



In linguistics, *theories* come and go, but *facts* are in short supply

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Wien, Dec. 1st 2013

Slides are downloadable from my homepage



Three interleaved topics

- ❖ **How to decide what is a fact** – e.g.
'superiority' as a VO phenomenon
- ❖ **When facts collide with a theory** – e.g.
Slavic languages aren't *exceptional VO*
languages but *regular Type 3* languages
- ❖ **When facts become coherent** – e.g. in the
theoretical *coverage & modelling of word*
order types – OV, VO, and the 'missing link'
(i.e. T3)

How to deal with facts in SCIENCE

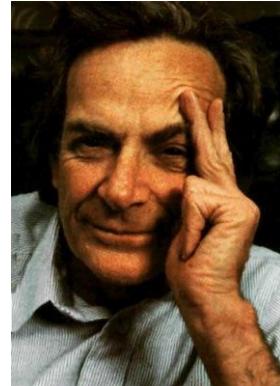
“In general we look for a new law by the following process. **First we guess it.**

Then we **compute the consequences** of the guess to see what would be implied if this law that we guessed is right.

Then we compare the result of the computation to **nature**, with **experiment** or **experience**, compare it directly with **observation**, to see if it works,

and

Richard Feynman



Nobel prize winner 1965

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“... if it [i.e. the proposed ‘law’] **disagrees** with experiment it is **wrong**.

In that simple statement is the key to science.

It does not make any difference how beautiful the guess is. It does not make any difference how smart you are, who made the guess, or what his name is - if it disagrees with experiment it is wrong.”



On Feynman’s identity badge, Los Alamos.

[Richard Feynman (1918-1988), in a lecture in 1964]

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❖ How to decide what is a fact

Data vs. facts

A **linguistic fact** is a **valid generalization** over a set of **data**. The generalization is the characteristic function for the set of data. The members of the (subset of a potentially infinite) set are representative of the characteristic property of the fact.

Facts as valid generalizations are the **result of rigorous data assessment**. Valid generalizations are **objective, reproducible** and (should have been) put to test in serious **falsification** trials.

☞ A rare, exemplary attempt in linguistics – 10 years ago:

Hoji, Hajime (2003). Falsifiability and repeatability in generative grammar: a case study of anaphora and scope dependency in Japanese. *Lingua* 113: 377–446.

❖ How to decide what is a fact

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Facts as valid generalizations are the **result of rigorous data assessment**. Valid generalizations are **objective, reproducible** and (should have been) put to test in serious **falsification** trials. **But, in reality,**

❖ How to decide what is a fact – the case of ‘superiority’

What are the ,**facts**‘ behind ,**superiority**‘?

1st fact: An *in-situ wh-subject*‘ is ungrammatical in **SVO**.

- (1) a. **What** has shocked **who(m)**?
- b. ***Who(m)**_i did **what** shock e_i?
- (2) a. You should find out **what** has shocked **who(m)**
- b. *You should find out **who(m)**_i **what** has shocked e_i

No crossing by movement involved:

- (3) a. I don’t know **who** would be happy that ***who** won the prize
- b. It is unclear **who** thinks (that) ***who** saw us (Chomsky 1981: 236)

[,**wh-subject**‘ = *wh-pronoun* in the structural subject position]

❖ How to decide what is a fact – the case of ‘superiority’

2nd fact: An in-situ **wh-adverbial** of a **type higher** than type <e> is ungrammatical in English.

See: Szabolcsi, Anna and Frans Zwarts (1993) Weak islands and an algebraic semantics for scope-taking. *Natural Language Semantics* 1: 235–85.

- (4) a. ***When** did he leave his table **why**?
- b. **Why** did he leave his table when?
- c. What did they fix **where**/***how often**?
- d. **Where/how often** did they fix **what**?
- e. ***Who** left **why**?
- f. ***Why** did **who** leave?

Note: The **two facts** (i.e. 1st & 2nd) are entirely *independent* of ‘movement’.



❖ How to *decide* what is a fact – the case of '*superiority*'

What is the ***standard explanation***? – account in terms of movement

- ☞ Chomsky (1995:311): ***Minimal link condition (MLC)***
Informally: The *attracted* item must be the **closest**.

