Linguistics Society of America annual meeting
Slides from plenary talk by David Pesetsky (MIT), January 4, 2013

"Что делать? What is to be done?"

A few typos have been corrected, a few clarifications and a number of weblinks added. Otherwise, these are the slides used for the talk.

For people wondering about the second letter of the second Russian word in my title, see http://en.wikipedia.org/wiki/Yat
Сочинения
Н. Г. Чернышевского.

Что дѣлать?

Издание второе
M. N. Чернышевского.

С.-ПЕТЕРБУРГЪ,
Типографія и Литографія Н. А. Покровскаго, Склады № 27. 1905.

Д. Н. Толстой.

Такъ что же намъ дѣлать?

Что дѣлать?
Наболѣвшия вопросы нашего движения
Н. Ленина.

... Партийная борьба придает партии силу и жизненность, воплощенные въ далекой сущности партии являются ея основной силой и призванием: въ равенстве идеи идеи, въ общихъ границах, партия укрепляется тѣмъ, что она не является... (Летопись Ленина въ Марксъ отъ 24 июня 1905 г.)

Цѣна 1 руб.
Preis 2 Mark — 2.50 Francs.

STUTTGART
Verlag von J. H. W. Dietz Nachf. (O. m. b. H.)
1908
"So can you name any real discovery made by generative syntax?"

"How about hierarchical phrase structure, which obeys its own principles but interacts with just about everything else in language?"

"What about case theory and other deep principles that shape the phrases of languages"?

"Or uniform locality conditions that cut across distinct constructions?"

"The discovery in all these areas of a deep unity amidst the diversity of the syntax of the world's languages?"

"Very interesting, but can you name any real discovery made by generative syntax?"
A fictionalized but familiar conversation ...

Let us begin by sampling some of these discoveries first.
The talk.

1. A few discoveries of generative syntax, old and new.

2. In a better world ...

3. In the actual world ...

4. What's not ok.

5. Why should we care?

6. Что делать? What is to be done?
discoveries of generative syntax

1. Hierarchical structure
discoveries of generative syntax

1. Hierarchical structure

*a slide from intro to linguistics* ...
discoveries of generative syntax

1. Hierarchical structure
discoveries of generative syntax

1. Hierarchical structure
... to which the rest of grammar pays attention
example: movement phenomena
discoveries of generative syntax

1. Hierarchical structure

...to which the rest of grammar pays attention

example: movement phenomena

S

[ GAP ⟨ ⟩ ]

NP

[ GAP ⟨ ⟩ ]

Kim

[ GAP ⟨ ⟩ ]

we

V

[ GAP ⟨ ⟩ ]

know

NP

[ GAP ⟨ ⟩ ]

Dana

S

[ GAP ⟨ ⟩ ]

V(P)

[ GAP ⟨ ⟩ ]

hates
discoveries of generative syntax

1. Hierarchical structure
   ...to which the rest of grammar pays attention

   example: Principle C effects

A phrase $x$ and an r-expression $y$ may not corefer if $x$ c-commands $y$.

a. *She$_i$ said that Mary$_i$ gave a great talk.

   Further embedding of the pronoun removes the effect ...

b. [Her$_i$ colleague] said that Mary$_i$ gave a great talk.

   ... but further embedding of the r-expression makes no difference:

c. *She$_i$ said that [Mary$_i$'s student] gave a great talk.
discoveries of generative syntax

1. Hierarchical structure today: Russian gender agreement

example: Gender agreement in Russian and Lebanese Arabic
discoveries of generative syntax

1. Hierarchical structure today: Russian gender agreement

Identical, crucially hierarchical conditions govern agreement mismatches in Russian and Lebanese Arabic ...
discoveries of generative syntax
1. Hierarchical structure today: Russian gender agreement

Nominal gender in Russian: non-humans

a. declension class 1: masculine  *stol*  'table'
   neuter      *okno*  'window'

b. declension class 2: feminine  *lampa*  'lamp'

c. declension class 3: feminine  *tetrad'*  'notebook'
   (plus 10 neuters and 1 masculine)
discoveries of generative syntax

1. Hierarchical structure today: Russian gender agreement

Nominal gender in Russian: humans

a. declension class 1:  if male, masc.  otec  'father'
   Ivan  (name)
   if female,  it's complicated

b. declension class 2:  if male, masc.  djadja  'uncle'
   Vanja  (name)
   if female, fem.  têtja  'aunt'
discoveries of generative syntax

1. Hierarchical structure today: Russian gender agreement

- Gender agreement in Russian is visible in adjectives and past-tense verbs (among other things).

- Class 1 nouns like vrač 'doctor', professor 'professor', fotograf 'photographer' trigger masculine agreement on both adjective and verb when they refer to men.

Nov-yj vrač prišël.
new-M.NOM.SG doctor.NOM.SG arrived.M.SG
'The new (male) doctor arrived.'

- When the same nouns refer to women, feminine agreement is possible — but *optional*...
discoveries of generative syntax

1. Hierarchical structure today: Russian gender agreement

... and there is a curious pattern:

FEM attributive adjective entails FEM verb

a. Nov-yj vrač prišël. [✔M adj, M verb]
   new-M.NOM.SG doctor.NOM.SG arrived.M.SG

b. Nov-yj vrač prišl-a. [✔M adj, F verb]
   new-M.NOM.SG doctor-NOM.SG arrived-F.SG

c. Nov-aja vrač prišl-a. [✔F adj, F verb]
   new-F.NOM.SG doctor-NOM.SG arrived-F.SG

d. *Nov-aja vrač prišël. [*F adj, M verb]
   new-F.NOM.SG doctor-NOM.SG arrived-M.SG

discoveries of generative syntax
1. Hierarchical structure today: Russian gender agreement

A low adjective may not be FEM

a. Glavn{-yj/*-aja} vrač poliklinik-i skazal-a ...
   head-M/*F.NOM.SG doctor.NOM.SG clinic-GEN.SG say-PST.F.SG
   'The (female) head doctor of the clinic said...'

b. Klassn{-yj/*-aja} rukovoditel' soobščil-a ...
   class-M/*F.NOM.SG supervisor-NOM.SG inform-PST.F.SG ...
   'The (female) class supervisor informed ...

(Crockett 1976, 95-97, building on Skoblikova 1971, 183)
discoveries of generative syntax
1. Hierarchical structure today: Russian gender agreement

Gender mismatch among two adjectives is possible

✔F outside M
?U menja očen' interesn-aja nov-yj vrač.
  P me very interesting-NOM.F.SG new-NOM.M.SG doctor-NOM.SG
  'I have a very interesting new (female) doctor.'

