulting in important personal decisions/conclusions being made
- pulling a joke on someone or at their expense but the target doesn't "get it" or remains ignorant of the joke
- discovering or hearing of an option/alternative not previously considered (the scratching-one's-chin-with-a-frown-and-muttering-"hmmm" moment)
- socially belonging to a group even though you are not actively participating in its activities

- not presuming to speak or act upon one’s own opinion/viewpoint due one’s awareness of the potential for committing a faux pas
- being in the presence of the sublime or sacred/holy
- realizing just how little of the world and all its available experiences and people you will ever get to experience or meet
- contemplating the ubiquity of the small everyday absurdities of life, especially those that are human-made (e.g., overkill technology, useless social customs, ridiculous fashions, etc.)
- sudden realization that absolute strangers/passersby are living as full and complex a life as you are and have opinions, beliefs, values, feelings as strong as yours
- a deeply buried memory or thought being suddenly triggered
- having to tolerate/put up with a difficult person or situation
- realization that time and resources are being wasted and that one’s efforts to correct this are not appreciated/recognized
- contemplation of one’s torpor or inability to meaningfully act
- reaction to an immediate sensory experience, e.g., a sight, a sound, a smell, a taste, or combinations thereof
- achieving vindication or exoneration

Another way to associate an emotion with any appropriate stem is to incorporate an emotion stem into the main stem utilizing an appropriate format, e.g., COMITATIVE or more likely RESULTATIVE, e.g., incorporating “feeling of embarrassment” with RSL format into the stem signifying ‘a social gesture/act’ to create a word meaning “(be/commit) a social act/gestrure causing embarrassment” or, if Type-2 incorporation is used, “(be/commit) a faux pas”.

13.0 ROOTS AND AFFIXES RELATING TO COLORS AND THE ELECTRO-MAGNETIC SPECTRUM

- ÇKW - ‘COLOR’		
STEM 1		
1	BSC	something having a (particular) color / something colored; to be something having a (particular) color / to be something colored
2	CTE	the particular color (of something); to be/have a particular color
3	CSV	the (reflected) light of (a certain wavelength) that is perceived by an observer as being a particular color; to be the (reflected) light emanating from something that is perceived as being a particular color
4	OBJ	an entity having a particular color (e.g., “the red one”); to be an entity having a particular color (e.g., “to be the red one”)
5	INT	(to be) the desired/expected effect of a particular color; CPT = (to be) the effect of a particular color

STEM 2: Same as Stem 1 but a hue 15 degrees counter-clockwise on a 8-basic-valued 360-degree color-wheel (i.e., one-third of the way to the next basic color value, or half-way to Stem 3 of the next basic color value).

STEM 3: Same as Stem 1 but a hue 15 degrees clockwise on a 8-basic-valued 360-degree color-wheel (i.e., one-third of the way to the next basic color value, or half-way to Stem 2 of the next basic color value).

Example Root based on the above model:

- ML - 'YELLOW'		
STEM 1		
1	BSC	something yellow(-colored); to be something yellow(-colored)
2	CTE	the yellow color (of something); to be/have a yellow color / to be colored yellow
3	CSV	yellow light; to be yellow light
4	OBJ	the yellow one (i.e., the object/entity whose color is yellow); to be the yellow one
5	INT	(to be) the desired/expected yellow (color of something); CPT = the resulting yellow; to turn out or end up yellow-colored

STEM 2: Same as Stem 1 but pertaining to orangy-yellow.

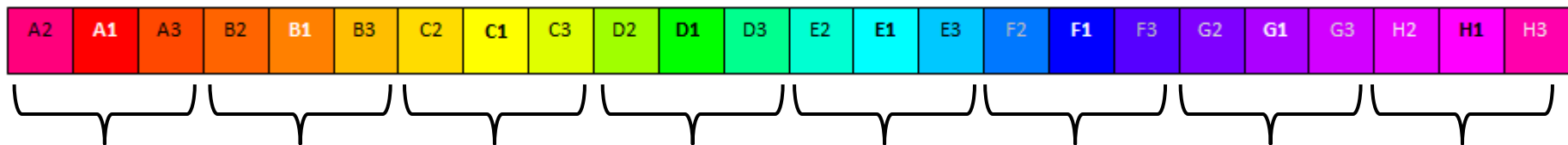
STEM 3: Same as Stem 1 but pertaining to greenish-yellow.

INFORMAL Stems refer the (seemingly or presumed) natural or inherent color of objects

FORMAL Stems refer to (presumably) artificially tinted, painted, stained contexts

13.1 Primary Color Roots/Stems

There are eight roots for basic colors, shown below as A through H. The prototype color is Stem 1 (labeled as a numeral 1 following the letter); Stem 2 is the color one-third of the way to the next basic color to the left (labeled as a numeral 2 following the letter); Stem 3 is the color one-third of the way to the next basic color to the right (labeled as a numeral 3 following the letter). Thus, 24 basic color terms exist in the language.



