

PROPOSED ROOTS FOR THE ITHKUIL SUCCESSOR LANGUAGE (September 1, 2019)

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This document updates the proposed roots (with their associated Stems and Specifications) for the forthcoming Ithkuil successor language. This list supplants and replaces all previously released documents showing roots for the new language. I have grouped the roots by general semantic category.

1.0 THE TWO PERSONAL REFERENCE ROOTS: -B- and -D-

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.

[At this time, the semantic values and specifications for the stems of these two roots are under review.]

2.0 GENERAL DEMONSTRATIVE ROOT: -T-

-T- [General Demonstrative Root]		Associated Affix: DCD
BSC	(to be) 'this / the one at-hand / the one in question' referring to entities, situations, abstract notions, etc. (depending on the C_A 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
CTE	(to be) that which is the essence or essential point or meaning of this/what is at-hand	
CSV	(to be) that which is the form/structure or physical manifestation of this/what is at-hand	
OBJ	(to be) the object/entity/situation/idea, etc. being referred to by this/what is under discussion or at-hand	
INT	(to be) 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 THE COPULAR ROOT: -Č-

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

-Č- 'BE (i.e., copular identificaton) / EQUIVALENCE'			
	STEM 1	STEM 2	STEM 3
BSC	(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
CTE	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.
CSV	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
OBJ	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
INT	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 THE CARRIER ROOT: -S-

-S- [the “carrier” root]				
	STEM 1	STEM 2	STEM 3	STEM ZERO
BSC	[carrier stem representing animate being named by the succeeding foreign or proper name/phrase]	[stem representing inanimate physical / tangible object or entity named by the succeeding foreign or proper name/phrase]	[stem representing abstract referent named by the succeeding foreign or proper name/phrase]	[used to create a formative concept from the first V_xC_S affix found in Formative Slot VII.]
CTE	[carrier stem representing the identity of the animate being named by the succeeding foreign or proper name/phrase]	[stem representing the identity of the inanimate entity named by the succeeding foreign or proper name/phrase]	[stem representing the essential idea(s) of the abstract referent named by the succeeding foreign or proper name/phrase]	
CSV	[carrier stem representing the physical presence/body of the animate being named by the succeeding foreign or proper name/phrase]	[stem representing the physical presence/body of the inanimate entity named by the succeeding foreign or proper name/phrase]	[stem representing the physical/tangible praxes and/or tangible infrastructure of the abstract referent named by the succeeding foreign or proper name/phrase]	
OBJ	that which is impacted/targeted or a patient of the animate being named named by the succeeding foreign or proper name/phrase	that which is impacted/targeted or a patient of the inanimate entity named by the succeeding foreign or proper name/phrase	that which is impacted/targeted or a patient of the abstract referent named by the succeeding foreign or proper name/phrase	
INT	[carrier stem representing the purpose/intent of the animate being named by the succeeding foreign or proper name/phrase]	[stem representing the purpose/intent of the inanimate entity named by the succeeding foreign or proper name/phrase]	[stem representing the purpose/intent of the abstract referent named by the succeeding foreign or proper name/phrase]	

FORMAL STEM 1: [carrier stem representing a mixed animate/inanimate, concrete/abstract entity, e.g., a football team, a culture, a nation, a people, a language with its speakers, etc.)

FORMAL STEM 2: [carrier stem representing a place name in reference to its geography, inhabitants, circumstances/events within, etc.]

FORMAL STEM 3: [carrier stem representing a complex abstract concept(ual system), including its theoretical basis, structure, practitioners/adherents/believers, etc., e.g., a religion, a philosophy, a system of government, etc.]

FORMAL STEM ZERO: [used to create a formative concept from the sum totality of all the V_xC_S affixes found in Formative Slot VII]

5.0 ROOTS FOR VARIOUS COMMON STATES AND ACTS

-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 / the thing given or received; 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

-G- ‘AMBULATION’	
BSC	STEM 1: (to be) and instance of bodily ambulation; to ambulate (= to use one’s body’s natural method of translative motion along a surface, e.g., walk, hop, crawl, swim, slither, etc.)
CTE	(to be) the translative/direction movement through spacetime from one point to another as accomplished via ambulation
CSV	(to be) a single iteration/cycle of the particular pattern of bodily movement(s) used in ambulation; to make/undergo a single iteration of the body’s natural ambulatory cycle
OBJ	(to be) the party/entity ambulating
INT	(to be) the purpose/intent of ambulating; to move/go (toward) somewhere via ambulation

STEM 2: (to be) an instance of rapid ambulation; to run, gallop, scamper, scurry, etc.

STEM 3: (to be) an instance of unnatural/affected ambulation, e.g., limp, stagger

FML stems:

1. (to be) an instance of pre-planned “formal” ambulation, e.g., march, prance, etc.
2. (to be) an instance of pre-planned/deliberate rapid ambulation, e.g., to race
3. (to be) an instance of deliberately unnatural/affected ambulation, e.g., swagger, saunter, etc.

-TH- ‘WRITE / INSCRIBE / DOCUMENT’		
BSC	STEM 1: (to be) something written (down), something (recorded/transcribed) in writing; to write down something, record in writing [both the physical symbol(s) and the communicative content/message thereof]	STEM 2: (to be) something authored in writing, written composition; to “write” = to author, to compose in writing STEM 3: (to be) a written/visual character/symbol/glyph/letter/emoji/ideogram, etc. used for written/visual communication
CTE	(to be) the communicative/linguistic content/message contained within something written	
CSV	(to be) to be the visual inscription or physical presence of something written (regardless of its communicative content)	
OBJ	(to be) the object/surface on which something is written/inscribed	
INT	(to be) the purpose/intent of something written (down); the “point” of a written message; the desired outcome/impact of communicating something via a written message	

FML Stems:

1. (to be) something documented, a document, a written record; to document, record/transcribe for official/archival purposes
2. (to be) a “page” of writing, a “page” of a written work [“page” = visible formal interface for static written communication]
3. (to be) a written symbol/character/letter, etc. used in a language’s [official] writing system; to write (down) letters/characters/symbols from/in a language’s writing system

-L- ‘LINGUISTIC COMMUNICATION / SPEAK / SAY / TELL’		
	STEM 1	
BSC	(to be) a spoken/written/signed/signaled utterance for communicating linguistically	STEM2: (to be) an instance/utterance of linguistic communication for rhetorical, inspirational, socially effective, or psychologically manipulative purposes STEM 3: (to be)
CTE	(to be) the (intended) message/content/meaning of an instance of linguistic communication; to say/tell/communicate something using language	
CSV	(to be) an instance of producing/uttering/writing/signing/signaling using language (i.e., the process thereof, irrespective of the content/message); to speak/write/sign/signal in a language	
OBJ	(to be) the entity/party to which/whom one (intends to) communicate linguistically; the (intended) audience/listener/hearer/reader/recipient of a linguistic communication	
INT	(to be) a(n intended) communication via language; to (intend to) communicate via language	

-MY- ‘GRATITUDE/THANKFULNESS/PRAISE’		
BSC	STEM 1: (to be) an offer of thank(s)/gratitude for a favor, honor, courtesy or convenience performed; to offer gratitude for a favor, honor, courtesy or convenience performed (= both the motivating desire to offer gratitude and its tangible/physical/verbal expression)	STEM 2: (to be) thank(s) / offer gratitude due to being relieved/rescued from an adverse situation STEM 3: (to be) thank(s) / offer gratitude within ironic circumstances or merely as a superficial courtesy, i.e., where expectation of thanks is for an unwanted, unnecessary, or purely symbolic act or an act which required little or no effort on the doer’s part
CTE	(to be) the psychological state motivating one to offer thanks/gratitude for a favor, honor, courtesy or convenience performed	
CSV	(to be) the physical/tangible/linguistic expression of an act of thanks or gratitude for a favor, honor, courtesy or convenience performed; to communicate/express one’s thanks or gratitude for a favor, honor, courtesy or convenience performed	
OBJ	(to be) the actual words or other form(s) of expression used in communicating one’s thanks/gratitude for a favor, honor, courtesy or convenience performed	
INT	(to be) the purpose/intent of communicating one’s thanks/gratitude for a favor, honor, courtesy or convenience performed	

FML Stems:

1. praise
2. gratefulness; manifestation of being beholden to someone or something [feeling is justified and an honor to be feeling]
3. manifestation of being beholden or obliged to someone or something [feeling is resented and unwanted]

-MZ- ‘REMEMBER/RECALL/MEMORY/RECORD’		
BSC	STEM 1: (to be) a memory; remember (= recall) [whether unwilled/affective or self-willed/voluntary]	STEM 2: (to be) the retention of something past into present; to retain something from the past into the present STEM 3: (to be) an act of memorization; to memorize, to remember [i.e., commit to memory]
CTE	(to be) the content of a memory or recollection, what is remembered or recalled	
CSV	(to be) the act of recalling something; to recall	
OBJ	(to be) the entity/circumstance/event/state which a memory is about	
INT	(to be) the purpose/intent of an act of recollection	

FML Stems:

1. trace/track/vestige
2. memorial (object/action formally recognizing or acknowledging something/someone past)
3. to record / a record

MORPHOLOGICAL DERIVATIONS: recollect(ion), remind, memorize, memento, monument, archive, commemorate, commemoration, souvenir/keepsake, relic, to bear in mind, ponder/relish a memory, sear into one’s memory

-ND- 'QUESTION/INQUIRY/ANSWER/RESPONSE'		
BSC	STEM 1: (to be) an act/process of question & answer [statement requesting information + the answer/reply/response thereto]	STEM 2: (to be) an act of questioning/querying STEM 3: (to be) an act of answering/responding
CTE	(to be) an act/process of asking a question and receiving an answer [focus on the inquiry/response process itself]	
CSV	(to be) the act/process of tangibly/physically/linguistically expressing a question and hearing/reading/discerning an answer (i.e., regardless of the content of the question or answer)	
OBJ	(to be) the actual words or specific /communicative expression(s) of a question and answer	
INT	(to be) the intent/purpose of a process of questioning and answering	

FML Stems:

1. inquire/inquiry/investigation + answer or resulting discovery
2. inquire/inquiry/investigate
3. discovery/finding (via act of investigation/inquiry); to discover or find out (via an act of investigation/inquiry)

problem; solution; solve; resolution; resolve; elucidate

-NY- 'CHOICE/ALTERNATIVE'		
BSC	STEM 1: (to be) a choice (to be) made; to choose [= both the state of having a choice to make and the choices available to choose from]	STEM 2: (to be) a preference; to prefer STEM 3: (to be) an state/act of settling for something (i.e., reluctant choice to avoid the alternative)
CTE	(to be in) a state of having to choose; to face a choice; to have a choice to make	
CSV	(to be) the act/process of choosing from one's available options/alternatives	
OBJ	(to be) the choice made; to be the entity/alternative/option chosen or selected	
INT	(to be) the intent/purpose of a process of choosing, i.e., to make a choice CPT = to have chosen; to have made a choice	

FML Stems:

1. select/pick [from limited options/alternatives]
2. an alternative, an available option
3. to vote

-PS- ‘HAPPEN/OCCUR(ENCE)/MANIFEST/EVENT’		
BSC	STEM 1: (to be in) an occurrence of something; to happen / occur / take place / transpire / to “pass” [both the content/nature of the event and its transpiring	STEM 2: manifest / be or make real / reify STEM 3: event (spatio-temporal context)
CTE	(to be) that which happens/occurs/transpires	
CSV	(to be) the occurrence/transpiring of an act/event/state	
OBJ	(to be) the effect/impact of what happens	
INT	(to be) the intent/purpose of something taking place CPT = outcome, result, consequence(s)	

FML Stems:

1. step / act / action
2. phenomenon
3. incident

-PT- ‘SEEK/SEARCH’		
BSC	STEM 1: (to be) an act of searching/seeking/looking for something unknown; a search for something; to search/seek/look for something unknown (i.e., its location/existence is uncertain)	STEM 2: (to be a) search, seek, look for something lost [i.e., something known to exist which is missing] STEM 3: quest / seek to accomplish/achieve something
CTE	(to be in) the psychological state of searching/seeking; to be driven by the need/desire to search/seek	
CSV	(to be) the process or physical act itself of searching/seeking	
OBJ	(to be) what one is seeking or searching/looking for	
INT	(to be) the intent/purpose of a search CPT = to find/discover something (after a search)	

FML Stems

1. explore
2. pursue, track down [i.e., existence certain, location surmised]
3. hunt, hunt for

Morphological Derivations: find, scan, reconnoiter, ransack, pry, ferret out, winnow through, fulfill a quest

-TX- ‘EAT / DRINK / NUTRITIONAL CONSUMPTION’		
BSC	STEM 1: (to be) food and drink; to eat and drink	STEM 2: (to be) food, i.e., (semi-/quasi-)solid consumable/digestible material; to eat (semi-/quasi-)solid food STEM 3: (to be) a drink, i.e., a consumable/digestible liquid; to drink
CTE	(to be) the biological process of consuming food and drink; eat/drink as a biological process	
CSV	(to be) the physical process of food/drink consumption, the physical process of eating/drinking (i.e., placement of consumable in mouth/chewing/swallowing/digestion).	
OBJ	(to be) the food and drink one consumes; the actual food/drink items one consumes	
INT	(to be) the intent/purpose of eating and drinking; personal nutrition/sustenance/nourishment CPT = to be nourished; health(y) due to sufficient nutrition/nourishment	

FML Stems:

1. eat a serving of food or drink; to dine
2. prepared/cooked food; to eat prepared/cooked food
3. processed drink or spirits; to drink processed drink or spirits

-ZD- ‘COMPARISON / CONTRAST / MEASUREMENT / DISTINGUISH’		
BSC	STEM 1: (to be) a[n act of] comparison/contrasting; to compare/contrast	STEM 2: (to be) an act of discrimination/distinguishing; to distinguish/discriminate (= process of careful selection from among various alternatives) STEM 3: (to be) an act of “weighing”/pondering of a choice; conduct a pro-vs.-con analysis
CTE	(to be) a process of comparison/contrasting as a concept	
CSV	(to be) the physical act/process of comparison/contrasting (i.e., step(s) taken to conduct the comparison)	
OBJ	(to be) the object/entity compared or contrasted with something else	
INT	(to be) the purpose/intent of an act of comparison/contrasting; determine a particular similarity/difference between entities	

FML Stems:

1. measure
2. discern
3. relate/collate/determine relationships between

-DV- ‘EXCHANGE/PURCHASE’ (replaces Ithkuil root -SP-)

Note: The stems below are generally used in conjunction with PROCESSUAL versus COMPLETIVE version (See Secs. 5.3.1 and 5.3.2) in order to distinguish an offer of exchange from a completed exchange. Alternately, the distinction between MONOACTIVE and COMPLEMENTARY valence (Sec. 5.2) can be used for the same purpose.

BSC	STEM 1: (to be) an act of exchanging/swapping; to exchange/swap	STEM 2: (to be) an act of taking something offered in exchange for something; to take something offered in exchange for something
CTE	(to be) the “win-win” concept underlying an act of exchange	
CSV	(to be) the physical (trans-)action of exchanging/swapping	
OBJ	(to be) that which is exchanged/swapped	
INT	(to be) the purpose/intent of an act of exchanging/swapping	STEM 3: (to be) an act of giving away something in exchange for something desired; to give something away in exchange for something desired

FML Stems:

1. (to be) a commercial (quasi-)monetary exchange / buying and selling
2. (to be) an act of purchasing/buying; buy, to acquire via purchase
3. (to be) an act of selling/vending; to sell, to give away in exchange for (quasi-)monetary value

-KT- ‘FACT / KNOW / STUDY / LEARN’

BSC	STEM 1: (to be) an act of knowing an ontological fact; to know an ontological fact [= have awareness/understanding of and ability to recall an ontological fact]	STEM 2: (to be) epistemological/conventionalized fact; know [= have awareness/understanding and ability to recall] an epistemological/conventionalized fact
CTE	(to be) the ability/capacity to know an ontological fact	
CSV	(to be) the physical/mental process of (an act of) knowing an ontological fact	
OBJ	(to be) an ontological fact; (to be) the ontological fact one knows	STEM 3: (to be) something known via experience/proficiency; know via familiarity or experience]
INT	(to be) the purpose/intent of knowing an ontological fact; (have) knowledge of an ontological fact	

FML stems

1. (to be) an act of observing and remembering an ontological fact (e.g., I know my grandmother’s house is blue).
2. (to be) an act of studying/learning knowledge; to study/learn
3. (to be) an act of practicing; to practice CPT = be proficient at; have proficiency in

Derivations: find out, discover, determine, wisdom, insight, enlightenment, education, school, scholar, student

-VL- ‘REALIZATION / UNDERSTANDING / COMPREHENSION’		
BSC	STEM 1: (to be) an act of realizing something; to realize [= understand via act of insight/intuition]	STEM 2: (to be) an act of understanding/comprehending something; to understand or comprehend something [= know via a process of personal and/or shared analysis/contemplation/introspection/discussion]
CTE	(to be) the ability/capacity to realize something	
CSV	(to be) the physical/mental process of (an act of) realizing something	STEM 3: (to be) an act of understanding/comprehending something; understand or comprehend [= due to intelligibility/distinctness/clarity/coherence/legibility/lucidity of input/medium/message/material]
OBJ	(to be) what one realizes	
INT	(to be) the purpose/intent of realizing something	

-ŇS- ‘AWARENESS’		
BSC	STEM 1: (to be) an act of noticing something; to notice; take note of	STEM 2: (to be) an act of being aware of something; the awareness of something
CTE	(to be) the ability/capacity to notice something	
CSV	(to be) the physical/mental process of (an act of) noticing something	STEM 3: (to be) an act of keeping/bearing something in mind; to have in the back of one’s mind
OBJ	(to be) what one notices	
INT	(to be) the purpose/intent of noticing something	

-ŠT- ‘WAIT/AWAIT’		
BSC	STEM 1: (to be) a state of waiting (for), await; waiting, a wait	STEM 2: (to be) a state of expectation; expect; to be impending
CTE	(to be) the mental/psychological state of a process of waiting; be in a state of waiting	
CSV	(to be) the physical manifestation of a process of waiting; what one does while waiting	STEM 3: (to be) a state/act of prediction; predict
OBJ	(to be) that which is awaited	
INT	(to be) the purpose/intent of awaiting something; a welcome; to welcome	

FML Stems 1. vigil/a watch; be vigilant/watchful 2. foresee; foresight; prospective/foreseeable 3. prognosticate, forecast

-XP- ‘SUBSTITUTION / TRANSPOSITION / REPLACEMENT’		
BSC	STEM 1: (to be) an act of substitution (= having one entity take the place of another)	STEM 2: (to be) an act of transposition/ interchange (= switching places) STEM 3: (to be) an act of supplanting/replacement/change-out (= refresh/renew)
CTE	(to be) the concept being able to continue providing an expected value underlying that underlies an act of substitution	
CSV	(to be) the physical (trans-)action of substitution	
OBJ	(to be) that which is substituted	
INT	(to be) the purpose/intent of an act of substitution	

-CX- ‘MANNER / BEHAVIOR / METHOD / POLICY’		
BSC	STEM 1: (to be) the manner in which something/someone acts/operates/manifests itself	STEM 2: (to be) the guise/form taken by a party/entity STEM 3: (to be) one’s behavior/conduct/comport
CTE	(to be) the inner/intrinsic/inherent motivation/drive/instructions, etc. which control one’s manner	
CSV	(to be) the outward physical manifestation or discernible praxes of one’s manner	
OBJ	(to be) that which has or manifests a particular manner	
INT	(to be) the purpose/intent of one’s manner	

FML Stems:

1. (to be) the method by which a party/entity performs/accomplishes something
2. (to be) the practice/policy used by a party/entity in operating/manifesting itself
3. (to be) one’s bearing/carriage/demeanor

Derivations: process, procedure, regimen, strategy

-SN- ‘CHANGE / VARIATION / DEVIATION / ALTERATION’		
BSC	STEM 1: (to be) a change (from one state to another); to change (from one state to another)	STEM 2: (to be) an act of variance; to vary STEM 3: (to be) an act of deviation; to deviate
CTE	(to be) the nature of transformation which occurs during a change	
CSV	(to be) the physical/tangible process of an act of change (i.e., what an entity physically endures while changing)	
OBJ	(to be) that which changes; a changeling	
INT	(to be) the purpose/intent of changing CPT = what something changes (in)to; that which results from a change	

FML Stems 1. alter, modify; alteration, modification 2. diversify, permutate; permutation, diversification 3. modulate, control variance in the state of; modulation

Derivations: mutate, convert, shift, tamper with, transform, transition

-Ř- ‘POSSESSION / OWNERSHIP’		
BSC	STEM 1: (to be) an act of physical possession; to have/possess (temporary/circumstantial and alienable – e.g., a library book in one’s hand)	STEM 2: (to be) an act of physical possession; to have/possess (circumstantial and affective + (quasi-)inalienable, either permanent or temporary – e.g., a medical condition, an office at work I occupy, a seat at a cinema showing) STEM 3: (to be) an act of physical possession; to have/possess (genetic, intrinsic and inalienable, but not considered property – e.g., a sibling, a child, a limb, a memory)
CTE	(to be) the state of possession; possessing something	
CSV	(to be) the physical means by which a state of possession is manifested, e.g., by holding or carrying, by a verbal or written statement, via containment within one’s pocket, etc.)	
OBJ	(to be) the object/entity possessed (temporary/circumstantial and alienable)	
INT	(to be) the purpose/intent of an act of physical possession (temporary/circumstantial and alienable)	

FML Stems

- (to be) an act of possession; have/possess/own; possession, piece of property (alienable but quasi-permanent by law/right/permission and in one’s immediate possession-, e.g., a library book which I’ve checked out)
- (to be) an act of possession; have/possess/own; possession, piece of property (alienable but quasi-permanent by law/right, not in one’s immediate possession -, e.g., a book I bought/own but am not currently holding/reading)
- (to be) an act of possession/ownership; have/possess/own; possession, piece of property (quasi-permanent and legally inalienable except through formal/legal separation process – e.g., a house I own, a pet dog I registered)

-SL- ‘THOUGHT / IDEA / CONCEPT / REASON / ANALYZE’		
BSC	STEM 1: (to be) an act of thinking/cogitating; to think/cogitate	STEM 2: (to be) an idea one is considering/mulling/contemplating STEM 3: (to be) an act of reasoning; to reason [= employ a strict process of logic when thinking/analyzing]
CTE	(to be) the state/process of thinking/cogitating	
CSV	(to be) the thought one is thinking	
OBJ	(to be) the basis/trigger for a thought; that which makes one think of something	
INT	(to be) the purpose/intent of a thought	

FML Stems

- (to be) an act of thinking up/of an idea; to brainstorm; to come up with an idea CSV = an idea
- (to be) an act of analysis; to analyze
- (to be) an act of abstraction/; to abstract CPT = conceptualization/conceptualize CSV = a concept

MORPHOLOGICAL DERIVATIONS: ponder, deliberate/deliberation, plan, contemplate, theory, hypothesis, deduce/deduction, postulate, infer(ence), judge, conclude/conclusion

-SW- 'LIFE / BODY / VITALITY / REPRODUCTION'		
	STEM 1	
BSC	(to be) something living; something alive; to be a living being [both the entity and the life within]	STEM2: (to be) vital; manifest vitality; activity consistent with being alive
CTE	(to be) the life within a living being (= the living essence of something); be alive, live	
CSV	(to be) a body (= the inalienable corporeal vessel/body "inhabited" by a living being)	STEM 3: (to be) something reproduced or brought to life; to reproduce [biologically], bring to life
OBJ	(to be) an entity/party impacted/affected by the presence of, or interaction with a living being	
INT	(to be) the purpose/intent of there being a living being	

FML Stems signify sentient life.