*M outside F
*U menja očen' interesn-yj nov-aja vrač.
  P me very interesting-NOM.M.SG new-NOM.F.SG doctor-NOM
  'I have a very interesting new (female) doctor.'
discoveries of generative syntax

1. Hierarchical structure today: Russian gender agreement

Analysis of feminine agreement with vrač-class nouns

All class 1 nouns come from the lexicon marked MASC.

a. An optional feminizing null morpheme Ж may be merged at any point above a certain structural threshold within the noun phrase. Low adjectives fall below this threshold.

b. Once Ж merges, the nominal counts as feminine for agreement purposes from then on (from that point up the tree).

Pesetsky 2012 & forthcoming (monograph in press; older draft on LingBuzz)
discovery of generative syntax

1. Hierarchical structure today: Russian gender agreement
discoveries of generative syntax

1. Hierarchical structure today: Russian gender agreement
   
   FEM attributive adjective entails FEM verb

   a. no Ж at all: ✔ masculine adjective, masculine verb
      
      [М Nov-yj    [М vrač]]  prišël.

   b. Ж high within subject: ✔ masculine adjective, feminine verb
      
      [Ф Ж [М nov-yj    [М vrač ]]]  prišl-a.

   d. Ж in middle of subject: ✔ feminine adjective, feminine verb
      
      [Ф Nov-aja [Ф Ж [М vrač ]]] prišl-a.

   c. No way to generate: *feminine adjective, masculine verb
discoveries of generative syntax

1. Hierarchical structure today: Russian gender agreement

Gender mismatch

Ж sandwiched between two adjectives

✔ masculine lower, feminine higher

[F interesn-aja [F Ж [M nov-yj [M vrač]]]]

interesting-F.NOM new-M.NOM doctor-NOM.SG

b. no way to generate

*feminine lower, masculine higher
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

This work of my own is not the "discovery" I have in mind by including it here. The discovery comes next...
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

A noun in construction with a numeral>10 (let's call these "transdecimals") bears singular morphology.

tleetiin \{walad, *wleed\}

thirty \{child.SG, child-*PL\}
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

optional plural subject-verb agreement with a transdecimal

a. [tleetiin walad]  daras-u

  thirty  child.SG studied-PL

b. [tleetiin walad]  daras

  thirty  child.SG studied.SG
discoveries of generative syntax
1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic #

optional plural *adjective* agreement in a transdecimal nominal

a. shefet [tletiin walad mnazzam].
   saw.1s thirty child.SG organized.SG

b. shefet [tletiin walad mnazzm-iin].
   saw.1s thirty child.SG organized-PL

*Note that adjectives follow the noun, unlike Russian.*
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

optional plural adjective agreement in a transdecimal nominal

a. [tleetin walad mnazzam].

   thirty child.SG organized.SG

b. [tleetin walad mnazzm-iin].

   thirty child.SG organized-PL

Semantics:

• Plural permits a collective interpretation for the nominal in addition to a distributive reading.

• Singular agreement allows only the distributive reading.
discovery of generative syntax
1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

Remember this slide about Russian?

FEM attributive adjective entails FEM verb

a. Nov-ýj vrač prišěl. [✔M adj,M verb]
   new-M.NOM.SG doctor.NOM.SG arrived-M.SG

b. Nov-ýj vrač prišl-a. [✔M adj,F verb]
   new-M.NOM.SG doctor-NOM.SG arrived-F.SG

c. Nov-aja vrač prišl-a. [✔F adj,F verb]
   new-F.NOM.SG doctor-NOM.SG arrived-F.SG

d. *Nov-aja vrač prišël [!*F adj,M verb]
   new-F.NOM.SG doctor-NOM.SG arrived-M.SG

Here's the same slide for Lebanese Arabic ...
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

PL attributive adjective with a transdecimal entails PL verb

a. [tleetiin walad mnazzam] daras [✔SG adj, SG verb]
   thirty child.SG organized-SG studied-SG

b. [tleetiin walad mnazzam] daras-u [✔SG adj, PL verb]
   thirty child.SG organized.SG studied-PL

c. [tleetiin walad mnazzam-iin] daras-u [✔PL adj, PL verb]
   thirty child.SG organized-PL studied-PL

d. *[tleetiin walad mnazzam-iin] daras [!*PL adj, SG verb]
   thirty child.SG organized-PL studied.SG
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

A low adjective in a transdecimal nominal may not be PL

a. tleetiin mhandes  {madani, *madaniy-iin}

   thirty  engineer.SG  {civil-SG, civil-PL

   'thirty civil engineers'

   (Plural acceptable as 'thirty civilized engineers').

b. [arbʔiin tabiib  sharʔi      / *sharʔiy-iin]

   forty   doctor  legal.SG / legal-PL

   'forty forensic medical examiners'

   (Plural acceptable as 'forty legal doctors')

   (S.Ouwayda, personal communication)
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic #

Number mismatch among adjectives in a transdecimal nominal

✔ PL outside SG
  a. [tleetiin walad kesleen mnazzam-iin] Htajj-u

  thirty child.SG lazy.SG organized-PL complained-PL

  'Thirty organized lazy children complained'

*SG outside PL
  b. *[tleetiin walad kesleen-iin mnazzam] Htajj-u

  thirty child.SG lazy-PL organized.SG complained-PL
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

Analysis of plural agreement with transdecimal NPs

a. An optional null morpheme that creates semantic pluralities (Borer 2005) may be merged at *any point above a certain structural threshold* within the noun phrase. Low adjectives fall below this threshold.

b. Once # merges, the nominal counts as plural for agreement purposes from then on (from that point up the tree).

Ouwayda (2012, *passim.)*
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

*Lebanese Arabic*

a. An optional null morpheme that creates semantic pluralities (Borer 2005) may be merged at *any point above a certain structural threshold* within the noun phrase. Low adjectives fall below this threshold.

b. Once the morpheme merges, the nominal counts as plural for agreement purposes from then on (from that point up the tree).

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*Russian*

a. An optional feminizing null morpheme Ж may be merged at *any point above a certain structural threshold* within the noun phrase. Low adjectives fall below this threshold.

b. Once Ж merges, the nominal counts as feminine for agreement purposes from then on (from that point up the tree).
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

Lebanese Arabic:

[Diagram of hierarchical phrase structure for Lebanese Arabic]
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

Russian:
discoveries of generative syntax

1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic #
A discovery about agreement, yes — but simultaneously a discovery about the unity underlying the diversity of languages:

- The semantics of Lebanese Arabic # are completely different from the semantics of Russian Ж.
- The adjectives stack in the opposite linear order.
  
  Russian: [outer-adjective [inner-adjective [noun]]]
  Lebanese Arabic: [[[noun] inner-adjective] outer-adjective]

**But:**
- The logic of Lebanese number mismatches and the Russian gender mismatches is absolutely identical.

  What explains the agreement patterns is pure hierarchy.
discoveries of generative syntax
1. Hierarchical phrase structure today: Ouwayda on Lebanese Arabic

Without generative syntax, we wouldn't know this.
discoveries of generative syntax

2. Case theory
discoveries of generative syntax

2. Case theory

• Jean-Roger's Vergnaud's (1976) proposal that noun phrases must be specially licensed, in a manner unnecessary for clauses, prepositional phrases, and other types of phrases ...  