- ☞ Chomsky (1973:246): **SUPERIORITY**

"No rule can involve X,Y in the structure [... X ...[... Z ... W Y V ...]...], where the rule applies ambiguously to Z and Y and Z is *superior* to Y."

'Superior' is defined as follows:

"Category A is superior to category B in the phrase marker if every major category dominating A dominates B as well but not conversely."

In the entirely ***derivational setting*** of the M.P. (Chomsky 1995), **superiority'** has been replaced by a ***shortest move*** requirement:



❖ How to decide what is a fact – the case of ‘superiority’

Is this *derivational* explanation empirically adequate?

No.

- **Insufficient coverage:** see examples (1) and (4a,e).
 - It overgenerates by incorrectly excluding variants.

- (1) I don't know ***who*** would be happy that she/****who*** won the
prize (Chomsky 1981: 236)

(4) a. ***Who*** left the party ***when/why***?
e. ***Who*** did you tell that I had left ***when/why***?

❖ How to decide what is a fact – the case of ‘superiority’

Is this *derivational* explanation empirically adequate?

No.

- Insufficient coverage: see examples (1) and (4a,e).
- It overgenerates by incorrectly excluding variants (5b).

(5) a. Which child read which book?

b. Which book_i did [which man] read e_i?

c.*Which book did [how many men] read e_i? (Pesetsky 1987:106, 107)

d* Which book did who read e_i?

Pesetsky (1987) tried to create a loop hole for superiority, viz.

‘discourse linking’. (5b) clearly violates the MLC and should be as unacceptable as (5d).

[On the other hand, (5c) should be fine under d-linking, but must be explained away].

❖ How to decide what is a fact – the case of ‘superiority’

But *first & foremost*: MLC fails in OV. (Haider 1984 LI)

(6) a. Es ist unklar, *was* damals *wen* schockiert hat

it is unclear **what** then **whom** shocked has

b. Es ist unklar, *wen* damals *was* schockiert hat

it is unclear **whom** then **what** shocked has

c. Es ist unklar, *wer* damals *weshalb* weggegangen ist

it is unclear **who** then **why** left has

d. Es ist unklar, *weshalb* damals *wer* weggegangen ist

it is unclear **why** then **who** left has

☞ ‘Superiority’ misses an essential generalization: it is **VO-specific**.

❖ How to decide what is a fact – the case of '*superiority*'

Superiority is a **VO** phenomenon. No superiority in **OV**

Here is the essential difference:

- (7) a. $[_{TP} \text{wh}_1 [T^\circ \rightarrow [_V e_1 [V^\circ \rightarrow \text{wh}_2]]_{VP}]]$ head-initial VP
 b. $[... [_{VP} \text{wh}_1 \leftarrow [_V \text{wh}_2 \leftarrow V^\circ]]]$ head-final VPVO,

In **VO**, preverbal wh-phrases are on the **non-canonical** side.

In **OV**, any **preverbal** wh-phrase is on the **canonical** side.

- ☞ In **VO**, **subjects** are in a pre-VP spec-position; in **OV**, subjects stay in their VP-internal base position (see later: canonical **identification**)
- ☞ No in-situ **wh-adverbials** on the **non-canonical** side

❖ How to decide what is a fact – the case of '*superiority*'

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For detailed explications see: Haider, H. 2010, chapter 3, section 3.4.1, and Haider, H. 2004. The superiority conspiracy. In: *The Minimal Link Condition*. Arthur Stepanov, G. Fanselow & R. Vogel (eds.). Berlin: Mouton de Gruyter. (147-175)

Would you risk a bet on what follows? (data assessment)

Send a questionnaire to **22** native Dutch **syntacticians** and collect their judgements on **superiority data** (10 Dutch sentences, each with the second wh-item in situ).

Would you risk a **bet** on the **percentage** of uniform judgements **per item**?

, **Ungrammaticality**‘ = **rejection** above the 80% level? (i.e. by 18 of 22)

, **Rater’s coherence**‘ = **uniformity** above the 80% level?