-DX- 'VOICE / VOCAL UTTERANCE'		
	STEM 1	
BSC	(to be) the sound of a vocal utterance; to make sound by means of one's vocal apparatus (e.g., bark, meow, hoot, call, shout, cry, scream, shriek, moo, whinny, roar, purr, yowl); to vocalize, to utter a sound [both the sound and the process of uttering it]	STEM2: (to be) the usual, common, represent-ative vocalization made by an entity (e.g., a meow, bark, whinny, chirp, roar, speaking, etc.)
CTE	(to be) the sound made by, or [communicative] content of, a vocal utterance, a vocalization; to vocalize (= the aurally discernible sound, not the originating process)	
CSV	(to be) the process of making a vocal utterance; to utter, to vocalize (= the vocal process itself irrespective of the resulting sound or communicative content)	STEM 3: (to be) an alternate, less-common vocalization made by an entity (e.g., cry, yowl, murmur, hum, purr, mumble)
OBJ	(to be) the entity/party which hears/notices a vocal utterance	
INT	(to be) the purpose/intent for making a vocal utterance; to utter a sound for a purpose	

-ŠV- 'PLAY / RECREATION / SPORT'		
BSC	STEM 1: (to be) an act/instance of play or recreation [both the act and the motivating desire for self-amusement or relaxation]	STEM 2: (to be) an act/instance of a participatory or self-involved leisure activity (activity + psychological motivations behind it), e.g., a dance, a hike, fishing, camping
CTE	(to be) the motivating desire for self-amusement or relaxation behind an act/instance of play/recreation	
CSV	(to be) the physical act of engaging in play or recreation	STEM 3: (to be/manifest) the practice of a hobby or pastime (activity + psychological motivations behind it)
OBJ	(to be) particular activity/form of play in which one engages (e.g., a game, contest, puzzle, prank, etc.)	
INT	(to be) the purpose/intent of an act of play/recreation, i.e., to relax and amuse oneself	

FML Stems:

Stem 1: play/recreate (activity + feeling of amusement/enjoyment derived) = formal rule-oriented activity, e.g., a board game, a sport, etc.

Stem 2: attend/view a formal entertainment (activity + feeling of enjoyment/diversion derived), e.g., view a show, live performance, movie, a sporting event, etc.)

Stem 3: engage in (a) sport activity (activity + feeling of competitive spirit) for motive of formal competition, e.g., victory-oriented

-TF- ‘ADDITION / SUBTRACTION’			
	STEM 1	STEM 2	STEM 3
BSC	(to be) an act/instance of changing the number of something via addition or subtraction	(to be) an act/instance of adding the number of something; to add something	(to be) an act/instance of subtracting the number of something; to subtract something
CTE	(to be) the party/entity that performs/initiates an act of adding or subtracting	(to be) the party/entity that performs/initiates an act of addition	(to be) the party/entity that performs/initiates an act of subtraction
CSV	(to be) a process of adding or subtracting	(to be) a process of addition	(to be) a process of subtraction
OBJ	(to be) the party/entity whose number is changed via addition or subtraction	(to be) the party/entity whose number is added to	(to be) the party/entity whose number is subtracted
INT	(to be) the purpose/intent of an act of adding or subtracting; CPT = (to be) the result thereof	(to be) the purpose/intent of an act of addition; CPT = (to be) the result thereof	(to be) the purpose/intent of an act of subtraction; CPT = (to be) the result thereof

-ŽV- ‘MULTIPLICATION / DIVISION’			
	STEM 1	STEM 2	STEM 3
BSC	(to be) an act/instance of changing the number of something via multiplication or division; to multiply either by iteration or by division	(to be) an act/instance of multiplying the number of something; to multiply something	(to be) an act/instance of dividing the number of something; to divide something
CTE	(to be) the party/entity that performs/initiates an act of multiplying or dividing something	(to be) the party/entity that performs/initiates an act of multiplying something	(to be) the party/entity that performs/initiates an act of dividing something
CSV	(to be) a process of increasing via multiplication or division	(to be) a process of multiplication	(to be) a process of division
OBJ	(to be) the party/entity whose number is multiplied via iteration or via division	(to be) the party/entity whose number is multiplied	(to be) the party/entity whose number is divided
INT	(to be) the purpose/intent of an act of multiplication or division; CPT = (to be) the result thereof	(to be) the purpose/intent of an act of multiplication; CPT = (to be) the result thereof	(to be) the purpose/intent of an act of division; CPT = (to be) the result thereof

-SY- ‘SUBSTANCE / MATERIAL / MATTER’		
BSC	STEM 1: (to be a) material substance; (to be a) manifestation of matter/material/ “stuff” / something material — [both the substance itself and the form/entity consisting thereof]	STEM 2: (to be/manifest a) material consistency, i.e., a discernible (quasi-)tactile or (quasi-)visual or other (quasi-)sensory attribute/quality/characteristic) STEM 3: (to be/manifest a) molecular identity (as element or compound)
CTE	(to be) something consisting of a material substance; something material	
CSV	(to be) the material substance of which something consists	
OBJ	[same as CTE]	
INT	(to be) the purpose/intent of being something consisting of a material substance	

-ŽV- ‘GOOD/BENEFICIAL’		
BSC	STEM 1: (to be) something good (= beneficial to the context at hand) [both the act/event/situation and its beneficent quality]	STEM 2: (to be) something good [= morally right; beneficial in a metaphysical sense] STEM 3: (to be) something good [= advantageous or effective]
CTE	(to be) the essential state/quality of goodness/beneficence manifested in a particular act/state/event/situation/entity, etc.	
CSV	(to be) a particular act/state/event/situation/entity, etc. identified as being good	
OBJ	(to be) the particular element(s) (e.g., word(s), action(s), emanation(s), appearance, product, presence of something, lack of something, etc.) which makes something describable/identifiable as being “good/beneficial”	
INT	(to be) the purpose/intent of something good/beneficial	

-Ń- ‘MAKE/CONSTRUCT/INTEGRATE/FORM’		
(NOTE: This root does not refer to ‘make/create’ meaning ‘emit/secrete/produce’ as in ‘make noise’ or ‘make milk’, etc.)		
BSC	STEM 1: (to be) an instance/act of making/constructing/creating something non-mechanical via integration of material resources according to an implicit or explicit plan/instinct/motive/design	STEM 2: (to be) an instance/act of forming or fashioning something non-mechanical via a combination of ingredients, e.g., cooking, mixing together, combining melodies from instruments to make music, etc. STEM 3: (to be) an instance/act of bringing something non-mechanical into being via organizing disparate parts into a coherent whole
CTE	(to be) the existential state of creating/making/constructing	
CSV	(to be) the method/steps employed/manifested in making/creating/constructing something	
OBJ	(to be) that which is made/created/constructed; the product of an act of making/creating/constructing	
INT	(to be) the purpose/intent of an act of creating, i.e., that which the finished creation will (hopefully) make possible. CPT = that which results from the creation of the finished product	

FML Stems: same as IFL stems except referring to a mechanical context, i.e., construction utilizing mechanical means; INT Specification would refer to a machine.

-XV- ‘EFFORT / WORK / POWER / OPERATE / FUNCTION’		
BSC	STEM 1: (to be) an instance/act of energy expenditure in a particular form; to manifest a display/use of energy in a particular form/manner; exert energy in a particular form/manner	STEM 2: (to be) an instance/manifestation of action; to act, to perform, to do STEM 3: (to be) an effort, a coordinated/coherent expenditure of energy towards achievement of a specific goal; make effort to accomplish something
CTE	(to be) the state of (there being) energy manifested/exerted	
CSV	(to be) the particular form/manner of energy being manifested/exerted	
OBJ	(to be) that to/for which energy is being used/exerted	
INT	(to be) the purpose/intent of a use/manifestation of energy, i.e., a manifestation of power; to power	

FML Stems:

Stem 1: operate / function / “work” (i.e., proper/expected functioning of a device/machine/process as in “Does the washing machine work?”)

Stem 2: work / labor (i.e., organized/planned effort over time associated with a commercial endeavor)

Stem 3: job task; employment-related task; do one’s job

-TV- ‘APPEAR/MANIFEST/SHOW/EXHIBIT/DISPLAY’		
BSC	STEM 1: (to be) an appearance/manifestation/showing something; to appear, manifest, show something (= be/make something observable to the senses of others; manifestation, appearance)	STEM 2: (to be) an instance/act of exposing something; to expose something; STEM 3: (to be) an instance of bringing/calling attention to something (= make others aware of the appearance/showing of something)
CTE	(to be) the state of appearing/manifesting/showing; being observable	
CSV	(to be) the method/manner of making something appear/manifest/show	
OBJ	(to be) that which appears/manifests or is shown	
INT	(to be) the purpose/intent of an appearance/manifestation/showing	

FML Stems:

Stem 1: exhibit; display

Stem 2: show off, flaunt

Stem 3: announce; advertise

Morphological derivations: demonstrate, flourish, show off, display, spectacle, parade, promenade, procession, ostentation, gaudy, garish, pomp, pompous

6.0 ROOTS RELATED TO SPATIO-TEMPORAL DIMENSIONS

-JG- ‘DIMENSIONAL ATTRIBUTE’ (use with the SUF, EXD, FLC, PTW, ITY, etc. affixes)	
STEM 1	
BSC	(to be) a degree of a (static) dimensional attribute (e.g., length, width, volume, etc.)
CTE	(to be) the intrinsic nature/essence of a particular attribute (i.e., the existence of the attribute within or as part of an entity regardless of its physical manifestation)
CSV	(to be) the physical manifestation of a particular dimensional attribute
OBJ	(to be) the object/entity having the particular dimensional attribute
INT	(to be) the intent/purpose of having the particular dimensional attribute CPT= the outcome/effect/consequence of having the particular dimensional attribute
STEM2: (to be) a decrease in the degree of a particular dimensional attribute STEM 3: (to be) an increase in the degree of a particular dimensional attribute	

The Stems and Specifications of the following roots are modeled on the ‘DIMENSIONAL ATTRIBUTE’ root above:

- CK**- ‘PROXIMITY/DISTANCE’
- ŽB**- ‘PLANARITY/FLATNESS RELATIVE TO THE FORM OF AN OBJECT ITSELF’
- ČF**- ‘WIDTH/SLENDERNESS’
- ŽD**- ‘GIRTH/CIRCUMFERENCE’
- JN**- ‘LENGTH’
- CH**- ‘HEIGHT (= TALLNESS PARALLEL TO THE DIRECTION OF GRAVITY)’
- VJ**- ‘AMPLITUDE’
- ZŽ**- ‘BINARY POLARITY’ (i.e., the degree to which something reverses direction of a binary attribute, e.g., rotation, spin, charge, etc.)
- KC**- ‘REACH’ (i.e., the degree to which something extends outward in a quasi-linear manner)
- ŽX**- ‘SPREAD’ (i.e., the degree to which something extends outward in 2-dimensional quasi-planar coverage)
- VČ**- ‘EXTENT’ (i.e., the degree to which something extends outward as a three-dimensional volume)
- BŽ**- ‘DEPTH’
- JL**- ‘SPATIAL GAP’
- RŽ**- ‘TEMPORAL INTERVAL’
- FC**- ‘3-DIMENSIONAL VOLUME’
- TC**- ‘RECTILINEAR/POLYHEDRAL/STRAIGHT-ANGLED’

- GJ- 'SPHERICALNESS/ROUNDNESS'
- CF- 'FLATNESS/LEVELNESS OF A SURFACE'
- KČ- 'CIRCULAR'
- CT- '2-DIMENSIONAL AMORPHOUS/SHAPELESS'
- ŽT- '3-DIMENSIONAL AMORPHOUS/SHAPELESS'

7.0 ROOTS RELATED TO THE QUALITY OR PROPERTY OF MATTER'

-KV- 'QUALITY, ATTRIBUTE OR PROPERTY OF MATTER' (use with the SUF, EXD, FLC, PTW, ITY, etc. affixes)	
STEM 1	
BSC	(to be) a degree of a particular quality (= intrinsic/inherent behavioral property) of matter
CTE	(to be) the intrinsic nature/essence of a particular quality of matter (i.e., the existence of the quality within or as part of an entity regardless of its physical manifestation
CSV	(to be) the physical manifestation of a particular quality of matter
OBJ	(to be) the object/entity having the particular quality of matter
INT	(to be) the intent/purpose of having the particular quality CPT= the outcome/effect/consequence of having the particular quality

STEM2: (to be) a decrease in the degree of a particular quality/attribute/property of matter

STEM 3: (to be) an increase in the degree of a particular quality/attribute/property of matter

The Stems and Specifications of the following roots are modeled on the 'QUALITY OR PROPERTY OF MATTER' root above:

- BG- 'FULLNESS/EMPTINESS'
- DB- 'SOLIDITY/HOLLOWNESS (= PERMEABILITY)'
- DG- 'WEIGHT/MASS'
- ŇB- 'RESILIENCE/DELICATENESS' (= CAPACITY FOR RECOVERY)
- ŇD- 'DURABILITY/FRAGILITY' (= CAPACITY FOR BEING DAMAGED)
- XB- 'TENSENESS (= STRAIN)'
- XD- 'TIGHTNESS/SLACK' (= TAUTNESS)
- RB- 'ABSORPTION/ABSORBATIVITY'

- RD**- 'REFLECTIVITY'
- RG**- 'TRANSPARENCY/OPACITY'
- LB**- 'STABILITY/INSTABILITY'
- LD**- 'VOLATILITY/INERTNESS'
- LG**- 'DURATION/TEMPORARINESS'
- BD**- 'CONCAVITY / DEPRESSED'
- GD**- 'CONVEXITY / ROTUNDITY'
- GB**- 'COMPRESSED / SQUEEZED'
- BB**- 'EVEN/LEVEL' (i.e., parallel in comparison to an external linear or planar reference standard)
- DD**- 'PERPENDICULAR / UPGRIGHT' (relative to gravity)
- GG**- 'STRAIGHTNESS/LINEARITY RELATIVE TO OBJECT ITSELF'

NOTE: For tactile sensations/textures, see Sec. 9.1.5

8.0 ROOTS 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 back to the patio.*’

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	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
6	For translative motion affixes, signifies 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. For static positional affixes, operates merely as a locative to specify an entity’s X/Y/Z position.
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.

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

-TR- ‘PATH-ORIENTED, QUASI-LINEAR TRANSLATIVE MOTION’		Affix: M01
	Stem 1	Stem 2: As per Stem 1 w/ perspective is on motion to(ward) the topical referent of the sentence or clause, i.e., “come; approach”; CPT = “arrive”
BSC	act of translative motion from one spacetime location to another; to move from one place to another [both the motion and the entity moving]	
CTE	The process of movement itself from one place to another; to be moving from one place to another [focus on the movement, not the entity moving]	Stem 3: As per Stem 1 w/ perspective is on motion away from the topical referent of the sentence or clause, i.e., “go; go away; move away”; CPT = “leave; depart”
CSV	The path/trajectory/course/route followed between two places; to move along/through the path/trajectory/course/route from one place to another	
OBJ	The entity moving from one place to another; to be the entity moving from one place to another	
INT	The purpose (i.e., desired outcome) for an act of translative motion; to move from one place to another for a purpose/reason.	

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

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

-T- ‘SPATIAL POSITION, LOCATION, ORIENTATION, DIRECTION’ Suffix: P01	
BSC	STEM 1: spatial position of an entity; to be situated/located at
CTE	The act of physically occupying a/the position/location in space; to physically occupy a/the position in space
CSV	A/the position/location in space occupied by an entity; to be a/the position/location in space
OBJ	The entity situated/located at; to be that which is situated/located at
INT	The purpose (i.e., desired outcome) for being spatially positioned/located; to be spatially positioned/located for a purpose/reason.

