THE COMPLETE PERIODIC TABLE OF SEMANTIC PREDICATES

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In a previous paper^{*} I enunciated the situatodomainal theory in which I claimed to solve the problem of semantic role theory: how to determine the nature and number of semantic roles. The solution was analogously and reflectively developed from Newtonian mechanics as the adjoining diagram depicts.



^{*} *The Situatodomainal Theory* posted on <u>www.luganda.com</u> in July 2013. The present paper is an indubitably significant improvement on a previous paper entitled " The Period Table of Semantic Predicates" posted on <u>www.kiu.co.ug</u> and <u>www.luganda.com</u> in January and February 2014, respectively.

It will be recalled that $[\Sigma] = [B], [Z]$ where B = change bearer, Z = non-change bearer; $[\Sigma R] = [BR], [ZR]$ where R = reference; $[\Psi A] = [NA], [TA]$ where N = dynamic contactor, T = static contactor, A = contactee; $[\Phi E] = [CE], [KE]$, where C = causer, K = anticauser, E = causee.

The absolute [Σ] and relative [Σ R] correspond to Newton I (**F** = m**a** = **0**); the contactive [ψ A] corresponds to Newton III (**F**₁₂ = **F**₂₁); the causative [Φ E]corresponds to Newton II (**F** = m**a** \neq **0**).

If I let [π] assume the values [Σ], [Σ R], and [ψ A], I readily derive the (complete) Periodic Table of Semantic Predicates in 21 cycles whereby a cycle is a strict sequence of : absolutization, relativization, contactivization, and causativization.