- **What is your guess on the % level of shared judgements?**
- **Would you bet *for* or *against* the 80% level?**

Haider, Hubert 2009. The thin line between facts and fiction. In: Featherston, Sam & Winkler, Susanne (eds.) *The Fruits of Empirical Linguistics*. Volume 1: Process. Berlin: de Gruyter. p. 75-102).

Questionnaire data on Dutch superiority, gathered and shared by **Gisbert Fanselow**

22 Raters = Dutch professional syntacticians



• **Each clause accepted by 36% up to 100%**

• **No clause dismissed by more than 74%**

• **55% accept the critical clauses 2 & 7**

	1 ik weet niet wie wat gekocht heeft	5 ik weet niet, wie wat an wie gegeven heeft	6 ik weet wie wat gekocht heeft	4 ik niet wat wie aan wie gege- ven heeft	3 ik weet niet wat welke leraar ge- kocht heeft	9 wie weet wat wie gekocht heeft voor zijn zusje	7 wie weet wat wie gekocht heeft	2 ik weet niet wat wie ge- kocht heeft	8 ik weet niet wat wie ge- kocht heeft voor zijn zusje	10 wie weten al welke boeken deze studenten hebben gekocht, maar wij weten nog niet, wat wie precies heeft gekocht
1	+	-	-	-	+	-	-	-	-	-
2	+	-	-	+	+	+	+	-	-	-
3	+	-	-	+	+	+	+	-	-	-
4	+	-	-	-	+	+	+	-	-	-
5	+	-	-	-	-	0	+	-	-	0
6	+	-	-	-	0	-	-	-	0	-
7	+	-	-	-	0	-	-	0	0	0
8	+	-	-	-	-	-	0	0	0	0
9	+	-	-	-	-	0	0	0	0	-
10	+	-	-	-	-	-	-	0	0	-
11	+	-	-	-	-	-	-	-	-	0
12	+	-	-	-	-	-	-	-	-	-
13	+	-	-	0	-	-	-	-	-	-
14	+	-	-	0	0	0	0	0	-	0
15	+	-	-	0	-	0	0	0	-	-
16	+	-	-	0	0	-	-	0	-	-
17	+	-	-	0	-	-	-	-	-	-
18	+	-	-	0	0	-	-	-	-	0
19	+	-	-	0	0	-	-	-	-	-
20	+	-	-	0	-	-	-	-	-	0
21	+	-	-	-	-	-	-	-	-	-
22	+	-	-	-	-	-	-	-	-	-

, ‘Professional’ introspection - a **reliable** way of data assessment?

Consequences we have to draw:

1. **Never** trust a syntactician's data judgements. (S)he is always prejudiced because (s)he is theoretically biased.
2. You must stay sceptical on syntacticians' judgements of **criterial** data. You should **carefully assess** these data or call for careful assessment.
3. You **always** find a subgroup (>1) of syntacticians who (dis)agree with your own data judgements.
4. Data assessment needs **reliable** procedures. Look what psychologists are doing already for at least a century!
5. Eclectically collecting **introspective** judgements is **NO** reliable procedure for assessing **critical** data, evidently.

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❖ How to decide what is a fact – the case of '*superiority*'

- Superiority is a **VO** phenomenon.
- Superiority must not be confounded with **processing effects** (8b).

- (8) a. **Was_i**, hat sie **wen** gebeten [e_i für sie zu erledigen]? [German]
 what has she whom asked [for her to take-care-of]
- b.***Wen_i**, hat sie **wen** gebeten [e_i darüber zu informieren]?
 whom has she whom asked about-it to inform

A variant with an item fronted **across** a **non-distinct** item of the same functional category (e.g. wh-item) is always much more difficult to parse than the variant without crossing. This situation may damage **acceptability**, but it does not cause **ungrammaticality**.

Fanselow, Gisbert & C.Féry 2008. Missing superiority effects: Long movement in German (and other languages). In: Witkos, Jacek & G.Fanselow eds. *Elements of Slavic and Germanic Grammars. A comparative view*. Frankfurt: Lang (67-87).

