

FEATURE ANALYSIS OF PSYCHOLOGICAL PREDICATES

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1.0. Introduction

This whole article has been discussed completely based upon ‘UNIVERSAL GRAMMAR OF MATRIX PROPOSITION’.⁽¹⁾ Universal means common to any languages. Matrix means womb out of which babies come to the world. Proposition implies what a world says about. Proposition is consisted of predicate and argument. Predicate means to affirm or assert something of the subject of proposition. Predicate denotes relative functions of relevant arguments and movements among them when multiple place predicates, topic points, and some conditions constraint.

Universal suggests commonness to any languages. What could be common? Phenomena or situation that a world says about can be common to any language users.

How can we express it in a conventional formula.⁽²⁾

The following Formula 1, Diagram 1, and 2 try to introduce whole background of the Universal Grammar of Matrix Proposition. Fundamentally there are only two atomic-meta-function propositions; zero and one. The zero manifests christening individual objects with names. The one manifests stative-meta-atomic-

FOOTNOTE:

1) Hyung-yul Kang (1980), “Universal Grammar of Matrix Proposition”, Thesis Collection of Chungang University Vol. 24, (Seoul, Korea, pp. 147–221.

2) Ibit. Chapter 4.

function proposition, that is, proposition of REST (STATE), which implies an EXISTENCE of an individual at a locus. Here the object is expressed with a term STIMULUS (S) since individuals stimulate sensory doors through which human beings gather informations from outside worlds.

Diagram 1: A Chart of Matrix Proposition: SDR Framework

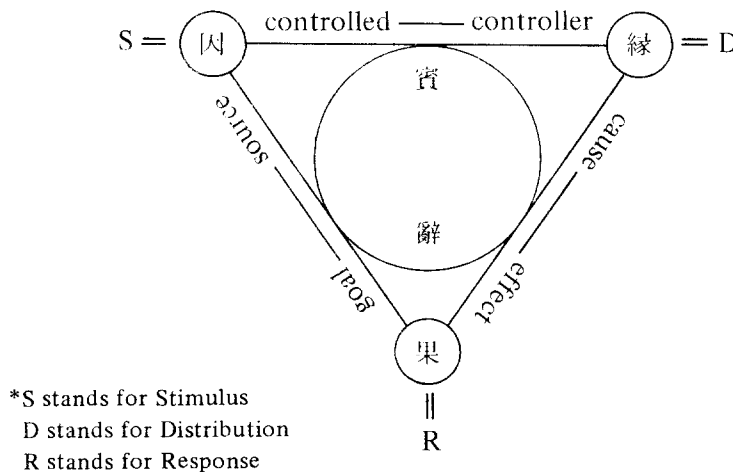
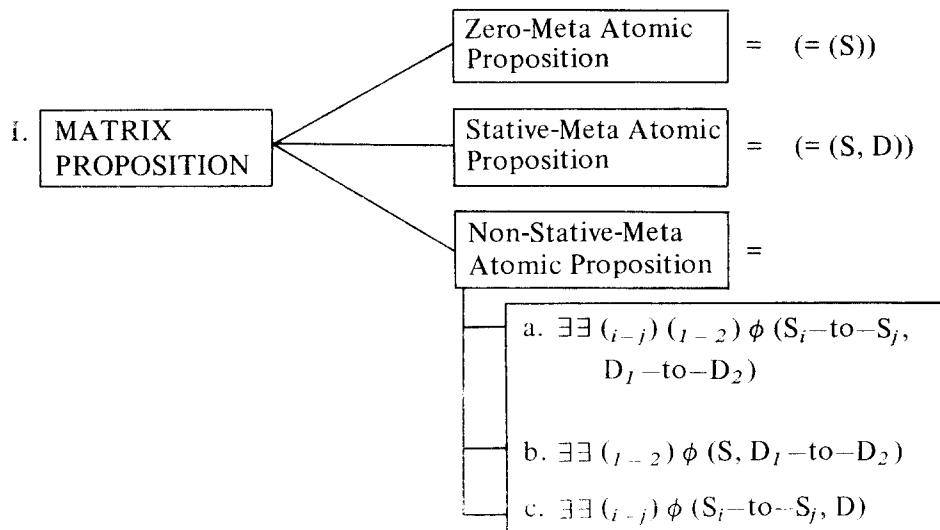
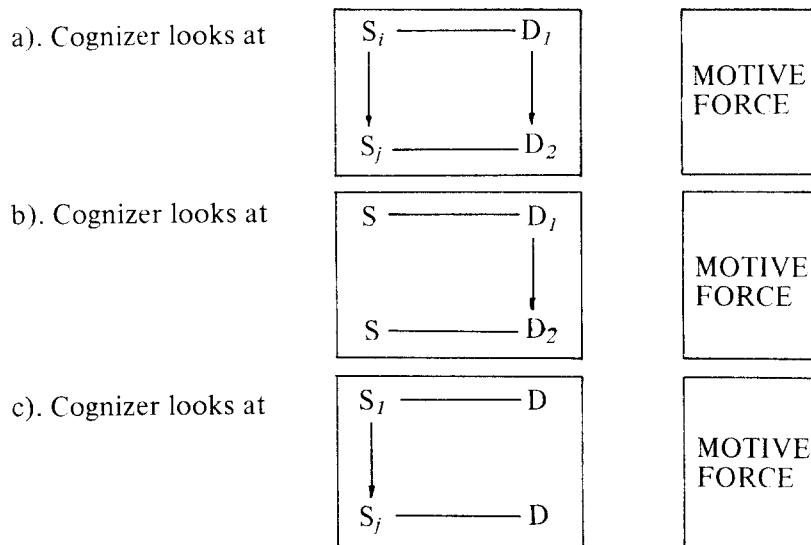