| | Group I | Group II | Group III | Group IV | Group V |
|-----------|---------------------|---|-------------------------------|---|---|
| Period 1 | [$\mathcal{\Pi}$] | 2 [Π]Σ | 3[<i>T</i>]R | $4\psi A[\mathcal{H}]$ | $5 \Phi E[\pi]$ |
| Period 2 | | $6[[\mathcal{H}]\Sigma]\Sigma$ | $7[[\Pi]\Sigma]R$ | $8 \psi A[[\mathcal{H}]\Sigma]$ | $9\Phi E[[\mathcal{H}]\Sigma]$ |
| Period 3 | | $10 [[\mathcal{T}]R]\Sigma$ | 11[[<i>π</i>]R]R | 12ψA[[<i>π</i>]R] | 13 ΦE[[<i>π</i>]R] |
| Period 4 | | 14 ψΑ[π]]Σ | 15[ψA[<i>π</i>]]R | 16ψA[ψA[<i>π</i>]] | 17ΦΕ[ψΑ[<i>π</i>]] |
| Period 5 | | 18 [ΦΕ[<i>π</i>]] Σ | 19 [ФЕ[<i>ग</i>]]R | 20[ψA ΦE[<i>π</i>]] | 21[ΦE[ΦE]] |
| Period 6 | | $22[[[\mathcal{H}]\Sigma]\Sigma]\Sigma$ | $23[[[\Pi]\Sigma]\Sigma]R$ | $24\psi A[[[\mathcal{T}]\Sigma]\Sigma]$ | $25\Phi E[[[\mathcal{H}]\Sigma]\Sigma]$ |
| Period 7 | | $26[[[\mathcal{H}]\Sigma]R]\Sigma$ | $27[[[\mathcal{T}]\Sigma]R]R$ | $28\psi A[[[\Pi \Sigma]R]$ | 29ΦE[[[<i>π</i>]Σ]R] |
| Period 8 | | $30[\psi A[[\Pi \Sigma]]\Sigma$ | $31[\psi A[[\Pi \Sigma]]R$ | $32\psi A[\psi A[[\Pi \Sigma]]]$ | $33\Phi E[\psi A[[\pi]\Sigma]]$ |
| Period 9 | | $34[\Phi E[[\Pi \Sigma]]]$ | $35[\Phi E[[\pi]\Sigma]]R$ | $36\psi A[\Phi E[[\Pi \Sigma]]]$ | $37\Phi E[\Phi E[[\mathcal{R}]\Sigma]]$ |
| Period 10 | | $38[[[\pi]R]\Sigma]\Sigma$ | $39[[[\pi]R]\Sigma]R$ | $40\psi A[[[\pi]R]\Sigma]$ | $41\Phi E[[[\Pi]R]\Sigma]$ |
| Period 11 | | $42[[[\pi]R]R]\Sigma$ | 43[[[<i>T</i>]R]R]R | 44ψA[[[<i>π</i>]R]R] | 45ΦE[[[<i>Π</i>]R]R] |
| Period 12 | | 46[ψA[[<i>π</i>]R]]Σ | 47[ψA[[<i>π</i>]R]]R | 48ψA[ψA[[<i>π</i>]R]] | 49ΦE[ψA[[<i>π</i>]R]] |
| Period 13 | | $50\Phi E[[\Pi]R]]\Sigma$ | 51ΦE[[<i>π</i>]R]]R | 52ψA[ΦE[[<i>π</i>]R]] | 53ΦE[ΦE[[<i>π</i>]R]] |
| Period 14 | | $54[[ψA[\Pi]]Σ]Σ$ | $55[[\psi A[\pi]]\Sigma]R$ | 56ψΑ[[ψΑ[<i>Π</i>]]Σ] | 57ΦΕ[[ψ A[π]]Σ] |
| Period 15 | | 58[[ψA[<i>π</i>]]R]Σ | 59[[ψA[<i>π</i>]]R]R | 60ψA[[ψA[<i>π</i>]]R] | 61ΦΕ[[ψΑ[<i>π</i>]]R] |
| Period 16 | | 62[ψΑ[ψΑ[<i>π</i>]]]Σ | 63[ψA[ψA[<i>π</i>]]]R | 64ψA[ψA[ψA[<i>π</i>]]] | 65ΦΕ[ψΑ[ψΑ[<i>π</i>]]] |
| Period 17 | | 66[ΦE[ψA[Π]]]Σ | 67[ΦΕ[ψΑ[<i>π</i>]]]R | 68ψΑ[ΦΕ[ψΑ[<i>π</i>]]] | 69ΦΕ[ΦΕ[ψΑ[<i>π</i>]]] |
| Period 18 | | $70[[\Phi E[\pi]]\Sigma]\Sigma$ | $71[[\Phi E[\pi]]\Sigma]R$ | $72\psi A[[\Phi E[\pi]]\Sigma]$ | $73\Phi E[[\Phi E[\Pi]]\Sigma]$ |
| Period 19 | | $74[[\Phi E[\pi]]R]\Sigma$ | 75[[ΦE[<i>π</i>]]R]R | 76ψE[[ΦE[<i>π</i>]]R] | 77ΦE[[ΦE[<i>π</i>]]R] |
| Period 20 | | $78[\psi A[\Phi E[\pi]]]\Sigma$ | 79[ψA[ΦE[<i>π</i>]]]R | 80ψΑ[ψΑ[ΦΕ[[<i>π</i>]]] | 81ΦΕ[ψΑ[ΦΕ[<i>π</i>]]] |
| Period 21 | | $82[\Phi E[\Phi E[\pi]]]\Sigma$ | 83[ΦΕ[ΦΕ[<i>π</i>]]]R | $84\psi A[\Phi E[\Phi E[\pi]]]$ | 85ΦΕ[ΦΕ[ΦΕ[<i>π</i>]]] |

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The Table exhibits 85 Predicates (numbered consecutively from 1 up to 85), five Groups and 21 Periods. Recursive cycling stretches from $1[\pi]$ up to $21\Phi E[\Phi E[\pi]]$. It should be particularly noted that in Period 1 are five predicates: $1[\pi], 2[\pi]\Sigma$, $3[\pi]R, 4\psi A[\pi]$, and $5\Phi E[\pi]$ while each of the Periods 2-21 has four predicates. It is hypothesizable that with $2[\pi]\Sigma, 6[[\pi]\Sigma]\Sigma, 22[[[\pi]\Sigma]\Sigma; 3[\pi]R, 11[[\pi]R]R, 43[[[\pi]R]R; 4\psi A[\pi], 16\psi A[\psi A[\pi]], 64\psi A[\psi A[\psi A[\pi]]]; 5\Phi E[\pi], 21\Phi E[\Phi E[\pi]], 85\Phi E[\Phi E[\Phi E[\pi]]]$ plus all intervening predicate permutations all or virtually all predicates that may occur morphically marked in any natural language of the world are grasped or captured.

