The Double Object Construction (Larson 1988, Aoun \& Li 1989)

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## A familiar puzzle

## The Dative Alternation

(1) a. I gave the candy to the children
b. I gave the children the candy

How to handle (1) given $\mathrm{X}^{\prime}$-theory (2), the Case Fitler (3) and the UTAH (4)?
(2) $\quad X^{\prime}$-Theory (see survey in Fukui 2001):
"Specifier": Z " dominated by $\mathrm{X}^{\prime \prime}$ and sister to $\mathrm{X}^{\prime}$
"Adjunct": $\mathrm{Z}^{\prime \prime}$ dominated by $\mathrm{X}^{\prime \prime}$ and sister to $\mathrm{X}^{\prime \prime}$; or $\mathrm{Y}^{\prime \prime}$ dominated by $\mathrm{X}^{\prime}$ and sister to $\mathrm{X}^{\prime}$
"Complement": $\quad \mathrm{Y}^{\prime \prime}$ sister to $\mathrm{X}^{0}-\mathrm{X}^{\prime} \rightarrow \mathrm{X}^{0} \mathrm{ZP}^{*}(?)$
[Cf. Aspects-style subcategorization entries: put: [ vP - NP PP] ; give: [vp - NP PP] / [vp - NP NP] ]

## a. Case Filter:

*DP if DP has a phonetic matrix but no (abstract) Case.
b. Case assignment rules (Chomsky 1981:170):
i. NP is nominative if governed by AGR
ii. NP is objective if governed by transitive V
iii. NP oblique if governed by $P$
iv. NP is genitive in [ ${ }_{\mathrm{NP}}-\bar{X}$ ]
v. NP is inherently Case-marked as determined by properties of its $[-\mathrm{N}]$ governor

Uniformity of Theta-Assignment Hypothesis (UTAH; see, e.g., Baker 1997, Idan's 10/1/03 handout): Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure (i.e. $\theta$-roles are uniformly projected in the syntax).
(5) Given (2), what is the structure of the VPs in (1)?
(6) Given (3), how is the second DP in (1b) assigned Case?
(7) A UTAH-compatible solution to (1): The thematic roles in the pair (1a)/(1b) are identical; one member of the pair is derived-which? how can we tell? why does it matter? (Larson 1988 vs. Aoun \& Li 1989 vs. Jackendoff 1990 vs. ...)

One hint from secondary predication (from Baker 1997
A secondary predicate cannot take the goal argument as subject of predication, whether or not the goal is a realized as a PP.
a. I gave the meat to Mary raw
b. * I gave the meat to Mary hungry
c. I gave Mary the meat raw
d. * I gave Mary the meat hungry

An Incorporation-style solution (P-to-V incorporation), with V- and NP-movement (Baker 1997:91[24])
 Problems with the Incorporation-style story?
(Larson 1988:373f; data from Bahasa Indonesia; Chung 1976)
(10) a. Saja mem-bawa surat itu kepada Ali

I Trans-bring letter the to Ali
I brought the letter to Ali
b. Saja mem-bawa-kan Ali surat itu

I TRANS-bring-APP Ali letter the
I brought to Ali the letter
(11) a. No morphological relatedness between P (e.g., kepada 'to' in (10a) and Applicative morpheme (e.g., kan APP in (10b)).
b. No diachronic relation either-the etyma of applicative morphemes are not prepositional.
c. Applicative morphemes can co-occur with their prepositional counterparts (e.g., the applied affix kan BEN and the benefactive preposition kepada in (12)).
(12) a. Laki2 itu meng-irim(-kan) surat kepada wanit itu man the TRANS-send-BEN letter to woman the 'The man set a letter to the woman'
b. Anak laki2 itu men-bajar(-kan) lima dolar kepada polisi itu chld man the TRANS-pay-BEN five dollar to police the 'The boy pay five dollars to the policeman

## Discovering structure-further hints

(13) a. [vp V Goal Theme]
b. ... or [vp V Goal $\left[x \mathrm{x} x^{0}\right.$ Theme ] ]
c. $\ldots$ or $\left[\mathrm{VP} V{ }_{x \mathrm{P}}\right.$ Goal $\left[x^{0}\right.$ Theme ] ] ]
d. ... or [vp V Theme Goal ]
e. ... or [Vp V Theme $\left[{ }_{x P} x^{0}\right.$ Goal ] ]
f. $\ldots$ or [VP $V{ }_{x P}$ Theme [ $x^{0}$ Goal $\left.\left.]\right]\right]$
g. ... or ...

Coordination facts (but see Jackendoff vs. Larson debate; 11/19/03 presentations)
(14) a. Sue gave John the book and Mary the record
b. Sue sent neither John the letter nor Mary the postcard

Barss \& Lasnik's (1986) observations possibly re c-command domains in (1)
(15) a. I showed Mary herself

* I showed herself Mary
b. I showed each man the other's socks
* I showed the other's friend each man
c. I gave [every worker $]_{i}$ his $_{i}$ paycheck
* I gave its ${ }_{i}$ owner $[\text { every paycheck }]_{i}$
d. I showed no one anything
* I showed anyone nothing
(16) a. I presented Mary to herself
* I presented herself to Mary
b. I sent each boy to the other's parent
* I showed the other's check to each employee
c. I sent $[\text { every check }]_{i}$ to $i t s_{i}$ owner
?? I sent his ${ }_{i}$ paycheck to [every employee $]_{i}$
d. I sent nothing to anyone
e. * I sent anything to no one
(17) a. I talked to John and Bill about each other
* I talked to each other about John and Bill
b. I talked to [every girl $]_{i}$ about her ${ }_{i}$ mother
* I talked to her ${ }_{i}$ mother about [every girl] ${ }_{i}$
c. I talked about none of the boys to any of the girls
* I talked about any of the boys to none of the girls


