Scattering objects and developing SSWL

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"Scattered" objects

- Keeping the thematic interpretation of a direct object constant,
  but varying their interpretative properties (indefinites, definites, quantified, focused...).
  - direct objects occur in different positions at spell out in many languages ("scrambling/object shift").
- This correlates not only with interpretative properties of objects (def, indefinite..), (person hierarchy, DOM)
  ..but also with formal differences.
  - direct objects are marked differently depending on the interpretative properties of objects in many languages (case, articles, bare, mass, count, singular plural, cf. SSWL properties)
- and also with other properties of their structural make up ("modified"/ not))
  - modified objects occur in different positions from unmodified ones or have different structural properties in many languages.

- What is the theory/theories?
- How to distinguish between different theories?
- predictions (language internal)
- crosslinguistic! Comparative syntax.
    - What exactly are the empirical generalizations?
    - build a modern database that can serve as a tool for theoretical investigations.

(Develop) SSWL http://sswl.railsplayground.net/ and the next platform Terraling http://terraling.com

SSWL
Syntactic Structures of the World's Languages

- Database (in development...)
- build as tool for linguistic research (theoretical exploration, future theories).
- how-to develop? Flexible database format...
- Seed the database: property definitions
  - Elicit comparable crosslinguistic data controlling for interpretation (and focus). Yields examples.
  - Classify the examples (binary) features. Give explicit instructions on how to do so.
- Populating the database: from one person to involving the community.
  - Expert linguists (preferably native speaker linguists), where and when available.

From SSWL to Terraling

- Research tool: build-in search tools (search, cross, implications, compare, map, save; download csv format). Integrate search tools in the platform: familiarize people with the database.

- From SSWL to Terraling.
  Terraling: soundly programmed, better user and administrative interface, more flexibility, general applications.

- Researchers can create their own database (private/public), gives access to the Terraling platform. (microparametric, within language families, closely connected languages, anthropology..)

- current state: 6/8/2015

Number of Languages: 257	Number of Properties: 112
	Number of Examples: 3992
Number of Contributors: 368	Number of Property:Value Pairs: 16716

- OBJ: (2 OV, VO, and 6 S,O,V; 19 ("articles"/bare (unmodified) objects (definite, indefinite; (kind, generic) mass, count; sg, pl,). (and $100 +$) ready to be added (bare nouns, and determiners, subjects, objects,..).

Scrambling and structural ambiguity

In some languages the difference in syntactic distribution is (relatively) clear, once we have identified stable indicators of height, and controls. Mostly it is not.

Dutch: DefO *maar* IndefO ..V

(1) a. pak maar een boekje
       grab MAAR a   book.Dim
       go get a book
    b. *pak een boekje   maar
       grab a   boek.Dim MAAR
    c. pak maar wat
       grab MAAR something
    d. *pak wat   maar
       take something MAAR

(2) a. pak dat boekje   maar
       grab that book.Dim PART
    b. ?*Pak maar dat boekje   (OK if focused)
       grab maar that boek.Dim PART

Farsi, Karimi, 1999

- Specific objects precede BEN, indefinite objects and are marked by a special marker -râ. (Ra objects license parasitic gaps, others don't.)

    (3) a. Kimea un ketâb ro barâ man xarid
             Kimea that book RA for me bought
             Kimean bought the book for me
         b. Kimea barâ man (ye) ketâb xarid
             Kimea for me (a) book) bought

Theorie(s) A: Diesing 97...[1]

Dutch: DefO *maar* IndefO ..V

- VP is the domain of existential closure; Indefinites are bound in this domain.

- Definites must move out of the domain of existential closure to avoid being existentially bound. If they stay in the VP as in ((3) b) they are interpreted contrastively.

- Crosslinguistic variation:
  Differential Spell out: high copy (overt movement) or low copy (covert movement, QR,..)

- (?Word order) correlations overt versus covert movement?

- Depends on how high V(p) moves. (VO: "oh: all objects are in the VP/vP")
  (Scandinavian object shift)

- High copy or low copy spell out should not care about basic word order types

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[1]Diesing, Molly 1997. Yiddish VP order, and the Typology of Object movement in Germanic, NLLT 15: 369-427, 1997

Can we do better than theory A?

- Yes, but not without changing some basic assumptions. Theory B
- make these specific, and test them.
- pursue how the theory informs language variation (predicted systems? what is not found and why)

What I ll argue: Theory B: ≈ Diesing (Stowell and Beghelli 03), and scattering...

- Parameter: timing of object movement.
  aka: Spell out: high copy or low copy must be abandoned (present form) [2]
  HK: *no choice: must be overt movement/high copy spell out if these are DP. This is due to the way structures are built* "scattering" [3]

- VP is the domain of existential closure; Indefinites are bound in this domain. HK: indefinites lower than definites

- Definites must move out of the domain of existential closure to avoid being existentially bound. They move to definite region, If they stay in the VP as in ((3) b), they are interpreted contrastively. HK: focus position lower than definite

- quantified objects and negative quantifiers move out as well (Beghelli and Stowell 97, Diesing 97) HK: finer hiearchy..

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[2]Kayne 98
[3]Kayne 98, Sportiche 95,

Consequences

- Some assumptions and the phenomena they are intended to capture need a different account
SKIP?
    - Overt movement where objects can escape, covert where they cannot (VO)
    - for VO languages this depends on how high V(p) moves ("object shift").
    - Object shift in Scandinavian. (cf Mainland Scandinavian: pronouns shift over negation and adverbs, depending on V movement, but full DPs don't.)