Diagram 2: MATRIX PROPOSITION



Formula 1: OCCURRENCE RELATION FORMULAE of the Matrix Proposition:

- a. Cognizer looks at an object against another:
Cognizer looks at it and identifies: = (S)
- b. Cognizer looks at an object in a distribution:
Cognizer looks at it and identifies as existing at a locus: = (S, D)
- c. Cognizer looks at and identifies transformation from a state of existence of an object to another state as being influenced by some MOTIVE FORCE:



***Note: Downward arrow means a transformation and U, union.

Propositions can be construed as being consisted of meta-function proposition and lexicons as arguments, and theme-rheme, and some constraint conditions.

Examples:

1. Seung-in ida. . . = (S)
(a saint is)
2. Chaek-ee issimnida. eude? = (S, D)
(book exists. where?)

3. Mary gave a pen to John. $\exists \exists (I_1, I_2) = (S, D_1, D_2)$

Universal Grammer of Matrix Proposition admits only two DEEP CASES: S and D.

S stands for STIMULUS. D stands for DISTRIBUTION.

' \exists ' is an EXISTENTIAL QUANTIFIER, and ' $\exists \exists$ ', TRANSFORMATIONAL QUANTIFIER. And '=' symbol is 'IDENTIFICATION' through cognitive process.

'= (S)' is a meta-function proposition which identifies a name of an individual object. S is an individual object.

'= (S, D)' is a meta-function proposition of REST which identifies an individual object at a locus, distribution. This is a STATIVE-META-FUNCTION PROPOSITION.

The third is NON-REST or NON-META-FUNCTION PROPOSITION.

All of these are termed as MATRIX PROPOSITION'

The Matrix Proposition has been drawn out of the above Formula 1. OCCURRENCE RELATION FORMULA of phenomenon, a world as it is.

These three meta-function propositions of the Matrix Proposition are classified based upon relative term.

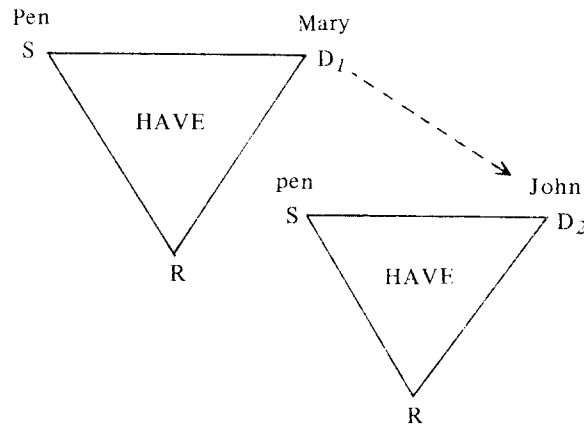
The zero proposition is based upon the incompatibility rule as a subset contrasting against another in a universal set.

And the one meta-function proposition is based upon the hyponymy rule. The relation of S and D is inclusion of one meaning of S subset into another meaning of D universal set.

But if we examine the PREDICATES, we can find that they could be classified into further two groups: REFERENCIAL and ABSTRACT (PSYCHOLOGICAL).

If we draw an OCCURRENCE RELATION FORMULA diagram of a sentence, 'MARY GAVE A PEN TO JOHN.', it is as follows.

Diagram 3: OCCURRENCE RELATION FORMULA of 'MARY GAVE A PEN TO JOHN.'



Meta-function Proposition relevant to Diagram 3 is as follows:

$$\begin{aligned} \exists(x) = (\text{pen}, \text{Mary}) &\Rightarrow \exists(x) = (\text{S}, \text{D}_1) \\ \exists(x) = (\text{pen}, \text{John}) &\Rightarrow \exists(x) = (\text{S}, \text{D}_2) \\ \exists\exists(I_1 - 2) = (\text{D}_1, \text{S}, \text{D}_2) &\Rightarrow \\ \exists\exists(I_1 - 2) \text{ GIVE } (\overset{*}{\text{D}}_1, \text{S}, \text{D}_2) & \\ \exists\exists(I_1 - 2) \text{ RECEIVE } (\text{D}_1, \text{S}, \overset{*}{\text{D}}_2) & \\ \exists\exists(I_1 - 2) \text{ REACH } (\text{D}_1, \overset{*}{\text{S}}, \text{D}_2) & \end{aligned}$$

Note: * is TOPIC FORCUSS point. In English the topic point occupies the SUBJECT position of a sentence.

