

Syntactic Angles on Implicit Arguments

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1.0 Introduction:

A. Three claims:

1. implicit arguments can be on affixes (-ed, -able, -ing)
John was stopped PRO to prevent his entering the country.
2. implicit arguments can be PRO in nominalizations
the PRO opening of the door to enter the room
3. implicit Roles can be be linked [co-construal—Safir, Landau]
John needed Bill's advice
[merit, deserve, require, undergo etc]

Should we have [advice pro] or need => advice
AG Th - coindexed (Williams)?

B. Background:

Where are implicit arguments and what are implicit arguments?

Not all the same: Different Approaches

1. Roeper (1987) implicit arguments = Thematic roles on verbs and Affixes
2. Baker, Johnson, Roberts (1987) -ed = PRONOUN
3. Landau (2007): implicit arguments are syntactic and constitute
Weak and Strong forms with Feature content:
implicit arguments => + or - Definite (=DP)

4. Williams (1987, 1994): Thematic Roles allow direct binding

Bhatt and Pancheva: different kinds => my view as well

Claim: Implicit Arguments: are Feature bundles on affixes:
+Thematic, Roles, + or –Definiteness +intentionality

II. Syntactic Machinery relevant:

1. C-command: required for control

Locality: co-arguments in local domain--Themes are internal/Agents External

Feature Bundles (Landau) comprise Implicit arguments on affixes

Definiteness, Intentionality, Jointness

=> May be reflection of Semantic Event structure

Copying of implicit arguments can occur (by-phrases) (Roeper (1985))
[theta-transmission: Fox and Grodzinsky (1993?)]

2. Classic data on Implicit Arguments

A. Absence of an implicit argument blocks control (Manzini (1983), Roeper (1987)):

- a. the ship was sunk to collect the insurance
- b. *the ship sank to collect the insurance

Roeper (1987) control in agentless passives, -able, and compounds, nominalizations:

Affix-linked: Hidden Agent controls lower PRO

Passive: the game was played [pro to prove a point]

Able- stocks are insurable [pro to protect against profit loss]

Compound: meat-eating [pro to gain weight]

[note: *meat-eater to gain weight
-er takes no complements: *thinker that God is good.]

Hidden PRO:

Nominalization: the PRO use of drugs PRO to go to sleep.
Dative: John yelled [PRO dative] PRO to open the window.

Control of Adjuncts:

-ing: it was said looking at me with a jaundiced eye

Adjective and small clause

the game was played drunk = the game was played [sc PRO drunk]
the game is not easily playable drunk
the playing of the game drunk
stock-picking drunk (is not adviseable)

B. Small clause debate:

a. Landau (2007): *the game was played shoeless

Google: 1. "my last blog was written angry"

2. the game was played barefoot

3. The shopping should never be done hungry ...

google: , soccer **was played barefoot** on an open patch of dirt

=> 10 more examples of "played barefoot"

b. Chomsky: drunk = adverb

but: != the game was played drunkenly

c. Williams: no complements

but: the game was played angry at the umpires

Google: "it was written drunk on beer"

d. Productivity Questions => additional semantic factors

1. the letter was carried barefoot.

2. ?*the letter was sent barefoot.

Aktionsart => subject or object bias

Claim: thematic role on the -ed, but not a pronoun

1. a. disjoint reference = like a pronoun
b. it is acquired much earlier than Principle B
John washed him => problems until 6yrs
the bear is being washed => 4yrs = “not by himself”
2. -able would have to be a pronoun too => disjoint reference
a. they are a loving couple
b. they are a loveable couple
3. Also: would require pronoun inside derivational morphology
inherited in nominalizations: (van Hout, Kamiya, Roeper)
a. *children’s learnability of grammar
grammar’s learnability by children = required passive
b. children’s learning of grammar

-able blocks subject role for AGENT in -ability nominalizations just like passive.

Note: this is also an argument that nominalizations can have an invisible subject
contra: Wasow and Roeper (1972), Kratzer () “severed external argument”

4. Is it on the verb itself or -ed? c-command argument:

- a. it was made by Indians to sell at craft fairs
*it was Indian-made to sell at craft fairs.

