## PROPOSED SOLUTION TO THE LEXICO-SEMANTICS OF VERBS IN THE ITHKUIL SUCCESSOR LANGUAGE

I've come up with a potential solution to the lexico-semantic difficulties discussed earlier regarding the attempt to make the fundamental meaning of any verb an unaccusative one (i.e., where the "subject" of the verb when used intransitively would be a semantic patient rather than an agent). We determined that this led to problems with certain verbs such as "eat" and "sing". Others pointed out difficulties with verbs such as "be a subset of" and "exchange". The question was raised as to whether the workings of the Transrelative cases in relation to verbs should be *semantically compositional* (i.e., expressing a set relation between the event described by the verb and the participant marked by the Transrelative case), or conversely *part of a lexically-determined argument structure* (i.e., the exact role marked by the Transrelative case is determined by the definition of the verb).

At any rate, I've come up with what may be a way of resolving these issues that does involve establishing a specified abstract relation between the Functions of the verb, without having to specify set relations or lexically-specific argument structures when it comes to the Transrelative cases. Instead, the assignment of noun cases to arguments (i.e., the participants to a verb within a clause) shall, as in Ithkuil, be freely up to the speaker as long as the chosen noun cases make sense semantically in relation to the verb and are not so arcane that the meaning of the predicate would be indiscernible to the audience.

To accomplish the above, I have determined that a new Function, the **INVERSE** function, is needed, and that the description of the two established functions, STATIVE and DYNAMIC, need to be more rigidly defined.

### DESCRIPTION OF FUNCTIONS IN THE ITHKUIL SUCCESSOR LANGUAGE

- STATIVE Function: describes a non-causal state of being or, for verbs that are inherently non-stative (e.g., 'jump'), describes an instance/occurrence of the act/event irrespective of any cause, initiation, agency, or any agent, force, or enabler responsible.
- **DYNAMIC Function**: when intransitive, DYNAMIC indicates an unergative verbal action, i.e., a verbal act/event in which an overt or implied agent, force, or enabler actively initiates or is actively responsible for the occurrence/performance of the act/event named by the verb. When transitive, indicates that a named or implied agent, force, or enabler induces/initiates/creates an instance/occurrence of the act/event and that there is a named or implied patient who undergoes an effect or change in state as a result of the act/event.
- INVERSE Function: when intransitive, INVERSE indicates an unaccusative verbal action, i.e., a verbal act/event in which the "subject" is an implied patient who does not actively initiate the act/event but is rather the party who undergoes an effect or change in state as a result of the act/event as initiated/induced by another party (as agent or enabler or force) or by oneself.

Because verbs in both the DYNAMIC and the INVERSE can be transitive or intransitive, the terms "unergative" and "unaccusative" have been avoided in naming them (as the latter two terms refer strictly to types of intransitive verbs). Indeed, the fact that this language, like Ithkuil, allows for any participant to a verb to be "dropped" (with their presence merely implied), the notion of transitivity vs. intransitivity is actually somewhat unhelpful as a means of description.

I have chosen the name INVERSE for the new function as it is neither a passive or an antipassive construction (for those familiar with linguistics terminology), yet, in a manner somewhat similar to both, signifies an inversion of the semantic roles of the participants.

Function will operate for both nouns and verbs. The table below illustrates the distinction in meaning between the three Functions for the following example English verbs \*: SLEEP, EAT/FEED, FEEL BORED, BE A SUBSET OF, SUBSTITUTE, GIVE, JUMP.

#### **VERBS**

English gloss	STATIVE	DYNAMIC	INVERSE		
SLEEP	(a state of) sleeping occurs / be asleep	go to sleep / fall asleep [ = induce/initiate/create an occurrence of being asleep]	get put to sleep / be made to sleep [ = to be/get induced/made to be asleep by someone /oneself / something ]		
EAT / FEED	(an instance of) eating occurs / be in a state of eating	to eat [something] [ = induce/initiate/create an occurrence of eating]	to be/get fed [ = to be/get induced/made by someone / oneself / something] to be in a state of eating		
FEEL BORED(OM)	be/feel bored(om), be in a state of boredom	to bore [ = induce/initiate/create an occurrence of feeling bored(om)]	to get/be bored [ = to be/get induced/made to feel bored(om) by someone/oneself/something]		
BE SUBSET (OF)	be a subset of something	to create a subset [ =initiate/create an occurrence of (there being) a subset]	to be/get made into a subset [ = to be/get induced/made by someone/oneself/something into being a subset]		
SUBSTITUTE	(an instance of) substituting occurs / be in a state of substituting (one thing for another)	to substitute (one thing for another) [ = induce / initiate / create an occurrence of substituting]	to be/get induced/made to substitute [ = be/get induced/made by someone/oneself/something to be in a state of substituting (one thing for another)		
GIVE	(an instance of) giving (something to someone) occurs / be in a state of giving (something to someone)	to give (something to someone) [ = to induce/initiate / create an occurrence of giving]	to be/get made to give [ = be/get induced/made by someone/oneself/something to be in a state of giving (something to someone)		
JUMP	(an instance of) jumping occurs / be in a state of jumping	to jump [ = to induce/initiate an occurrence of jumping]	to be/get made to jump [ = be/get induced/made by someone/oneself/something to be in a state of jumping		
SING	(an instance of) singing occurs / be singing	to sing [ = to induce/initiate an occurrence of singing]	to be/get made to sing [ = be/get induced/made by someone/oneself/something to be singing		
SEE	(an instance of) seeing occurs / to undergo seeing (something)	to see [ = to induce/initiate an occurrence of seeing (something)]	to be/get made to see [ = be/get induced/made by someone / oneself * / something to undergo an instance of seeing		