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, e.g. marrow’s location inside of bone. Roots (and suffixes) following the same model as **-T-** above include the following based on a 3-dimensional X/Y/Z axial grid:

- D- ‘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’
- F ‘POSITION/LOCATION AT +X / 0 / 0’, ‘to the right of the observer’
- V- ‘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'

- FP**- 'POSITION/LOCATION AT +X / +Y / 0', 'to the right and in front of the observer'
- FK**- 'POSITION/LOCATION AT +X / -Y / 0', 'to the right and behind the observer'
- FY**- 'POSITION/LOCATION AT +X / 0 / +Z', 'to the right and above the observer'
- FW**- 'POSITION/LOCATION AT +X / 0 / -Z', 'to the right and below the observer'
- VB**- 'POSITION/LOCATION AT -X / +Y / 0', 'to the left and in front of the observer'
- VG**- 'POSITION/LOCATION AT -X / -Y / 0', 'to the left and behind the observer'
- VY**- 'POSITION/LOCATION AT -X / 0 / +Z', 'to the left and above the observer'
- VW**- 'POSITION/LOCATION AT -X / 0 / -Z', 'to the left and below the observer'

- FPY**- 'POSITION/LOCATION AT +X / +Y / +Z', 'to the right, in front, and above the observer'
- FPW**- 'POSITION/LOCATION AT +X / +Y / -Z', 'to the right, in front, and below the observer'
- FKY**- 'POSITION/LOCATION AT +X / -Y / +Z', 'to the right, behind, and above the observer'
- FKW**- 'POSITION/LOCATION AT +X / -Y / -Z', 'to the right, behind, and below the observer'
- VBY**- 'POSITION/LOCATION AT -X / +Y / +Z', 'to the left, in front, and above the observer'
- VBW**- 'POSITION/LOCATION AT -X / +Y / -Z', 'to the left, in front, and below the observer'
- VGY**- 'POSITION/LOCATION AT -X / -Y / +Z', 'to the left, behind, and above the observer'
- VGW**- 'POSITION/LOCATION AT -X / -Y / -Z', 'to the left, behind, and below the observer'

- TT**- 'POSITION BETWEEN/AMIDST/AMONG [IN A QUASI-PLANAR CONTEXT]', e.g., among others in a crowded room
- TK**- 'POSITION BETWEEN/AMONG [IN A LINEAR UNIDIMENSIONAL CONTEXT]', e.g., between two others in a queue
- TP**- 'INDEFINITE POSITION AMIDST/AMONG [IN A 3-DIMENSIONAL VOLUME]', e.g., among a sky full of balloonists
- DD**- '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
- DB**- '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

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

8.3 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:

-ṬF- ‘POSITIONALLY-DEFINED COMPONENTIAL PART’		Associated affix: -S08-
BSC	STEM 1: 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	
CTE	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	
CSV	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	
OBJ	The entity of which the componential part/section is a part; to be the entity of which the componential part/section is a part	
INT	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 **-ṬF-** 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)]’
- ḐL-** ‘PLANAR 2-DIMENSIONAL MIDDLE, CENTER [RUNNING VERTICALLY AND LATERALLY PARALLEL TO LONG (OR TALL) SIDE OF ENTITY]’
- ḐR-** ‘PLANAR 2-DIMENSIONAL MIDDLE, CENTER [RUNNING VERTICALLY PARALLEL BUT LATERALLY PERPENDICULAR TO LONG (OR TALL) SIDE OF ENTITY]’

- ZW**- 'PLANAR 2-DIMENSIONAL MIDDLE, CENTER [RUNNING VERTICALLY AND LATERALLY PERPENDICULAR TO LONG (OR TALL) SIDE OF ENTITY]'
- CW**- 'CENTER POINT OF AN ENTITY, i.e., the zero-dimensional point most equidistant from all points on the periphery or surface of an entity'
- TF**- 'SIDE/FLANK OF AN ENTITY'
- PF**- 'FRONT PART OF AN ENTITY [RELATIVE TO ITS DIRECTIONAL ORIENTATION OR PRIMARY EXTERNAL INTERFACE]'
- KF**- 'REAR/BACK PART OF AN ENTITY [RELATIVE TO ITS DIRECTIONAL ORIENTATION OR PRIMARY EXTERNAL INTERFACE]'
- DY**- 'TOP/PEAK/SUMMIT OF AN ENTITY [RELATIVE TO ITS TYPICAL ORIENTATION UNDER GRAVITY]'
- DW**- 'BOTTOM/FOUNDATION OF AN ENTITY [RELATIVE TO ITS TYPICAL ORIENTATION UNDER GRAVITY]'
- DY**- 'UPPER PART/"HALF" OF AN ENTITY [RELATIVE TO ITS TYPICAL ORIENTATION UNDER GRAVITY]'
- DW**- 'LOWER PART/"HALF" OF AN ENTITY [RELATIVE TO ITS TYPICAL ORIENTATION UNDER GRAVITY]'
- XW**- 'INTERIOR/INTERNAL VOLUME/"INSIDE(S)"/"INNARDS" OF AN ENTITY'
- XL**- 'INTERIOR SURFACE OR "WALL" / INTERNAL SURFACE OR "WALL" / THE INSIDE SURFACE OR "WALL" OF AN ENTITY'
- XR**- '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 -**TF**-, even though they do not specify a particular spatial position relative to the whole:

- XD**- 'EXTERNAL POINT-LIKE OUTWARD-FACING VERTEX/"CORNER" OF AN ENTITY'
- XT**- 'EXTERNAL QUASI-LINEAR EDGE OF AN ENTITY'
- XK**- '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.

8.4 Additional Roots Related to Spatio-Temporal Motion

-JH - ‘ACTION IN SITU / MOVEMENT IN SITU’		Associated Affix: BDM
Informal Stems		Formal Stems
BSC	STEM 1: (to be/manifest) an action/movement/motion in-situ (i.e., non-translative) — [both the movement itself and the entity manifesting such]	FML STEM 1: (to be/manifest a) bodily in-situ movement FML STEM 2: (to be/manifest an) in-situ movement of one’s limb(s)/appendage(s) FML STEM 3: (to be a) act of dancing; to dance
CTE	(to be) a process of in-situ motion/movement; to move in-situ	
CSV	(to be) an in-situ motion/movement itself, i.e., how the movement manifests itself; what the movement(s) consists of	
OBJ	(to be) something moving in-situ	
INT	(to be) the purpose (i.e., expected outcome) of an in-situ movement	
	INF STEM 2: (to be/manifest) a movement of a part of a larger whole; move (in-situ) a part of an entity INF STEM 3: (to be an) cyclic/oscillating/back-and-forth/up-and-down in-situ movement	

-MH- ‘TRACK/TRACE/WAKE’		Associated Affix: WAK
BSC	STEM 1: (to be) track/vestige/trace/trail of passage left behind by passage of entity [both track/vestige + the firmament it is in]	STEM 2: (to be) 1-D, 2-D or 3-D wake or front left behind by passage of entity
CTE	(to be) the track/vestige/trace/trail of passage left behind by passage of an entity [focus on track/vestige itself]	
CSV	(to be) the firmament/ground/substrate in which a track/vestige/trace/trail has been left (and of which it is likely formed)	
OBJ	(to be) the entity which leaves a track/vestige/trace/trail of its passage	STEM 3: (to be) trail, wake, or spread left behind as area of demarcation, boundary, zone, etc.
INT	(to be) the purpose/intent of leaving behind a track/vestige/trace/trail of one’s passage	

In regard to semantic pragmatics, the above root is instructive in regard to the usage of the INTENTIVE Specification. Note that with PROCESSUAL version, the INTENTIVE is of limited practical use, as most entities leaving a track/trace of their passage have no intention/purpose in doing so (the exception being, of course, when an entity wants to be followed or to be able to retrace their own tracks). However, with COMPLETIVE version, the INTENTIVE Specification indicates actual outcome, which becomes quite semantically useful in that it refers to the fact that the entity’s passage is now documented and its course can be tracked.

8.5 Roots Relating to Temporal Concepts

-LN- 'TIME OF DAY'			
	STEM 1	STEM 2	STEM 3*
BSC	(to be) daytime (= portion of the 24-day when the sun is above the horizon)	(to be) evening or nighttime (= portion of the 24-hour day when the sun is below the horizon)	(to be) a particular "o'clock"-time of the day as named by the hour [use numerical roots or affixes to specify the number of hours since midnight] (includes both the time and the event occurring then)
CTE	(to be) the elapsing/passing of time during the daytime; to spend/pass the daylight hours	(to be) the elapsing/passing of time during the evening/nighttime; to spend/pass the evening/nighttime hours	(to be) the measuring/delineation of time as specified by a particular "o'clock"-time of day
CSV	(to be) the state of being in daylight; to occur/manifest during daylight hours	(to be) the state of being in daylight; to occur/manifest during evening/nighttime hours	(to be) the state of being/occurring at a particular "o'clock"-time of day
OBJ	(to be) that which occurs/passes during daylight hours	(to be) that which occurs/passes during evening/nighttime hours	(to be) the event which occurs at or is specified by a particular "o'clock"-time of day
INT	(to be) the purpose/intent of occurring in daylight hours	(to be) the purpose/intent of occurring in evening/nighttime hours	(to be) the purpose/intent of a particular "o'clock"-time of day

*for specific times, e.g., 10:15 a.m. and 34.3 seconds, use Stem 3 with an appropriate numerical affix, followed by numerical stems with COO affix plus the appropriate FML stems of the -VN- root below declined in the PARTITIVE case. Alternately, one may use numerical stems with the various degrees of the ELA affix.

-VN- TEMPORARY DURATION		Associated Affix: TPD	INF Stems	FML Stems
BSC	(to be) a particular amount of elapsed time during which something occurs/exists; for something to occur/exist lasting/enduring a particular amount of time		STEM 1: a moment/instant STEM 2: a "while" STEM 3: a portion of a day	STEM 1: a second STEM 2: a minute STEM 3: an hour
CTE	(to be) the event(s) occurring during a particular amount of elapsed time			
CSV	(to be) the duration of elapsed time [regardless of what may occur/exist during that period]			
OBJ	[same as CTE]			
INT	(to be) the purpose/intent of such occurrence for such a time duration			

Specifications for the following four roots are modeled after the root - - 'TEMPORARY DURATION' above

-ŽN- CONVENTIONALIZED TIME PERIODS		Associated Affix: TD2
INFORMAL	FORMAL	
STEM 1: (to be a) day (= 24-hour period)	STEM 1: (to be a) calendrical day, designated day (for planning/scheduling purposes)	
STEM 2: (to be a) week	STEM 2: (to be a) calendrical week, designated week (for planning/scheduling purposes)	
STEM 3: (to be a) lunar period / month	STEM 3: (to be a) calendrical month, designated month (for planning/scheduling purposes)	

-KN- LONGER TIME PERIODS		Associated Affix: LTD
INFORMAL	FORMAL	
STEM 1: (to be) approx. a year / most of or up to a year	STEM 1: (to be a) calendrical year, designated year (for planning/scheduling purposes)	
STEM 2: (to be) approx. a decade/ most of or up to a decade	STEM 2: (to be a) calendrical decade, designated decade (for planning/scheduling purposes)	
STEM 3: (to be) approx. a lifetime	STEM 3: (to be a) designated lifetime of an individual (for planning/scheduling purposes)	

-ṬN- LONG-TERM TIME PERIODS		Associated Affix: LGD
INFORMAL	FORMAL	
STEM 1: (to be) approx. a century	STEM 1: (to be) calendrical century	
STEM 2: (to be) approx. a millennium	STEM 2: (to be) calendrical millennium	
STEM 3: (to be) approx. a ten-thousand year period	STEM 3: (to be) calendrical ten-thousand year period	

-ŘN- EPOCH-LENGTH TIME PERIODS		Associated Affix: EPC
INFORMAL	FORMAL	
STEM 1: (to be) approx. an age (approx. or up to a million years)	STEM 1: (to be) a geologic age	
STEM 2: (to be) approx. an epoch (approx. or up to 10 million years)	STEM 2: (to be) a geologic epoch	
STEM 3: (to be) approx. an era (approx. or up to 100 million years)	STEM 3: (to be) a geologic era	

-ZN- ‘CYCLE / REGULARITY / FREQUENCY / PERIODICITY / ITERATION’		Associated Affix: FRQ	
	STEM 1	STEM 2	STEM 3
BSC	(to be) something having a cycle or pattern of regularity; to be something cyclic, regular or periodic [both the entity and the cyclic pattern]	(to be) something with a particular cycle or pattern of regularity; to be something with a particular cycle or regular period [both the entity and the cyclic/periodic pattern]	(to be) something manifesting iteration/recurrence, i.e., happening more than once; to be something iterative/recurrent [both the entity and the recurrence]
CTE	(to be) a pattern of cyclic/regular/periodic activity [focus on pattern as distinct from other/different potential patterns]	(to be) the particular frequency/periodicity of a phenomenon (= the rate of its recurrences/manifestations); to recur; to repeat (in terms of temporal periodicity)	(to be) a pattern of iteration/recurrence [focus on the fact that iteration/recurrence demonstrates a potential pattern or precedent for further recurrence]
CSV	(to be) a process of cycling/periodicity [focus on significance that a pattern exists/occurs]	(to be) a process of cycling/recurring with a particular period [focus on the significance that such a pattern exists/occurs]	(to be) a process of iteration/recurrence [focus on the fact that there’s been a recurrence]
OBJ	(to be) the object/entity which displays cyclic/regular/periodic activity	(to be) the object/entity which displays the particular cycle/recurring/periodic pattern	(to be) the event/entity which has recurred
INT	(to be) purpose/intent of something being cyclic/regular/periodic	(to be) purpose/intent of something having that particular cycle/periodic pattern	(to be) purpose/intent of something having shown iteration/recurrence

-KK- PAST / PRESENT / FUTURE (based on Metaphor of a Progressive Linear Spacetime-line)		Associated Affix: TPP	
BSC	STEM 1: (to be) a past event/occurrence/entity (relative to the contextual present); to be/occur in the past [both the event/entity and its place on a linear timeline relative to the contextual present]	STEM 2: present event, entity, occurrence	STEM 3: future event, entity, occurrence
CTE	(to be) a past event [focus on what occurred, not when]		
CSV	(to be) when a past event occurred [focus on when it occurred, not what occurred]		
OBJ	(to be) the entity/object/circumstance impacted/affected by a past event/occurrence/entity		
INT	(to be) the purpose/intent of a past occurrence/event/entity		

NOTE: The above stems may be used in spatial contexts as well, in which case English translations might differ depending on context, e.g., ‘previous’, ‘former’, ‘once-’, ‘one-time’, ‘here’, ‘...at hand’, ‘there’, ‘-to-come’, ‘expected/awaited’, etc.

-NX- ‘TIMELINESS / PUNCTUALITY / EARLINESS / LATENESS’		Associated Affix: TME (formerly LAT)
	STEM 1	STEM 2
BSC	(to manifest) a degree of timeliness/punctuality; the extent to which something is timely/on-time [use a quantitative affix such as EXN, EXD, SUF, etc., to specify]	(to be) something that is early, sooner-than-expected, sooner-than-required
CTE	(to be) that which manifests a degree of timeliness/punctuality	(to be) that which is early
CSV	(to be) a state of timeliness/punctuality, being on time	(to be) a state of earliness, being sooner-than-required; to be early
OBJ	[same as CTE]	[same as CTE]
INT	(to be) the purpose/motive for (something) manifesting a degree of timeliness/punctuality	(to be) the purpose/motive for (something) being early

STEM 3: (to be something that is) late, untimely, tardy — Specification pattern is modeled after Stem 2

-CN- ‘STAGE / STEP / PHASE OF A PROCESS’		Associated Affix: STG
BSC	STEM 1: (to be a) step/stage/phase in a process [both the entity/entities/events/acts constituting the portion of the larger process and the process/state of being subdivided from the larger process]	STEM 2: (to be) a degree/grade or point on a progressive/scalar gradient STEM 3: (to be a) section, sub-unit, discernible/identifiable/differentiated “stretch” or portion of a progressively/successively structured entity/phenomenon
CTE	(to be the) entity/entities/activity/activities/act(s) within (or which constitute) a step/stage/phase of a process; to constitute the particulars of a stage in a process	
CSV	(to be) the act/state/process of being/functioning as a step /stage/phase of a process; to perform a step in a process	
OBJ	(to be the) process which is divided up into steps/stages/phases	
INT	(to be) the purpose/intent of there being steps/stages/phases to a process	

-TV- ‘SPACETIME / SPACE / PASSAGE OF TIME’		Associated Affix: STS
	STEM 1	
BSC	(to exist/occur at) a “location/period/instance” of spacetime; to exist/occur at a place and time [both the spatio-temporal location and the entity occupying it]	STEM 2: [the spatial component of Stem 1, i.e.,] (to be/occupy) a location in space; to be spatially located/situated at STEM 3: [the temporal component of Stem 1, i.e.,] (to occur) at a particular point/duration/period in time; to temporally take place at
CTE	one’s physical and temporal existence; to spatio-temporally exist	
CSV	(to be) a particular volume/duration of spacetime; (to be) a particular location/volume of space at a particular moment/period in time	
OBJ	(to be) an entity located at a particular place and time; (to be) a spatio-temporally existent entity	
INT	(to be) the motive/purpose of an entity’s spatio-temporal existence	

9.0 ROOTS RELATING TO SENSORY PHENOMENA

9.1 Roots Related to the Body's External Senses

-ŠK- 'EXTERNAL SENSATION / EXTERNAL SENSORY PERCEPTION' * Associated affix: SNX		
Informal Stems		Formal Stems
BSC	STEM 1: (to be/manifest) a sense/sensation [act of sensing + sensation itself]; an act of sensing something — [both the sensation and the sensing thereof]	FML STEM 1: (to be) a willful/deliberate sensory examination of something; an act of examining/detecting something via one's senses
CTE	(to be) a sensation, feeling, sensory input	
CSV	(to be) an act of sensing; to sense; to engage one's sense(s); perceive via one's sense(s)	FML STEM 2: (to be) an act of utilizing a sensory device/implement/instrument; utilize a sensor, detect via a sensor
OBJ	(to be) the entity/event/object one applies/aims one's senses at	
INT	(to be) the purpose (i.e., expected outcome) of an act of sensing; to experience/process a sensory input	
	INF STEM 2: (to be) a sensory organ INF STEM 3: (to be a) a sensory faculty; a bodily sense	FML STEM 3: (to be) an induced sensory experience; to create/induce a sensory experience

* Does not include proprioceptive, interoceptive, or vestibular senses

9.1.1 Auditory/Aural Sense

-NN- 'HEAR(ING) / SOUND'		
Informal Stems		Formal Stems
BSC	STEM 1: (to be) a sound and the hearing thereof [act of hearing + sound heard]; an act of hearing something — [both the sound and the hearing thereof]	FML STEM 1: (to be) a willful/deliberate act of hearing something, i.e. to listen to something; an act of listening to something
CTE	(to be) a sound; something heard	
CSV	(to be) an act of hearing; to hear; to use one's aural faculty	FML STEM 2: (to be) an act of utilizing a listening device/instrument; utilize a listening device (e.g., stethoscope, microphone, glass held up to a wall, ear-horn, etc.); detect via a listening device
OBJ	(to be) the entity/event/object whose sound(s) one hears	
INT	(to be) the purpose (i.e., expected outcome) of an act of hearing; to identify a sound	
	INF STEM 2: (to be) an inner ear (i.e., the organ(s)/tissue(s) responsible for generating aural signals to the brain) INF STEM 3: (to be) one's aural faculty; one's sense of hearing	FML STEM 3: (to be) an induced hearing experience; to create/induce a sound

9.1.2 Olfactory Sense

-ŽG- ‘SMELL / ODOR’		Affix: OLF
Informal Stems		Formal Stems
BSC	STEM 1: (to be) a smell/odor and the smelling thereof [act of smelling + the odor itself]; an act of smelling something — [both the odor and the smelling thereof]	FML STEM 1: (to be) a willful/deliberate act of smelling/sniffing something; to smell/sniff something; an act of smelling/sniffing something (deliberately) FML STEM 2: (to be) an act of utilizing an odor-detection device/instrument; use an olfactory(-like) sensor, detect via such a sensor (e.g., a smoke detector) FML STEM 3: (to be) an induced olfactory experience; to create/induce an odor
CTE	(to be) a smell/odor	
CSV	(to be) an act of smelling; to smell; to engage one’s olfactory sense	
OBJ	(to be) the entity/event/object whose odor one smells	
INT	(to be) the purpose (i.e., expected outcome) of an act of smelling; to identify an odor	
	INF STEM 2: (to be) one’s nose [as olfactory organ, not one’s nasal proboscis] INF STEM 3: (to be) one’s olfactory faculty; one’s sense of smell	

MORPHOLOGICAL DERIVATIONS: sniff, aroma, “bouquet”, perfume, stench

Roots for Specific Odors:

	-NKY- ‘PUNGENT/FUNKY/PUTRID/STINKY’
Stem 1	pungent odor (e.g., vinegar, ammonia, urine, stale coffee, vomit, etc.)
Stem 2	funky odor (e.g., of sweat, livestock, musk, tamri, ambergris, stinky cheeses, etc.)
Stem 3	putrid odor (e.g., as of rotting eggs, roadkill, feces, sulfur, low-tide, etc.)

	-RGY- ‘VEGETAL/PIQUANT/MUSTY’
Stem 1	vegetal odor (e.g., grass, garlic, onion, parsley, coriander, celery, etc.)
Stem 2	piquant odor (e.g., ginger, cinnamon, clove, chilies, horseradish, hot mustard, etc.)
Stem 3	musty odor (e.g., soil, mushrooms, aged compost, mold, moss, petrichor, etc.)

	-LMS- ‘SWEET/FRAGRANT/RESINOUS’
Stem 1	sweet odor (e.g., honey, raisin, caramel, apple, date, yam, etc.)
Stem 2	fragrant odor (e.g., vanilla, rose, almond, peach, jasmine, etc.)
Stem 3	resinous odor (e.g., camphor, sagebrush, eucalyptus, lavender, peppermint, etc.)

	-RZG- ‘CHEMICAL/BURNT/ACRID’
Stem 1	chemical odor (e.g., alcohol, gasoline, solvents, paint, etc.)
Stem 2	burnt odor (e.g., leather, toasted nuts, woodsmoke, tobacco, etc.)
Stem 3	acid odor (e.g., salt, copper, blood, tar, burning rubber, etc.)

The above four odor roots have the following Specification pattern:

BSC	(to be) something having a (particular) smell/odor
CTE	(to be/manifest) the particular odor (of something)
CSV	(to be) the odor perceived by an observer as being identifiable as a particular odor (i.e., the odor of something known)
OBJ	(to be) an entity having a particular odor (e.g., “the acrid-smelling one”)
INT	(to be) the desired/expected effect of a particular odor; CPT = (to be) the effect of (there being) a particular odor

In addition to the above four roots, the OLF affix is available to identify the odor associated with any applicable formative.