Diagram 3 shows us a visible transformation of a 'pen' from Mary to John. And if we place topic point on Mary in the process of generation from deep structure to the surface structure, we can obtain a syntactic predicate: GIVE; if on John, then,: RECEIVE; if on pen, then: REACH. And if any instrument such as a hand is used and if the topic forcuss is placed upon the hand, then, a syntactic predicate, CONVEY had to be selected by the speaker.

The result is the following sentences:

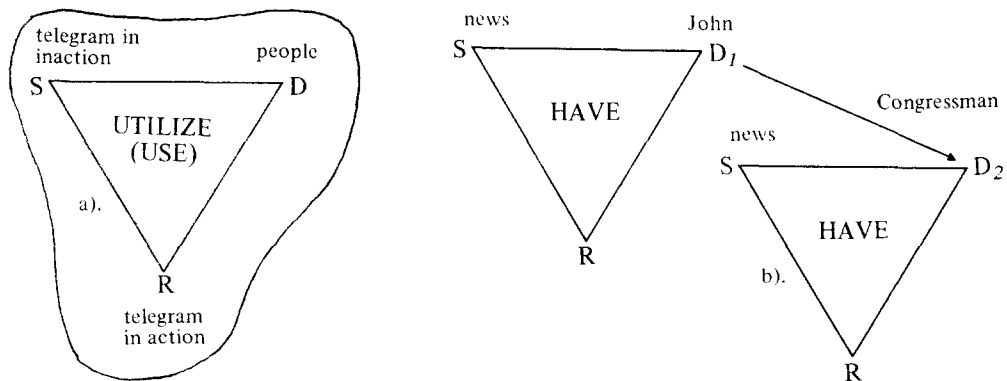
1. Mary GAVE a pen to John.
2. John RECEIVED a pen from Mary.
3. A pen REACHED from Mary to John.
4. A hand CONVEYED a pen from Mary to John.

Here is a similar example.⁽³⁾

- “a. John SENT the news to the Congressman by telegram.
 b. The Congressman RECEIVED the news from John by telegram.
 c. The news REACHED the Congressman by telegram. (No Agent)
 d. A telegram CONVEYED the news to the Congressman. (No Agent)”

If we draw a diagram of deep structure and extract META-ATOMIC PROPOSITION formula relevant to the above quotation, we can get the following Diagram 4 and Table 1.

Diagram 4: (This is a deep structure diagram for 4 sentences quoted from Langendoen.)⁽⁴⁾



FOOTNOTE:

- 3) Terence Langendoen (1970), *Essentials of English Grammar*, (New York: Holt, Rinehart and Winston), P. 62.
- 4) Hyung-yul Kang (1980), "Universal Grammar of Matrix Proposition." P. 200.

Table 1: Complex Meta-Proposition. This is common core to 4 sentences.⁽⁵⁾

| θ (theta) Meta-Proposition | UNION | ζ (zeta) Meta-Proposition | |
|--|--------|---|---------------|
| $\exists\exists (i-j) ((S_i-to-S_j), D)$ | \cup | $\exists\exists (I-j) (= (S, D_1)) \cup (= (S, D_2))$ | \Rightarrow |
| θ | \cup | $\exists\exists (I-j) (S, D_1, D_2)$ | \Rightarrow |
| | | $\exists\exists (I-j) (S, D_1, D_2, \theta)$ | \Rightarrow |
| | | $\exists\exists (I-j) (S, D_1, D_2, I)$ | |

{I} is an argumentized result of theta Meta-Proposition.

It is a pseudo deep case.

If we show SEMANTIC ENTRIES OF PREDICATES and a GENERATIVE MAPPING CHART for 4 sentences quoted from Langendoen, they are as follows:⁽⁶⁾