=> -ed c-commands PRO, fails c-command in Indian-made [to PRO sell...]

```
      VP
     /  \
    V   CP
   / \  to PRO sell
Indian V
     /  \
    make -ed [+Agent]
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Consequence: by-phrase is a copy of the implicit argument (Roeper (1985))
Fox and Grodzinsky (1993?)

II. Challenge: (See Williams (1986): Event control

- 1a. the doors were opened to enter the room
- b.*the door opened to enter the room.

2. a. the destruction of the city to prove a point.
- b. the destruction of the city proved a point.

Does not capture agent case:

3. a. The opening of the door to enter the room
- b.*the opening of the door entered the room.

PRO hidden in DP:

- 8a. The PRO₁ use of drugs [PRO₁ to go to sleep].

Subject position filled, blocks control:

- b. *Drug's use to go to sleep

Grimshaw: the examination of students to prove a point

*the student's exam to prove a point

*the city's destruction to prove a point = Result, not Event

but: the city's constant destruction/invasion by hordes [*to prove a point]

Counter-argument:

yesterday's destruction of the city to prove a point

but: Bloomingdale's men's clothing/Boston's teacher's strike

Also: the electability of Obama last year

*last year's electability of Obama

*last year's Obama's electability

Movement of object, adverb to: Edge position in the Phase creates conflict
with covert movement of the object to the Edge

[see van hout, Kamiya, Roeper (2009), Roeper (2007 — Handbook of Morphology)

Further evidence for PRO in nominalizations: Ross (1967)

The PRO_{i/*j} knowledge that Fred_j will be unpopular doesn't bother him.

[PRO discussion of these issues stoned] rarely produces satisfactory results.

Sichel (LI Fall 2007): Hebrew evidence in the same direction

III. Challenge (Landau) 2007: Dative control and Partial Control

The old room I would creep in at midnight and try to find an empty bed in the dark. Could have become a disaster. Now the bathrooms are down the hall so
the lights are on to find them.

[URL: <http://www.treah.com/?m=200604>]

- b. Implicit Dative possible:
the lights are on (for us) (for us) to find them.

Conclusion: control of rationale clauses occurs via implicit arguments.

Landau: Partial Control option = subject + others control

- 10. a. the chair preferred PRO to gather at six (Landau)
- b. *the chair gathered at six.
- c. *John met at noon.
- d. John can meet to have lunch at noon.
- e. John helped to clean the room. => help [implicit dative]

No reason not to use partial control with implicit arguments:

- 11. The foreign leader was shot to conceal American intentions.
 +implicit arg PRO
 +partial control => part-whole extension
 [assassin and government]

Open semantic issues: why is productivity sometimes so limited?

- a. secondary predicates: * the letter was sent barefoot
- b. arbitrary subject: *the ship was sunk to become heroes
- c. implicit argument control:
 - a. the wine was bought to drink
 - b. the wine was bought to be drunk [=for anyone to drink]
- d. the man was seen to go in the bank
- e. *the man was watched to go in the bank
[see, hear, watch, listen to, make, help]

Hypothesis: One factor is intentionality---extend Landau

Strong Implicit Argument => definite reference => intentionality

Weak Implicit Argument => -definite, -intentionality

- 1. a. Reagan was elected to give the country a strong man => electors have intention
- b. Reagan got elected to give the country a strong man => Reagan has intention

get => [+intentional subject],
elect => Existential subject = [or - intentional]

- 2. a. John saw Bill go in the bank
 - b. John watched Bill go in the bank
 - c. Bill was seen to go in the bank => there is a seer
 - d. *John was watched to go in the bank.
 - e. I heard John play Mozart
 - f. John was heard to play Mozart
 - g. *John was listened to to play Mozart
- 3. a. The man was arrested voluntarily =>
 - b. ?*the man was watched voluntarily

Conclusion: one implicit Agent has -intentionality option

4. Chomsky (1986) Implicit arguments are uncontrollable

- a. the wine was bought to drink => there is a buyer who controls [PRO to drink]

b. the wine was bought to be drunk => there is a buyer, there is a drinker => no control possible (Roeper (1987))

PRO => arbitrary, definite, existential, joint

Prediction: Some implicit arguments can be controlled, if not an Operator

John was watched to be informed of his whereabouts
int Ag

person watching is person informed

the incoming data has to be constantly watched to be properly presented to our clients.

the data has to be seen to be properly presented to our clients.
[-def, -intent] [-def, -int]

person seeing the data may be different from person presenting the data.