• ...and that this licensing tracks the positions in which 
*nomina*ve, *accusative* and adposition-assigned case 
morphology is found in languages with rich case systems.

• ...and that this is true even in languages with little or no overt 
case morphology.
Facts about the availability of nominal complements in English

a. V and P allow a nominal complement.

b. N and A do not allow a nominal complement.

Accusative case in Latin-type case languages

a. Accusative case may be assigned by V and P.

b. N and A do not assign accusative case.
discoveries of generative syntax
2. Case theory

More important than just an idea about noun phrases.

• The interaction of Case Theory with X-bar theory was a demonstration that some of the *details* of hierarchical phrase structure do not need to be stipulated on a language-by-language basis, but follow from the interaction of deeper principles.
discoveries of generative syntax

2. Case theory

Immediately led to new discoveries, for example:

- Stowell's (1981) demonstration that an array of stipulations about word order follows from the *locality* of this licensing.

  a. Mary told Sue [that the LSA is in Boston].

  b. *Mary told [that the LSA is in Boston] Sue.

  c. Mary explained [that the LSA is in Boston] [to Sue].
discoveries of generative syntax
2. Case theory

And suggested later findings:

• The discovery that first and second person elements in many languages also need special licensing, which obeys laws like those that govern nominal licensing more generally ...

• ... explaining the person-case effects (Perlmutter 1971; Bonet 1991) that show up across the world's languages (Anagnostopoulou 2003).
2. Case theory today: Halpert on the Zulu augment

Work by Claire Halpert (University of Minnesota)
"The Bantu language family has been proposed to lack case: nominals in these languages do not display the familiar distributional restrictions.

discoveries of generative syntax

2. Case theory today: Halpert on the Zulu augment

Apparent lack of case morphology in Zulu

a. u-mntwana u-cul-e i-ngoma
   AUG-1child 1S-sing-PFV AUG-9song
   'The child sang a song.'

b. u-Mfundo u-nik-e u-mntwana u-jeqe
   AUG-1Mfundo 1S-give-PFV AUG-1child AUG-11steamed.bread
   'Mfundo gave the child steamed bread.'

c. u-Mfundo u-nik-e u-gogo u-mntwana
   AUG-1Mfundo 1S-give-PFV AUG-1granny AUG-1child
   'Mfundo gave granny the child.'
discoveries of generative syntax

2. Case theory today: Halpert on the Zulu augment

Apparent lack of Vergnaud effects of case as well: optionality of raising

a. ku-bonakala [ukuthi uZinhle u-zo-xova ujeqe ]
   17s- seems that 1Zinhle 1s-FUT-make 1steamed.bread
   'It seems that Zinhle will make steamed bread.'

b. uZinhle u- bonakala [ukuthi u-zo-xova ujeqe ]
   1Zinhle 1s- seem that 1s-FUT-make 1steamed.bread
   'It seems that Zinhle will make steamed bread.'
discoveries of generative syntax

2. Case theory today: Halpert on the Zulu augment

Nominals in Zulu are typically marked with an initial vowel, the augment, which reflects noun class...

a. i- n- cwadi ‘book’ (cl. 9) c. i- zim- fingo ‘sharks’ (cl. 10)
b. u- mu- ntu ‘person’ (cl. 1) d. i- qanda ‘egg’ (cl. 5)

...but a noun may also appear without its augment:

u- Xolani a-ka-phek-anga qanda
AUG-1 Xolani NEG-1S-cook-NEG.PAST 5 egg
'Xolani didn’t cook any egg.'

...and that's when things get interesting.
Distribution of augmentless nominals is partly determined by semantics ...

- downward-entailing environments (NPI)
- wh-phrases
- some other circumstances

... but if you hold constant the semantic environment, there are also purely syntactic restrictions:
discoveries of generative syntax

2. Case theory today: Halpert on the Zulu augment

Augmentless nominal licensed only within

Augmentless embedded postverbal subject is ok:

a. A- ngi- sho- ngo [ukuthi ku- cul-e muntu ]
ppsG.S- say- NEG.PAST that 17S- sing-PFV 1person
'I didn’t say that anyone sang.'

Augmentless embedded preverbal subject is not:

b. *A- ngi- sho- ngo [ukuthi muntu u- cul-ile ]
ppsG.S- say- NEG.PAST that 1person 1S- sing-PFV
Unraised augmentless preverbal subject is bad ...

*angifuni [ukuthi muntu a-xove u-jeqe
NEG-1pSG.S-want-NEG that 1person 1SJC- make AUG-11st.brd

... but if raised into higher verbal domain, augmentless subject is ok:

angifuni muntu [ukuthi __ a- xove u-jeqe
1pSG.S-want-NEG 1person that 1SJC- make AUG-11st.brd

'I don’t want anyone to make steamed bread.'
discoveries of generative syntax

2. Case theory today: Halpert on the Zulu augment

Augmentless nominal must be the highest nominal within vP

u-muntu [a-ka-phek-anga qanda] ✓ [ verb no]
AUG-1person NEG-1S-cook-NEG.PAST 5egg
'A/the person didn’t cook any egg.'

[a-ku-phek-anga muntu i-qanda] ✓ [ verb no yes]
NEG-17S-cook-NEG.PAST 1person AUG- 5egg
'Nobody cooked the/an/any egg.'

*[a-ku-phek-anga muntu qanda] *[ verb no no]
NEG-17S-cook-NEG.PAST 1person 5egg

*a-ku-phek-anga u-muntu qanda *[ verb yes no]
NEG-17S-cook-NEG.PAST AUG-1person 5egg
discoveries of generative syntax

2. Case theory today: Halpert on the Zulu augment Proposal

• Every Zulu nominal needs case-licensing, just like its counterparts in other languages.

• Zulu looks different because:

  a. The augment itself is a licener. So it is augmentless nominals that show the effects of Vergnaud's discovery.

  b. A licener is located right above vP (and is sometimes realized morphologically).

  c. In contrast to English, T is not a licener.
discoveries of generative syntax

2. Case theory today: Halpert on the Zulu augment

```
LP
  └── vP
    └── S
      └── v^0
          └── V^0
              └── O
```

L(icenser)

√[[-aug]]
discoveryes of generative syntax

2. Case theory today: Halpert on the Zulu augment

So Zulu, while its case system is distinct from languages like Latin and English, is not as different as we thought. Zulu is a case language too.

Generative syntax taught us this as well:
- a fact about Zulu, and a fact about language in general
discoveries of generative syntax

3. Locality of syntactic relations: Intervention effects
3. Locality of syntactic relations: Intervention effects

- Syntactic relations are sensitive to elements that intervene structurally.