❖ How to decide what is a fact – the case of '*superiority*'

An interim summary (I)

	P.	S.	Expected judgement
English	-	-	'perfect'
	+	+	'unacceptable'
	+	-	'knotty'
German	-	-	'perfect'
	+	-	'knotty'
Japanese	-	-	'perfect'

P. = **parsing** effect: processing impediment (**crossing**)

S. = **superiority** – as a constraint of **grammar**

❖ How to decide what is a fact – the case of '*superiority*'

An interim summary (II)

- Facts are **facts**, and theoretical interpretations are **guesses**. Keep the facts always distinct from the guesses (also in your writing).
- The specific grammatical properties of a given fact may be **language** specific, **type** specific, or **universal**: Keep in mind that **English** is **not** the **fruitfly** of **grammar theory** (**drosophila grammatica*).
- Do not accept claims on alleged facts in the absence of explicit data **assessment** criteria. **Informant consent** (naïve or professional) is not a valid criterion.

Next topic, same problem:

❖ When facts collide with theory – “**Slavic is (not) VO**” ?

The ‘Slavic slides’ are based on:

H.Haider & L.Szucsich (in press; downloadable) Scrambling and V-positioning in Slavic languages – exceptionally VO or regular T3? In: *The German Middle Field in a Comparative and Diachronic Perspective*. Roland Hinterhölzl, Kristine Bentzen, Augustin Speyer & Luka Szucsich (eds.) Berlin: Mouton de Gruyter.

❖ When facts collide with theory – **Slavic is (not) VO.**

“It is generally acknowledged that Russian is an SVO language in neutral contexts” [John F. Baylin. 2002. In Zybatow, G. (et als eds.) Current issues in Formal Slavic linguistics. Frankfurt: Lang. (p. 280-293)].

- | | | |
|-----|--|-----------|
| (1) | a. Mat' <i>podarila</i> mal'čiku jabloko
mother gave (a) boy (an) apple | (Russian) |
| | b. Mutter <i>gab</i> einem Jungen einen Apfel | (German) |
| | c. Mother <i>gave</i> a boy an apple | (English) |

☞ Evidently, the **word order** in (1a-c) is identical.

☞ It is less evident, how the respective **structures** differ.

❖ When facts collide with theory – Slavic is (not) VO.

☞ Different word orders, because of different structures:

- (2) a. Mat' *podarila jabloko* mal'čiku_{Dat}
 b. Mutter gab **den Apfel** einem Jungen_{Dat}
 c.*Mother gave the **apple** a boy

- In German, VP-internal DP-arguments may be scrambled.
 - In Russian, VP-internal DP-arguments may be scrambled.
 - In English, VP-internal DP-arguments must not be scrambled.
- ☞ In **OV**, VP-internal (DP-)arguments may be scrambled.
 ☞ In **VO**, VP-internal DP-arguments must not be scrambled.

❖ When facts collide with theory – Slavic is (not) VO.

☞ Different word orders, because of different structures:

- (3) a. Mat' **jabloko** *podarila* mal'čiku
 b.*Mother **an apple** gave a boy

- In **Russian**, VP-internal DP-arguments may precede the head verb of the VP.
- In **English**, VP-internal DP-arguments must not precede the head verb of the VP.
- In **VO languages**, VP-internal DP-arguments must not be scrambled (nor *object-shifted*) across the head verb of the VP.

❖ When facts collide with theory – Slavic is (not) VO

Where ‘head-initial’ (VO) differs from ‘head-final’ (OV):

Simple task: Check the Slavic languages for these properties.

	VO	OV
▪ Scrambling	no	yes
▪ Superiority	yes	no
▪ Edge effect	yes	no
▪ Opacity of preverbal phrases	yes	no
▪ Variable Aux-V-order	no	yes

❖ When facts collide with theory – Slavic is (not) VO

	VO	OV
▪ Scrambling	no	yes
▪ Slavic		yes

“Free word order” of nominal arguments relative to the verb is the hallmark of Slavic languages.

❖ When facts collide with theory – Slavic is (not) VO

Superiority? No!