Conclusion: Chomsky wrong, implicit agent can control implicit agent if it is obligatorily intentional.

Can Context can provide definiteness

Lasnik: *the boat was sunk to become a hero.

?the armed forces were often joined just to get an education

?? boats were sunk just to become heroes

General Conclusion:

1. A variety of implicit arguments exist: Affixal, PP, Thematic
2. Affixes can carry thematic roles: definiteness, intentionality are additional features
3. A number of subtle semantic and pragmatic factors are suddenly very prominent.

IV. Bare Nouns and Role Control

Predictions: extra bracket blocks internal => [X] Y] but * [x]] Y]

14. Internal arguments:
- a. protection of people
 - b. *protection plan of people
 - c. winner of games
 - d. *winnerlike of games

[Note some transparent German examples:

Beschleunigungsgrad des Autos = acceleration degree of cars]

English exception: invitation card to the dance [Higgins]

Un-co-indexed affixes block:

- 15a. player of games
- b. *playful of games

Unco-indexed affix shifts from internal to external:

- 16a. the helping of John => internal
- b. the help of John = external

- c. the advising of John => internal
- d. the advice of John => external

- 17a. the smell of fish/ the smelling of fish
- b. the fracture of a bone/ the fracturing of a bone
- c. the sound of a horn/the sounding of a horn

Any non-thematic affix shifts the reading:

- 18a. the dropping of a child
- b. the droppings of a child (child not object)
- c. the loss of bankers
- d. the losses of bankers (bankers not object)
- e. the movement of a baby
- f. the movements of a baby (baby not object)

- 19a. *the buy of clothes
- b. *the cook of stew
- c. *the take of money

(lexical counterexamples: the view of the bridge/*the watch of the bridge)

External argument indexing:

20. *[the [buy]V]N of clothes]

the_i PRO_i help [of Bill]_i

the/PRO/ of Bill => all co-indexed

Claims:

- A. DP is referential/NP is not referential¹
- B. NP retains verbal structure/N is a Head.
- C. DP is a Binding Domain and Barrier
- D. N/NP (nominal) receives Inherent Binding (or Role Control)²

Synopsis:

- 7)a. John needs an exam/John needs the Regent's exam
- b. *the exam of John
- c. *John needs the Regents' examining
- d. John needs examining
- e. exam-needing students
- f. *examining-needing students = cannot incorporate something larger than a Head

Zero-Morpheme Principle: Righthand zero-morphemes block
the projection of argument structure.³

Implicit Roles:

- 8)a. *the help of John_{obj}
- b. *John got help by Bill
- c. John got help from Bill

Theta-binding (Williams (1981)):

¹See Sproat (1985) for first proposal that I am aware of that only MP's are referential (before the DP/NP distinction was present), then Roeper (1989) for extensive proposals with respect to compound incorporation, and Chomsky (1994) for a recent discussion. See Longobardi (1994) for pertinent analysis that is not incorporated into this discussion, which provides the mechanisms necessary under the assumption that NP is never projected without DP.

²This is essentially the same as Williams' Thematic Binding (1994). However our account argues that Williams' approach operates only on NP and not DP.

The N can be extracted from N+PP, as we discuss below See Chomsky (1994)) who treats them the same as well.

³Pesetsky (1992) has extended this view to cover a number of features that are captured with the Abstract Clitic Hypothesis (such as invisible datives). Roeper (1994) argues that all righthand morphology blocks syntactic argument structure projections. This predicts, for instance, the impossibility of *payee of money. Therefore morphological argument structure

builds to the left only, just as has been argued for syntax by Kayne (1993). Apparent counter-examples like winner of the game are captured by leftward movement of the verb.

9) John underwent an exam
 [AG linked to TH_i] [AG,TH_i] TH_i = John

"Theta-role-1 th(eta)-commands th2-1." if the predicate of which theta role 1 is an argument c-commands the predicate of which theta role 2 is an argument"

merit, deserve, could use, like, want, require, undergo, warrant, take, benefit from

Principle B.

- 10) a. John_i needs [his_i wallet]_{DP}
 b. *John_i needs [his_i help]_{NP} (coreference)

Subject Blocking:

- 11) a. How does John enjoy [protection t]_{NP}=> with guns
 b. *how does John enjoy t [Bill's protection of Mary *t]_{DP}
 =>very much/* with guns

- 12) a. John likes advice (= to John)
 b. John likes the advice (=could be to anyone)

Three levels of structure:

13)	DP	-	NP	-	N
	the help		(*his) helping		help
	free reference		PRO-Control		Role Control
	Binding domain		B-violation		Compounding
	No extraction		Extraction		

Role Control is present:

John underwent an operation/*John underwent advice