9.1.3 Gustatory Sense

-SF- ‘SENSE OF TASTE / THE TASTE OF SOMETHING’ Associated Affix: GST		
Informal Stems		Formal Stems
BSC	STEM 1: (to be) the flavor of something and the act of tasting thereof [act of tasting + the flavor itself]; an act of tasting the flavor of something — [both the flavor and the sensing thereof]	FML STEM 1: (to be) a willful/deliberate tasting of something; an act of examining/detecting a flavor via one’s gustatory sense FML STEM 2: (to be) an act of utilizing a gustatory device/instrument; utilize a gustatory sensor, detect via a gustatory sensor FML STEM 3: (to be) an induced gustatory experience; to create/induce a specific flavor
CTE	(to be) a flavor	
CSV	(to be) an act of tasting; to taste; to engage one’s gustatory sense	
OBJ	(to be) the entity/event/object whose flavor one tastes	
INT	(to be) the purpose (i.e., expected outcome) of an act of tasting; to identify a flavor	
	INF STEM 2: (to be) a taste bud (i.e., the gustatory organ) INF STEM 3: (to be) one’s gustatory faculty; one’s sense of taste	

Roots for Specific Flavors:

-MS- ‘SWEET FLAVOR’	
Stem 1	sweet flavor
Stem 2	fruity/citrus/tarty-flavor
Stem 3	floral-like sweet flavor

-ZG- ‘BITTER FLAVOR’	
Stem 1	bitter flavor
Stem 2	bitter + sweet
Stem 3	bitter + sour

	-SPŘ- ‘ SOUR FLAVOR ’
Stem 1	sour flavor
Stem 2	sour + rancid flavor
Stem 3	sweet + sour flavor

	-ĽK- ‘ SALTY / SPICY / UMAMI ’
Stem 1	salty flavor
Stem 2	spiciness / piquant flavor
Stem 3	umami/savory flavor

	-XX- ‘ FOUL/RANCID FLAVOR ’
Stem 1	foul/rancid flavor
Stem 2	spoiled/rotten flavor
Stem 3	vinegary flavor

	-ŘŇ- ‘ CHEMICAL-LIKE FLAVOR ’
Stem 1	chemical-like flavor
Stem 2	metallic flavor
Stem 3	astringent/acidy flavor

The six flavor roots above take the following Specification pattern:

BSC	(to be) something having a (particular) flavor
CTE	(to be/manifest) the particular flavor (of something)
CSV	(to be) an identifiable flavor
OBJ	(to be) an entity having a particular flavor (e.g., “the bitter-tasting one”)
INT	(to be) the desired/expected effect of a particular flavor; CPT = (to be) the effect of (there being) a particular flavor

The following new affix allows one to name any flavor:

-sf	GST Gustatory Associations
1	having the flavor of X
2	having an flavor like/similar to X
3	having an flavor reminiscent of X
4	having an flavor that has the same effect as X
5	having an flavor that has an effect similar to that of X
6	having both a flavor and aroma reminiscent of X
7	having both the flavor and aroma like/similar to X
8	having both the flavor and aroma of X
9	X’s flavor; the flavor which one tastes when one eats/chews/drinks/consumes X

9.1.4 Visual Sense

-Ž- ‘SEE / SIGHT / VISION’		
Informal Stems		Formal Stems
BSC	STEM 1: (to be) a sight and the seeing thereof; to see something [act of seeing + the sight itself]; an act of seeing something	FML STEM 1: (to be) a willful/deliberate act of seeing something; an act of looking at something; to look (at)
CTE	(to be) a visual image; the image one sees	
CSV	(to be) an act of seeing; to see; to engage one’s visual faculty	FML STEM 2: (to be) an act of utilizing a visual-sensory device//instrument; utilize a visual sensor, detect via a visual sensor (e.g., camera, telescope, binoculars, microscope, etc.)
OBJ	(to be) the object/entity/sight one sees	
INT	(to be) the purpose (i.e., expected outcome) of an act of seeing; to experience/process a visual image	
	INF STEM 2: (to be) an eye (as organ of vision) INF STEM 3: (to be a) the visual faculty/sense; one’s vision	FML STEM 3: (to be) an induced visual experience; to create/induce a visual experience; create/project an image

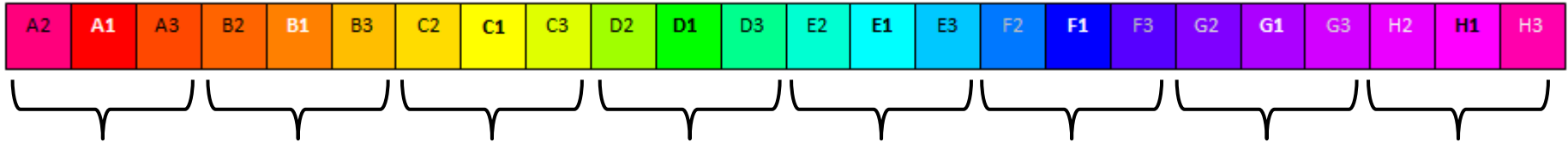
MORPHOLOGICAL DERIVATIONS: view, glimpse, glance, ogle, gawk, stare, spy, espy, peep, voyeur, panorama, scrutinize (visually), camera, telescope, microscope, binoculars, magnifying glass, lens, glasses

-ŠP- ‘COLOR’ Associated affix: VSR		
BSC	STEM 1: (to be) something having a (particular) color / something colored	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).
CTE	(to be/manifest) the particular color (of something)	
CSV	(to be/manifest) the (reflected) light of (a certain wavelength) that is perceived by an observer as being a particular color	
OBJ	(to be) an entity having a particular color (e.g., “the red one”)	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).
INT	(to be) the desired/expected effect of a particular color; CPT = (to be) the effect of a particular color	

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

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

9.1.4.1 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.

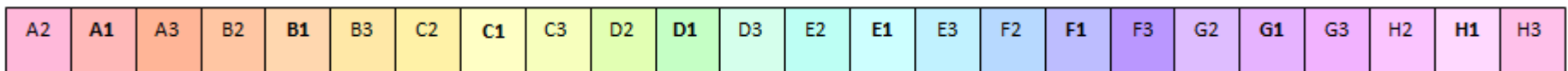


	-GY- 'RED'	-ŇR- 'ORANGE'	-ML- 'YELLOW'	-ČW- 'GREEN'	-DR- 'CYAN'	-LW- 'BLUE'	-ŽL- 'VIOLET'	-VM- 'MAGENTA'
Stem 1	red	orange	yellow	green	cyan	blue	violet, purple	magenta
Stem 2	pinkish-red, rose	reddish orange	orangy-yellow, gold(en yellow)	yellowish-green, chartreuse	greenish blue, teale blue	lighter 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

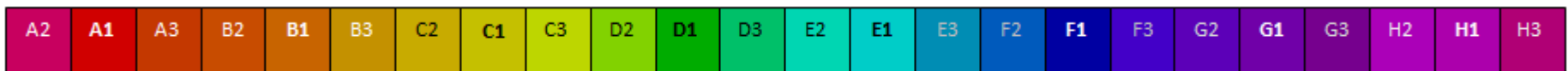
The CLD and COL affixes may be utilized with all color stems (as well as non-color stems where semantically productive). For dichroic (2-colored) descriptions, incorporate one color stem into another using COMITATIVE format.

As can be seen from the two strips below, 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.

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



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



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 a tangible object.

Stems 2 and 3 of the following three roots 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

9.1.5 Tactile Sense

-FT- ‘TOUCH / FEEL / TEXTURE / TACTILE PERCEPTION’	
Informal Stems	
Formal Stems	
BSC	STEM 1: (to be) a tactile sensation/texture and the act of touching [act of tactilely feeling something + the sensation itself]; an act of touching/feeling something
CTE	(to be) a tactile sensation, a tactile feeling, a texture; to feel a particular texture
CSV	(to be) an act of touching; to touch, to feel (tactilely); to engage one’s tactile sense
OBJ	(to be) the entity//object one touches/feels
INT	(to be) the purpose (i.e., expected outcome) of an act of touching; to identify a tactile sensation
	INF STEM 2: (to be) one’s tactile organ(s) (i.e., the epidermal layer of the body as tactile sensor) INF STEM 3: (to be a) the tactile faculty; sense of touch
	FML STEM 1: (to be) a willful/deliberate tactile examination of something; an act of feeling something (e.g., with one’s hands, skin, lips, tongue, etc.) FML STEM 2: (to be) an act of utilizing a tactile-like sensory device/instrument; utilize a tactile-like sensor, detect via a tactile-like sensor FML STEM 3: (to be) an induced tactile sensory experience; to create/induce a tactile sensory experience

The 30 texture/tactile sensation roots listed below have the following Specification pattern:

BSC	something having a (particular) texture or tactile sensation; to be something having a (particular) texture or tactile sensation
CTE	the particular texture or tactile sensation (of something); to be/have a particular texture or tactile sensation
CSV	the texture or tactile sensation perceived and being identifiable as a particular texture or tactile sensation (i.e., the texture or tactile sensation of something known); to be the particular texture or tactile sensation perceived
OBJ	an object/entity having a particular texture or tactile sensation (e.g., “the spongy-feeling one”); to be an entity having a particular texture or tactile sensation (e.g., “to be the spongy-feeling one”)
INT	(to be) the desired/expected effect of a particular texture or tactile sensation; CPT = (to be) the effect of (there being) a particular texture or tactile sensation

	-GS- ‘CHUNKY/GRITTY TEXTURE’
Stem 1	chunky textured (chunk-like, irregular/coarse pieces one can easily hold between thumb and forefinger)
Stem 2	gravel-like sensation
Stem 3	coarse/gritty sensation like sand

	-DF- ‘BUMPY TEXTURE’
Stem 1	bumpy, i.e., having individually discernible bumps on an otherwise quasi-linear or quasi-planar surface
Stem 2	stucco-like texture, i.e., rough texture of small, irregular bumps individually discernible only through closer inspection
Stem 3	pitted or serrated texture

	-VT- ‘FLAKY / SCALY TEXTURE’
Stem 1	flaky textured
Stem 2	scaly textured
Stem 3	‘confetti’ textured - like small flat pieces of paper

	-ZH- ‘ROUGH / BRISTLY TEXTURE’
Stem 1	rough-textured like sandpaper
Stem 2	bristly textured
Stem 3	prickly textured

	-KD- ‘HARD / RIGID TEXTURE’
Stem 1	hard/rigid (not malleable/pliable when subject to pressure from a blow/hit/sustained pressure point, etc.)
Stem 2	hard/-rigid and naturally smooth/even-surfaced
Stem 3	hard/-rigid and naturally rough/uneven-surfaced

	-VX- ‘SEMI-HARD / SEMI-RIGID TEXTURE’
Stem 1	semi-hard/semi-rigid (slightly malleable/pliable when subject to pressure from a blow/hit/sustained pressure point, etc.)
Stem 2	semi-hard/semi-rigid and naturally smooth/even-surfaced
Stem 3	semi-hard/semi-rigid and naturally rough/uneven-surfaced

	-GC- ‘SOLID BUT MALLEABLE TEXTURE’
Stem 1	solid but malleable/bendable texture (e.g., like a piece of wire or thin piece of copper plating)
Stem 2	plastic-like texture
Stem 3	cartilaginous texture

	-BS- ‘SOFT TEXTURE’
Stem 1	soft like a cushion
Stem 2	downy texture
Stem 3	curvaceous/sensual (= soft/smooth/squeezable/rounded) texture/sensation

	-VC- ‘GROOVED / STRIATED TEXTURE’
Stem 1	grooved textural pattern
Stem 2	striated textural pattern
Stem 3	cross-hatched textural pattern

	-BT- ‘WET / MOIST TEXTURE’
Stem 1	wet / liquidy
Stem 2	moist / damp
Stem 3	soggy / waterlogged / liquid-saturated

	-PZ- ‘VISCIOUS / GOOEY TEXTURE’
Stem 1	viscous, gooey textured
Stem 2	jelly-like texture
Stem 3	sticky textured

	-XŽ- ‘DUSTY/POWDERY TEXTURE’
Stem 1	dusty
Stem 2	powdery
Stem 3	smooth granular (e.g., processed granules)

	-SG - ‘SLICK / SLIPPERY TEXTURE’
Stem 1	slick to the touch
Stem 2	slippery
Stem 3	slimy

	-ZF- ‘GUMMY / RUBBERY TEXTURE’
Stem 1	gummy texture
Stem 2	rubbery texture
Stem 3	clay-like texture

	-ŠD- ‘SLUSHY / MUSHY TEXTURE’
Stem 1	slushy texture
Stem 2	mushy texture
Stem 3	frothy / foamy texture

	-DL- ‘WAXY / OILY TEXTURE’
Stem 1	oily texture
Stem 2	waxy texture
Stem 3	lard-like. greasy texture;

	-FG- ‘HAIRY / FURRY TEXTURE’
Stem 1	hairy texture/sensation
Stem 2	soft furry/feathery/downy texture
Stem 3	woolly texture/sensation

	-TG- ‘PAPERY / FOIL-LIKE TEXTURE’
Stem 1	texture like paper
Stem 2	texture like metallic foil
Stem 3	texture like cellophane

	-JX- ‘GRATED TEXTURE’
Stem 1	grated / honeycomb-like texture (2-D planar)
Stem 2	grated / honeycomb-like texture (3-D volume, e.g., like a pinecone)
Stem 3	grated / honeycomb-like texture (malleable, pliable surface)

	-ŽT- ‘VARIATED TEXTURE’
Stem 1	lumpy texture; having congealed/harder lumps within a surrounding less-congealed or more pliable/malleable medium
Stem 2	multi-textured; quasi-predictable tactile patterns alternating between 2 or more sensations within the same tactile experience
Stem 3	irregularly textured; unpredictable tactile pattern alternating between two or more sensations within the same tactile experience

	-CD- ‘SHARPNESS’
Stem 1	point-like, needle-like sharpness
Stem 2	blade-like sharpness
Stem 3	sharpness of an irregular edge (e.g., broken glass)

	-SD- ‘BOUNCY / ELASTIC TEXTURE’
Stem 1	bouncy texture
Stem 2	elastic / stretchy texture
Stem 3	sponge-like recoiling texture

	-ZX- ‘TINGLY / VIBRATING TEXTURE’
Stem 1	tingly / tingling texture
Stem 2	vibrating/purring texture
Stem 3	pulsating/thumping texture

	-KD - ‘CAUSTIC / BURNING TACTILE SENSATION’
Stem 1	burning tactile sensation
Stem 2	caustic / corrosive tactile sensation
Stem 3	irritating tactile sensation

	-VT- ‘STRINGY, FIBROUS TEXTURE’
Stem 1	stringy texture
Stem 2	fibrous, twine-like texture
Stem 3	rope-like, cord-like texture

	-ŠB- ORAL TEXTURE’
Stem 1	chewy texture (in mouth)
Stem 2	“tough” texture (in mouth, e.g., of meat)
Stem 3	“melt-in-your-mouth” savory texture

	-XČ- ‘WARM / HOT TACTILE SENSATION’
Stem 1	warm to the touch
Stem 2	hot to the touch
Stem 3	burning hot to the touch

	-KV- ‘COOL / COLD TACTILE SENSATION’
Stem 1	cool to the touch
Stem 2	cold to the touch
Stem 3	freezing cold to the touch

	-LV- ‘WISPY / FLUFFY TEXTURE’
Stem 1	wispy/wafting/misty texture
Stem 2	fluffy/puffy/cottony texture
Stem 3	“cobwebby”/like cotton-candy texture

	-SB- ‘SMOOTH / ROUNDED TEXTURE’
Stem 1	smooth (i.e., having no discernible surface changes/irregularities/indentations)
Stem 2	rounded / knobbed (e.g., a doorknob)
Stem 3	dull / blunt

9.2 Roots Related To Affective Sensory States (i.e., Proprioceptive, Interoceptive, and Vestibular-Sensory States)

-MGR̥- ‘INTEROCEPTION’	
Informal Stems	
Formal Stems	
BSC	STEM 1: (to be) an interoceptive sensation and the sensing thereof [act of sensing + sensation itself]; an act of interoceptively sensing something — [both the sensation and the sensing thereof]
CTE	(to be) an interoceptive sensation, interoceptive feeling
CSV	(to be) an act of interoception; to sense interoceptively; to perceive via one’s interoceptive sense(s)
OBJ	(to be) the organ/bodily system/process which gives rise to an interoceptive sensation
INT	(to be) the purpose (i.e., expected outcome) of an act of interoception; to identify an interoceptive sensation
	INF STEM 2: (to be) one of the body’s potentially interoceptive organs/structures/tissues INF STEM 3: (to be) the interoceptive faculty; the sense of interoception
	FML STEM 1: (to be) a willful/deliberate act of interoception; an act of examining/detecting one’s bodily state via one’s interoceptive sense
	FML STEM 2: (to be) an act of utilizing a sensory device/instrument for interoceptive purposes; utilize a diagnostic device to determine one’s bodily state
	FML STEM 3: (to be) an induced interoceptive experience; to create/induce an interoceptive sensory experience

-LVŘ- ‘PROPRIOCEPTION / KINAESTHESIA’ i.e., physical sense of bodily movement, position, and coordination	
Informal Stems	
Formal Stems	
BSC	STEM 1: (to be) an proprioceptive sensation and the sensing thereof [act of sensing + sensation itself]; an act of proprioceptively sensing something — [both the sensation and the sensing thereof]
CTE	(to be) an proprioceptive sensation, proprioceptive feeling, feeling of bodily motor coordination
CSV	(to be) an act of proprioception; to sense proprioceptively; to perceive via one’s proprioceptive sense(s)
OBJ	(to be) an organ/bodily system/process which gives rise to an proprioceptive sensation, i.e., muscle, joint, tendon.
INT	(to be) the purpose (i.e., expected outcome) of an act of proprioception; to identify one’s bodily movement(s) and/or position
	INF STEM 2: (to be) one of the body’s proprioceptive organs/structures/tissues, i.e., muscle, joint, tendon. INF STEM 3: (to be) the proprioceptive/kinaesthetic faculty; the sense of proprioception/kinaesthesia
	FML STEM 1: (to be) a willful/deliberate act of proprioception; an act of examining/detecting one’s bodily movement/position via one’s proprioceptive sense
	FML STEM 2: (to be) an act of utilizing a sensory device/instrument for proprioceptive purposes; utilize a diagnostic device to determine one’s bodily state of movement/position
	FML STEM 3: (to be) an induced proprioceptive experience; to create/induce a sense of a particular bodily movement or position

-NDR- ‘VESTIBULAR SENSATION’ i.e., physical sense of bodily balance and spatial orientation	
Informal Stems	
Formal Stems	
BSC	STEM 1: (to be) a vestibular sensation and the sensing thereof [act of sensing + sensation itself]; an act of sensing one’s balance and spatial orientation — [both the sensation and the sensing thereof]
CTE	(to be) one’s feeling of physical balance and spatial orientation
CSV	(to be) an act of vestibular sensation; to perceive one’s feeling of balance and spatial orientation
OBJ	(to be) an organ/bodily system/process which gives rise to a vestibular sensation, i.e., inner ear organelle(s).
INT	(to be) the purpose (i.e., expected outcome) of an act of vestibular sensation; to identify one’s state of physical balance and spatial orientation
	INF STEM 2: (to be) one of the body’s vestibular organs/structures/tissues INF STEM 3: (to be) the vestibular faculty; the sense of balance and spatial orientation
	FML STEM 1: (to be) a willful/deliberate act of vestibular; an act of assessing one’s balance and spatial orientation via one’s vestibular sense FML STEM 2: (to be) an act of utilizing a sensory device/instrument for vestibular purposes; utilize a diagnostic device to determine one’s bodily state of balance and spatial orientation FML STEM 3: (to be) an induced vestibular experience; to create/induce a sense of a particular state/sensation of bodily balance and spatial orientation

The affective proprioceptive, interoceptive, and vestibular-sensory roots listed below have the following Specification pattern.

BSC	(to be) the particular affective state and the sensing thereof [act of sensing + sensation itself]; to experience the particular affective state [both the sensing and the sensation itself]
CTE	(to be) an affective sensation, an affective feeling/state itself
CSV	(to be) the physical manifestation(s) of an affective sensation; to undergo/experience the physical manifestation(s) of an affective state
OBJ	(to be) an organ/bodily system/process which gives rise to a particular affective state
INT	(to be) the purpose (i.e., expected outcome) of an affective state

-DM- ‘SENSATION OF WARMTH’	
Stem 1	feel warm (inside one’s body)
Stem 2	feel hot (inside one’s body)
Stem 3	feel feverish (inside one’s body)

-XN- ‘SENSATION OF COOLNESS’	
Stem 1	feel cool (inside one’s body)
Stem 2	feel cold (inside one’s body)
Stem 3	feel chilled / have the chills (inside one’s body)

	-ŃGW- ‘PHYSICAL SENSE OF WELL-BEING’
Stem 1	feel good, feel sense of physical well-being
Stem 2	feel relaxed
Stem 3	feel post-orgasmic/post-coital bliss; “afterglow”

	-LṬN- ‘PHYSICAL “HIGH” / EUPHORIA / ALTERED STATE OF CONSCIOUSNESS’
Stem 1	natural “high” / natural state of euphoria (physical/sensory, not emotional in origin)
Stem 2	chemically-induced “high”
Stem 3	trance-like state / altered state of consciousness

	-PSW- ‘RESPIRATION’
Stem 1	breathe
Stem 2	pant (i.e., due to physical/sexual exertion, excitement, fright, etc.)
Stem 3	gasp (i.e., once, as in surprise, shock, pain, etc.)