- When a syntactic relation involves a particular feature (e.g. *wh*), the interveners that cause trouble are elements that also bear that feature.
discoveries of generative syntax

3. Locality of syntactic relations: Intervention effects

example: *wh*-movement (the Superiority Effect)

a. He wondered [\textit{who} __ had read what].

b. *He wondered [\textit{what} \textit{who} had read __ ].

c. He wondered [\textit{who} we might persuade __ to read what].

d. ??He wondered [\textit{what} we might persuade \textit{who} to read __ ].
discoveries of generative syntax

3. Locality of syntactic relations: Intervention effects

• The observation that agreement and movement (and licensing) are sensitive to elements that structurally intervene ...

• ... and that when a syntactic relation involves a feature F, the interveners that cause trouble are elements that also bear F...

• ... and that these effects are uniform across a range of otherwise differing constructions.
3. Locality of syntactic relations: Intervention effects

discoveries of generative syntax

example: raising constructions (the *Dative Intervention Effect*)

a. Gianni sembra (*a Maria) [ ___ essere felice].
   Gianni seems (*to Maria) be.INF happy
   'Gianni seems (to Mary) to be happy.
   (Rizzi 1987; Chomsky 2000)

b. Hafði Ólafur virst (*peim) [ ___ vera gáfaður]?
   Has Olaf.NOM seemed them.DAT to.be intelligent
   'Did Olaf seem (to them) intelligent?'  
   (Sigurðsson 1996)
discoveries of generative syntax

3. Locality of syntactic relations: Hartman on *English*

Work by Jeremy Hartman (UMass Amherst).
3. Locality of syntactic relations: Hartman on *English*

Are there experiencer intervention effects in English?

*usual answer: no*

John seems **to Mary** [ _ to be happy].
Are there experiencer intervention effects in English?
Hartman (2011, 2012): yes — if you look beyond *seems*

passivized raising-to-object (ECM) verbs:

a. *John* was claimed (*to Bill) [ ___ to have stolen the art].

b. *John* was said (*to me) [ ___ to be guilty].

raising with *promise*

c. *John's performance* promised (*the kids) [ ___ to be the best].

raising to object

d. Mary proved *John* (yesterday / *to me) [ ___ to be a liar].

(Postal 1974)
Are there experiencer intervention effects in English?
Hartman (2011, 2012): yes — if you look beyond *seems*

**tough constructions**

a. *This book will be easy (for the teachers) for the students to talk about __.*

b. *This book is important (*to Mary) [(for Sue) to talk about __].*
discoveries of generative syntax

4. Support for the central conjecture of generative syntax
4. Support for the central conjecture of generative syntax

The very large meta-discovery, of which everything discussed so far is a sub-discovery:

... that a common core of non-obvious principles underlies the syntax of the languages of the world, simultaneously restricting linguistic diversity and helping to solve the logical problem of language acquisition.

The same phenomena are found in language after language — sometimes in plain view, but more often disguised by interfering factors.

With this research, we are learning something about the syntactic part of the language faculty that we are born with...
discoveries of generative syntax

By the way
Some of the best descriptive work on the languages of the world has been accomplished by generative syntacticians chasing these issues — because by asking probing and targeted questions about the world's languages, we discover facts about them that we could never learn otherwise (above and beyond the particular reason we ask these questions).
In a better world ...
In a better world ...

What syntactician has not fantasized about a world in which discoveries such as these are regularly reported in newspapers, magazines, and major scientific journals, as is the case with other sciences?

In this alternative world, the educated public would have spent the last few decades *already* learning about topics such as:

- hierarchical phrase structure, and what languages do with it,
- the discovery of deeper generalizations that transcend individual languages — like case theory and locality.

Non-specialist readers would cherish regular updates about how diverse phenomena of the world's languages are illuminated by the discoveries we've just discussed — and others, for example:
In a better world ...

The Cinque hierarchy would have appeared first in *Nature*.

Rice's discovery of unity-in-diversity in Athapaskan affix-ordering would have merited a front-page article in the *NY Times Science* section.

Merchant's discovery of a link between preposition-stranding sluicing and its overt counterpart would have appeared in the *Proceedings of the Royal Society*, heralded in the press as "perhaps the final blow to an age-old debate about ellipsis".

Legate's discovery that the left periphery of Warlpiri looks like Rizzi's left periphery for Italian (and Cable's for Tlingit) would have been the topic of an hour on *NPR Science Friday*.

Bobaljik's recent discoveries about comparatives and superlatives would have appeared first in *Science*, reported as an AP news item, and ended up as the theme for a joke by a late-night talk-show host.
In a better world ...

But we do not live in that world.
In a better world ...

But we do not live in that world. We are used to that.
In a better world ...

But we do not live in that world. We are used to that.

But is this ok?
In a better world ... 

But we do not live in that world. We are used to that.

But is this ok?

Maybe not.
What syntactician has not fantasized about a world in which the remarkable discoveries of our field such as these are regularly reported in newspapers, magazines, and major scientific journals, as is the case with other sciences?

Be careful what you wish for ...
In the actual world ...

The logical structure of the presentation so far:

*We began with:*  
Syntactic hierarchical structure is real, and the rest of language cares about it.

*then we continued with:*  
When we dig beneath the surface of the world's languages, we find deep, structure-based generalizations that transcend the differences among those languages.

*and we ended with:*  
These discoveries support the central conjecture of generative syntax.
The last few years have seen several articles about syntax appear in high-profile journals, publicized by the science press, that take on these very themes.

**We began with:**
Syntactic hierarchical structure is real, and the rest of language cares about it.

**then we continued with:**
When we dig beneath the surface of the world's languages, we find deep structure-based generalizations that transcend the differences among individual languages.

**and we ended with:**
These discoveries support the central conjecture of generative syntax.

So are our dreams coming true?
In the actual world ...

Or our nightmares...
"We began with:
Syntactic hierarchical structure is real, and the rest of language cares about it.

"Not really":

**How hierarchical is language use?**

**Stefan L. Frank**, **Rens Bod** and **Morten H. Christiansen**

1. Department of Cognitive, Perceptual and Brain Sciences, University College London, 26 Bedford Way, London WC1H 0AP, UK
2. Institute for Logic, Language and Information, University of Amsterdam, Science Park 904, 1098 XH Amsterdam, The Netherlands
3. Department of Psychology, Cornell University, 228 Uris Hall, Ithaca, NY 14853-7601, USA

It is generally assumed that hierarchical phrase structure plays a central role in human language. However, considerations of simplicity and evolutionary continuity suggest that hierarchical structure should not be invoked too hastily. Indeed, recent neurophysiological, behavioural and computational studies show that sequential sentence structure has considerable explanatory power and that hierarchical processing is often not involved. In this paper, we review evidence from the recent literature supporting the hypothesis that sequential structure may be fundamental to the comprehension, production and acquisition of human language. Moreover, we provide a preliminary sketch outlining a non-hierarchical model of language use and discuss its implications and testable predictions. If linguistic phenomena can be explained by sequential rather than hierarchical structure, this will have considerable impact in a wide range of fields, such as linguistics, ethology, cognitive neuroscience, psychology and computer science.