<sup>\*</sup> NOTE: when the party inducing an act of seeing is oneself (e.g., marked by INDUCIVE case) the most likely translation of the verb would be 'look (at)'.

The important thing to note in the above table is that, by establishing a uniform relationship between the Functions, the individual semantics of each verb establish themselves naturally. For example, instead of trying to figure out whether the DYNAMIC counterpart of 'be asleep' should be 'put to sleep' of 'fall asleep', or whether the DYNAMIC counterpart of 'be/feel bored' should be 'to bore' or 'to make boring' or 'to make bored', instead, we define DYNAMIC Function as universally meaning "induce/initiate/create an occurrence of [the STATIVE meaning]'. Consequently, the DYNAMIC counterparts for 'be asleep' and 'be/feel bored' naturally become 'fall asleep' and 'bore.' Likewise, the new INVERSE function has a set semantic relationship to the STATIVE as 'be/get induced/made to be [STATIVE meaning]'.

<sup>\*</sup> Note: these English verbs have not yet been assigned roots/stems in the language. They are utilized here only to conceptually illustrate/distinguish the three Functions.

The following groups of sentences illustrate the use of the three Functions in conjunction with various Case assignments. Use of the new **INVERSE** Function is marked in red.

The girl eats.	eat-DYN girl-ERG
The girl eats an apple.	eat-DYN girl-ERG apple-ABS
An apple gets eaten. / Someone eats an apple.	eat-DYN apple-ABS
The man gets the girl to eat an apple.	eat-DYN man-EFF girl-ERG apple-ABS
The man feeds the girl an apple.	eat-INV man-EFF girl-ERG apple-ABS
The girl gets fed.	eat-INV girl-ERG
An apple gets eaten.	eat-DYN apple-ABS
An apple gets fed to the girl.	eat-INV girl-ERG apple-ABS
The girl gets eaten.	eat-INV girl-ABS
The girl eats herself.	eat-DYN girl-IND
The girl gets herself eaten.	eat-INV girl-IND

The above sentences demonstrate how use of the **INVERSE** Function allows us to maintain 'apple' in the ABSOLUTIVE case, since it is a natural patient, rather than a theme. Previous translations utilizing the THEMATIC case were unsatisfactory, since the apple undergoes a change in state when eaten. The non-practicality of using the THM case is even more blatant if we substitute an animate patient, as in *The monster ate the farmer*.

The following is an additional illustration of the use of the three Functions using the verb 'jump.' (NOTE: in the following examples, several of the sentences should take a Phase affix, given that a state of jumping implies repetitive action. For simplicity's sake, I've not bothered showing Phase.)

The boy jumps.	jump-DYN boy-IND
Mother makes the boy jump.	jump-DYN mother-EFF boy-IND
The boy is made to jump.	jump-INV boy-IND
Jumping takes place. / There's jumping going on.	jump-STA
Someone's jumping. / There's someone jumping.	jump-DYN
Someone's being made to jump.	jump-INV

Another example using one of our "problem" verbs, 'sing':

The woman sings.	sing-DYN woman-IND
The woman sings a song.	sing-DYN woman-IND song-THM
A song is sung.	sing-DYN song-THM
There's singing going on. / Someone is singing.	sing-STA
He makes the woman sing.	sing-DYN he-EFF woman-IND
He gets the woman to sing.	sing-INV he-EFF woman-IND
He gets singing to happen.	sing-INV he-EFF
He makes singing occur.	sing-STA he-EFF (or: sing-DYN he-EFF)

## Applying the Three Functions to the concept of "BIRTH"

In English, the process of a child/offspring departing its mother's womb and entering the world is expressed by three different verbs: 'to be born', 'to give birth' and 'to deliver.' The first of these signifies the process from the perspective of the child/offspring itself, and can only be used with the child/offspring as the subject of the verb. The second verb, 'to give birth', on the other hand signifies the process from the perspective of the mother. Other than metaphorical uses such as *That university has given birth to a lot of radicals* (where the verb still refers to the perspective of the university as a metaphorical "mother"), 'to give birth' can only take the mother as its subject. Finally, the verb 'to deliver' signifies the process from the perspective of the person(s) aiding the mother in the birthing process.