	-MSŘ- ‘RESPIRATORY DIFFICULTY’
Stem 1	wheeze
Stem 2	have râles
Stem 3	choke / asphyxiate

	-GZŘ- ‘AUTONOMIC RESPIRATORY REACTIONS’
Stem 1	feel need to yawn [CPT = to yawn]
Stem 2	feel need to cough [CPT = to cough]
Stem 3	feel need to sneeze [CPT = to sneeze]

	-JŘ- ‘GASTRO-INTESTINAL PAROXYSMS’
Stem 1	feel need to belch/burp [CPT = to belch/burp]
Stem 2	feel need to vomit [CPT = to vomit]
Stem 3	feel need to fart [CPT = to fart]

	-PSŘ- ‘HAVE AN ITCH; TO ITCH’
Stem 1	have an itch; to itch
Stem 2	feel a tingling sensation (on skin)
Stem 3	feel a burning sensation (on skin)

	-CXW- ‘TACTILE INJURIES TO SKIN’
Stem 1	feel a scrape
Stem 2	feel a bruising/contusion
Stem 3	feel a pinch(ing)

	-FN- ‘HUNGER / THIRST’
Stem 1	feel hungry
Stem 2	feel thirsty
Stem 3	feel undernourished

	-ḶM- ‘FEEL TIREDNESS/FATIGUE’
Stem 1	feel tiredness/fatigue
Stem 2	feel drowsiness/sleepiness
Stem 3	feel unfocused/groggy

	-ČŘ- ‘BODILY WASTE ELIMINATION’
Stem 1	feel need to urinate [CPT = to urinate]
Stem 2	feel need to defecate [CPT = to defecate]
Stem 3	feel need to spit [CPT = to spit]

	-TFŘ- ‘FEEL INTEROCEPTIVE BODILY MOVEMENT’
Stem 1	feel bloated/gassy
Stem 2	feel stomach/intestines “rumbling”
Stem 3	feel stomach contents “shift”

	-LW- ‘ABNORMAL INTEROCEPTIVE SENSATION’
Stem 1	feel light-headed / dizzy
Stem 2	feel faint
Stem 3	feel shock / be in shock

	-FTR- ‘ABNORMAL AFFECTIVE TACTILE SENSATION [ON SKIN]’
Stem 1	feel a tickle
Stem 2	feel a prickly sensation
Stem 3	feel an “ants/spiders crawling” sensation

	-MBŘ- ‘ABNORMAL VESTIBULAR-PROPRIOCEPTIVE SENSATION’
Stem 1	feel vestibular lack of balance; feel off-balance/unbalanced / having impaired balance / off-kilter
Stem 2	feel awkwardness/unfamiliarity with one’s bodily motor coordination (e.g., when drunk, following a stroke, during puberty, etc.)
Stem 3	feel “shaky”, difficulty in controlling one’s vestibular/muscular coordination (e.g., due to shock, illness, etc.)

	-CTW- ‘PENETRATIVE SENSATION THROUGH SKIN’
Stem 1	feel a sting/prick
Stem 2	feel a stab; feel a piercing; sharp penetration through skin
Stem 3	feel a bite (by a toothed entity)

	-ŇN- ‘PAIN’
Stem 1	feel external tactile pain
Stem 2	feel interoceptive/proprrioceptive pain
Stem 3	feel muscular strain

	-VZW- ‘SOCIALY-BASED PLEASURABLE TACTILE SENSATION’
Stem 1	sensation from having body or part of body massaged
Stem 2	sensation from having back scratched
Stem 3	caress / feel of “soft touch” / “social touch” (a.k.a. affective touch, somatosensory touch)

	-JDW- ‘AFFECTIVE TACTILE REACTIONS’
Stem 1	feel “a thrill down one’s spine”
Stem 2	feel one’s “hairs standing on the back of one’s neck”
Stem 3	“have the creeps / have the willies”

	-LBW- ‘CARDIOGENIC SENSATION’
Stem 1	feel one’s heart beating
Stem 2	feel one’s heart racing
Stem 3	feel one’s heart fluttering

	-KŘ- ‘FEEL ILL / SICK’
Stem 1	feel ill/sick/unhealthy
Stem 2	feel torpor/lethargy
Stem 3	feel weakness

	-KSN- ‘POSITIVE OVERALL PHYSICAL STATE’
Stem 1	feel energized/alert
Stem 2	feel physically in shape
Stem 3	feel physically strong

	-LŇN- ‘PHYSICAL/SENSORY PLEASURE’
Stem 1	feel physical/sensory pleasure
Stem 2	feel physical relief (from previous state of pain/strain/fatigue, etc.)
Stem 3	feel physical satisfaction/satiety

9.2 Affective Mental/Psychological States

The 12 roots below designate various affective mental/psychological states which have quasi- or pseudo-informational “content”. They have the following Specification pattern:

BSC	(to be) the particular affective state and the sensing thereof [act of sensing + sensation itself]; to experience the particular affective state [both the sensing and the sensation itself]
CTE	(to be) the semiotic-informational content of the particular affective state
CSV	(to be) the physical manifestation(s) of the affective state; to undergo/experience the physical manifestation(s) of the particular affective state
OBJ	(to be) the circumstance(s)/event/situation which triggers or gives rise to the particular affective state
INT	(to be) the purpose (i.e., expected outcome) of the affective state

	-TW- ‘DREAM’
Stem 1	dream
Stem 2	lucid dream
Stem 3	nightmare

	-LḐŘ- ‘ILLUSION / SYNAESTHESIA / HALLUCINATION’
Stem 1	sensory illusion (i.e., misinterpretation of a real sensory experience)
Stem 2	synaesthetic experience
Stem 3	hallucination; apparition

	-ZKŘ- ‘PARANORMAL EXPERIENCE’
Stem 1	paranormal experience
Stem 2	telepathathic experience
Stem 3	state/act of clairvoyance

	-DGW- ‘PREMONITION / PRESCIENCE’
Stem 1	premonition / a vision
Stem 2	state of prescience / precognition
Stem 3	interpret/read “signs” (e.g., haruspex, fortune-telling, divination, aeromancy, etc.)

	-LŘ- ‘INSTINCT’
Stem 1	instinct; act/behave on instinct [state + content]
Stem 2	involuntary state/act; reflex
Stem 3	autonomic state/reflex

	-MN- ‘MOOD / TEMPERAMENT / NATURE’
Stem 1	mood; behave based on a mood
Stem 2	one’s natural/usual “default” demeanor / temperament
Stem 3	one’s nature / the essence of one’s sense of self and one’s place in the world

	-FTW- ‘DECEPTION / BEGUILEMENT/ DELUSION’
Stem 1	state of being deceived/fooled; act/behave based on being under a deception
Stem 2	state of being beguiled/ /seduced; act/behave based on having been beguiled/seduced or psychologically manipulated
Stem 3	state of delusion, be deluded

	-ŠFW - ‘DÉJÀ VU / JAMAIS VU’
Stem 1	state of déjà vu
Stem 2	state of jamais vu
Stem 3	state of disbelief in one’s circumstance / sense of unreality regarding the present moment

	-STW- ‘DISSOCIATIVE STATE’
Stem 1	state of daydreaming
Stem 2	state of being mesmerized (inattentive to surroundings)
Stem 3	state of sleepwalking

	-ŽDW- ‘INDUCED DISSOCIATIVE STATES’
Stem 1	meditative state
Stem 2	hypnotic state
Stem 3	out-of-body experience

	-BŘ- ‘IRRATIONALITY / MENTAL ILLNESS’
Stem 1	state of irrationality
Stem 2	state of having a non-violent psychological disorder
Stem 3	state of violent or dangerous madness/insanity

	-VZN- ‘SPONTANEOUS SUSPICION OVER PERSONAL SPACE’
Stem 1	feeling of being watched
Stem 2	feeling that one is not alone; feeling that someone else is present
Stem 3	feeling that something ominous is about to happen

	-FF- ‘PSYCHOLOGICAL PLEASURE’ Associated Affix: PLE
Stem 1	feel psychological/emotional pleasure
Stem 2	feel psychological relief (from previous state of mental stress, grief, worry, etc.)
Stem 3	feel psychological sense of satisfaction/satiety

9.3 Roots Related To Affective Unconscious/Semi-Conscious Autonomic States/Acts

Similar to the interoceptive/proprioceptive/vestibular roots above, the roots below designate various affective bodily states or acts. They take the following Specification pattern:

BSC	(to be) the particular affective state and the experience thereof [act of experiencing the state + the state itself]; to experience the particular affective state [both the experience and the state itself]
CTE	(to be) the particular affective experience, the affective act/state itself
CSV	(to be) the physical manifestation(s) of the affective experience; to undergo/experience the physical manifestation(s) of the particular affective state
OBJ	(to be) an organ/bodily system/process which gives rise to the particular affective state
INT	(to be) the intent/ purpose (i.e., expected outcome) of the affective state

	-JW- ‘LAUGHTER’
Stem 1	laugh
Stem 2	snicker
Stem 3	chuckle

	-PLŁ- ‘ORAL-NASAL REFLEX’
Stem 1	make oral sound of derisiveness (e.g., “pfft”, “pshhh”, etc.)
Stem 2	drop jaw (i.e., open mouth suddenly in surprise/shock/pain)
Stem 3	snort (e.g., in disgust)

	-BDY- ‘MISC. AUTONOMIC BODILY PROCESSES’
Stem 1	blink eyelids
Stem 2	digest stomach contents
Stem 3	sweat

	-ŽBŘ- ‘OSCILLATIVE AFFECTIVE BODILY STATE’
Stem 1	shiver
Stem 2	fidget (unconscious)
Stem 3	shake leg or foot (unconscious)

	-GŽ- ‘FLINCH / JOLT / DUCK’
Stem 1	flinch/jolt
Stem 2	duck/crouch (as self-preservation reflex)
Stem 3	jump/leap out of the way (as self-preservation reflex)

	-ŽN- ‘AFFECTIVE SEXUAL RESPONSE’
Stem 1	sexual arousal response (e.g., erection, lubrication, hardening of nipples, etc.)
Stem 2	approach orgasm [CPT = achieve orgasm]
Stem 3	ejaculation

	-TKŘ- ‘NEURO-MUSCULAR REACTION’
Stem 1	nervous tic
Stem 2	spasm
Stem 3	cramp

9.4 Roots Related To Semi-Conscious Habitual Acts

The following roots for semi-conscious habitual acts follow the same Specification pattern as the affective states immediately above.

	-STN- ‘NERVOUS HABIT’
Stem 1	bite fingernails
Stem 2	pick nose
Stem 3	crack knuckles

	-XPW- ‘HABITUAL ACTION’
Stem 1	scratch oneself (unconsciously)
Stem 2	rub or pinch oneself
Stem 3	suck thumb

	-DMW- ‘EMOTION-BASED PHYSICAL REACTION’
Stem 1	shrug
Stem 2	roll eyes
Stem 3	frown

	-TPŘ- ‘HABITUAL ORAL ACTIONS’
Stem 1	purse lips
Stem 2	make smacking or other oral clicking sound
Stem 3	trill lips

	-MW- 'SMILE / GRIN'
Stem 1	smile (lips closed)
Stem 2	smile (show teeth)
Stem 3	grin

	-RTN- 'FIDDLE / PLAY ABSENT-MINDEDLY'
Stem 1	play with hair
Stem 2	play with piece of clothing or jewelry (unconsciousness)
Stem 3	fiddle with object

9.5 Roots For Emotional States

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 have the following Stem & Specification pattern:

BSC	STEM 1: (to be in) a non-volitional (affective) state (both internal, psychological manifestations and external, visible manifestations)	STEM 2: [same as Stem 1 except that the affective state is specifically a non-volitional emotional state] STEM 3: [same as Stem 1 except that the affective state is specifically a non-volitional physical/bodily (i.e., non-psychological state), e.g., being hot/cold, coughing, sneezing, fainting, sleepy/tired, hungry, etc.]
CTE	(to be) the internal psychological, and proprioceptive sensation of being in such a state; to experience such manifestations	
CSV	(to be) the "look" of being in such a state. i.e., the outward (visible or externally discernible) manifestation of being an affective state; to have the "look" of, (i.e., outwardly manifest the signs of) being in an emotional state	
OBJ	(to be) the act/event/situation/circumstance(s) which trigger or give rise to an affective state	
INT	(to be in) the state of being driven/controlled/motivated to act/do something by being in an affective state; to be driven to (an) act based of one's affective state CPT=the consequential act carried out due to being in an affective state; to carry out an act based on being in an affective state	

9.5.1 Desirable/Positive Emotions

green = will also be a bias category

-NGY-	<ol style="list-style-type: none"> 1. feel(ing of) jollity/merriment/delight 2. feel(ing of) happiness 3. feel(ing of) jubilation (= short-term sense of joy)
-RPL-	<ol style="list-style-type: none"> 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
-TKY-	<ol style="list-style-type: none"> 1. feel(ing of) gleefulness/fun/amusement 2. feel(ing of) free-spiritedness/frivolity 3. feel(ing of) playfulness, gregariousness
-RTK-	<ol style="list-style-type: none"> 1. feel(ing of) sympathy / commiseration 2. feel(ing of) compassion 3. feel(ing of) empathy
-NTK-	<ol style="list-style-type: none"> 1. feel(ing of being) hopeful; wishful for beneficial outcome 2. feel(ing of being) encouraged 3. feel(ing of) optimism
-TMY-	<ol style="list-style-type: none"> 1. feel(ing of being) honored/privileged 2. feel(ing of being) beholden, wanting to give back 3. feel(ing of being) humble, humility
-RKY-	<ol style="list-style-type: none"> 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-	<ol style="list-style-type: none"> 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-	<ol style="list-style-type: none"> 1. feel(ing of) tolerance 2. feel(ing of being) accepting 3. feel(ing of being) trusting
-NTR-	<ol style="list-style-type: none"> 1. feel(ing of) joy [= long-term sustained sense of happiness + sense of security in one’s happiness + serene introspective appreciation for the situation that brings such a state) 2. feel(ing of) joy centered on what one has accomplished 3. feel(ing of) joy centered on one’s social/familial/romantic connections

-SMW-	<ol style="list-style-type: none"> 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-	<ol style="list-style-type: none"> 1. feel(ing of) enjoyment 2. feel(ing of) excitement 3. feel(ing of) thrill, “whee!”
-TPL-	<ol style="list-style-type: none"> 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-	<ol style="list-style-type: none"> 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-	<ol style="list-style-type: none"> 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
-LPW-	<ol style="list-style-type: none"> 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-	<ol style="list-style-type: none"> 1. kindness, warm-heartedness 2. benevolent, helpful, beneficent 3. kindness, magnanimity, generosity
-GZZ-	<ol style="list-style-type: none"> 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-	<ol style="list-style-type: none"> 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

9.5.2 Emotions Associated With Personal Relationships/Intimacy

-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
-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
-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
-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, hygge
-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
-PKR-	<ol style="list-style-type: none"> 1. feel(ing of) embarrassment at receiving flattery 2. feel(ing of being) indebted to someone (willingly, fairly) 3. feel(ing of being) indebted to someone (unwillingly, resentfully)
-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

9.5.3 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
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-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"
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-ŽT-	1. feel(ing of) curiosity 2. feel(ing of) interest 3. feel(ing of) intrigued
-ŽČ-	1. feel(ing of) wistfulness/longing/yearning 2. feel(ing of) sentimentality/nostalgia 3. feel(ing of) saudade
-KFF-	1. feel(ing of) nonchalance/indifference/disinterest/incuriosity 2. feel(ing of) disdain/dismissiveness 3. feel(ing of) apathy
-GŽT-	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-	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-	1. feel(ing of) passion 2. feel(ing of) infatuation/obsessiveness 3. feel(ing of) worship/adoration
-ĐK-	1. feel(ing of) contemplation; feel contemplative 2. feel(ing of) pensiveness; feel pensive 3. feel(ing of) brooding; feel in brooding mood
-KLL-	1. feel(ing of) surprise 2. feel(ing of) amazement, astonishment 3. feel(ing of) awe, wonder
-CD-	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
-MML-	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, of conquering a personal challenge 3. feel(ing of) victory, that one has vanquished an enemy
-JK-	1. feel(ing of) willingness to take a risk, steeling one’s nerves against 2. brave, fearless 3. feel(ing of) intrepidity, courageousness

-KSD-	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
-BZT-	1. feel(ing of) determination/earnestness 2. feel(ing of) eagerness/fervor, feel driven 3. feel(ing of) zeal/zealotry/fanaticism
-GZP-	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-	1. craving (i.e., a greedy hunger for food, adventure, power, money, salacious or forbidden experiences, etc.) 2. sexual lust 3. greed / avarice
-KSG-	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-	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-	1. feel(ing of) impulsiveness; feel impulsive 2. feel(ing of) inspiration; feel inspired 3. feel(ing of) compulsion; feel compelled
-LĹČ-	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-	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-	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-	1. feel(ing of) smugness 2. feel(ing of) conceit, feel(ing of being) full of oneself 3. feel(ing of) narcissism, self-aggrandizement

9.5.4 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 	-ŠŠTL-	<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
-JG-	<ol style="list-style-type: none"> 1. disappointment, feel let down 2. disillusion 3. jaded, cynical 	-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
-CT-	<ol style="list-style-type: none"> 1. sadness/grief 2. sorrow/lamentation 3. woefulness/despair/desolation 	-BGR-	<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
-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 	-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
-FSP-	<ol style="list-style-type: none"> 1. feel(ing of) frustration 2. feel(ing of being) disconcerted, defeated 3. feel(ing of) exasperation 	-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
-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 	-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
-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 	-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
-KSB-	<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 	-ZZV-	<ol style="list-style-type: none"> 1. feel(ing of) envy 2. feel(ing of) jealousy 3. feel(ing of) covetousness
-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] 	-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
-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 3. feel(ing of) bewilderment
-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
-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
-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
-PSP-	<ol style="list-style-type: none"> 1. feel(ing of) bashfulness, timidity 2. feel(ing of) shyness 3. feel(ing of) stagefright
-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)
-GVR-	<ol style="list-style-type: none"> 1. feel(ing of) awkwardness 2. feel(ing of) embarrassment 3. feel(ing of) humiliation
-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

-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
-ZDR-	<ol style="list-style-type: none"> 1. feel(ing of) emotional emptiness/hollowness/shallowness 2. feel(ing of being) unemotional / lacking emotion / feel nothing 3. feel(ing of) cavaliness/lack of empathy
-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
-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
-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
-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)
-ZDW-	<ol style="list-style-type: none"> 1. feel(ing of) dejection, downheartedness, crestfallenness 2. feel(ing of) rejection 3. feel(ing of) heartbreak
-KSSP-	<ol style="list-style-type: none"> 1. feel(ing of) pessimism / feeling that things are not okay 2. feel(ing of) defeatism, feel defeatist 3. feel(ing of) paranoia, feel paranoid
-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

-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
-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
-SGR-	<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
-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
-PXL-	<ol style="list-style-type: none"> 1. feel(ing of) reluctance/disinclination, feel(ing of) a desire to avoid 2. feel(ing of) unwillingness/aversion 3. feel(ing of) opposition, feel desire to stand against/oppose
-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
-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
-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

-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
-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
-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
-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
-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)
-KSG-	<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"
-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
-PFFC-	<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

In addition to over 100 emotion roots, the **EMO** Emotion V_xC_S affix allows 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 are instead lexicalized in this language using the EMO affix.

10.0 THE BASIC NUMBER ROOTS

0	1	2	3	4	5	6	7	8	9	10	100	100 ²	100 ⁴	100 ⁸
-VR-	-LL-	-KS-	-Z-	-PŠ-	-ST-	-CP-	-NS-	-ČK-	-LŽ-	-ŠŠ-	-GZ-	-PC-	-KŽ-	-ČG-

As in Ithkuil, whole numbers are full formatives signifying a set containing the particular number of members. The “simple” everyday counting system is base-100 (the mathematical sub-language will utilize a different number base). Beginning with ‘two’, the stems of the number follow the same Stem & Specification pattern illustrated by the root -Z- ‘three’ below:

-Z- ‘THREE / TRINARY’ Associated Affix: 3XX			
	STEM 1	STEM 2	STEM 3
BSC	(to be a) set or group of three entities; (to be) a trio	(to be) something manifesting three aspects / facets; to manifest trinariness; be trinary	(to be) the third entity/party in a group or sequence
CTE	(to be) a party/entity of whom/which there are three	(to be) the state of having three aspects/facets; to be trinary; to be tri-fold or tri-faceted	(to be) the state of being third in a sequence/group/pattern
CSV	(to be) a process which determines/identifies a set as being three in number; to count out to three; to determine that there are three of something	(to be) one of the aspects/facets of a trinary, tri-fold, tri-faceted entity	(to be) a process which determines/identifies an entity’s sequential place in a sequence or group/pattern to be third
OBJ	(to be) one in a group or sequence of 3; to be one of 3	(to be) the party/entity having three aspects or facets; (to be a) trinary or tri-fold or tri-faceted entity	(to be) the entity/party whose numerical place in a sequence/group/pattern is third
INT	(to be) the purpose/intent of being three in number CPT version = the impact/effect of being 3 in number	(to be) the purpose/intent of being trinary, tri-fold, tri-faceted CPT version = the impact/effect of being trinary, tri-faceted	(to be) the purpose/intent of being third CPT = the impact/effect of being 3rd

Numbers from 11 through 99 are formed utilizing the TNX affix. Beginning with the number 101, numbers are formed as in Ithkuil using the COMITATIVE case and the COO affix.