- a) **Kdo** co doporučil komisi? Czech
who_{NOM} what_{AKK} recommended (to the) committee_{DAT}

b) Co **kdo** doporučil komisi?

a) **Ko** je **koga** vido? Bosnian/Croatian/Serbian
who is whom seen

b) **Koga** je **ko** vido?

Note on an intervening factor:

There may be order restrictions for the **template** of **pronouns** in **multiple-wh-movement** languages. This must not be equivocated with superiority.



❖ When facts collide with theory – Slavic is (not) VO

Where ‘head-initial’ (VO) differs from ‘head-final’ (OV):

- Edge effect head-initial: yes head-final: no

- a. He has [much more **often** (*than I (thought))] won
 - b. Er hat [viel **öfter** (als ich (dachte))] gewonnen (German)
 - c. a [much more **frequent** (*than I thought)] phenomenon
 - d. ein [viel häufigeres (*als ich dachte)] Phänomen (German)

i. [..... [_{xp} ... X° (* ZP)] [_{yp} Y° →]]] edge effect

ii. [..... [$x_p \dots X^\circ$ (ZP)] [$y_p \dots Y^\circ$]] no edge effect

H. Haider 2004. Pre-and postverbal adverbials in VO and OV. *Lingua* 114 (6): 779-807.

❖ When facts collide with theory – Slavic is (not) VO

Where ‘head-initial’ (VO) differs from ‘head-final’ (OV):

▪ Edge effect head-initial: yes head-final: no

- a. Prošlom godu [_{VP} [_{AdvP} gorazdo bol'se (čem Igor')] [vyigrala tol'ko Maša]] [Rus.]
- b. Last year only Mary has [[_{AdvP} much more (*than Igor)] won]

❖ When facts collide with theory – Slavic is (not) VO

Where ‘head-initial’ (VO) differs from ‘head-final’ (OV):

▪ Edge effect head-initial: yes head-final: no

- c. Prošle godine je [_{VP} [_{AdvP} mnogo više (od Želimira)] [_{VP} radila samo Branka]] [B/C/S]

Last year, [much more than Želimir] worked only Branka

- d.? W zeszłym roku [_{VP} [_{AdvP} dużo więcej (niż Jarek)] [_{VP} pracowała tylko Katarzyna]] [Po]

Last year, [much more than Jarek] worked only Katarzyna

We conclude: No edge effect, hence the adjuncts must be in the **canonical** directionality domain

❖ When facts collide with theory – Slavic is (not) VO

Where ‘head-initial’ (VO) differs from ‘head-final’ (OV):

	VO	OV
▪ Opacity of preverbal phrases	yes	no

CED (condition on extraction domains; J. Huang 1982)

- i. * Who_i does [a picture of t_i] hang on the wall?
- ii. Who_i did she describe [a picture of t_i]
- iii. Who_i did she talk [about t_i]?
- iv. * Who_i would [about t_i] she never talk?
- v. I am sure that [about these persons] she would never talk

❖ When facts collide with theory – Slavic is (not) VO

	VO	OV
▪ Opacity of preverbal phrases	yes	no

Extraction out of subjects

- i. **S kem by** ty xotel čtoby govorit' bylo by odno udovol'svie? [Russian]
with whom you wanted [that [to-speak --] were one pleasure]
‘With whom would you want [that [to speak _] were sheer pleasure?]’
(A. Stepanov 2007: 93)
- ii. **Mit wem** würde [darüber diskutieren zu dürfen] dich mehr freuen?
with whom would to-be-allowed to discuss about it you please more
With whom would it please you more to be allowed to discuss about it?
[German]

❖ When facts collide with theory – Slavic is (not) VO

	VO	OV
▪ Opacity of preverbal phrases	yes	no

Extraction out of a preverbal object

- i. Kakuju_i Ivan [-_i mašinu] *kupil svoej žene?* Russian
 which_i Ivan [-_i car] *bought* his wife
 'Which car did Ivan buy his wife?'
- ii. Japonskiju_i Ivan [-_i mašinu] *kupil svoej žene.*
 Japanese_i Ivan [-_i car] *bought* for his wife
 'A Japanese car, Ivan bought for his wife.'