Table 2: Semantic Entries of Predicate

| Allo-predicate: Semantic features. | M | (Chi Predicatem) | | | |
|---|----------------|---|---|---|---|
| | | SEND | RECEIVE | REACH | CONVEY |
| Semantic functors: | N | $D_I, S, D_2, \{I\}$ | $D_I, S, D_2, \{I\}$ | $D_I, S, D_2, \{I\}$ | $D_I, S, D_2, \{I\}$ |
| Meta-proposition: | O | $\exists\exists (I-j) (D_I, S, D_2, \{I\})$ | $\exists\exists (I-j) (D_I, S, D_2, \{I\})$ | $\exists\exists (I-j) (D_I, S, D_2, \{I\})$ | $\exists\exists (I-j) (D_I, S, D_2, \{I\})$ |
| Extensions of semantic functors: | P | $D_I = \{\text{John}\}$ $S = \{\text{news}\}$ $D_2 = \{\text{Congressman}\}$ $I = \{\text{telegram}\}$ | $D_I = \{\text{John}\}$ $S = \{\text{news}\}$ $D_2 = \{\text{Congressman}\}$ $I = \{\text{telegram}\}$ | $D_I = \{\text{John}\}$ $S = \{\text{news}\}$ $D_2 = \{\text{Congressman}\}$ $I = \{\text{telegram}\}$ | $D_I = \{\text{John}\}$ $S = \{\text{news}\}$ $D_2 = \{\text{Congressman}\}$ $I = \{\text{telegram}\}$ |
| Projection types based upon Interposition: | Q | a) 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d (to) (by) | b) 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d (from) (by) | c) 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d (by) | d) 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d (to) |
| Projection (A) types based upon topicalization force: | R ¹ | a') 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d (to) | b') 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d (from) | c') 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d | d') 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d |
| Projection (B) types based upon topicalization force: | R ² | a'') 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d optional | b'') 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d optional | c'') 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d | d'') 1 \rightarrow a 2 \rightarrow b 3 \rightarrow c 4 \rightarrow d |

Dotted lines and no concatenating lines mean no occurrences.

Number 1, 2, 3, 4 stands for $D_I, S, D_2, \{I\}$; and a, b, c, d stands for subject, object, prepositional phrase, prepositional phrase respectively.

Predicate is an entity completely constrained by the selection of arguments and their teaming. Teaming means here selective COMBINATION OF selective ARGUMENTS. By the differences of the combination of selective argument string, the same meta-function proposition can differentiate which PREDICATE such as GIVE, SEND, PAY, should be picked up. Of course, some constraint CONDITIONS are relevant to this kind of 'pick up,' too.

PREDICATES are nothing but RELATIVE FUNCTION markers. In drama, plot occupies this position against to characters. Here characters are lexicon, NOUN. SURFACE PREDICATES such as GIVE, RECEIVE, REACH, CONVEY are mere representations of selection of argument, their teaming, and topic point, and abstract relative function relations, that is meta-function propositions.

* I remitted the book to Mary.

I remitted money to Mary

Meta-function proposition for the GIVE, RECEIVE, REACH, and CONVEY found to be exactly the same, but to differ in topic points in the process of generation from semantic functors of the deep structure to syntactic functors such as SUBJECT, OBJECT, PREPOSITIONAL PHRASES (p.p.) in English.

They are mere TOPIC POINTS (= thematic point or topicalizers) when arguments are nouns, but if arguments are pronominalized, then, they are syntactic case markers such as nominative, accusative, dative, etc. When Korean case markers are syntactic case markers, English subject, object, and p.p. are not syntactic case markers, but topic points and allo-deep case markers.

Predicates, which make the speaker identify referential objects (= (S)); predicates, which make the speaker identify an existence of object at a locus (= (S, D)); and those, which identify referential motion of arguments from one state to another are classified as REFERENTIAL PREDICATES.

Predicates which denote psychological phenomena are termed PSYCHOLOGICAL PREDICATES.

Predicates, whether referential or psychological, all are abstract reality. They specify interrelationships among roles of arguments, relative accentuations of topic focusses and accentuations of rhemes such as relative stresses, pitches, etc. Predicates are concrete as abstract reality.

2.0. Psychological Predicates

The closer sense of the term, psychological must be psychical. Dictionary defines it 'of or pertaining to human soul or mind; mental (opposed to physical); of or pertaining to phenomena and conditions which appear to life outside the domain of physical law, and are therefore attributed by some to spiritual or hyper-physical agency!

But this article will deal with only those predicates which denote a desire; a thirst; a hunger; a craving; a passion; a wish; avarice; covetousness; greediness; cupidity; arrogance; humility; virtue; etc.

These must be those of craving world of psychical phenomena or conditions.

Predicates of the following list are understood to be those of craving world:

| | | | | | |
|------------|----------|--------|-----------|------------------|----------|
| covetous | begrudge | stingy | jealous | worry | good |
| greedy | envy | scanty | ignorant | groan | bad |
| grasping | covet | meager | arrogant | grieve | superior |
| rapacious | desire | humble | angry | proud | inferior |
| avaricious | | | disgusted | intoxi- cated | |
| | | | annoy | | |
| | | | please | | |
| | | | vex | | |
| | | | agonize | | |

Now let's examine following two situations:

Situation 1:

(On a street James and his wife, Mary, and, Sue, and Monica were taking a walk. Meanwhile they found Miss Monroe was coming towards them.)

"Monroe! She is pretty." said James. (Mary pinched on his arm.)

"You begrudges me. No peach tonight.", Mary said. But Sue said, "I envy her." And at last, Monica said, "My! She is really covetous."

Situation 2:

(On a street James, King, Mac, and Cooper were taking a walk. Meanwhile they found Miss Monroe was coming toward them.)

"Monroe! She is pretty." said James.

"Right. She is proud.", King responded. But Mac said,

"To me, she is arrogant." And finally Copper said,

"She is haughty."