## A Kaynian small-clause solution

(18) a. In (13c), $x$ is a predicate meaning HAVE and V is CAUSE.
b. Mary CAUSE [John HAVE the book] $\rightarrow \ldots$
$\rightarrow$ Mary CAUSE $+\mathrm{HAVE}_{i}\left[\right.$ John $t_{i}$ the book $] \rightarrow \ldots$
$\rightarrow$ Mary gave John the book
c. How are CAUSE and HAVE to be pronounced? If CAUSE is a constant in doubleobject constructions, then $x$ is $\sqrt{\text { give }}$ and give $=$ CAUSE $+\sqrt{\text { give }}$.

What about other double-object verbs like hand, send, fax, show, etc.
d. [John HAVE the book] is a small clause (a CFC in binding terms).
e. The indirect object is actually a subject (i.e., John is a subject of the small clause [John HAVE the book]

## Prediction? (Fill in grammaticality judgements

(19) a. $\quad W h o_{i}$ do you like a picture of $t_{i}$ ?
b. Whoi do you consider a picture of $t_{i}$ worth a prize?
c. Whoi did you give friends of $t_{i}$ that picture?

## A problem?

(20) a. * Bill made Mary have a picture of himself
b. Bill gave Mary a picture of himself

## Larson's Kaynian solution sans the generative-semantics component

(21) a. In (13f), $x$ is where the verb is generated and V is a vacant head to which the verb moves-for INFL-, theta- and/or Case-related reasons (V must be governed by INFL, $\theta$-assignment happens under locality, and Case-assingment is righward.
[vp Agent - [Vp Theme give Goal ]]
b. $\quad x \mathrm{P}$ is not strictly a small-clause; $x \mathrm{P}$ is 'merely' a VP-shell—one layer of an exploded VP (the predicate assigns each of its $\theta$-role to its 'complement' or 'specifier').

## Evidence?

Recall Barss-Lasnik facts in (16) ( $=(22)$ ):
(22) a. I presented Mary to herself

## * I presented herself to Mary

b. I sent each boy to the other's parent

* I showed the other's check to each employee
c. I sent [every check $]_{i}$ to its ${ }_{i}$ owner
?? I sent his ${ }_{i}$ paycheck to [every employee] ${ }_{i}$
d. I sent nothing to anyone
* I sent anything to no one

More coordination facts (cf. (14)
(24) a. Sue gave the book to John and the record to Mary
b. Sue sent neither the letter to John nor the postcard to Mary

An argument from idioms suggesting a [V Goal] unit? (Larson 1998:340)
(25) a. send $y$ to the showers
b. take $y$ to task/to the cleaners/into consideration
c. throw $y$ to the wolves

What to do with the double-object variant given the UTAH? Advancement+Demotion as in the run-of-the-mill passive ...
(26) a. I gave ${ }_{x \mathrm{P}}$ the candy ${ }_{x^{\prime}} x$ to the children $]$
b. I gave $\left[{ }_{x \mathrm{P}} \text { [the children }\right]_{i}\left[{ }_{x^{\prime}}\left[{ }_{x^{\prime}} x t_{i}\right][\right.$ Adjunct the candy]]]

## Aoun \& Li's (1989) Larsonian solution, but with Goal generated higher than Theme

(27) a. $\left[\mathrm{VP}_{1}\right.$ Agent $\operatorname{give}_{i}\left[{ }_{\mathrm{SmCl}}\right.$ Goal $\left[\mathrm{VP}_{2} t_{i}\right.$ Theme ]] ]
b. $\left[\mathrm{VP}_{1}\right.$ Agent give $_{i}\left[{ }_{\text {SmCl }}\right.$ Theme $_{j}\left[\mathrm{VP}_{2}\left[\mathrm{VP}_{2} t_{i} t_{j}\right][\right.$ Adjunct to Goal] $\left.\left.]\right]\right]$

## Prediction

"Scope freezing" effects (see Bruening 2002 for alternative proposal)
(28) a. Mary gave someone every book (unambiguous)
b. Mary gave some book to everyone
(29) a. Minimal Binding Requirement: Variables must be bound by the most local potential $\overline{\mathrm{A}}$-binder (i.e., raise quantifier to adjoin to nearest clausal projection).
b. The Scope Principle: A quantifier A has scope over a quantifier B in case A c-commands a member of the chain containing B (i.e., quantifier scope reflects ccommand of chain members).

## Backward binding

(30) a. * Sue showed each other's friends John and Bill
b. Sue showed each other's friends to John and Bill

## Recursive VP-shells

[Kayne's rightward-is-downward, Pesetsky's cascades, Collins's parser-as-grammar-and-viceversa, ...] Sue gave the children candy on each other's birthdays

Problems?
(32) a. Lexical $\theta$-roles, D-structure and the Projection Principle?
b. Argument-vs.-adjunct distinctins?
c. The scope of adverbs (syntax-semantics mismatches? see Larson's recent work)