**Keywords:** language structure; language evolution; cognitive neuroscience; psycholinguistics; computational linguistics

1. **INTRODUCTION**
In the actual world ...

Frank, Bod & Christiansen:

"It is generally assumed that hierarchical phrase structure plays a central role in human language. However, considerations of simplicity and evolutionary continuity suggest that **hierarchical structure should not be invoked too hastily.**"

"... the practice of analysing sentences in terms of deep hierarchical structures is still part and parcel of linguistic theory. In this paper, we question this practice, not so much for language analysis but for the description of language use. **We argue that hierarchical structure is rarely (if ever) needed to explain how language is used in practice.**"
In the actual world...

then we continued with:
When we dig beneath the surface of the world's languages, we find deep structure-based generalizations that transcend the differences among individual languages.

"Only if they're historically related":

**LETTER**

Evolved structure of language shows lineage-specific trends in word-order universals

Michael Dunn\(^1,2\), Simon J. Greenhill\(^3,4\), Stephen C. Levinson\(^1,2\) & Russell D. Gray\(^3\)

Languages vary widely but not without limit. The central goal of linguistics is to describe the diversity of human languages and explain the constraints on that diversity. Generative linguists following Chomsky have claimed that linguistic diversity must be constrained by innate parameters that are set as a child learns a language\(^5\). In contrast, other linguists following Greenberg have claimed that there are statistical tendencies for co-occurrence of traits reflecting universal systems biases\(^6\), rather than absolute constraints or parametric variation. Here we use computational phylogenetic methods to address the nature of constraints on linguistic diversity in an evolutionary framework\(^6\). First, contrary to the generative account of parameter setting, we show that the evolution of only a few word-order features of languages are strongly correlated. Second, contrary to the Greenbergian generalizations, we show that most observed functional dependencies between traits are lineage-specific rather than universal tendencies. These findings support the view that—at least with respect to word order—cultural evolution is the primary factor that determines linguistic structure, with the current state of a linguistic system shaping and constraining future states.

Human language is unique amongst animal communication systems not only for its structural complexity but also for its diversity at every level of structure and meaning. There are about 7,000 extant languages, some with just a dozen contrastive sounds, others with more than 100, some with complex patterns of word formation, others with single words that combine with the verb at the beginning of the sentence, after the noun, whereas dominant object–verb ordering predicts postpositions, relative clauses and genitives before the noun\(^7\). One general explanation for these observations is that languages tend to be consistent ("harmonic") in their order of the most important element or 'head' of a phrase relative to its 'complement' or 'modifier'\(^8\), and so if the verb is first before its object, the adposition (here preposition) precedes the noun, while if the verb is last after its object, the adposition follows the noun (a "postposition"). Other functionally motivated explanations emphasize consistent direction of branching within the syntactic structure of a sentence\(^9\) or information structure and processing efficiency\(^9\).

To demonstrate that these correlations reflect underlying cognitive or systems biases, the languages must be sampled in a way that controls for features linked only by direct inheritance from a common ancestor\(^9\). However, efforts to obtain a statistically independent sample of languages confront several practical problems. First, our knowledge of language relationships is incomplete; specialists disagree about high-level groupings of languages and many languages are only tentatively assigned to language families. Second, a few large language families contain the bulk of global linguistic variation, making sampling purely from unrelated languages impractical. Some balance of related, unrelated and areally distributed languages has usually been aimed for in practice\(^9,10\).

The approach we adopt here controls for shared inheritance by examining correlation in the evolution of traits within well-established family trees\(^11\). Drawing on the powerful methods developed in evolutionary biology, we can bootstrap correlated changes during the...
In the actual world ...

Dunn, Greenhill, Levinson and Gray:
"Generative linguists following Chomsky have claimed that linguistic diversity must be constrained by innate parameters that are set as a child learns a language ...[Our] findings support the view that—at least with respect to word order—cultural evolution is the primary factor that determines linguistic structure, with the current state of a linguistic system shaping and constraining future states."

LETTER

Evolved structure of language shows lineage-specific trends in word-order universals

Michael Dunn1,2, Simon J. Greenhill1,4, Stephen C. Levinson1,2 & Russell D. Gray3

Languages vary widely but not without limit. The central goal of linguistics is to describe the diversity of human languages and explain the constraints on that diversity. Generative linguists following Chomsky have claimed that linguistic diversity must be constrained by innate parameters that are set as a child learns a language. In contrast, other linguists following Greenberg have claimed that there are statistical tendencies for co-occurrence of traits reflecting universal systems biases, rather than absolute constraints or parametric variation. Here we use computational phylogenetic methods to address the nature of constraints on linguistic diversity in an evolutionary framework. First, contrary to the generative account of parameter setting, we show that the evolution of only a few word-order features of languages are strongly correlated. Second, contrary to the Greenbergian generalizations, we show that most observed functional dependencies between traits are lineage-specific rather than universal tendencies. These findings support the view that—at least with respect to word order—cultural evolution is the primary factor that determines linguistic structure, with the current state of a linguistic system shaping and constraining future states.

Human language is unique amongst animal communication systems not only for its structural complexity but also for its diversity at every level of structure and meaning. There are about 7,000 extant languages, some with just a dozen contrastive sounds, others with more than 100, some with complex patterns of word formation, others with simple words only. Some with the verb at the beginning of the sentence, after the noun, whereas dominant object–verb ordering predicts postpositions, relative clauses and genitives before the noun. One general explanation for these observations is that languages tend to be consistent (‘harmonic’) in their order of the most important element or ‘head’ of a phrase relative to its ’complement’ or ‘modifier’; and so if the verb is first before its object, the adposition (here preposition) precedes the noun, while if the verb is last after its object, the adposition follows the noun (a ‘postposition’). Other functionally motivated explanations emphasize consistent directions of branching within the syntactic structure of a sentence or information structure and processing efficiency.

To demonstrate that these correlations reflect underlying cognitive or systems biases, the languages must be sampled in a way that controls for features linked only by direct inheritance from a common ancestor. However, efforts to obtain a statistically independent sample of languages confront several practical problems. First, our knowledge of language relationships is incomplete: specialists disagree about high-level groupings of languages and many languages are only tentatively assigned to language families. Second, a few large language families contain the bulk of global linguistic variation, making sampling purely from unrelated languages impractical. Some balance of related, unrelated and areally distributed languages has usually been aimed for in practice. After the noun, whereas dominant object–verb ordering predicts postpositions, relative clauses and genitives before the noun. One general explanation for these observations is that languages tend to be consistent (‘harmonic’) in their order of the most important element or ‘head’ of a phrase relative to its ’complement’ or ‘modifier’; and so if the verb is first before its object, the adposition (here preposition) precedes the noun, while if the verb is last after its object, the adposition follows the noun (a ‘postposition’). Other functionally motivated explanations emphasize consistent directions of branching within the syntactic structure of a sentence or information structure and processing efficiency.