If we compare Situation 1 and 2, we can find that James said the same words. But in Situation 1, Mary said, "You begrudges me." And in Situation 2, King said, "She is proud."

If we consider "Monroe is pretty." to be a STIMULUS-SITUATION FEATURE to the sensory organs of James, then, James could be taken to be an ENVIRONMENT or DISTRIBUTION of the STIMULUS. If DISTRIBUTION 1 is James, then, Mary is DISTRIBUTION 2. If Mary put herself into the place of Monroe, the Mary becomes S_j when "Monroe is pretty." becomes S_i . S stands for STIMULUS. Mary putting herself in the place of Monroe asks herself if she is as pretty as Monroe or not. If she is inferior to Monroe, then, she gets covetous or mad or feel sorry.

When Mary heard what her husband, James had said about Monroe, her physical response to it was her pinching hard on her

husband's arm and her oral response was: "You begrudges me." (You make me mad. Psychologically you are stingy to admit my beauty.)

We can define Mary's mental state of 'BEGRUDGE' to be an EFFECT of James' performance of an illocutionary cause.

This implies what Mary said, "BEGRUDGE" is a performance of a perlocutionary speech act.

'Monroe's being pretty' is SOURCE: Jame's saying of the SOURCE is CAUSE of the event; What Mary said, "BEGRUDGE" is EFFECT caused from SOURCE and by CAUSE. This entire FLOW of the event manifests DEPENDENT ORIGINATION or conditioned reflex.

Conditioned reflex implies rule governed event.

The following Diagram 5 is a TENTATIVE CONFIGURATION for the flow of OCCURRENCE RELATION FORMULA relevant to "You BEGRUDGES ME."

Before we draw the Diagram 5, we have to have LISP (List Processing) BOXES: BLOCK BOXES and EFFECT BOXES.

BLOCK BOX describes D₂'s ATTITUDE.

And EFFECT BOX describes D₂'s or HEARER's mental EFFECT against 'WHAT a speaker, James said.' and D₂'s personality formation.

Table 3: Hearer, D₂'s Attitude LISP BOX:

| BLC 1: | BLC 2: | BLC 3: | BLC 4: |
|--|---|--|---|
| generous munificent bountiful unselfish rich | selfish mean meager poor jealous arrogant haughty prejudiced | merciful benevolent detached holy | beastly covetous angry ignorant arrogant cruel |

For example, in BLC 1, 'generous' means 'Hearer is generous.'

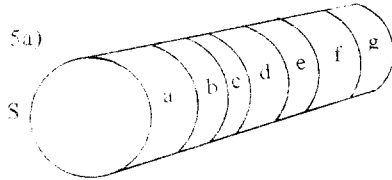
Table 4: Hearer, D_2 's EFFECT LISP BOX

| | |
|--|--|
| <p>EFF 1: PROUD feeling pleasure or satisfaction over (A \cup B); Something conceived as highly honorable or creditable to oneself</p> | <p>EFF 4: BEGRUDGE Discontend to admit (A \cup B) Reluctant to admit (A \cup B) Hesitant to admit (A \cup B) Loath Adverse</p> |
| <p>EFF 2: ARROGANT Insolently proud; Making unwarrantable claims or pretensions to superior importance or rights; Overbearingly assuming</p> | <p>Struggle against (A \cup B) Stride against (A \cup B) Rebel against (A \cup B) Offer opposition against (A \cup B) Resist against (A \cup B) Unwilling to admit (A \cup B) Disinclined to admit (A \cup B)</p> |
| <p>EFF 3: HAUGHTY Disdainfully proud; Arrogant; Supercilious</p> | <p>Distaste to admit (A \cup B) Abhor to admit (A \cup B)</p> |
| | <p>EFF 5: ENVY Feel resentful against (A \cup B) Feel spiteful against (A \cup B) Feel unhappy against (A \cup B)</p> |
| | <p>EFF 6: COVET Desire inordinately or wrongly admitting (A \cup B) Wish for eagerly admitting (A \cup B)</p> |

As to Table 4, please refer to Diagram 1. It describes the relations between source to goal; controller to controlled; cause to effect.

EFFECT refers to that caused from CAUSE.