Having no multiples the roots for ‘ZERO’ and ‘ONE’ have a different Stem & Specification pattern:

-VR- ‘ZERO / NULL’			
	STEM 1	STEM 2	STEM 3
BSC	(to be) zero as the empty-set / a set having no members; to have no quantity or amount	(to be) the zero-dimension; to have geometrically no length, area or volume	(to be) the baseline “zero”-state or null-state in a sequence, hierarchy, gradient, pattern, etc.
CTE	(to be) a party/entity of whom/which there are no members	(to be) the state of having no substance/tangibility due to being zero-dimensional	(to be) the state of being the baseline “zero”-state or null-state
CSV	(to be) a set having no members; to have no (i.e., zero) members in a set	(to be) the process/act of determining/identifying zero-dimensionality	(to be) a process which determines/identifies an entity’s being the baseline “zero”-state or null-state
OBJ	(to be) a null value / a value for a parameter that is undefined and/or for which the expected or standard value(s) is/are inapplicable	(to be) an entity having zero-dimensionality; (to be) a Euclidean point; to have geometrically no length, area or volume, i.e., to be a Euclidean point	(to be) the entity/party in the baseline “zero”-state or null-state in a sequence, hierarchy, gradient, pattern, etc.
INT	(to be) the intent/purpose of being zero in number or having no members in a set	(to be) the intent/purpose of being zero-dimensional	(to be) the purpose/intent of being the baseline “zero”-state or null-state in a sequence, hierarchy, gradient, pattern, etc.

-LL- ‘ONE / UNITY’			
	STEM 1	STEM 2	STEM 3
BSC	(to be) a set or group of one; to have one member	(to be) something indivisible, inseparable, unified, unitary	(to be) the first entity/party in a group or sequence
CTE	(to be) a party/entity of whom/which there is only one	(to be) the state of having only one aspect/facet; to be a single unit with no sub-parts	(to be) the state of being first in a sequence/group/pattern
CSV	(to be) a process which determines/identifies a set as being one in number; to count out to one; to determine that there is only one of something	(to be) a process which determines/identifies an entity as having only one aspect/facet; to determine that an entity is an indivisible whole/unit	(to be) a process which determines/identifies an entity’s sequential place in a sequence or group/pattern to be first
OBJ	[same as CTE]	(to be) the party/entity having only one aspect/facet; to be an entity which is single unit with no sub-parts	(to be) the entity/party whose numerical place in a sequence/group/pattern is first
INT	(to be) the intent/purpose of there being only one	(to be) the purpose/intent of being an indivisible unit; CPT version = the impact/effect of being an indivisible unit	(to be) the purpose/intent of being first; CPT = the impact/effect of being first

11.0 PARTS OF THE BODY

The various roots/stems below for bodily parts/organs/tissues all have the following Specification pattern:

BSC	(to be) a particular bodily part/organ/tissue [both the material/physical aspect and the functional aspect thereof]
CTE	(to be) the function of a particular bodily part/organ/tissue
CSV	(to be) the physical/material make-up of a particular bodily part/organ/tissue
OBJ	(to be) the body to whom the particular bodily part/organ/tissue belongs or is from
INT	(to be) the intent/purpose of the particular bodily part/organ/tissue

-GW- ‘BODILY ORGAN / GLAND / TISSUE’	
STEM 1	bodily organ
STEM 2	gland
STEM 3	tissue (non-organ, non-gland)

-PN- ‘UPPER G.I. ORGANS/TISSUES’	
STEM 1	stomach
STEM 2	esophagus
STEM 3	pancreas

-ŠM- ‘MANIPULATIVE OR AMBULATORY APPENDAGE’	
STEM 1	limb
STEM 2	tentacle
STEM 3	pseudopod

-NR- ‘TAIL / CAUDAL STRUCTURE’	
STEM 1	tail
STEM 2	flagellum
STEM 3	tail-like body part or appendage; caudal structure

-ŠN- ‘LEG’	
STEM 1	leg/strut as support structure of animal or inanimate entity
STEM 2	leg as ambulatory appendage of animal or ambulatory entity
STEM 3	leg as functional “tool”/manipulator (e.g., with which to kick, push, press, apply force, etc.)

-RN- ‘ARM’	
STEM 1	arm as support(ing) structure of animal or inanimate entity
STEM 2	arm as appendage of animal (or anthropomorphic entity) for holding, carrying, lifting
STEM 3	arm as functional “tool”/manipulator by which to reach, hit, push, press, apply force, protect oneself, etc.

-TY- ‘HEAD’	
STEM 1	head as a living being’s primary “interface” or “access point” for communication, ingestion, non-tactile sensory input, etc.
STEM 2	head as seat of one’s consciousness/personality/identity/mind/brain
STEM 3	head as “top” or “forward” extension of bodily form

-NL- ‘HAND’	
STEM 1	hand as an animal’s primary body part for fine-motor physical manipulation/handling of external entities
STEM 2	hand as holder, grasper, striker
STEM 3	hand as primary tactile-sensory interface, “feeler”, toucher

-NR- ‘FOOT / PAW’	
STEM 1	foot/paw as an entity’s primary contact/support point with ground/firmament when standing/ambulating
STEM 2	foot/paw as ambulatory appendage
STEM 3	foot/paw as functional “tool”/manipulator (e.g., with which to kick, push, press, apply force, etc.)

-MFR- ‘PARTS OF HAND OR FOOT’	
STEM 1	flat mid-part of appendage (incorporate ‘hand’ or ‘foot’ to specify whether palm or heel)
STEM 2	ball of the foot or upper palmar ridge of the hand (incorporate ‘hand’ or ‘foot’ to specify which)
STEM 3	butt of the hand or foot (incorporate ‘hand’ or ‘foot’ to specify whether butt of the palm or heel)

-NK- ‘BODILY DIGIT’	
STEM 1	finger
STEM 2	thumb
STEM 3	toe

-DL- ‘CARDIO-PULMONARY ORGANS’	
STEM 1	heart
STEM 2	lung
STEM 3	diaphragm

-NDY- ‘BLOOD VESSEL’	
STEM 1	artery
STEM 2	vein
STEM 3	capillary

-VZ- ‘CENTRAL NERVOUS SYSTEM ORGAN/TISSUE’	
STEM 1	brain
STEM 2	brain stem
STEM 3	spinal chord

-LGY- ‘PERIPHERAL NERVOUS TISSUE’	
STEM 1	sensory (afferent) nerve tissue
STEM 2	motor (efferent) nerve tissue
STEM 3	somatic nerve tissue

-RDY- ‘AUTONOMIC NERVOUS TISSUE’	
STEM 1	sympathetic nerve tissue
STEM 2	parasympathetic nerve tissue
STEM 3	enteric nerve tissue

-TR- ‘BODILY LIMB-JOINT’	
STEM 1	mid-limb joint [incorporate stems for leg or arm to specify knee or elbow]
STEM 2	beginning-limb joint [incorporate stems for leg or arm to specify hip-joint or shoulder-joint]
STEM 3	end-limb joint [incorporate stems for leg or arm to specify ankle or wrist]

-GR- ‘BONE’	
STEM 1	quasi-cylindrical bone (e.g., tibia, ulna, phalanx, etc.)
STEM 2	plate-like or quasi-planar bone (e.g., skull-section, scapula, pelvis)
STEM 3	special-shaped bone (e.g., vertebra, rib, calcaneus, talus, antler, etc.)

-PFL- ‘DETOXIFICATION/FILTRATION/RECYCLING ORGAN/TISSUE’	
STEM 1	liver
STEM 2	kidney
STEM 3	spleen

-LT- ‘INTEGUMENT / SKIN / PELLICLE’	
STEM 1	skin / hide / pellicle / integument
STEM 2	bark / integument of tree trunk/limb or plant main stem
STEM 3	peel / rind / husk / casing of seed or pod or fruit

-VMR- ‘ENDOCRINE GLANDS OF THE BRAIN’	
STEM 1	hypothalamus
STEM 2	pituitary gland
STEM 3	pineal gland

-ZVR - ‘ENDOCRINE GLANDS OF THE BODY’	
STEM 1	thyroid gland
STEM 2	parathyroid gland
STEM 3	adrenal gland

-MD- ‘BODILY HAIR / FUR / FEATHER’	
STEM 1	a (single strand of) human body hair (other than thick scalp/facial/pubic/armpit hair)
STEM 2	a (single strand of) non-human bodily hair/fur/fleece
STEM 3	a(n avian) feather

-ND- ‘HUMAN-SPECIFIC HAIR’	
STEM 1	a (single strand of) human head hair (other than androgenic facial hair)
STEM 2	a (single strand of) human androgenic facial hair
STEM 3	a (single strand of) human armpit or pubic or eyebrow hair (i.e., thick body hair that stops growing at a certain length)

-DDR- ‘SPECIALTY HAIR-LIKE TISSUE’	
STEM 1	an eyelash
STEM 2	a whisker/vibrissa
STEM 3	barbel

-NZG- ‘HARD KERATINOUS TISSUE’	
STEM 1	finger nail/toenail or claw
STEM 2	hoof
STEM 3	horn of animal

-NZB- ‘MUCOSAL TISSUE’	
STEM 1	inside surface of oral/naso-pharyngeal cavity
STEM 2	interior lining of gastro-intestinal tract
STEM 3	interior lining of bodily orifice (anus/rectum, vaginal canal, etc.)

-LDL- ‘MUSCLE / LIGAMENT / TENDON’	
STEM 1	muscle
STEM 2	ligament
STEM 3	tendon

-GZG- ‘SMALL INTESTINE’	
STEM 1	duodenum
STEM 2	jejunum
STEM 3	ileum

-RGD- ‘LARGE INTESTINE / COLON’	
STEM 1	ascending colon
STEM 2	transverse colon
STEM 3	descending and sigmoid colon

-DŘ- ‘TOOTH’	
STEM 1	tooth
STEM 2	fang
STEM 3	tusk

12.0 KINSHIP TERMS

The various kinship roots/stems below all have the following Specification pattern:

BSC	(to be/have) a particular kin relation to someone [both the relational connection itself and the being in the relationship]
CTE	(to be) the nature/manifestation of the particular kin relationship between two parties
CSV	(to be) a particular kinship relationship
OBJ	(to be) the person who has the particular kin relation to someone
INT	(to be) the intent/purpose of the particular kin relationship

-ZV- KIN / EXTENDED FAMILY RELATION (use GEN affix to distinguish gender-based delineations if necessary) Associated Affix: KIN	
STEM 1	(to be) a member of a(n extended) family; to be related [either genetically, by marriage, by legal adoption, or long-term informal adoption] to other persons
STEM 2	(to be) a member of a(n extended) family; to be related [genetically or by marriage], by legal adoption, or long-term informal adoption] to other persons
STEM 3	(to be) a member of a(n extended) family; to be related [by legal adoption or long-term informal adoption] to other persons

-PP- NUCLEAR FAMILY MEMBER (signifies functional relationship, not necessarily genetic relationship) (use GEN affix to distinguish gender-based delineations if necessary)	
STEM 1	(to be) a parent (i.e., person who raised another from childhood, whether genetic parent, foster parent, adoptive parent, guardian, etc.); to parent; to raise a child as a parent
STEM 2	(to be) a child (i.e., person being raised by a parent/guardian)
STEM 3	(to be) a grandparent (i.e., parent of a parent)

-MM- MEMBER OF GENETIC PARENT-OFFSPRING RELATION (use GEN affix to distinguish gender-based delineations if necessary)	
STEM 1	(to be) a parent/progenitor (i.e., person who is the genetic father or mother of a child); to procreate; to create a child
STEM 2	(to be) a child (i.e., genetic offspring/progeny of another)
STEM 3	(to be) a grandparent (i.e., genetic parent of a parent)

-VV- STEP-KIN RELATIONS (use GEN affix to distinguish gender-based delineations if necessary)	
STEM 1	(to be) a step-parent
STEM 2	(to be) a step-child
STEM 3	(to be) a step-sibling

-SR- SIBLING RELATIONS (use GEN affix to distinguish gender-based delineations if necessary)	
STEM 1	(to be) a sibling
STEM 2	(to be) a maternal half-sibling
STEM 3	(to be) a paternal half-sibling

-LH- COLLATERAL FAMILIAL RELATIONS (use GEN affix to distinguish gender-based delineations if necessary)	
STEM 1	(to be) a parent's sibling (i.e., aunt/uncle)
STEM 2	(to be) a sibling's child (i.e., nephew/niece)
STEM 3	(to be) a parent's sibling's child (i.e., first cousin)

Use the above kinship roots/stems with the following two new affixes:

-zv	KIN* - Kinship Relation
1	having a full-blood relationship (i.e., genetically related through both parents)
2	half-related (e.g., half-sister, half-cousin), i.e., genetically related through one parent only)
3	paternally related (i.e., through one's own genetic father)
4	maternally related (i.e., through one's own genetic mother)
5	double-relation (i.e., related through both parents via the mating of a set of siblings from one family with a set of siblings of another family)
6	in-law relation (i.e., non-blood relation through marriage only)
7	parallel-related (i.e., related through a parent's sibling of the same gender as the parent)
8	cross-related (i.e., related through a parent's sibling of a different gender than the parent)
9	legally adopted relation (no genetic relation)

-ñh	KSD - Generational & Other Kinship Descriptions
1	of one's previous generation (i.e., "once removed (upward)")
2	of two generations previous (i.e., "grand-", "twice removed (upward)")
3	of three generations previous (i.e., "great grand-", "three times removed (upward)")
4	foster relationship
5	step relationship (non-sanguine relationship through [re-]marriage of parent)
6	pseudo-familial or common law relationship (e.g., non-sanguine person treated like or considered part of sanguine family)
7	of three generations later (i.e., "great grand-", "three times removed (downward)")
8	of two generations later (i.e., "grand-", "twice removed (downward)")
9	of one's subsequent generation (i.e., "once removed (downward)")

13.0 ROOTS ASSOCIATED WITH V_xC_s AFFIXES

-KM- ‘DEGREE OF EXACTITUDE’		Associated Affix: EXT
BSC	STEM 1: (to be) something having a degree of exactitude [i.e., expected identity/equivalence to some expectation)	STEM 2: (to be) something of a particular degree of exactitude (i.e., accuracy or identical functionality/performance in comparison to some standard) STEM 3: (to be) something that serves/functions/substitutes [comparably] (in comparison to some standard)
CTE	(to be) the degree to which an entity meets an expectation of exactitude; to perform an appraisal/comparison of such	
CSV	(to be) the expectation of exactitude to which an entity is compared; to apply/establish such an expectation/standard	
OBJ	(to be) the entity so appraised/compared	
INT	(to be) the purpose/intent of such appraisal/comparison	

FML Stems elevate the **IFL** meanings to the level of formal analysis/measurement in comparison to a formal/established standard.

This root is usually used with affixes such as **EXN**, **SUF**, **EXD**, or similar to indicate the particular degree of the named quality.

-RM- ‘DEGREE OF SIMILARITY / RESEMBLANCE’		Associated Affix: SIM
BSC	(to be/manifest) something with a particular degree of similarity/resemblance	STEM 1: similarity/resemblance to another/different concrete/tangible entity/instance STEM 2: similarity/resemblance to oneself on another/different occasion STEM 3: similarity/resemblance to another/different abstract situation or set of circumstances
CTE	(to be/manifest) the degree to which an entity meets an expectation of similarity/resemblance	
CSV	(to be/manifest) the expectation of similarity/resemblance to which an entity is compared	
OBJ	(to be) /manifest the entity being appraised/compared to the expectation of similarity/resemblance	
INT	(to be/manifest) the purpose/intent of such appraisal/comparison	

FML Stems elevate the **IFL** meanings to the level of formal analysis/measurement in comparison to a formal/established standard.

This root is usually used with affixes such as **EXN**, **SUF**, **EXD**, or similar to indicate the particular degree of the named quality.

-NT- ‘SEQUENTIAL ENUMERATION’		Associated Affix: SEQ
BSC	STEM 1: (to be) a sequential numerical count(ing) of entities by positive integer to determine the numerical quantity thereof; to count a set of entities, to tally the number of entities	STEM 2: (to be) a sequential numerical labeling [of entities by positive integer] for purpose of identification, individuation, arrangement, etc. STEM 3: (to be) a numerical(ly-based) pattern/arrangement; to enumerate
CTE	(to be) the [integer] number of entities counted; the count; to count (up)/tally [= focusing on the accrual/addition of numbers in anticipation of the total/tally]	
CSV	(to be) the process of counting/tallying; to count (up)/tally [= focusing on the counting process itself irrespective of the eventual total]	
OBJ	(to be) the entity/entities so counted	
INT	(to be) the [anticipated] total/tally; (to be) the determination of the number/quantity of entities	

-SM- PORTION / AMOUNT / RATION / ALLOTMENT		Associated Affix: PTW
Informal Stems		Formal Stems
BSC	INF STEM 1: (to be an) amount/quantity of a non-countable substance/entity [both the entity/substance and its amount]	FML STEM 1: (to be a) measure of, dose of, a formally pre-determined amount of a substance/entity FML STEM 2: (to be) an official/authorized share/ration, doled-out amount FML STEM 3: (to be) an official/authorized allotment/allocation/quota
CTE	(to be) the entity/substance contained in or comprising an amount/quantity	
CSV	(to be) an amount/quantity	
OBJ	(to be) the object/entity made of/consisting of of an amount/quantity of something	
INT	(to be) the purpose (i.e., expected outcome) of an amount/quantity of something	
	INF STEM 2: (to be) a share, a portion (to be) distributed INF STEM 3: (to be) an allotment/allocation, set distribution	

Derivations: to share, distribute, allocate, allot

-M- ‘DEGREE/RANGE/EXTENT/INTENSITY’		Associated Affix: EXN
BSC	STEM 1: (to be) the degree/extent of something (= scalar amount of the effect/impact/capacity of something) [both the degree/extent and the entity manifesting that degree/extent]	STEM 2: (to be) the range of something (= measure of the “upper” or “outer” limit of the effect/impact of something) STEM 3: (to be) the intensity of something (= measure of the strength of the effect/impact of something)
CTE	(to be) something with a degree/extent/amount of effect/impact/capacity [focus on the entity itself]	
CSV	(to be) a degree/extent (= the amount of effect/impact/capacity)	
OBJ	(to be) the entity/party affected/impacted by the degree/extent of something	
INT	(to be) the purpose (i.e., expected outcome) of the degree/extent of something	

-N- SUFFICIENCY/ADEQUACY	Associated Affix: SUF	(Specifications modeled after the DEGREE/EXTENT root -M- above)
Stem 1: (to be) a sufficient amount/extent/degree of something; to suffice, to be enough, to be sufficient		
Stem 2: (to be) an adequate amount/extent/degree of something; to be adequate, to be good enough, to do (= to suffice adequately)		
Stem 3: (to be) something to a satisfactory degree/extent; to be satisfactory, to meet the requirements		

-ML- ‘DEGREE OF CHANGE/STABILITY/VICISSITUDE/FLUCTUATION’		Associated Affix: FLS	(use SUF/EXN/EXD, etc.)
BSC	STEM 1: (to be/manifest a) degree of change(-ableness)/mutability/constancy/alteration (= degree to which something becomes altered in form/behavior) [both the degree and the potential for, or nature of, the change]	STEM 2: (to be/manifest a) degree of stability/instability/vicissitude (= degree of predictability of future pattern/behavior based on past pattern/behavior) STEM 3: (to be/manifest a) degree of fluctuation / wavering / variance / deviation (= degree to which normally stable/predictable pattern/behavior suddenly fluctuates/varies/wavers/deviates unpredictably)	
CTE	(to be) something with a degree/extent/amount of change(-ableness/mutability) [focus on the entity itself]		
CSV	(to be) the degree/extent of change(-ableness)/mutability (= the amount/extent of actual or potential change)		
OBJ	(to be) the entity/party affected/impacted by the degree/extent of (potential) change		
INT	(to be) the purpose (i.e., expected outcome) of the degree/extent of (potential) change		

-GN- ‘DEGREE OF STEADFASTNESS/MOBILITY/MOTILITY/MOVEMENT’		Affix: MVT	(use SUF/EXN/EXD, etc.)
(Specifications modeled after the ‘DEGREE OF CHANGE’ root -- above)	STEM 1: (to be/manifest a) degree of steadfastness/durability (= [in]ability to be altered in form/behavior)		
	STEM 2: (to be/manifest a) degree of mobility/motility (= [in]ability to move or be moved)		
	STEM 3: (to be/manifest a) degree of indelibility/fixeness (= [in]ability to be removed/erased/eliminated)		