I now conclude this short paper by formalizing and slotting a limited sample of Luganda verbal predicates. I proceed by glossing a given predicate, specifying the value of π , formalizing and slotting the predicate.

| (1) | - sumulukuk | - "to open" | $\mathcal{T} = [\Sigma]$ | $1[\pi]$ | | |
|------|---------------------------------------|-----------------------|----------------------------------|-------------------------|--|--|
| (2) | - sumulul- | "to open" | $\mathcal{T} = [\Sigma]$ | 5ΦΕ[<i>Π</i>] | | |
| (3) | – sumuluz- | "to open with" | $\mathcal{T} = [\Sigma]$ | 21ΦΕ[ΦΕ[<i>π</i>]] | | |
| (4) | -sumululil- | "to open for" | $\mathcal{T} = [\Sigma]$ | 19[ΦE[<i>π</i>]]R | | |
| (5) | -sul- | "to live, dwell" | $\mathcal{T} = [\Sigma R]$ | $1[\Pi]$ | | |
| (6) | -suz- | "to put up" | $\mathcal{T} = [\Sigma R]$ | 5ΦΕ[<i>Π</i>] | | |
| (7) | -tomel- | "to bump into" | $\mathcal{M} = [\psi A]$ | $1[\Pi]$ | | |
| (8) | - tomez- "to | cause to bump into' | $\mathcal{T} = [\psi A]$ | 5ΦE[<i>Π</i>]] | | |
| (9) | -tomelagany- "to cause to bump | | | | | |
| | | into one another | $\mathcal{T} = [\psi A]$ | 12ΦE[[<i>π</i>]R] | | |
| (10) | -tt- | "to kill" | $\mathcal{T} = [\Sigma]$ | 5ΦΕ[<i>π</i>] | | |
| (11) | -ttik- | "to be killable" | $\mathcal{T} = [\Sigma]$ | $18[\Phi E[\pi]]\Sigma$ | | |
| (12) | -ttil- "to ki | ill for/at/" | $\mathcal{T} = [\Sigma]$ | $19[\Phi E[\pi]]R$ | | |
| (13) | -tandik wandiik- " to start to write" | | | | | |
| () | | | $\mathcal{T} = [\Sigma]$ | $20\psi A[\Phi E[\pi]]$ | | |
| (14) | -lindiliz- | " to cause to wait fo | or $\mathcal{T} = [\Sigma R]$ | 45ΦΕ[[[<i>π</i>]R]R] | | |
| | | | | | | |
| (15) | -labikil- | " to be seen | | | | |
| | | /appear at/in" | $\mathcal{T} = [\psi A]$ | 7[[<i>π</i>]Σ]R | | |
| (16) | -labis- | " to show" | $\mathcal{T} = [\psi A]$ | 9ΦΕ[[π]Σ] | | |
| (17) | -julil- | " to refer to" | $\mathcal{T} = [\Sigma R]$ | 1[<i>π</i>] | | |
| (18) | -jjukiz- | " to remind" | $\pi = [\Psi A]$ | 5ΦΕ[<i>π</i>] | | |
| (19) | -ttis- | " to cause to kill" | $\mathcal{T} = [\Sigma]$ | 21ΦΕ[ΦΕ[<i>π</i>]] | | |
| | | | | | | |

| (20) | -ttisis- | " to cause to cause | | |
|------|----------|---------------------|------------------------|--------------------------|
| | | to kill" | $\mathcal{T}=[\Sigma]$ | 85ΦE[ΦE[ΦE[<i>π</i>]]] |

Now that the Periodic Table of Semantic Predicates is in place, cross-linguistic data should be collected and analyzed in order to corroborate, modify, or refute the theoretical Table. Should it be entertained and retained, its promising fundamentality to the discipline of linguistics is due to be assessed.