To demonstrate that these correlations reflect underlying cognitive or systems biases, the languages must be sampled in a way that controls for features linked only by direct inheritance from a common ancestor. However, efforts to obtain a statistically independent sample of languages confront several practical problems. First, our knowledge of language relationships is incomplete: specialists disagree about high-level groupings of languages and many languages are only tentatively assigned to language families. Second, a few large language families contain the bulk of global linguistic variation, making sampling purely from unrelated languages impractical. Some balance of related, unrelated and areally distributed languages has usually been aimed for in practice. After the noun, whereas dominant object–verb ordering predicts postpositions, relative clauses and genitives before the noun. One general explanation for these observations is that languages tend to be consistent (‘harmonic’) in their order of the most important element or ‘head’ of a phrase relative to its ’complement’ or ‘modifier’; and so if the verb is first before its object, the adposition (here preposition) precedes the noun, while if the verb is last after its object, the adposition follows the noun (a ‘postposition’). Other functionally motivated explanations emphasize consistent directions of branching within the syntactic structure of a sentence or information structure and processing efficiency.

The approach we adopt here controls for shared inheritance by examining correlation in the evolution of traits within well-established family trees. Drawing on the powerful methods developed in evolutionary biology, we can then track correlated changes during the history of the species. After the noun, whereas dominant object–verb ordering predicts postpositions, relative clauses and genitives before the noun. One general explanation for these observations is that languages tend to be consistent (‘harmonic’) in their order of the most important element or ‘head’ of a phrase relative to its ’complement’ or ‘modifier’; and so if the verb is first before its object, the adposition (here preposition) precedes the noun, while if the verb is last after its object, the adposition follows the noun (a ‘postposition’). Other functionally motivated explanations emphasize consistent directions of branching within the syntactic structure of a sentence or information structure and processing efficiency.
In the actual world ...

Then we continued with:
When we dig beneath the surface of the world's languages, we find deep structure-based generalizations that transcend the differences among individual languages.

"No we don't":

The myth of language universals:
Language diversity and its importance for cognitive science

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Abstract: Talk of linguistic universals has given cognitive scientists the impression that languages are all built to a common pattern. In fact, there are vanishingly few universals of language in the direct sense that all languages exhibit them. Instead, diversity can be found at almost every level of linguistic organization. This fundamentally changes the object of enquiry from a cognitive science perspective. This target article summarizes decades of cross-linguistic work by typologists and descriptive linguists, showing just how few and unprofitable the universal characteristics of language are, once we honestly confront the diversity offered to us by the world’s 6,000 to 8,000 languages. After surveying the various uses of “universal,” we illustrate the ways languages vary radically in sound, meaning, and syntactic organization, and then we examine in more detail the core grammatical machinery of recursion, constituency, and grammatical relations. Although there are significant recurrent patterns in organization, these are better explained as stable engineering solutions satisfying multiple design constraints, reflecting both cultural-historical factors and the constraints of human cognition.

Linguistic diversity then becomes the crucial datum for cognitive science: we are the only species with a communication system that is fundamentally variable at all levels. Recognizing the true extent of structural diversity in human language opens up exciting new research directions for cognitive scientists, offering thousands of different natural experiments given by different languages, with new opportunities for dialogue with biological paradigms concerned with change and diversity, and confronting us with the extraordinary plasticity of the highest human skills.
"Languages differ so fundamentally from one another at every level of description (sound, grammar, lexicon, meaning) that it is very hard to find any single structural property they share. The claims of Universal Grammar, we argue here, are either empirically false, unfalsifiable, or misleading in that they refer to tendencies rather than strict universals. Structural differences should instead be accepted for what they are, and integrated into a new approach to language and cognition that places diversity at centre stage."  

[...] Chomsky’s notion of Universal Grammar (UG) has been mistaken ... for a set of substantial research findings about what all languages have in common."
In the actual world ...

My opinion:

We should welcome *good versions* of articles like these.

Strong disagreement is OK — in every possible respect.
In the actual world ...

My opinion:

We should welcome *good versions* of articles like these.

Strong disagreement is OK — in every possible respect.

Here's what's not OK ...
What's not ok...
You wouldn't recognize our field from what they say about it.

Conclusions are drawn about

- the (near) irrelevance of phrase structure,
- the absence of deep commonalities among languages, and
- the lack of support for the central conjectures of generative syntax

... without ever engaging any actual research that has presented:

- evidence for phrase structure,
- deep commonalities among languages, and
- arguments that this work supports the central conjectures of generative syntax.
What's not ok...
You wouldn't recognize our field from what they say about it.

About the Royal Society article on phrase structure....

"Another key element of our account is that multi-word constructions are hypothesized to have no internal hierarchical structure but only a sequential arrangement of elements. We would therefore predict that the processing of constructions should be unaffected by their possible internal structure."

"This is not to say that hierarchical operations are nonexistent, and we do not want to exclude their possible role in language comprehension or production. However, we expect that evidence for hierarchical operations will only be found when the language user is particularly attentive, when it is important for the task at hand (e.g. in meta-linguistic tasks) and when there is little relevant information from extra-sentential/linguistic context."
What's not ok...
You wouldn't recognize our field from what they say about it.

What I would have expected the authors to do at a minimum:

• Look at the "tests for constituent structure" chapter of any syntax textbook (never mind recent work).

• Show that language users behave as the tests predict only when "particularly attentive" or engaged in "meta-linguistic tasks"...

... and otherwise behave as if multi-word constructions "have no internal hierarchical structure but only a sequential arrangement of elements".
What's not ok...

You wouldn't recognize our field from what they say about it.

What I would have expected the authors to do at a minimum:

- Look at the "tests for constituent structure" chapter of any syntax textbook.

- Show that language users behave as the tests predict only when "particularly attentive" or engaged in "meta-linguistic tasks"...

  ... and otherwise behave as if multi-word constructions "have no internal hierarchical structure but only a sequential arrangement of elements".

In fact, not one "test for constituent structure", standard or otherwise, is discussed or alluded to in the paper (besides one brief and apparently inaccurate reference to a paper on binding theory).
What's not ok...
You wouldn't recognize our field from what they say about it.
What's not ok...
You wouldn't recognize our field from what they say about it.

Syntax textbooks: evidence for constituent structure

- pages 32-117 of Radford 1981
- pages 50-332 of Radford 1988
- pages 62-171 of Adger 2003
- pages 27-83 of Carnie 2006 (2nd edition)
- pages 1-130 of Sag, Wasow & Bender 2003 (give or take)

Introductory linguistics textbooks:

- pages 182-201 of O'Grady, Archibald, Aronoff & Rees-Miller
- pages 124-154 of Fromkin, Rodman, Hyams (9th edition)
What's not ok...
You wouldn't recognize our field from what they say about it.

About the *Nature* article on word order universals....