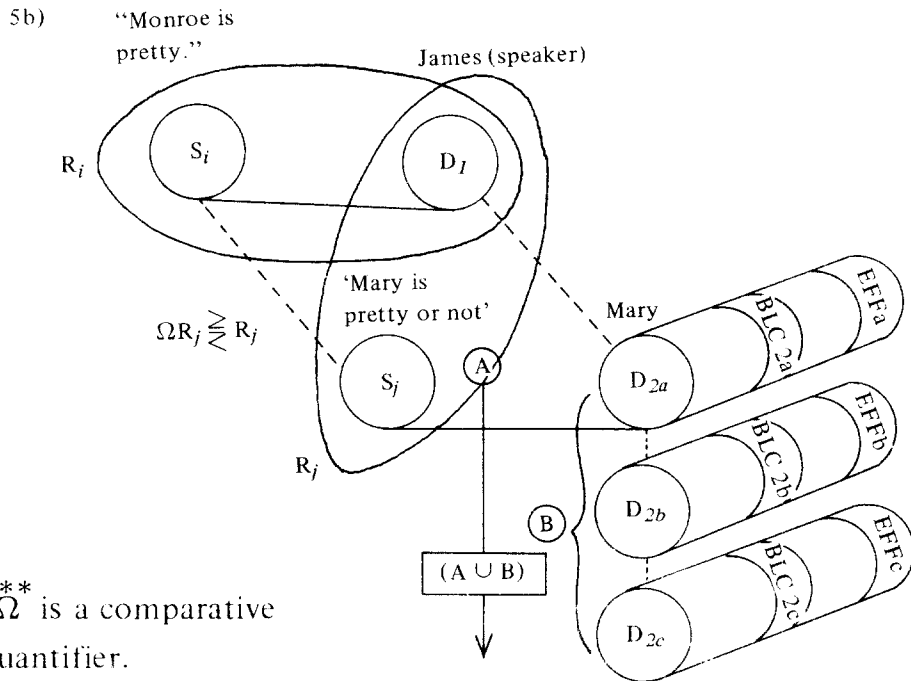
Diagram 5: FLOW CHART OF THE SAMPLE SITUATIONS



5a):

Semantic feature entries of an INDIVIDUAL as an entity. If S is universal set of an INDIVIDUAL, then, a, b, c, n are subset features which realize the universal set. Nouns are INDIVIDUALS while Adjectives are subsets. There are physical subsets, functional subsets, and psychical subsets. Such as 'good, bad, etc.' are psychical subsets. Table 3 is list of these subsets.

The relation between nouns and adjectives are those of universal set to subsets of it.

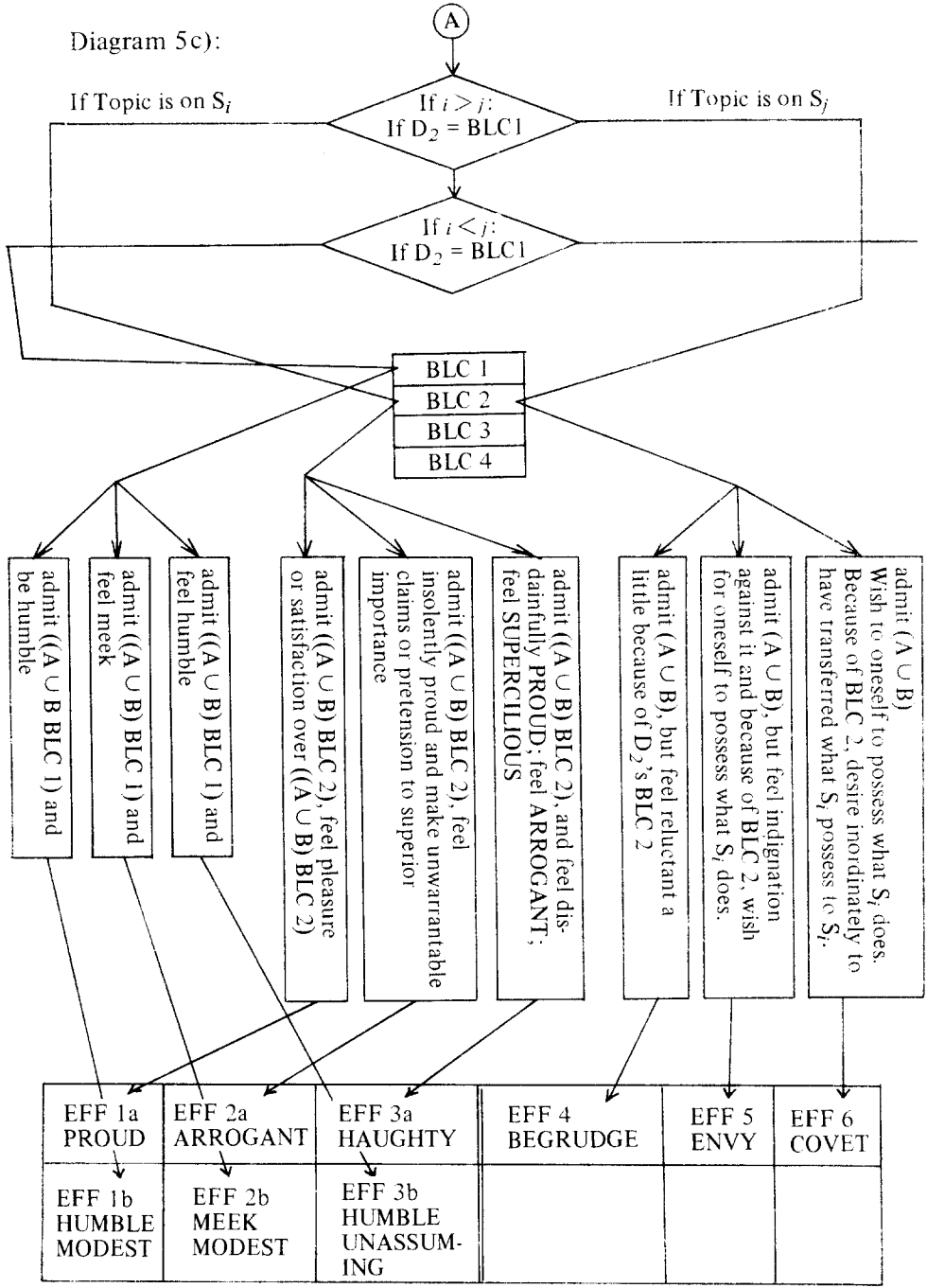


5b):