One may take note of the last three words of the previous paragraph: "the birthing process." This use of "birthing" as a gerundial adjective implies the existence of a verb 'to birth' as the verbal counterpart of the noun "birth". However, (according to my trusty Webster's Dictionary) 'to birth' is merely dialectal English and is synonymous with 'to give birth." Standard English does not appear to have a verbal counterpart to the noun 'birth' to describe the verbal process of a child/offspring departing its mother's womb from a universal perspective (or conversely, without specifying a personal perspective).

The reason I bring this up is that the example of the birthing process keenly illustrates the care that must be taken in selecting roots and assigning meaning to them in this new language, as the semantics of such roots can lead to problems when applying morpho-semantic categories such as these three newly defined Functions. I discovered this the hard way when attempting to apply DYNAMIC and INVERSE functions first to the verb 'be born' and then 'give birth.' The fact that these two verbs carry an inherent personal perspective (exacerbated by their describing naturally unwilled, affective acts/events) quickly led to snags in generating useful meanings. Instead, the new language will have only a verb corresponding to the missing verbal counterpart of the English noun 'birth', describing the process irrespective of any personal perspective.

	STATIVE	DYNAMIC	INVERSE
"BIRTH"	(an instance of) birthing occurs / be in a state of "birthing")	to induce/initiate an occurrence of "birthing"	to be/get made to birth [ = be/get induced/made by someone/oneself/something to "birth"]

NOUNS: As stated earlier, the three functions can be used with nouns as well. The following table illustrates the nominal meaning of our example roots for each function:

English gloss	STATIVE	DYNAMIC	INVERSE
SLEEP	'a state of sleep' / 'someone being asleep'	'an occurrence/instance of going to sleep	'an occurrence/instance of someone putting one to sleep; instance of being put to sleep'
EAT / FEED	'an occurrence/instance of eating' (irrespective of any causal dynamics)	'an occurrence/instance of eating' (including causal or AGENT/PATIENT notions of eater and thing eaten)	'an occurrence getting fed' = provided food to eat
FEEL BORED	'a state of feeling bored' (irrespective of any causal dynamics)	'an occurrence/instance of feeling bored' (including causal notions of STIMULUS/EXPERIENCER)	'an occurence of getting bored' = made to feel bored
BE SUBSET (OF)	'a state of being a subset (of something)' (irrespective of any causal dynamics)	'an occurrence/instance of being a subset (of)' (including notions of cause/agency)	'an occurrence of being made into or identified as a subset'
SUBSTITUTE	'a occurrence/instance of substituting (a thing for something else)" (irrespective of any causal dynamics)	'an occurrence/instance of substituting' (including notions of cause/agency)	'an occurrence of (something) being/getting substituted (for something else)
GIVE	'a occurrence/instance of giving (something to someone)' (irrespective of any causal dynamics)	'an occurrence/instance of giving (s.t. to s.o.)' (including notions of cause/agency/recipient)	'an occurrence/instance of (someone) being/getting given (something)'
JUMP	'a occurrence/instance of jumping' (irrespective of any causal dynamics)	'a occurrence/instance of jumping' (including notions of cause/agency)	'an occurrence/instance of (someone or something) being/getting made to jump

# **REDUCTION IN THE NUMBER OF SPECIFICATIONS (and assigning vowel-forms to INVERSE function)**

We must now find a way to assign vowel-forms to the new INVERSE function. As it so happens, in the past few weeks I've felt increasingly dissatisfied with the large number of Specifications, especially given the realization that several of the Specifications could just as easily be handled by **VxCs** affixes. By eliminating four of the Specifications, it frees up enough vowel-forms to signify the new INVERSE Function, as follows:

	STEM 1			STEM 2		STEM 3			
	STA	DYN	INV	STA	DYN	INV	STA	DYN	INV
BASIC	a	ai	ia / aì	ä	au	ua / aù	ao	aö	ayu
CONSTITUTIVE	e	ei	ie / eì	ë	eu	ue / eù	eo	eö	eyu
CONTENTIAL	О	oi	io / oì	ö	ou	uo / où	oa	öa	oyu
OBJECTIVE	u	ui	iö / öì	ü	iu	uö / öù	oe	öe	uyu
INTENTIVE	i	ëi	ië / ëì	ae	ëu	uë / ëù	ea	eë	iyu

The four Specifications that have been eliminated are the FACILITATIVE, the FOUNDATIONAL, the EXPERIENTIAL, and the PREREQUISITIVE. Their functionality will instead be expressable as follows:

- The FACILITATIVE can be expressed by either REA/5 or REA/6 affix or via stem incorporation.
- The FOUNDATIONAL and the PREREQUISITIVE can be expressed the AGC/9 affix, via stem incorporation or via the following new affix:

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

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

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