-X- ‘SIZE / MEASURE / MEASURED DURATION’		Affix: SIZ (use SUF/EXN/EXD, etc. affixes to specify degree)
BSC	STEM 1: (to be/manifest a) degree of size (= the amount/volume of space or time taken up by an entity)	STEM 2: (to be/manifest a) degree of spatial size, i.e., volume of space (whether uni-dimensional, 2-D, or 3-D); to measure (a) spatio-dimensional parameter(s) STEM 3: (to be/manifest a) degree of temporal “size” (= an “amount” of time); to measure a temporal duration, measure a span of time
CTE	(to be) something with a size [focus on the entity itself]	
CSV	(to be) a size (= the volume of space or time taken up)	
OBJ	(to be) the external surrounding space/“room” or time impacted/impinged upon by the size of an entity	
INT	(to be) the purpose (i.e., expected outcome) of the degree/extent of (potential) change	

-TL- ‘DEGREE OF AFFECT (CUTENESS/GRANDEUR)’		Associated Affix: AFT (use SUF/EXN/EXD, etc. to specify degree)
BSC	STEM 1: (to be/manifest a) degree of grandeur, grandiosity, greatness [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of elegance, loveliness, grace STEM 3: (to be/manifest a) degree of endearment, cuteness
CTE	(to be) something with a degree of grandeur, grandiosity, greatness	
CSV	(to be) a degree of grandeur, grandiosity, greatness	
OBJ	(to be) an entity/party impacted/affected by one’s degree of grandeur, grandiosity, greatness	
INT	(to be) the purpose (i.e., expected outcome) of a degree of grandeur, grandiosity, greatness	

-SX- ‘DEGREE OF RELIABILITY/INFALLIBILITY/QUALITY’		Affix: QUA (use SUF/EXN/EXD, etc. to specify degree)
BSC	STEM 1: (to be/manifest a) degree of reliability/infallibility/quality (in terms of ruggedness/durability of workmanship or mechanical craftsmanship) [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of quality, fineness, quality of effort (in terms of artisanry, artistry, artistic craftsmanship) STEM 3: (to be/manifest a) degree of durability / lastingness / permanence / persistence
CTE	(to be) something with a degree of reliability/infallibility/quality	
CSV	(to be) a degree of reliability/infallibility/quality	
OBJ	(to be) an entity/party impacted/affected by one’s degree of reliability/infallibility/quality	
INT	(to be) the purpose (i.e., expected outcome) of a degree of reliability/infallibility/quality	

-TN- ‘DEGREE OF SPECIALNESS/UNIQUENESS/MARVELOUSNESS’		Associated Affix: UNQ (use SUF/EXN/EXD, etc.)
BSC	STEM 1: (to be/manifest a) degree of specialness, extraordinariness (in terms of variance with the usual/expected) [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of uniqueness (= the degree to which something is unlike anything else, one-of-a-kind) STEM 3: (to be/manifest a) degree of marvelousness/wonder/awesomeness
CTE	(to be) something with a degree of specialness, extraordinariness	
CSV	(to be) a degree of specialness, extraordinariness	
OBJ	(to be) an entity/party impacted/affected by one’s degree of specialness, extraordinariness	
INT	(to be) the purpose (i.e., expected outcome) of a degree of specialness, extraordinariness	

-FM- ‘CONSEQUENCE/OUTCOME/RESULT’		Affix: CNQ (use SUF/EXN/EXD, etc. to specify degree)
BSC	STEM 1: (to be/manifest) a consequence of something (= a change in pre-existing circumstances resulting from a state/act/event/occurrence) [both the consequence itself and the state of consequentiality]	STEM 2: (to be/manifest a) result of something (= a concrete/tangible “product” or specific/nameable abstract entity resulting from a state/act/event/occurrence) STEM 3: (to be/manifest a) abstract result/outcome (= an abstract set of non-preexisting circumstances arising out of an occurrence/event/act/state)
CTE	(to be) a specific consequence	
CSV	(to be) a state of consequentiality; a state of there being a consequence; to manifest consequentiality	
OBJ	(to be) an entity/party from which arises a consequence	
INT	(to be) the purpose (i.e., expected outcome) of there being a consequence	

-DN- ‘DEGREE OF CONFORMITY/TYPICALNESS’		Affix: TYP (use SUF/EXN/EXD, etc. to specify degree)
BSC	STEM 1: (to be/manifest a) degree of conformity to a norm, stereotype or standard [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of being commonplace / typical / run-of-the-mill STEM 3: (to be/manifest a) degree of being original / innovative / “out-of-the-box”
CTE	(to be) something with a degree of conformity/typicalness	
CSV	(to be) a degree of conformity/typicalness	
OBJ	(to be) an entity/party impacted/affected by one’s degree of conformity/typicalness	
INT	(to be) the purpose (i.e., expected outcome) of a degree of conformity/typicalness	

-GV- ‘DESIRE / WANT’		Associated Affix: -DSI-
BSC	STEM 1: (to be/manifest) an affective (i.e., unwilling) state of want/desire [affective state + object of desire]; to want something, to desire something	STEM 2: (to be/manifest) a wish/hope for something STEM 3: (to be/manifest) an aspiration + thing aspired to; to aspire to something
CTE	(to be) the internal, psychological, proprioceptive manifestation of being in a state of desire; to experience such a state	
CSV	(to be) 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	
OBJ	(to be) an entity wanted/desired, a want, a desire; to be the entity wanted/desired	
INT	(to be) the state of being driven/motivated to act on one’s desire; to (be driven to) act on one’s desire	

FORMAL stems: Stem 1) request + entity requested Stem 2) a preference; to prefer something Stem 3) a demand; to demand

-LF- ‘DEGREE OF LUCK/FORTUNE/FATE/CHANCE/PROBABILITY’		Associated Affix: LCK (use SUF/EXN/EXD, etc.)
BSC	STEM 1: (to be/manifest a) degree of luck/fortune (= unpredictable circumstances/outcome/event based on non-random or quasi-predictable input/circumstances) [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of fate/chance (= unpredictable circumstances/outcome/event based on unpredictable or random input/circumstances) STEM 3: (to be/manifest a) degree of probability; the “odds” (= quasi-predictable circumstances/outcome based on statistical probability)
CTE	(to be) something with a degree of luck/fortune	
CSV	(to be) a degree of luck/fortune	
OBJ	(to be) an entity/party impacted/affected by one’s degree of luck/fortune	
INT	(to be) the purpose (i.e., expected outcome) of a degree of luck/fortune	

-GM- ‘DEGREE OF TRUTH/GENUINENESS/VERACITY/VALIDITY/FACTUALITY’		Affix: REA (use SUF/EXN/EXD, etc.)
BSC	STEM 1: (to be/manifest a) degree of truth/veracity/reality (in terms of something actually being ontologically valid as true or real) [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of authenticity/genuineness (in terms of an entity’s identity/nature/behavior/essence actually being what it is purported/assumed/believed to be) STEM 3: (to be/manifest a) degree of validity/factuality/actuality (in terms of being an accurate assessment, description, representation, or identification)
CTE	(to be) something with a degree of truth/veracity/reality	
CSV	(to be) a degree of truth/veracity/reality	
OBJ	(to be) an entity/party impacted/affected by one’s degree of truth/veracity/reality	
INT	(to be) the purpose (i.e., expected outcome) of a degree of truth/veracity/reality	

-LX- ‘DEGREE OF BODILY ENERGY / VIGOR / STRENGTH’ Affix: STR (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of brute bodily strength; to manifest/apply a particular degree of strength (= available bodily dynamic energy) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of bodily energy/vigor/vitality; “feel weak/strong” STEM 3: (to be/manifest a) degree of stamina
CTE	(to be) something with a degree of brute bodily strength	
CSV	(to be) a degree of brute bodily strength	
OBJ	(to be) an entity/party impacted/affected by one’s degree of brute bodily strength	
INT	(to be) the purpose (i.e., expected outcome) of a degree of brute bodily strength	

-RX- ‘DEGREE OF BODILY APPLIED ENERGY / POWER / FORCE’ Affix: FRC (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of applied physical force — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of enrgy STEM 3: (to be/manifest a) degree of potency, “might” (= potential strength/power to cause or accomplish something)
CTE	(to be) something with a degree of applied physical force	
CSV	(to be) a degree of applied physical force	
OBJ	(to be) an entity/party impacted/affected by one’s degree of applied physical force	
INT	(to be) the purpose (i.e., expected outcome) of a degree of applied physical force	

-FX- ‘DEGREE OF VELOCITY’ Affix: SPD (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of speed/velocity (= ratio of distance over time)	STEM 2: (to be/manifest a) degree of acceleration (i.e., increasing rate of speed/velocity) STEM 3: (to be/manifest a) degree of deceleration (i.e., decreasing rate of speed/velocity)
CTE	(to be) something with a degree of speed/velocity	
CSV	(to be) a degree of speed/velocity	
OBJ	(to be) an entity/party impacted/affected by one’s degree of speed/velocity	
INT	(to be) the purpose (i.e., expected outcome) of a degree of speed/velocity	

-TX- ‘DEGREE OF INTENSITY’ Affix: ITY (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of intensity/power (= ratio of physical manifestation/change/activity/energy to period of time) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of activity/acuteness STEM 3: (to be/manifest a) degree of agitation/ebullience/bustle
CTE	(to be) something with a degree of intensity/power	
CSV	(to be) a degree of intensity/power	
OBJ	(to be) an entity/party impacted/affected by one’s degree of intensity/power	
INT	(to be) the purpose (i.e., expected outcome) of a degree of intensity/power	

-PX- ‘DEGREE OF CONFIDENCE/FORTHRIGHTNESS/HUMILITY’ Affix: CFD (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of meekness/confidence (= self-confidence, self-effacement) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of humility; be humble STEM 3: (to be/have a) degree of authoritativeness (= manifestation of control / leadership; expectation of obedience / acquiescence / complacency by others)
CTE	(to be) something with a degree of meekness/confidence	
CSV	(to be) a degree of meekness/confidence	
OBJ	(to be) an entity/party impacted/affected by one’s degree of meekness/confidence	
INT	(to be) the purpose (i.e., expected outcome) of a degree of meekness/confidence	

-RT- ‘DEGREE OF EFFICIENCY/ADEQUACY’ Affix: EFI (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of efficiency (= ratio of amount of effort/energy/resources to results)— [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of adequacy (= extent to which something serves sufficiently) STEM 3: (to be/manifest a) degree of reward/value/ “pay-off”/ “bang-for-the-buck” (= extent/value of return on investment of resources/effort/energy)
CTE	(to be) something with a degree of efficiency	
CSV	(to be) a degree of efficiency	
OBJ	(to be) an entity/party impacted/affected by one’s degree of efficiency	
INT	(to be) the purpose (i.e., expected outcome) of a degree of efficiency	

-RT- ‘DEGREE OF CORRECTNESS/ACCURACY/ERROR/SUITABILITY/FITNESS’ Affix: ERR (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of correctness/accuracy (= non-erroneous information) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of suitability / fitness / propriety / effectiveness (= best choice for the context at hand) STEM 3: (to be/manifest a) degree of legitimacy/orthodoxy (= adherence to legal / ritualistic / societal conventions)
CTE	(to be) something with a degree of correctness/accuracy	
CSV	(to be) a degree of correctness/accuracy	
OBJ	(to be) an entity/party impacted/affected by one’s degree of correctness/accuracy	
INT	(to be) the purpose (i.e., expected outcome) of a degree of correctness/accuracy	

-KT- ‘DEVELOPMENT / GROWTH / MATURATION / DECLINE’ Affix: MAT		
BSC	STEM 1: (to be/manifest a) developmental stage, stage of developmental or maturational cycle; stage of a life-cycle— [both the stage and the entity manifesting such]	STEM 2: (to be/manifest) goal-oriented development/maturation, growth; develop, grow, mature (growth not necessarily in size, but rather in maturational development as part of a life-cycle); CPT Version = ripe(n), ripening STEM 3: (to be/manifest) the declining stage(s) of a life-cycle; decline, fade, age; CPT Version = die
CTE	(to be) something manifesting a developmental stage, stage of developmental or maturational cycle; stage of a life-cycle	
CSV	(to be/manifest) a developmental stage, stage of developmental or maturational cycle; stage of a life-cycle	
OBJ	(to be) an entity/party impacted/affected by one’s developmental stage, stage of developmental or maturational cycle; stage of a life-cycle	
INT	(to be) the purpose (i.e., expected outcome) of a developmental stage, stage of developmental or maturational cycle; stage of a life-cycle	

-FL- ‘DEGREE OF SUBTLETY / NUANCE / CUNNING / GUILLE / STEALTH / INSIDIOUSNESS’ Affix: SBT (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of subtlety/nuance (= slight but meaningful variation in appearance/manifestation/color/sound, etc.) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of cunning / guile (= subtlety/nuance in terms of wordplay/behavior/actions, etc. with intention to manipulate a situation) STEM 3: (to be/manifest a) degree of stealth/insidiousness (= attempt to manipulate/act in an unseen/hidden/discreet manner for (quasi-)nefarious purposes)
CTE	(to be) something with a degree of subtlety/nuance	
CSV	(to be) a degree of subtlety/nuance	
OBJ	(to be) an entity/party impacted/affected by one’s degree of subtlety/nuance	
INT	(to be) the purpose (i.e., expected outcome) of a degree of subtlety/nuance	

-VL- ‘DEGREE OF DIRECTNESS / FRANKNESS / OBVIOUSNESS’ Affix: DRC (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of directness/plain-spokenness/bluntness/candor/frankness (= easy to interpret/understand/see) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of obviousness / blatancy / be “glaring” (= inability to avoid noticing)
CTE	(to be) something with a degree of directness/plain-spokenness/bluntness/candor/frankness	
CSV	(to be) a degree of directness/plain-spokenness/bluntness/candor/frankness	
OBJ	(to be) an entity/party impacted/affected by one’s degree of directness/plain-spokenness/bluntness/candor/frankness	STEM 3: (to be/manifest a) degree of straight-forwardness, simplicity, matter-of-factness (= absence of guile / trickery / chicanery)
INT	(to be) the purpose (i.e., expected outcome) of a degree of directness/plain-spokenness / bluntness / candor / frankness	

-PL- ‘DEGREE OF PRECISION / DEFINITION / SCRUTINY’ Affix: PCN (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of precision (= exactness of fine-tuning, fineness of or attention to detail, carefulness in workmanship/craftsmanship) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of definition, being well-defined (= exactness of distinction, contrast with background, separability from background milieu)
CTE	(to be) something with a degree of precision	
CSV	(to be) a degree of precision	
OBJ	(to be) an entity/party impacted/affected by one’s degree of precision	STEM 3: (to be/manifest a) degree of scrutiny / attention / scrupulousness (= thoroughness/exactitude in procedure / task / activity)
INT	(to be) the purpose (i.e., expected outcome) of a degree of precision	

-XT- ‘DEGREE OF CONCERN / EMPATHY / CARE / INDIFFERENCE / NEGLECT’ Affix: CNC (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of concern for, worry over — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of care for, degree to which one looks after / takes care of / has responsibility for the care or oversight of
CTE	(to be) something with a degree of concern for, worry over	
CSV	(to be) a degree of concern for, worry over	
OBJ	(to be) an entity/party impacted/affected by one’s degree of concern for, worry over	STEM 3: (to be/manifest a) degree of vigilance, watchfulness, surveillance
INT	(to be) the purpose (i.e., expected outcome) of a degree of concern for, worry over	

The above meanings are for the INFORMAL stems. The FORMAL stems are as follows:

FML Stems:

1. (to be/have a) degree of empathy for
2. (to be/have a) degree to which one guards something (= protection via watchfulness/vigilance)
3. (to be/have a) degree to which one nurses / nutures / provides for / has responsibility for the health and well-being of

-BX- ‘DEGREE OF SOPHISTICATION/CRUDENESS/REFINEMENT/PRIMITIVENESS’ Affix: SPH (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of physical/technical refinement/sophistication (vs. crudeness, i.e., level to which an entity manifests a high level of technical workmanship/craftsmanship/artisanry) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of evolvment (vs. primitiveness, i.e., temporal, evolutionary perspective over time) STEM 3: (to be/manifest a) degree of cultural refinement/sophistication/finesse (vs. cultural primitiveness/savagery/simplicity)
CTE	(to be) something with a degree of physical/technical refinement/sophistication	
CSV	(to be) a degree of physical/technical refinement/sophistication	
OBJ	(to be) an entity/party impacted/affected by one’s degree of physical/technical refinement/sophistication	
INT	(to be) the purpose (i.e., expected outcome) of a degree of physical/technical refinement/sophistication	

-DX- ‘DEGREE OF FURTIVENESS / COVERTNESS’ Affix: CVT (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of furtiveness/covertiness (= extent to which an activity is furtive) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree to which something is obscure/obfuscated/ambiguous/difficult to discern or interpret STEM 3: (to be/manifest a) degree of sneakiness / stealth / surreptitiousness
CTE	(to be) something with a degree of furtiveness/covertiness	
CSV	(to be) a degree of physical/technical furtiveness/covertiness	
OBJ	(to be) an entity/party impacted/affected by one’s degree of furtiveness/covertiness	
INT	(to be) the purpose (i.e., expected outcome) of a degree of furtiveness/covertiness	

-MT- ‘DEGREE OF PUBLICITY / PRIVACY / SECRECY / CONCEALMENT / AVAILABILITY’ Affix: DSR (use SUF/EXN/EXD, etc.)		
BSC	STEM 1. (to be) something with a particular degree of publicity, notoriety, secrecy, confidentiality [i.e., degree to which something is generally known] — [both the quality and the entity manifesting such]	STEM 2. (to be) something with a particular degree of privacy/concealment/seclusion [i.e., degree to which something is generally seen/heard/witnessed] STEM 3. (to be) something with a particular degree of diffusion/availability/accessibility [i.e., degree to which something is generally available]
CTE	(to be) something with a degree of publicity, notoriety, secrecy, confidentiality	
CSV	(to be) a degree of physical/technical publicity, notoriety, secrecy, confidentiality	
OBJ	(to be) an entity/party impacted/affected by one’s degree of publicity, notoriety, secrecy, confidentiality	
INT	(to be) the purpose (i.e., expected outcome) of a degree of publicity, notoriety, secrecy, confidentiality	

-ŃŘ- ‘ IMPEDIMENT / BLOCKAGE / RESTRICTION / RESTRAINT / PREVENTION ’ Affix: PRV		
BSC	STEM 1. (to be) a state/process of something under restriction; something impeded or blocked from occurring or manifesting — [both the act/process/state of restriction and the method/means used to restrict]	STEM 2. (to be) a state/process of being under restraint or held back/kept from moving/acting/escaping, etc. STEM 3. (to be) a state/process of preventing something from happening; the prevention of something; to prevent
CTE	(to be) a process/state of restricting/impeding/blocking from manifesting or occurring	
CSV	(to be) a the means/method of restricting/impeding/blocking from manifesting or occurring	
OBJ	(to be) an entity/party/state being restricted/blocked/impeded	
INT	(to be) the purpose (i.e., expected outcome) of being restricted/blocked/impeded	

-ČX- ‘ DEGREE OF EASE / DIFFICULTY ’ Affix: DFP (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of ease/difficulty (= effort in terms of physical harship/toil and/or perplexity/complexity/mental challenge involved) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of ease/difficulty (= effort in terms of practicality, return/value-for-energy expended, likelihood of desired outcome) STEM 3: (to be/manifest a) degree of ease/difficulty (= effort in terms of being faced with a quandary / dilemma / predicament)
CTE	(to be) something with a degree of ease/difficulty	
CSV	(to be) a degree of ease/difficulty	
OBJ	(to be) an entity/party impacted/affected by one’s degree of ease/difficulty	
INT	(to be) the purpose (i.e., expected outcome) of a degree of ease/difficulty	

--ŠM - ‘ DEGREE OF EFFORT ’ Affix: EFT (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of effort (= in terms of physical harship/toil and/or perplexity/complexity/mental challenge involved) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of effort (= in terms of mental challenge involved) STEM 3: (to be/manifest a) degree of effort (= in terms of organizational complexity)
CTE	(to be) something with a degree of effort	
CSV	(to be) a degree of effort	
OBJ	(to be) an entity/party impacted/affected by one’s degree of effort	
INT	(to be) the purpose (i.e., expected outcome) of a degree of effort	

-ZL- ‘DEGREE OF DESIGN / ORDER / ORGANIZATION / SYSTEMATIZATION’ Affix: DSG (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of design/planning — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of order(liness) / organization / arrangement / structure STEM 3: (to be/manifest a) degree of systematization (= extent to which components/parts are arranged for optimal interrelationships/functionality)
CTE	(to be) something with a degree of design/planning	
CSV	(to be) a degree of design/planning	
OBJ	(to be) an entity/party impacted/affected by one’s degree of design/planning	
INT	(to be) the purpose (i.e., expected outcome) of a degree of design/planning	