• The authors appear to attribute to Chomsky's *Lectures on Government and Binding* and Baker's *Atoms of Language* a disproved proposal that derives Greenberg's universals, but no such proposal is made there ...

• ... and no actual generative work on word order universals is mentioned (for example Cinque's work on order inside the noun phrase and Greenberg's Universal 20).
What's not ok...
You wouldn't recognize our field from what they say about it.

About the *Brain & Behavioral sciences* article on UG ....

- Among the countless papers in generative syntax that argue that phenomona that look quite different across languages are actually the same, Evans & Levinson hardly cite one.
What's not ok...

You wouldn't recognize our field from what they say about it.

More generally, if your impression of the current state of generative syntax is going to be formed by these papers ...

... you would never know that our field has any results at all. You would never even guess that what we do is

• discover things,
• try to understand what our discoveries might be teaching us,
• turn these ideas into hypotheses,
• which lead us to test predictions,
• which lead to new questions and more discoveries
What's not ok...
You wouldn't recognize our field from what they say about it.

These papers do claim to engage other linguistic literature and other sorts of facts, but ...
What's not ok...
You wouldn't recognize our field from what they say about it.

\textit{slide from Lisa Matthewson's talk at NELS 2011}
http://www.linguistics.ubc.ca/sites/default/files/MathewsonNELS42public.pdf

\begin{quote}
Examples of results using E\&L's methodology

\rightarrow \textbf{Everything E\&L say about Salish is false.}

`A feeling for what a language without a noun-verb distinction is like comes from Straits Salish ... The single open syntactic class of predicate includes words for events, entities, and qualities' (E\&L:434).

\bullet E\&L cite Jelinek (1995), but fail to cite any of the massive body of research \textit{demonstrating} category distinctions in Salish, and the strong current consensus in the Salish literature that categories exist:


\bullet `We mentioned the Wakashan language Straits Salish as an example of a language plausibly claimed to lack a noun/verb distinction' (E\&L:481).
\end{quote}
What's not ok...
You wouldn't recognize our field from what they say about it.

Daniel Harbour on Evans and Levinson:

Mythomania? Methods and morals from ‘The Myth of Language Universals’

Daniel Harbour
Queen Mary University of London, Department of Linguistics, Mile End Road, London E1 4NS, United Kingdom

Abstract
This paper takes heed of The Myth of Language Universals' (Evans and Levinson, 2009) warning that tenets can leave theoreticians "partially immunized against … proper consideration" and applies this admonition to the article itself. From an extremely modest focus of just one sentence and its subsequent defence, the paper reveals 27 failings of "proper consideration", rising to 34 if given slightly wider focus. This high number covers a range of defects (from miscitation to errors in logic and misrepresentation of data, debates and theories) and affects material written at different times, on different themes, and in different organs. The paper urges, in consequence, that the field reconsider whether The Myth of Language Universals should be considered adequately to have argued its case.

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What's not ok...

You wouldn't recognize our field from what they say about it.

Daniel Harbour on Evans and Levinson:

"From an extremely modest focus of just one sentence and its subsequent defence, the paper reveals 27 failings of "proper consideration", rising to 34 if given slightly wider focus. This high number covers a range of defects (from miscitation to errors in logic and misrepresentation of data, debates and theories) and affects material written at different times, on different themes, and in different organs. The paper urges, in consequence, that the field reconsider whether The Myth of Language Universals should be considered adequately to have argued its case."
What's not ok...

What is the real problem that should concern us?
What's not ok...

What is the real problem that should concern us?

• *Not* the publication in high-profile journals of wrong-headed articles with misleading factual claims that fail to engage the field and misrepresent results that they supposedly attack ... 

• ... but the absence of *right*-headed responsible publications in the same journals that *do* engage the field of generative syntax and accurately represent its results ... 

• ... which probably reflects nothing more than the complete ignorance on the part of editors and reviewers that there even *is* a field and a set of results that should be engaged.
What's not ok...

What is the real problem that should concern us?

• There is *no* reason to suspect bias against generative linguistics, generative linguists, innate knowledge, UG, constituent structure, case theory, or anything of the sort on the part of high-profile journal editors.

• After all ...
What’s not ok...

What is the real problem that should concern us?

• There is **no** reason to suspect bias against generative linguistics, generative linguists, innate knowledge, UG, constituent structure, case theory, or anything of the sort on the part of high-profile journal editors.

• After all ... 
  *Science* published Hauser, Chomsky and Fitch.
What's not ok...
What is the real problem that should concern us?

• There is also no reason to suspect bias against generative linguistics, generative linguists, innate knowledge, UG, constituent structure, case theory, or anything of the sort on the part of high-profile journal editors.

• After all ...

*Science* published Hauser, Chomsky and Fitch, and in 2011 *Proceedings of the Royal Society* published this:

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**Research**

**An evaluation of the concept of innateness**

Matteo Mameli\(^1\)* and Patrick Bateson\(^2\)

\(^1\)Department of Philosophy, King's College London, London WC2R 2LS, UK
\(^2\)Sub-Department of Animal Behaviour, University of Cambridge, Madingley, Cambridge CB23 8AA, UK

The concept of innateness is often used in explanations and classifications of biological and cognitive traits. But does this concept have a legitimate role to play in contemporary scientific discourse? Empirical studies and theoretical developments have revealed that simple and intuitively appealing ways of classifying traits (e.g., genetically specified versus owing to the environment) are inadequate. They have also revealed a variety of scientifically interesting ways of classifying traits each of which captures some aspect of the innate/non-innate distinction. These include things such as whether a trait is canalized, whether it has a history of natural selection, whether it developed without learning or without a specific set of environmental triggers, whether it is causally correlated with the action of certain specific genes, etc. We offer an analogy: the term ‘jade’ was once thought to refer to a single natural kind; it was then discovered that it refers to two different chemical compounds, jadeite and nephrite. In the same way, we argue, researchers should recognize that ‘innateness’ refers not to a...
What's not ok...
What is the real problem that should concern us?

• But note:

None of these papers, in their published form, contain any linguistic theory, any linguistic analysis or any significant set of linguistic facts.

• Most of the linguistics was excised from Hauser, Chomsky and Fitch, for example, at the insistence of the journal.

• The *Royal Academy B* article on innateness by Mameli and Bateson is friendly, if clarificatory, to work in generative grammar — but is a bio-philosophy paper, with no linguistics.
Why should we care?

The sky is not falling.
Why should we care?

The sky is not falling today.
Why should we care?

• ... but it may slowly decline in altitude.

People who matter to us read these high-profile journals ...

... or at least read the secondary press that reports their contents: Chronicle of Higher Education, New Scientist, etc.

• Because research in generative syntax is not visible, but the attacks are, these attacks remain effectively unanswered. This cannot help but have an ill-effect on the health of our field.

• Just as important: the marvellous work of our colleagues and students languishes in even firmer obscurity than before.

Even its existence is a secret outside our world.
Why should we care?
And if some of the articles in professional journals are a bit nuanced, the press coverage isn't.
Why should we care?

