On The Role of Argument Structure in Focus Projection

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(ARG-ST list, and the Argument Realization Principle (ARP))

ARP: A word’s value for ARG-ST is $A \oplus B$, where $A$ is its value for SPR and $B$ is its value for COMPS.

$\begin{array}{l}
\text{a.} \\
\text{SYN} \quad \text{VAL} \quad \text{SPR} \quad (\square) \\
\text{ARG-ST} \quad (\text{NP, NP}) \\
\text{b.} \\
\text{SYN} \quad \text{VAL} \quad \text{SPR} \quad (\square) \\
\text{ARG-ST} \quad (\text{NP, PP, VP})
\end{array}$

(Sag & Wasow 1999, p. 210)

“The elements in ARG-ST list are ordered and they correspond to phrases in the phrase structure tree. We can then see the order of ARG-ST list to impose a ranking of the phrases in the tree.”

If A precedes B in an ARG-ST list, we say that A OUTRANKS B.

(ARG-STR Hierarchy)

The elements in the ARG-ST follow the ordering of the following grammatical functions:

$\begin{array}{l}
\text{SUBJ} < \text{OBJ} < \text{OBJ2} < \text{OBL}
\end{array}$

Chung et al propose that what is relevant for determining the possibility of focus projection hinges upon the argument ranking.
**Focus realization**

Following Selkirk (1995), they assume that a word accented with the A-accent is FOC-marked.

**FOC(US) Realization:**

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word
PHON | ACCENT A
ARG-ST ...
INFO-ST | FOC {□}
```

**Instantiation Principle and Focus projection**

INFO-ST Instantiation Principle (IIP):

(i) If a DAUGHTER's INFO-ST is instantiated, then the mother inherits this instantiation (for narrow foci and topics), OR

(ii) The non-agentive lowest ranking argument's FOC is instantiated, then the FOC of the mother is the sign itself (wide focus).

Example: John plays RUGBY.

a) John [plays [RUGBY] F] FOC
b) John plays [[RUGBY] F] FOC
c) [John plays [RUGBY] F] FOC

The ARG-ST of the verb 'play' is:

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transitive-lxn
PHON (play)
ARG-ST (NP, NP)
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The narrow focus reading is:

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S[fin]
[INFO-ST | FOC {□}]
```

Since the object NP is the lowest ranking argument, the focus value on this NP allows its mother to be focused too.

The wide focus reading is:

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S[fin]
[INFO-ST | FOC {□}]
```

NP[nom]
```
[INFO-ST | FOC {□}]
```

V[fin]
```
[INFO-ST | FOC {□}]
```

plays
```
[PHON | ACCENT A]
[INFO-ST | FOC {□}]
```

RUGBY
```
[PHON | ACCENT A]
[INFO-ST | FOC {□}]
```

plays
```
RUGBY
```
Advantages of this analysis.

1) It explains why there is no focus projection from elements that are not the lowest ranking one in the ARG-ST list.

Example: The butler [offered the president [some COFFEE]F]FOC.
   - The butler [offered the PRESIDENT]F some coffee]FOC.

   PHON <offered>  
   ARG-ST <NP, NP, NP>

2) It can handle cases where there is a mismatch between informational partitioning and syntactic constituent.

Example from Vallduví and Engdahl (1996):
- What happened to the China set?
- [The BUTLER BROKE] the set.

Possible Problems

Projection from Adjuncts

A: What did John cook for Tom?
   A': What did John do?
   B: He [cooked [LASAGNA]F for Tom].
   B': *He [cooked lasagna [for TOM]F].

The Nature of the ARG-ST list

In Korean the element in the ARG-ST list that allows for wide focus projection is the highest non-agentive ranking argument.

Example: [Mary-eykey [SENMWUL-UL]F ewuesse]FOC.
   Mary-DAT present-ACC gave.
   ‘I gave a PRESENT to Mary.’

   Mary-DAT present-ACC gave.
   ‘I gave a present to MARY.’

The ARG-ST list for the verb ‘give’ in Korean is:
   ARG-ST <NP[agent], NP[theme], PP[goal]>

Which means that only the NP[theme] allows for wide focus projection.
Since Korean is a free word order language, their treatment can also account for sentences such as:

Example: \([\text{SENWUL-UL}]_F \text{Mary-eykey ewuesse} \text{FOC.}\] present-ACC Mary-DAT gave. ‘I gave a PRESENT to Mary.’

\[\text{[senmwul-ul [MARY-EYKEY]ewuesse]FOC.}\] present-ACC Mary-DAT gave. ‘I gave a present to MARY.’

OBS: The ARG-ST list for the verb ‘give’ does not change: 
ARG-ST <NP[agent], NP[theme], PP[goal]>

Free word order languages and the function of the final position for focus projection

Portuguese: \(\text{Eu contei o segredo ao Paulo.}\)
I told the secret to(the) Paulo.

A: \(\text{O que você fez? (What did you do?)}\)
\(\text{Eu [contei o segredo \[ao PAULO\] FO C.}\]
*\(\text{Eu [contei \[o SEGREDO\] \[ao Paulo\] FO C.}\]
\(\text{Eu [contei ao Paulo \[o SEGREDO\] FO C.}\)
*\(\text{Eu [contei ao PAULO] \[o segredo\] FO C.}\)

(a)
PHON \(<\text{contei}>\) ARG-ST <NP, NP, PP>

Notice that the intuition presented for Portuguese also works for English in cases such as:

A: What did you do?
\(\text{I [gave the present \[to MARY\]}_F \text{FOC.}\]
*\(\text{I [gave \[the PRESENT\]}_F \text{to Mary)}_F \text{FOC.}\]
\(\text{I [gave Mary \[The PRESENT\]}_F \text{FOC.}\)
*\(\text{I [gave \[MARY\]}_F \text{the present]}_F \text{FOC.}\)

Though, one could argue that in English there are two ARG-ST lists for the verb ‘give’:
ARG-ST <NP, NP, NP>
or
ARG-ST <NP, NP, PP>