	-GY- 'RED'	-ŃR- 'ORANGE'	-ML- 'YELLOW'	-VW- 'GREEN'	-DY- 'CYAN'	-LW- 'BLUE'	-ŽL- 'VIOLET'	-VM- 'MAGENTA'
Stem 1	red	orange	yellow	green	cyan	blue	violet, purple	magenta
Stem 2	pinkish-red, rose	reddish orange	orangy-yellow, gold(en yellow)	yellowish-green, chartreuse	greenish blue, teale blue	lighter blue, royal blue	blue-violet	violet-magenta, purple-magenta
Stem 3	orangy-red	yellowish orange, ochre	greenish-yellow	light-bluish green, teale green	azure blue	volet-blue	magenta-violet, magenta-purple	dark rose, rose-magenta

The two affixes below may be utilized with all color stems (as well as non-color stems where semantically productive):

-nx	CLD: Color Dimensions
1	pale, extra-light, -tinted, -tinged (= bright + very low saturation of hue; nearly white)
2	light-colored
3	bright-colored; intense; warm (= light + full saturation of hue)
4	dull-colored (= desaturated in hue)
5	medium-colored
6	vivid (= high saturation of a hue)
7	dim-colored (= dark + desaturated)
8	dark-colored; subdued; cool
9	deep, extra-dark (= dark + high saturation of hue)

-zd	COL: Color Attributes
1	shiny, glossy
2	luminescent, glowing
3	fluorescent
4	iridescent
5	X-colored [used with any tangible object, e.g., turmeric-colored]
6	transparent
7	translucent
8	opaque
9	dull; flat; matte

For dichroic (2-colored) descriptions, incorporate one color stem into another using COMITATIVE format.

Light/pale colors: below is the same color strip of the basic color roots/stems plus the CLD/2 affix:

A2	A1	A3	B2	B1	B3	C2	C1	C3	D2	D1	D3	E2	E1	E3	F2	F1	F3	G2	G1	G3	H2	H1	H3
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Dark/deep colors: Here is the color strip of the basic color roots/stems plus the CLD/8 affix:

A2	A1	A3	B2	B1	B3	C2	C1	C3	D2	D1	D3	E2	E1	E3	F2	F1	F3	G2	G1	G3	H2	H1	H3
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

As can be seen from the above two strips, the eight basic color roots with their three stems, in conjunction with the CLD affix, are sufficient to provide equivalents to standard Western color terms. Note that the Western basic color terms ‘pink’ and ‘brown’ do not have roots. The various shades covered by those two color terms are expressed as derivatives of red or magenta, and orange respectively. Use of the CLD affix also provides terms for more obscure shades such as “peach”, “mauve”, “turquoise”, “indigo”, “olive”, “rust”, “burnt sienna”, “cobalt blue”, “forest green”, “beige”, “burgundy”, etc.

Using the COL affix, in conjunction with Phase and the Modulative affixes, one can add qualities such as “gleaming,” “twinkling”, “opalescent”, “glittering”, etc. In addition to the above scheme, the COL/7 affix provides for terms based on the color of tangible object.

Additionally, there are also the following three roots for ‘BLACK’, ‘WHITE’, AND ‘GRAY’, whose Stems 2 and 3 do not follow the same template as the eight color roots above (as they do not have hue variation):

-BV- ‘WHITE’: Stem 1) something white; 2) something light-colored or pale-tinted; 3) something whose color/visibility is washed out by bright light/glare

-**XM**- ‘BLACK’ Stem 1) something black; 2) something of a dark shade; 3) something obscured by low light or poor viewing conditions

-**CV**- ‘GRAY’ Stem 1) something gray; 2) something light-gray; 3) something dark-gray

Two Additional Affixes: These may be used with any stem as a means of stating the color (or EM energy emanating from) the entity named by the stem:

-çkw	VSR: Visible Spectral Regions
1	red(dish) (= colored or emanating light of reddish wavelengths)
2	orange(y) (= colored or emanating light of orangish wavelengths)
3	yellow(ish) (= colored or emanating light of yellowish wavelengths)
4	green(ish) (= colored or emanating light of greenish wavelengths)
5	cyan/azure (= colored or emanating light of cyan/azure wavelengths)
6	blue(ish) (= colored or emanating light of bluish wavelengths)
7	purple(ish) (= colored or emanating light of violet/purplish wavelengths)
8	magenta(ish) (= colored or emanating light of magenta-ish wavelengths)
9	white/bright/light-gray (= colored or emanating light of multiple/diffuse wavelengths essentially being a white or colorless light contrasting with a darker background)