Mary puts herself into
the place of Monroe.

Then, she compares rela-
tional situation between
 S_j and D_l against that of
 S_j and D_l .

If the result of comparison
indicates that the former is
inferior to the latter, then,
Mary feels frustration. According to
Mary's BLC index number of Table 3, her
responsive effect caused from her frustra-
tion differs.



With the Diagram 5, we can visualize how systematically the MENTAL PROCESS OF THE OCCURRENCE SITUATION of an actual abstract phenomena of “You BEGRUDGES me.” flows.

This systematic flow shows RULE GOVERNED. The CONVENTIONAL CONFIGURATION of the PSYCHICAL PREDICATES is realistic.

This CONVENTION works based upon rules of conditioned reflex, that is META-FUNCTION PROPOSITIONS of the MATRIX PROPOSITION as UNIVERSAL GRAMMAR. This is why this paper shared the lengthy pages of introduction.

Unless one understands analytical process of semantic feature entries and chain string of semantic functors of function propositions relevant to the referential predicates, no one can expect to be able to grasp this entirely complicated and abstract function phenomena configurations which are quite systematically working in the human brains.

This completely owes to the powerful Universal Grammar of Matrix Proposition. No one could expect to deal with psychical predicates unless one does depend on the dependent origination.

The reality of the TENTATIVE CONFIGURATION has been proved to be EXISTING and TRUE whether the example is perfect or not.

2.1. Proof of Emic Realization of PREDICATEME:⁽⁵⁾ BEGRUDGE

A predicateme is one of episememe.

An episememe is a significant and functional deep structure

FOOTNOTE:

- 5) Hyung-yul Kang (1980), “Universal Grammar of Matrix Proposition via Case Grammar and Predicate Logic” pp. 198–214.

unit of sentences in a given languages.

Tentative Hypothesis can be suggested:

1. Criterion of distinguishing one episememe from another at an identical distribution is **INCOMPATIBILITY**.

Criteria of identifying allo-episememes into the same episememe unit are:

2. allo-episememes should show SEMANTIC SIMILARITY;
3. their projection types should be mutually in complementary distribution;
4. their distributional patterns of the projection types should manifest pattern congruity.

An episememe is a deep structure unit. But genuine deep structure is only propositionemes. And genuine surface structure is only tagmemes (=sentencemes). Consequently, we have to say that an enisememe or predicateme is an INTERMEDIATE DEEP STRUCTURE in-between deep structure and surface structure.

In Diagram 5, we can figure out that SEMANTIC FEATURES of the predicate, 'BEGRUDGE' are as follows:

Table 5: Semantic Features of Predicate: 'BEGRUDGE'

| PREDICATE | BEGRUDGE |
|--|---|
| SEMANTIC FUNCTORS Argument: | A, B, C, D, E: A = (= (S)); B = $\exists\exists (i-j) (l-2) (= (S_i, D_l)) \cup (= (S_j, D_2))$; C = $\Omega (i-j) (= (S_i, D_l)) \cup (S_j, D_2)$; D = BLC 2 (= D ₂); E = EFF 4 _{a,b,c} |
| Atomic Modality: | \exists = existential quantifier; $\exists\exists$ = transformational quantifier; Ω = comparative quantifier |
| META-FUNCTION PROPOSITION SYNTACTIC FUNCTORS SYNTACTIC MODALITY EXTENSIONS PROJECTION TYPES | Conventional Formula of Semantic Functors Subj., Obj., P.P. or syntactic case markers tense, aspect, mood, juncture, scala, etc. List of arguments relevant to the statement distributional types from semantic functors to syntactic functors |
| ALLO-PROPOSITIONS Distribution of Projection Types | |

Table 6: Componental Features of 'BEGRUDGE'

| | |
|---|-----------------------------|
| A+B+C+BLC 2a, D _{2a} admit (A ∪ B) | BLC 2a RELUCTANT a little |
| A+B+C+BLC 2b, D _{2b} admit (A ∪ B) | BLC 2b RELUCTANT pretty bad |
| A+B+C+BLC 2c, D _{2c} admit (A ∪ B) | BLC 2c RELUCTANT very bad |

CONDITIONS:

IF $S = S_i$;

$D_{2a} = \text{BLC } 2a$;

$D_{2b} = \text{BLC } 2b$;

$D_{2c} = \text{BLC } 2c$; and

IF $(A \cup B)$ is conditioned by BLC a, b, c, THEN,

$A = (= (S))$: 'Monroe is pretty.'