Language Use Is Simpler Than Previously Thought, Study Suggests

Sep. 25, 2012 — For more than 50 years, language scientists have assumed that sentence structure is fundamentally hierarchical, made up of small parts in turn made of smaller parts, like Russian nesting dolls.

A new Cornell study suggests language use is simpler than they had thought.

Co-author Morten Christiansen, Cornell professor of psychology and co-director of the Cornell Cognitive Science Program, and his colleagues say that language is actually based on simpler sequential structures, like clusters of beads on a string. (Credit: © N-Media-Images / Fotolia)
Language lessons: You are what you speak

01 June 2010 by Christine Kenneally
Magazine issue 2762. Subscribe and save
For similar stories, visit the The Human Brain and Human Evolution Topic Guides

LANGUAGES are wonderfully idiosyncratic. English puts its subject before its verb. Finnish has lots of cases. Mandarin is highly tonal.

Yet despite these differences, one of the most influential ideas in the study of language is that of universal grammar. Put forward by Noam Chomsky in the 1960s, it is widely interpreted as meaning that all languages are basically the same and that the human brain is born language-ready, with an in-built program that is able to decipher the common rules underpinning any mother tongue. For five decades this idea has dominated work in linguistics, psychology and cognitive science. To understand language, it implied you...
Why should we care?

*New Scientist on Evans & Levinson:*

"Levinson and Evans are not the first to question the omnipotence of universal grammar, or UG, but no one has distilled these ideas quite as convincingly and given them as much reach. As a result, their arguments have generated widespread enthusiasm, particularly among those linguists who are tired of trying to shoehorn their findings into the straitjacket of 'absolute universals'. To some, it is the final nail in UG's coffin."
Сочинения
Н. Г. Чернышевского.

Роман:
Что делать?

Издание второе
К. К. Чернышевского.

С-Петербург,
Типография и Литография В. А. Пиканова, Садовая № 27.
1905.
What is to be done?

(Tak) čtoi (že) n-am ø [PRO del-a-t' ti ]?

so what.ACC EMPH 1-DAT.pl COP do-TV-INF

'What is to be done?' / 'What should we do?'
What is to be done?

Nikolai Gavrilovich Chernyshevsky (1828-1889)

Lev Nicolaevich Tolstoy (1828-1910)

Vladimir Ilyich Lenin (1870-1924)
Что делать?

Материал из Википедии — свободной энциклопедии

«Что делать?» — философский вопрос различных мыслителей, религиозных деятелей, пророков, а также литературные произведения с этим названием:

- «Что делать?» — роман Николая Чернышевского, главное его произведение.
- «Что делать?» — книга Владимира Ленина.
- «Что делать?» — брошюра (опубликована в 1935) Константина Родзяевского.
- «Так что же нам делать?» — повесть 1882—86 (опубликована полностью в 1906) Льва Толстого.
- «Что делать?» — телепрограмма Виталия Третьякова, выходящая на канале «Культура».
- «Что делать?» — российская творческая платформа и одноимённая газета.
- «Что делать?» — российская телепрограмма, в основе которой лежат жизненные ситуации, разыгрываемые на улицах города перед прохожими актёрами, основная цель программы — выяснить что делать простому человеку если он оказался очевидцем той или иной ситуации.

См. также

- Кто виноват?
What is to be done?

*The answers offered by the bearded Russians are great, but not really on-topic:*

**Chernyshevsky:** "In its pages, a group of idealistic Russian intellectuals go back to the land, easing the lot of the peasants with scientific methods of farming and liberating the serfs from hardship." (Amazon blurb)

**Lenin:** "The third period was a period of disunity, dissolution, and vacillation ... But we firmly believe that the fourth period will lead to the consolidation of militant Marxism, that Russian Social-Democracy will emerge from the crisis in the full flower of manhood, that the opportunist rearguard will be 'replaced' by the genuine vanguard of the most revolutionary class. ... We may meet the question, **What is to be done?** with the brief reply: **Put an End to the Third Period.**"

**Tolstoy:** "These are, then, the answers to the question, “What shall we do?” which I have found for myself:

*First*, Not to lie to myself...

*Secondly*, To renounce my own righteousness ... and to own my guilt.

*Thirdly*, To fulfil the eternal, unquestionable law of man,—by labouring with all my being to struggle with nature, to sustain my own life, and the lives of others."
What is to be done?

Educate

*Long-term:* we have a deep problem.

Most educated people have never encountered linguistics, and have no idea what it might even mean to examine a linguistic puzzle scientifically. An undergraduate linguistics class is our counterpart to a *high-school* science class: we have to teach *basics*.

Imagine a world in which an editor for the *Proceedings of the Royal Society* might know enough to say: "Wait a minute, if phrase structure rules play no role in use, what does that say about condition C effects?" — because like every educated person, he studied that in high school.

Is this a hopeless goal?
What is to be done?

Educate

Short term:

Taking account of the world as it is, with all its difficulties, we must start presenting our work outside our field, taking whatever lumps come our way ...

... and when we discover something really interesting, find a way to let everybody know, not just the LSA.

Every once in a while, send your big news to *Science* or *Nature*. Let your university media office know.

But it's hard work figuring out a way to make your discovery understandable to someone who knows nothing. Prepare for that!
What is to be done?

Respond

Even if many efforts lead nowhere, incompetent, negative articles in high-profile publications should not go unanswered.

- Write a formal letter to the editor;
- Write a response for the journal;
- Write a reply;
- Spend some effort not taking no for an answer.
What is to be done?

Respond

"First, I want to make clear that I have no deep disagreement with what DGLG are trying to do in a local sense. I think it is true that, if the sense of universals that I care most about is correct (Universal Grammar), then one should expect to see that different features of a language will change in linked ways over time. Finding out whether this actually happens in large and well-studied language families would be a welcome new method, supplementing the Greenbergian method of comparing unrelated languages.

"That being said, I do find troubling two features of the DGLG article, and since those features are shared with other prominent work, they are worth some discussion. One is the bold and (over)sweeping conclusions drawn from what is in certain respects a rather small and modest study. The other is the recommendation of increased methodological sophistication along one dimension (statistical modeling) while apparently being content with a low level of sophistication along other dimensions (like bread and butter grammatical analysis)."

[Mark Baker, reply to the Nature article]
What is to be done?

A role for the LSA?
What is to be done?

Don't stop working

Solve Tough Movement.
What is to be done?

The talk.

1. A few discoveries of generative syntax, old and new.

2. In a better world ...

3. In the actual world ...

4. What's not ok.

5. Why should we care?

6. Что дѣлать? What is to be done?
What is to be done?

Don’t Mourn—Organize!

a. shefet [tleetiin walad mnazzam].
saw.1s thirty child.SG organized.SG

b. shefet [tleetiin walad mnazzm-iin].
saw.1s thirty child.SG organized-PL
Thank you!