-SL- ‘DEGREE OF PHYSICAL CONTROL’ Affix: CRL (use SUF/EXN/EXD, etc.) NOTE: This root does not mean control in terms of hierarchical authority, oversight or influence.		
BSC	STEM 1: (to be/manifest a) degree of physical control (= degree of brute strength / agility / prowess / forbearance, etc. needed to physically handle/manipulate something, e.g., a tool, a machine, etc.) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of physical fine motor control / dexterity / finesse (= degree of ability to manipulate/handle delicate or fragile entity) STEM 3: (to be/manifest a) degree of control via potential force (= having the ability/means/resources to physically hold/contain/restrain/restrict something from breaking free, running wild, causing damage, attacking, etc.)
CTE	(to be) something with a degree of physical control	
CSV	(to be) a degree of physical control	
OBJ	(to be) an entity/party impacted/affected by one’s degree of physical control	
INT	(to be) the purpose (i.e., expected outcome) of a degree of physical control	

-DM- ‘DEGREE OF TRUSTWORTHINESS / RELIABILITY / DEPENDENCY’ Affix: TRS (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of trust(worthiness) (= extent of one’s belief in another party’s steadfastness/reliability/loyalty/sturdiness, etc.) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of reliance upon; degree to which one must rely on the aid/help/resources/energy, etc. of another STEM 3: (to be/manifest a) degree of dependency upon; degree to which one’s status/identity/nature/essence/form, etc. is determined by another
CTE	(to be) something with a degree of trust(worthiness)	
CSV	(to be) a degree of trust(worthiness)	
OBJ	(to be) an entity/party impacted/affected by one’s degree of trust(worthiness)	
INT	(to be) the purpose (i.e., expected outcome) of a degree of trust(worthiness)	

-PT- ‘DEGREE OF RISK / DANGER’ Affix: DNG (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of physical risk or danger (= threat or potential for physical harm) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of emotional risk or danger STEM 3: (to be/manifest a) degree of socially-oriented risk or danger (= threat to one’s status, plans, life circumstances, assumptions, finances, property, etc.)
CTE	(to be) something with a degree of physical risk or danger	
CSV	(to be) a degree of physical risk or danger	
OBJ	(to be) an entity/party impacted/affected by one’s degree of physical risk or danger	
INT	(to be) the purpose (i.e., expected outcome) of a degree of physical risk or danger	

-BN- ‘DEGREE OF OPERATIONAL FUNCTIONALITY / ACTIVITY / EFFICACY’ Affix: OPF (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of operational functionality; degree of being in working order (= extent to which something is functioning/operating/working normally or as per expectation or design) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of activity (= amount / extent to which entities are acting/functioning/moving) STEM 3: (to be/manifest a) degree of efficacy (= extent to which an activity / operation achieves/accomplishes/delivers what it is supposed to)
CTE	(to be) something with a degree of operational functionality; degree of being in working order	
CSV	(to be) a degree of operational functionality; degree of being in working order	
OBJ	(to be) an entity/party impacted/affected by one’s degree of operational functionality; degree of being in working order	
INT	(to be) the purpose (i.e., expected outcome) of a degree of operational functionality; degree of being in working order	

-RF- ‘DEGREE OF CAPACITY / TALENT / SKILL’ Affix: TAL (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of natural capacity/ability to — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of natural talent / aptitude / “gift” for; be adept at STEM 3: (to be/manifest a) degree of natural virtue (= desired behavioral quality/characteristic/attribute)
CTE	(to be) something with a degree of natural capacity/ability to	
CSV	(to be) a degree of natural capacity/ability to	
OBJ	(to be) an entity/party impacted/affected by one’s degree of natural capacity/ability to	
INT	(to be) the purpose (i.e., expected outcome) of a degree of natural capacity/ability to	

-SP- ‘DEGREE OF NEWNESS’ Affix: NEW (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be/manifest a) degree of newness (= freshly made/born/developed, newly created, not previously existing, e.g., <i>a new book just published; a new baby; a brand new shirt</i>) — [both the quality and the entity manifesting such]	STEM 2: (to be/manifest a) degree of newness (= not previously seen/functioning/experienced in current context, e.g., <i>the new student; a new book, i.e., that I’ve not owned/read before</i>) STEM 3: (to be/manifest a) degree of newness (= another / different / replacement / substitute / revision, e.g., <i>Please turn to a new page in your sketchpad; Hand me a new fork, this one is dirty.</i>)
CTE	(to be) something with a degree of newness	
CSV	(to be) a degree of newness	
OBJ	(to be) an entity/party impacted/affected by one’s degree of newness	
INT	(to be) the purpose (i.e., expected outcome) of a degree of newness	

-Ž- ‘CAPACITY / ABILITY / CAPABILITY’ Affix: -CPC-		
BSC	STEM 1: (to be/manifest) the physical capability/ability to do something particular; to be able (i.e., have the or physical capability/ability) to do something particular	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
CTE	(to be) the physical capability/ability; to be able (= have the or physical capability/ability)	
CSV	(to be) the particular (nature of the) physical capacity/ability needed	
OBJ	(to be) the task/endeavor requiring a certain physical capacity/ability to perform/accomplish	
INT	the (desired/expected) outcome of a task requiring a particular capability/ability to perform/accomplish	

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

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

-FS- ‘ANTICIPATION / EXPECTATION / READINESS / PREPAREDNESS’ Affix: ATI (use SUF/EXN/EXD, etc.)		
BSC	STEM 1: (to be in) a state of anticipating/expectating/awaiting something (not the emotion thereof but rather the status of one’s circumstances) — [both the state and the entity manifesting such]	STEM 2: (to be in a) state of readiness / preparedness for an anticipated / expected occurrence / phenomenon STEM 3: (to be in a) state of readiness / preparedness in case of an unexpected / unpredictable occurrence / phenomenon
CTE	(to be) something in a state of anticipating/expectating/awaiting something	
CSV	(to be) a a state of anticipating/expectating/awaiting something	
OBJ	(to be) an entity/party impacted/affected by one’s a state of anticipating / expectating / awaiting something	
INT	(to be) the purpose (i.e., expected outcome) of a a state of anticipating / expectating / awaiting something	

NOTE: For the emotional aspect(s) of anticipation/expectation, see the emotion roots **-NTK-**, **-MPR-**, and Stem 2 of **-VDR-**.

-TM- ‘DEGREE OF ACCEPTANCE/CONSENT/PERMISSION/APPROVAL/AGREEMENT’		Affix: CNS
Informal Stems		Formal Stems
BSC	INF STEM 1: (to be/manifest a) degree of acceptance/tolerance, “being okay with something” [both the state of acceptance and that which is accepted]	FML STEM 1: (to be/manifest a) degree of permission; granting license to FML STEM 2: (to be/manifest a) degree of affirmation, formal recognition, official confirmation FML STEM 3: (to be/manifest a) degree of approval (= official/authorized sanctioning of an act/event/state)
CTE	(to be) that which one accepts/tolerates or is okay with	
CSV	(to be) the state of acceptance or being okay with	
OBJ	(to be) the party/entity that accepts/tolerates or is okay with something	
INT	(to be) the purpose (i.e., expected outcome) of an act/state of acceptance/tolerance	
	INF STEM 2: (to be/manifest a) degree of assent/consent (= granting of informal permission) INF STEM 3: (to be/manifest a) degree of agreement/concurrence/accordance with	

-ZM- ‘MOTIVE / INTENTION’		Affix: RSN
Informal Stems		Formal Stems
BSC	STEM 1: (to be/manifest) a motive / reason why / basis for one’s intention — [both the psychological/epistemological state of having a motive and its content]	FML STEM 1: (to be/manifest a) principle (moral or ontological) / grounds / basis; be/have a principle / be/have grounds / be/have basis FML STEM 2: (to be/manifest) an aspiration / “dream” ; to aspire, to dream of FML STEM 3: (to be) one’s (free) will; to follow one’s will
CTE	(to be) a motive / reason why	
CSV	(to be) the psychological/epistemological state of having a motive/reason	
OBJ	(to be) the party/entity having a motive/reason	
INT	(to be) the purpose (i.e., expected outcome) of one’s motive/reason	
	INF STEM 2: (to be/manifest) a purpose/intention/goal/aim; to aim to/for INF STEM 3: (to be manifest) an incentive/stimulus	

-SS- ‘TOOL / INSTRUMENT’		Affix: TDM
Informal Stems		Formal Stems
BSC	STEM 1: (to be) a tool, instrument, implement as extension of bodily appendage(s); use a tool (e.g., as per force, strength, precision, reach, pressure, instrument as labor-saving or efficiency-increasing means etc.) — [both implement and the manner/process of its function]	FML STEM 1: (to be a) utensil, specialized implement for assisting in refined task FML STEM 2: (to be a) mechanical / motorized / electric / electronic implement/device FML STEM 3: (to be a) supply-like resource/implement used as fuel or input for a mechanical / electrical / electronic implement/device
CTE	(to be) the manner/process (i.e., how it works) of using a tool or implement; to engage in the manner/process of using a tool	
CSV	(to be) a tool, instrument or implement; use a tool	
OBJ	(to be) the party/entity using a tool or implement	
INT	(to be) the purpose (i.e., expected outcome) of using a tool or implement	
	INF STEM 2: (to be) a tool, instrument, implement as a means of “defying” the forces of Nature (e.g., as with a wheel, fulcrum, wedge, clamp, etc.); use such a tool — [both implement and the manner/process of its function] INF STEM 3: (to be a) supply-like resource/implement used by itself or in association with specific tool to maintain/sustain a constructed state (e.g., a nail, tack, hook, rivet, staple, screw, clothespin, etc.)	

-NH- ‘SOURCE / ORIGIN’		Affix: OAU
Informal Stems		Formal Stems
BSC	STEM 1: (to be the) origin / source of something — [both the point in spacetime and the fact of being the initial manifestation of something]	FML STEM 1: (to be/manifest a) basic element / fundamental starting point or principle FML STEM 2: (to be/manifest a) fundamental reason for something; fundamental reason why; a basis for something FML STEM 3: (to be a) first principle / foundational principle / axiom / underlying
CTE	(to be) an act/process of origin(ating) or functioning as a/the source	
CSV	(to be) the physical spacetime point/location that is the source of something; where something originates	
OBJ	(to be) that whose source/origin is being identified	
INT	(to be) the purpose (i.e., expected outcome) of an act of originating or being the source thereof	
	INF STEM 2: (to be) a beginning / start / point of initiation; begin, start, commence, initiate INF STEM 3: (to be a) (primary or direct) cause	

-NĹ- ‘DEGREE OF PROXIMITY/DISTANCE’		Affix: PXM
BSC	STEM 1: (to be/manifest) a degree of linear proximity/distance in space and/or time between entities — [both the spatio-temporal expanse and the effect/consequences thereof]	STEM 2: (to be/manifest a) a degree of linear spatial proximity/distance between entities STEM 3: (to be/manifest a) a degree of temporal proximity/distance (i.e., elapsed time between entities)
CTE	(to be/manifest) the effect/consequences of the spatio-temporal distance/proximity between entities	
CSV	(to be/manifest) a degree of linear proximity/distance in space and/or time between entities)	
OBJ	(to be) an entity/party at a certain distance/proximity to another	
INT	(to be) the purpose (i.e., expected outcome) of being at a certain distance/proximity to another party/entity	

-ĀN- ‘DEGREE OF CONTACT’		Affix: CTC
BSC	STEM 1: (to be) a state/act of physical contact between entities; to make contact; touch — [both the state/act of contact and its effect/consequence]	STEM 2: (to be) an application of physical pressure/force + effect/consequence STEM 3: (to be) a move or setting in motion via physical contact + resulting motion; to set in motion + resulting motion
CTE	(to be) the effect/consequence of a state/act of physical contact between entities	
CSV	(to be) a state/act of physical contact between entities; make contact; touch	
OBJ	(to be) a party/entity in physical contact with another	
INT	(to be) the purpose/intent of a state/act of physical contact between entities	

-PŘ- ‘ACCESS / PASSAGE(WAY) / ENTRY(WAY) / EXIT’		Affix: ACS
BSC	STEM 1: (to be/manifest) a 2-way access point or passage way; to pass through to a different area or physical space — [both the passage way itself and the act of passage]	STEM 2: (to be/manifest a) an entry point, a point of ingress, an entry portal, a passageway by which to enter STEM 3: (to be/manifest a) an exit point, a point of egress, an exit portal, a passageway by which to exit
CTE	(to be) an act of passage through, an act of accessing another physical space; to pass through, to enter or exit	
CSV	(to be) a passage way or access point or doorway*	
OBJ	(to be) the party passing through an access point or doorway*	
INT	(to be) the purpose (i.e., expected outcome) of an act of passing through an access point; (one’s) passage through; CPT = one’s arrival into another physical space after passing through an access point	

*Note that the word for a “door” itself would be the BSC stem for ‘access/passageway’ plus the new MDF_{2/3} affix ‘that which impedes/prevents X’, so that a ‘door’ is literally a “passage-impeding implement”. Consequently, there is no such thing as an “open door” in the language — one would say an “unrestricted passageway” or “unrestricted doorway.”

-R- ‘NEGATION / NULLIFICATION / ABSENCE / DENIAL / REMOVAL’ Affix: NEG		
Informal Stems		Formal Stems
BSC	STEM 1: (to be/manifest) an instance/act of negation; make something negative; to negate, i.e., to make/render the status of an entity so that it is as if it does not exist / manifest / apply / matter / act / take effect or have relevance [both the act/process of negation and the status of being (rendered) negative]	FML STEM 1: (to be) an instance/act of nullification or abrogation; to nullify, render null, abrogate, render as having no effect FML STEM 2: (to be) an instance/act of contradiction or contravention; to contradict or contravene FML STEM 3: (to be) an instance/act of elimination/removal; to eliminate, remove
CTE	(to be) an instance/act of denial; to deny -- to act as if something is not true or non-existent or inapplicable	
CSV	(to be) the physical/tangible process of negation, whether verbal, physical, by written proclamation, by memory loss, etc.	
OBJ	(to be) that which is negated	
INT	(to be) the purpose (i.e., expected outcome) of an act of negation;	
	INF STEM 2: (to be) an instance/act of denial; to deny -- to act as if something is not true or non-existent or inapplicable INF STEM 3: (to be) an instance of being absent; an absence; to be absent;	

-Š- ‘GENDER / GENDER IDENTITY’ Affix: GEN		
BSC	STEM 1: (to be/manifest) one’s psychological gender identity; to identify as a particular gender (or lack thereof, or combination thereof, etc.) — [both the particular gender identity and the psychological state/process of identifying as such]	STEM 2: (to be/manifest) a genetically-determined gender STEM 3: (to be/manifest) a process of gender transition / gender change; to change/transition to a different gender
CTE	(to be) a particular gender identity	
CSV	(to be) an act/process/state of gender identification; to (self-)identify as a particular gender	
OBJ	(to be) the person/entity/party identified as a particular gender	
INT	(to be) the purpose (i.e., expected outcome) of an act of gender identification	

-ŇŽ- ‘ARRANGEMENT / ORDER / SYMMETRY / CLASSIFICATION’		Affix: CLS
Informal Stems		Formal Stems
BSC	STEM 1: (to be/manifest) an arrangement (= placement in some sort of order or discernible pattern); arrange, order — [both the arrangement itself and the act/process of arranging]	FML STEM 1: (to be) something regular or displaying regularity (= having an expected/conventionalized pattern); be/make regular, regularize FML STEM 2: (to be/manifest) an assortment; sort FML STEM 3: (to be) a classification; classify
CTE	(to be) an arrangement or order	
CSV	(to be) an act of arranging or ordering; to arrange, order	
OBJ	(to be) the entity/party being arranged or ordered	
INT	(to be) the purpose (i.e., expected outcome) of an act/process of arranging/ordering	
	INF STEM 2: (to be/manifest) a hierarchical ranking; rank INF STEM 3: (to be) a symmetrical arrangement; arrange symmetrically	

MORPHOLOGICAL DERIVATIVES: array, setting, hierarchy, symmetry, regularity, regulate, systematize, method, methodize, disarray, scatter, mess, chaos

-LČ- ‘SHAPE / FORM / MOLD / CAST’		Associated Affix: SHP
Informal Stems		Formal Stems
BSC	INF STEM 1: (to be/manifest a) two-dimensional shape or outline form — [both the shape and the entity manifesting that shape]	FML STEM 1: (to be/manifest a) two-dimensional contour, pattern, or outline as a representation/model for something FML STEM 2: (to be/manifest a) three-dimensional contour, pattern, or outline as a representation/model for something FML STEM 3: (to be a) mold/pattern/cast (of/for something)
CTE	(to be) the entity manifesting a particular 2-D shape or outline form	
CSV	(to be/manifest) a two-dimensional shape or outline form	
OBJ	[same as CTE]	
INT	(to be) the purpose/intent of manifesting a particular 2-D shape or outline form	
	INF STEM 2: (to be/manifest a) three-dimensional shape/form INF STEM 3: (to be a) figure (reminiscent of something) based on shape/form	

-JB- ‘TWO-DIMENSIONAL DECORATIVE PATTERN/TEXTURE’ Affix: PAT		
BSC	STEM 1: (to be/manifest a) two-dimensional (quasi-)overlying simple visual surface design/pattern (= repetitive visual design)— [both the design/pattern and the entity manifesting such]	STEM 2: (to be/manifest a) two-dimensional (quasi-) overlying complex/multi-faced visual surface pattern (= complex repetitive visual design) STEM 3: (to be/manifest a) two-dimensional (quasi-) overlying visual surface texture (= repetitive visual-tactile design)
CTE	(to be) something manifesting a 2-D overlying simple visual surface pattern	
CSV	(to be) a 2-D (quasi-)overlying simple visual surface pattern	
OBJ	[same as CTE]	
INT	(to be) the purpose (i.e., expected outcome) of a a state of anticipating / expecting / awaiting something	

-SK- ‘CONTAIN / HOLD / CONTENTS’ Associated affix: CNM		
BSC	STEM 1: (to be) an instance/act/state of containment via gravity (e.g., basin); to contain (via gravity) [both the container and the state of containment]	STEM 2: (to be) an instance/act/state of containment via enclosing medium or surrounding conveyance STEM 3: (to be) an instance of containment via imbueement (i.e., as an ingredient/component)
CTE	(to be) the state of containment (via gravity)	
CSV	(to be) the container)via gravity)	
OBJ	(to be) that which is contained (via gravity); the content(s)	
INT	(to be) the purpose/intent of a state of containment (via gravity)	

14.0 A SPECIAL ROOT

The following root and its stems are particular to this language, and represent a concept untranslatable (other than by paraphrase) into English or other languages. The root refers to a particular “life-stance”, a certain idealized way of seeing the world and being/living in it, which in this case, represents (as best as he can capture it in words) the author’s own view of how one (or at least the author) might live in an ideal world. The concepts expressed by this word encapsulate the culmination of the author’s six decades of lessons learned, accumulated wisdom, introspection and reflection about what is ultimately important and meaningful in life.

-SKY- [untranslatable - meaning explained below]		
<p>The meaning of this root is as follows:</p> <p>(to experience/feel/live by) a striving for (and, if achieved, the serenity resulting from) a delicate but sustained balance of the following personal states/ideals:</p> <ul style="list-style-type: none"> • a calm appreciation for, and acceptance of, those aspects of one’s life/existence that cannot be controlled/avoided (e.g., death, pain, loss, misfortune, etc.), due to understanding that such things are necessary to have a true appreciation for the value of life’s joys; • being able to identify/recognize opportunities to improve one’s chances for happiness/achievement/self-esteem and having the willingness and determination to pursue such opportunities as long as doing so causes no harm to others or to Nature; • a deep appreciation and sense of wonder at the beauty and majesty of Nature; • a deep appreciation and sense of pride in those achievements of humankind that have brought happiness, prosperity and well-being to people’s lives, while at the same time having a keen ability to distinguish the difference between those achievements which have truly benefited humankind versus those seeming achievements which are ultimately divisive, alienating, anxiety-causing or destructive in the long-term; • a sense of personal reward, pride, and personal sanction (i.e., a feeling that one’s existence is justified) when experiencing joy in one’s life; • joy from, and humble appreciation for, the giving and receiving of love to/from others; • humbleness in understanding that one’s own joy and sense of personal sanction/reward for achieving one’s goals/desires is a private, personal matter not to be used arrogantly as a weapon against the self-esteem of other people. 		
BSC	STEM 1: (to be) the “life-stance” as described above, including the mental/emotional experience thereof as well as its associated beliefs/thoughts/tenets	STEM 2: (to be) the “life-stance” described above as the basis for one’s public face, i.e., personal relationships, business dealings, negotiating principles, politics, public expression, etc.
CTE	(to be) the mental/emotional experience associated with the “life-stance” described above	
CSV	(to be) a belief/tenet associated with the “life-stance” described above	
OBJ	(to be) a tangible praxis/behavior/activity/act associated with the “life-stance” as described above	
INT	(to be) the purpose/intent of the above-described “lifstance”; a sense of personal fulfillment/joy/happiness derived from living/accomplishing the above-described life-stance	STEM 3: (to be) the “life-stance” described above as an aesthetic principle or basis for artistic self-expression