$B = \exists \exists (i-j) (l-2) = (S_i, S_j, D_1, D_2)$: James said, "Monroe is pretty." Mary heard it. Mary with BLC 2a put herself into the place of Monroe.

$C = \Omega (i-j) (l-2) = (S_i, S_j, D_1, D_2)$: Mary with BLC 2a compared herself against Monroe and finds that she is inferior to Monroe.

$D = \text{BLC } 2a, b, c$, depending on D_2 's personality formation

$E = \text{LISP BX EFF } 1, 2, 3, 4, 5, 6$, etc.: Mary admits $A+B+C+D$, but FEELS RELUCTANT a little.

*** The following abreviations stand for:

SF = semantic functors

SynF = syntactic functors

EXT = extension

ProjT = projection types

ALLOp = allo-proposition

DprojT = distribution of
projection types

E = EFF = LISP EFFECT
BOX

$\{ \}$ = symbol for predicateme

$\{ \}$ = symbol for allo-
predicateme

Table 7 shows semantic entries of predicateme $\{\text{BEGRUDGE}\}$ TENTATIVELY HYPOTHESIZED and Table 8 does tentatively define allo-predicatemes of $\{\text{BEGRUDGE}\}$.

Table 7: Semantic Entries of predicateme $\{\text{BEGRUDGE}\}$:

$$\{\text{BEGRUDGE}\} = \left[\begin{array}{l} +(A+B+C+D_{a,b,c}) \\ +SF \\ +SynF \\ +EXT \\ +ProjT \\ +ALLOp \\ +DprojT \\ a \\ +EFFb \\ c \end{array} \right]$$

Table 8: Allo-predicatemes of $\{\text{BEGRUDGE}\}$:

| | | | |
|--------------------------|---|-------------------|--------------|
| BEGRUDGE_α | = | IF $D = D_{2a}$, | then EFF 2a, |
| | | $b,$ | $b,$ |
| | | $c,$ | c |
| BEGRUDGE_β | = | IF $D = D_{3a}$, | then EFF 3a, |
| | | $b,$ | $b,$ |
| | | $c,$ | c |
| BEGRUDGE_γ | = | IF $D = D_{4a}$, | then EFF 4a, |
| | | $b,$ | $b,$ |
| | | $c,$ | c |
| | | etc. | |

2.1.1.: Verification of Criteria 1

If we examine $\text{BEGRUDGE } \alpha, \beta, \gamma$, then we can find there is SEMANTIC SIMILARITY.

2.1.2.: Verification of Criteria 2

We can find BEGRUDGE α, β, γ are mutually in complementary situations such as

IF BLC 2 is a variant, then EFF 2 is a variant;

IF BLC 2 is b variant, then EFF 2 is b variant;

IF BLC 2 is c variant, then EFF 2 is c variant.

In other words, as D_2 's attitude of personality changes by space and time, D_2 's RESPONSE against/for ($A \cup B$) varies.

BEGRUDGE α, β, γ are mutually in complementally relations and also projection types of subsets are in complementally distribution, too.

2.1.3.: Verification of Criteria 3: PATTERN CONGRUITY

BEGRUDGE α, β, γ occurred when TOPIC FOCUS was on S_j , that is D_2 . But when TOPIC point was placed on S_i , Monroe, she became PROUD α, β, γ .

And BEGRUDGE α, β, γ ; ENVY α, β, γ ; and COVET α, β, γ show INTRA-PREDICATE DISTRIBUTIONAL PATTERN CONGRUITY.

But THE DISTRIBUTION OF PROJECTION TYPES shows that BEGRUDGE α, β, γ are in INTER-PREDICATE DISTRIBUTIONAL Pattern Congruity.

2.1.4.: Verification of INCOMPATIBILITY at the identical distribution (projection types)

BEGRUDGE α, β, γ ; ENVY α, β, γ ; and COVET α, β, γ OCCUR at the identical distributions of projection types, but they show one another EXCLUSION OF ONE MEANING FROM ANOTHER, that is, INCOMPATIBILITY.

3.0 Conclusion

As above discussed and ground, the predicate 'BEGRUDGE' satisfied necessary and sufficient conditions in regard to the TENTATIVELY CONVENTIONAL CONFIGURATION of the OCCURRENCE RELATION FORMULA as well as TENTATIVE HYPOTHESIS required for the EMIC REALIZATION OF predicateme:﴿BEGRUDGE﴾.

Criteria 2, 3, and 4 are the necessary conditions.

And criteria 1 of incompatibility is sufficient condition.

Psychical predicates are productions of systematic and rule governed manipulation of human brain.

Brain operates exclusively based upon dependent origination. And it is the mother of Universal Grammar of Matrix Proposition common to every language of the universe as well as the earth.

The end.

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