❖ When facts collide with theory – Slavic is (not) VO

Where ‘head-initial’ (VO) differs from ‘head-final’ (OV):

	VO	OV
▪ Variable Aux-V-order	no	yes

- i. that he *will have observed* it
- ii. dass er alles *beobachten wollen wird* [German]
 that he everything observe want will
- i. dass er alles *beobachten wird wollen*
- ii. dass er alles *wird beobachten wollen*

In **VO**, the relative order is **strict**. In **OV** language with V-movement, the 3-2-1 order typically is in **variation** with other orders (e.g. *Afrikaans, Dutch, Frisian, German*); see Haider (2010).

❖ When facts collide with theory – Slavic is (not) VO

Where ‘head-initial’ (VO) differs from ‘head-final’ (OV):

	VO	OV
▪ Variable Aux-V-order	no	yes

- a. Kiedy **widział** królika?
 when saw-PART-2S rabbit
 ‘When did you see the rabbit?’
- b. Kiedyś **widział** królika?

Embick & Izhorski (1997. ex. (27))

❖ When facts collide with theory – Slavic is (not) VO

Where ‘head-initial’ (VO) differs from ‘head-final’ (OV):

	VO	OV
▪ Variable Aux-V-order	no	yes

Ako **pročel** e knigata ...
 if read is book-the
 ‘If he has read the book...’

Kad **sreo** budeš Petra...
 when met will Peter
 ‘when you will meet Peter’

Embick & Izhorski (1997. ex. (10), (11))

❖ When facts collide with theory – Slavic is (not) VO

Interim Summary

	VO	OV	Slavic
▪ Scrambling	no	yes	yes
▪ Superiority	yes	no	no
▪ Edge effect	yes	no	no
▪ Opacity of preverbal phrases	yes	no	no
▪ Variable V-Aux-order	no	yes	yes

❖ When facts collide with theory – Slavic is (not) VO

Interim Summary

	VO	OV	Slavic
▪ Scrambling	no	yes	yes
▪ Superiority	yes	no	no
▪ Edge effect	yes	no	no
▪ Opacity of preverbal phrases	yes	no	no
▪ Variable V-Aux-order	no	yes	yes

We conclude: Slavic does not share VO-properties.

Final topic and the explanation for part I & II

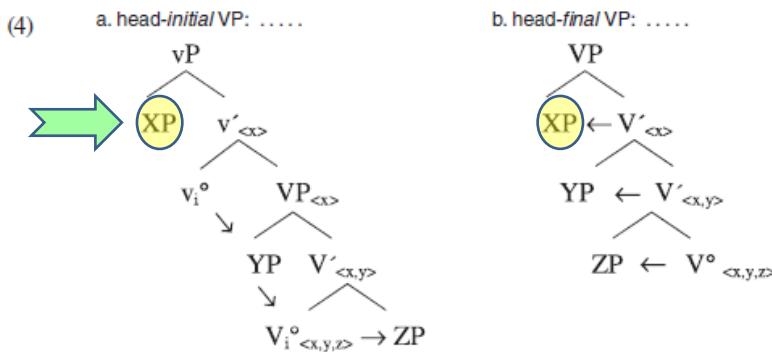
- ❖ When facts become **comprehensible** – e.g. in the theoretical modelling & testing of word order **types**

What we have to explain:

What is the **grammar-theoretical source** of these types?

- Final topic – OV, VO, and T3

- ☞ **Universally right-branching** phrases
 - ☞ **Universal condition** on the identification of the **dependants** by the head:
minimal mutual c-command under canonical **directionality** (\leftarrow / \rightarrow)



Haider (2010:29). *The syntax of German*. Cambridge. C.U.P.