John underwent the loss of limbs => control of experiencer? underwent the loss of limbs for him

John underwent the loss of support = John underwent the loss of support for him

- 23)a. John needs his own help
- b. John needs his own respect

1. Role Control verbs
2. Inherent coreference for -POSS (John needs hope)
3. Disjoint reference for +POSS (John needs his protection)

Control and Pragmatics

:

- 24) a. John lost the audience's interest
- b. John lost interest

25) the audience was enthralled, but as John's voice turned to a monotone, John lost interest.

- 26)a. *the wilted flowers lost interest
- b. the wilted flowers lost the judge's interest

Control Environments

- 27)a. enjoy sex
- b. take time/control/charge
- c. find love/hope/
- d. eat dinner/lunch/ breakfast
- e. lack vision/time/determination/desire/support
- f. make time/amends/love/believe/claims/sense
- g. lose hope/touch/contact/insight/patience/desire
- h. seek revenge/refuge/relief/recourse
- i. lay claim (to)
- j. go home/come home/come alone
- k. have fears/plans/hopes/interest.

- 28)a. *find hate⁴

⁴ Note as well that the true generic meaning can be elicited in a complement clause
i. find hate to be intolerable

- b. *take day (unlike take time)
- c. *make hate
- d. *eat feast
- e. *allow claim/*want claim/*like claim

Bare N

Consider now these similar contrasts:

- 29)a. John enjoyed dinner in the movies⁵
 b. John enjoyed the dinner in the movies
 c. John enjoyed sex in the movies
 d. John enjoyed the sex in the movies.

- 30)a. John invited Bill to his home, so Bill went to his home
 b. *John invited Bill to his home, so Bill went home

- 31 a. John goes to school in the country, but lives near a school in
 in the city. John is sorry not to live near school (pc T. Hoekstra)

- b. John works with Mary so he travels near her work
- c.*John works with Mary, so he travels near work
 [also: at play/in labor/near death/at church/in school/at camp
 in house/ etc]
- d. John is on vacation. We are working together.
 I shouldn't work on his vacation=I shouldn't work on vacation
- e. John was in control of the army
- f. John was in the control of the army

Clause-mate restriction:

- 31)a. John said that Bill should bring Mary home
 => Bill brings Mary to Bill's home or Mary's home, but *John's home
 b. John said that Bill should bring Mary to his home => Bill or John's home.

Variable Reference (Hoekstra, Koster, and Roeper (1993)):

- 32) a. Fred wanted to take John to his home, and so did Bill
 =John, Fred, or Bill's home
 b. John wanted to take Fred home, and so did Bill
 = *John, Bill, Fred's home

ii. find love to be enviable

Here we immediately allow (a), though *find hate is not acceptable, and we must cancel the controlled reading in (b) since one does not envy one's own love.

⁵Jackendoff et al (1993) also observe that dinner has an anaphoric potential.

Compounds: the teacher believes in homework

2.8 Structural (Enc 1991))

- 33) a. DP is specific
- b. NP is non-specific

Boyd (1992))

- 34) a. where did he make [a plan to play soccer t]NP
- b. *where did he make [every plan to play soccer t]DP

- 35) a. NP is not a binding domain
- b. Role Control operates on NP

36) Role control applies where no referential node exists.

- 37) a. Plural:
 - John needs discussion = NP = John is object of discussion
- b. John needs discussions = DP = no control (John is just participant)
- c. Article
 - John enjoys defeat = NP = control of object (John gets defeated)
- d. John enjoys the defeat = DP = no control (could be Bill's defeat of Fred)
- e. Possessive:
 - *John needs help = NP = coreferential
- f. John needs his help = DP = disjoint

- 38)a. John enjoyed dinner = clitic
- b. John enjoyed his dinner = DP

- 39)a. John enjoyed dinner, but not the food
- b.*John enjoyed his dinner, but not the food

What is the nature of Role Control?

- 40) a. John lost interest => agent
 - lose [AG_i links to lower V]/interest [AG links higher V]
- b. John lost support => object
 - lose [AG_i links to lower V]/support [TH links to higher V]

PRO or Role Control

- 41) a. *John tried for him to win
b. John tried to win
c. John_x hoped for him_y to buy a car
d. John hoped to buy a car
e. John_x hoped to buy a car for him_x to get to school on time

- 42) a. John needs to help = subject
b. John needs help = object
c. John needs (*his) help (*of him)

- 43) a. John wanted for Fred to win
b. *John wanted to win by Fred
c. John got help from Bill
d. *John got help by Bill
e. *John lost interest by Chomsky
f. John lost Chomsky's interest

Clark (1985) explained the following contrasts by a movement to PRO:

- 44) a. John needs helping
b. *John needs Bill's helping

:

- 45) a. John_x needs [PRO_x helping t_x]

Conclusion: Williams' Thematic Binding is also needed