-vgl	NVS: Non-Visible Spectral Regions *
1	consisting of or emanating light/energy in long radio wavelengths
2	consisting of or emanating light/energy in short radio wavelengths
3	consisting of or emanating microwaves
4	consisting of or emanating light/energy in the far infra-red wavelengths
5	consisting of or emanating light/energy in the near infra-red wavelengths
6	consisting of or emanating light in the visible spectrum
7	consisting of or emanating light/energy in the ultraviolet wavelengths
8	consisting of or emanating X-rays
9	consisting of or emanating gamma rays

* use with **-ÇKW-** root to name these wavelengths as ‘color’-like formatives

14.0 ROOTS FOR OLFACTORY QUALIA (i.e., SMELLS)

This new language provides for four basic odor types, each root having three stems for a total of twelve autonomous qualia referring to olfactory sensations (i.e., odors/smells). Additionally, there is a olfactory affix allowing one to use any stem as a basis for a qualitative/descriptive comparison/analogy for sensory input, including the olfactory sense (e.g., “...having an odor of/like X”).

- MP - ‘ODOR’		
STEM 1		
1	BSC	something having a (particular) smell/odor; to be something having a (particular) odor
2	CTE	the particular odor (of something); to be/have a particular odor
3	CSV	the odor perceived by an observer as being identifiable as a particular odor (i.e., the odor of something known); to be the odor emanating from something that is perceived as being a particular odor
4	OBJ	an entity having a particular odor (e.g., “the acrid-smelling one”); to be an entity having a particular odor (e.g., “to be the acrid-smelling one”)
5	INT	(to be) the desired/expected effect of a particular odor; CPT = (to be) the effect of (there being) a particular odor

STEM 2: A different-but-similar or corollary odor to Stem 1 with the same Specification structure as Stem 1.

STEM 3: A different-but-similar or corollary odor to Stems 1 and 2 with the same Specification structure as Stem 1.

Example Root based on the above model:

- ŃKÇ - ‘PUNGENT / “FUNKY” / PUTRID ODOR’		
STEM 1		
1	BSC	something pungent-smelling; to be something pungent-smelling (e.g., vinegar, ammonia, urine, stale coffee, vomit)
2	CTE	the pungent odor (of something); to be/have a pungent odor
3	CSV	an odor identifiable as pungent-smelling; to be an odor identifiable as pungent-smelling
4	OBJ	the pungent-smelling one (i.e., the object/entity whose odor is pungent); to be the pungent-smelling one
5	INT	(to be) the desired/expected effect of a pungent-smelling odor; CPT = (to be) the effect of (there being) a pungent-smelling odor

STEM 2: Same as Stem 1 but pertaining to a “funky” odor (e.g., of sweat, livestock, musk, tamri, ambergris, Camembert).

STEM 3: Same as Stem 1 but pertaining to a putrid odor (e.g., as of rotting eggs, roadkill, feces, sulfur, low-tide, etc.).

INF Stems refer to the (seemingly or presumed) natural or inherent odors; **FML** Stems: (presumably) refined, purified, or simulated/synthetic/artificial odors

The above root/stem/specification structure applies to the following roots for odors:

	- ŃKÇ - ‘PUNGENT/FUNKY/PUTRID’	-RGY- ‘VEGETAL/PIQUANT/MUSTY’	- LMS - ‘SWEET/FRAGRANT/RESINOUS’	-RZG- ‘CHEMICAL/BURNT/ACRID’
Stem 1	pungent odor (e.g., vinegar, ammonia, urine, stale coffee, vomit, etc.)	vegetal odor (e.g., grass, garlic, onion, parsley, coriander, celery, etc.)	sweet odor (e.g., honey, raisin, caramel, apple, date, yam, etc.)	chemical odor (e.g., alcohol, gasoline, solvents, paint, etc.)
Stem 2	funky odor (e.g., of sweat, livestock, musk, tamri, ambergris, Camembert, etc.)	piquant odor (e.g., ginger, cinnamon, clove, chilies, horseradish, hot mustard, etc.)	fragrant odor (e.g., vanilla, rose, almond, peach, jasmine, etc.)	burnt odor (e.g., leather, toasted nuts, woodsmoke, tobacco, etc.)
Stem 3	putrid odor (e.g., as of rotting eggs, roadkill, feces, sulfur, low-tide, etc.)	musty odor (e.g., soil, mushrooms, aged compost, mold, moss, petrichor, etc.)	resinous odor (e.g., camphor, sagebrush, eucalyptus, lavender, peppermint, etc.)	acrid odor (e.g., salt, copper, blood, tar, burning rubber, etc.)

-mp	OLF: OLFACTORY ASSOCIATIONS
1	having the odor of X
2	having an odor like/similar to X
3	having an odor reminiscent of X
4	having an odor that has the same effect as X
5	having an odor that has an effect similar to that of X
6	odor whose cause is attributed to X [i.e., the odor doesn’t emanate from X but X is assumed/believed to have caused it]
7	odor caused by X [i.e., the odor doesn’t emanate from X but has been caused by X]
8	X’s apparent odor; the smell/odor that seems to be emanating from X
9	X’s odor; the smell/odor emanating from X