SOV, SVO and the ‘third’ type

- | | |
|---|---|
| 1. SOV | directionality:  |
| $[X \leftarrow [Y \leftarrow [Z \leftarrow V^\circ]_{VP}]_{VP}]$ | |
| 2. SVO | directionality:  |
| $[X [V^\circ_i \rightarrow [Y [e_i \rightarrow Z]]]_{VP}]$ | |
| 3. The third type | directionality: $\{\leftarrow, \rightarrow\}$ |
| $[X \leftarrow [Y \leftarrow [Z \leftarrow V^\circ]_{VP}]_{VP}]$ | = SOV  |
| $\cancel{\Rightarrow} [X \leftarrow [Y \leftarrow [V^\circ \rightarrow Z]_{VP}]_{VP}]$ |  |
| $\cancel{\Rightarrow} [X \leftarrow [V^\circ_i \rightarrow [Y [e_i \rightarrow Z]]]_{VP}]_{VP}$ |  |
| $[X [V^\circ_i \rightarrow [Y [e_i \rightarrow Z]]]_{VP}]$ | = SVO  |

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T3 - once more:

= canonical directionality is underspecified (flexible)

Hence, T3 comprises **three** sub-patterns:

- a. $[XP \leftarrow [YP \leftarrow [ZP \leftarrow V]]]$ uniformly „ \leftarrow “ (OV)
 - b. $[XP \leftarrow [YP \leftarrow [V \rightarrow ZP]]]$ „ \rightarrow “ and „ \leftarrow “
 - c. $[XP \leftarrow [V_i \rightarrow [YP \rightarrow [e_i \rightarrow ZP]]]]$ „ \rightarrow “ and „ \leftarrow “
 - c'. $[XP \leftarrow [V_i \rightarrow [YP \rightarrow [e_i \rightarrow ZP]]]]$ uniformly „ \rightarrow “ (VO)

Prediction

T3 shares the OV-properties resulting from „ \leftarrow “

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OV, VO and the **Third type**

	OV	VO	3rd
XP YP ZP V	<input checked="" type="checkbox"/>	*	<input checked="" type="checkbox"/>
XP YP V ZP	*	*	<input checked="" type="checkbox"/>
XP V YP ZP	*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Scrambling	+	-	+
Edge effect	-	+	-
Aux-V-variation	+	-	+
Functional subject	-	+	+/-
Subject-effects	-	+	-

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T3 languages

- (All) historical Indo-European languages (e.g. Latin, Old English, Old Norse, Sanskrit, ...)
- Slavic languages
- Hungarian: T3-VP + two functional layers above it *
- Most of the languages that are classified as **exceptional SVO languages.**

*) Note:

Kiss (1994: 235): **No Superiority effects in Hungarian.**

'Scrambling as the Base-generation of Random complement order'. In Corver & Riemsdijk (eds.): Studies on Scrambling: Movement and non-movement approaches to free word-order phenomena. Berlin: Mouton de Gruyter. (p. 221-256).

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As a final footnote: **What is special about SVO subjects?**

SVO requires a ***functional subject*** position (Haider 2010: 69).

- a. $[\text{VP} \text{ DP}_{\text{Subj.}} \leftarrow [\text{V}' \dots \leftarrow \text{V}^\circ]]$ **SOV** v-projection
- b. $[\text{VP} \text{ DP}_{\text{Subj.}} \quad [\text{V}' \text{ V}^\circ \rightarrow \dots]]$ **SVO** v-projection
- c. $[\text{FP} \text{ DP}_i [\text{F}^\circ \rightarrow [\text{VP} \neg_i [\text{V}' \text{ V}^\circ \rightarrow \dots]]]_{\text{VP}}]$ external licensing in **SVO**

Note:

The ill-understood **EPP property** is a property of **SVO** clauses.

EPP = extended projection principle "*is the structural requirement that certain configurations ... must have subjects*" [Noam Chomsky (1981:27)].

Results

1. As for the **facts**: '**Superiority**' phenomena are **SVO effects**.
 - i. An SVO wh-subject is an **operator** in a spec-position
 - ii. SVO does not provide **preverbal** slots for wh-adverbials
 - iii. The residue is a **parsing** impediment, due to crossing
2. As for the **coverage** of facts: **Slavic** languages are typical **T3 languages**, rather than highly exceptional **SVO** languages.
3. As for **understanding** the facts: The existence of **T3 languages** is a collateral consequence of the directionality requirement (canonical licensing) that yields OV and VO.
T3 is the **underspecified** setting.