Theory A

- Traditional view: DPs are constituents
  - build up any kind of DP (D Num A N). Merge it with V (interpretation, local selection).
    book reading, read $\boxed{a}$ book, read $\boxed{the}$ book, read $\boxed{no}$ book, read $\boxed{every}$ book
  - Initial Merge structure (simplified):

$$\ldots \quad V \quad DP$$
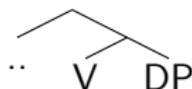
- From 1 and (Diesing 97) it follows: Move DP (or not) depending on the interpretative make up of the DPs.
  $\rightarrow$ Low or high copy spell out.
  $+$ *We don't expect to have objects in different positions (VO).*

Theory B Scattering..

- Scattering: a surface DP/PP "constituent" is the output of movement/internal merge [4]. built up from scattered pieces, merged in different dedicated regions in the spine.

(4)   Merge V with NP. [book read] (*selection*)
        Merge (different) D with vP/VP.
        Move NP and merge with D, merge vP/VP with D.

_____
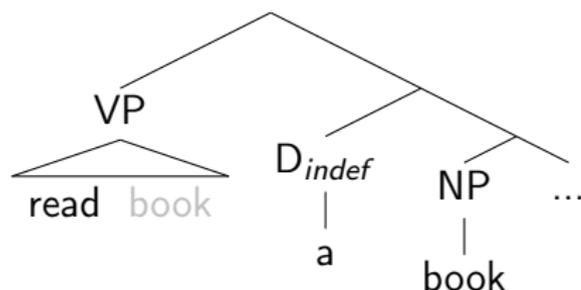
[4]Kayne 94, 00, 05, 10 for PPs; C, Cinque 06, Sportiche,95 for DPs; Williams 03 (for layers of representation

PPs

P and DP do not start out together, but separately. P and DP end up together.
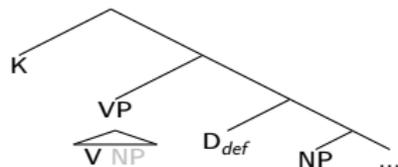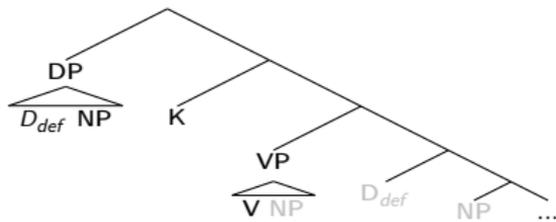
- Not: (theory A)   V͡ PP   or   VP
                                        VP͡ PP

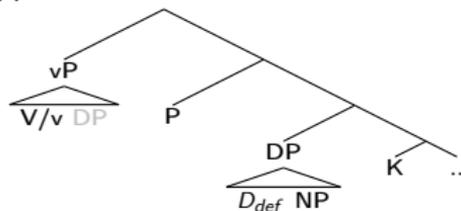# ..but: Theory B $\boxed{P}$ .. $\boxed{K}$ .. D [V(p) DP]

a. Merge K[5] Kayne 94, 00, 05, 10, Cinque (06).

b. Move D NP:

b. Merge P, move vP: [6]

5

6 vP must smuggle the subject over the intervening DP. (Koopman 10).

Given "Scattering" (Theory B).

- If in a language we find evidence for definite DP objects (or DP constituents), they must have been formed by internal movement from scattered (discontinuous) pieces.

  ⇒ DP objects cannot be in-situ, but must occur at least at the level where a particular D is merged.

- support..
  theory internal, scope, reconstruction paradoxes[7]

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[7]Sportiche 95

Some typological support for Scattering

- scattering and discontinuous/split constituency, D external marking ("non configurational" languages).

    Hixkaryana (Carib). O (Scl.Ocl)-V S[8]
    Demonstratives cannot form a constituent with N.

    Numeral floating, quantifier floating[9], P stranding,
    Applicatives, [... indef.... Q], Japanese particles ..ka, ..

    Clitic doubling, Voice alternations (Austronesian), inverse
    systems (Amerindian), indefinite/definite verb agreement
    (Hungarian)...

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[8]SSWL, http://sswl.railsplayground.net/ Dem N, accessed on 5/31/15 (citing Derbyshore 85:26)
[9]Koopman 2011

- ..and make sense of closeness to V, and size/distribution (unmodified NPs). Simplified

- Hierarchical closeness to V:

def	spec indef	indef count	indef mass	"incorp"/compound	found?
	>	>	>	>	>
def	spec indef	indef count	indef mass	"incorp"	found?

- Formal marking ("articles": SSWL. (any type, case (differential interpretation), classifiers (differential interpretation),..)

def	spec indef	indef count	indef mass	"incorp"	found?
bare	bare	bare	bare	bare	
art	bare	bare	bare	bare	
art	art	bare	bare	bare	
art	art	art	bare	bare	
art	art	art	art	bare	
art	art	art	art	art	
art	art	art	art	art	
		bare	art		*
bare	art	bare			*

- ...modified: mod X > X

Theory B, predictions, exploration

Theory B

- scattering
- antisymmetry, together with U20 lit. Cinque (05), Koopman and Szabolsci (00)...
- focus on OV languages

- OV... scattering or not? The case of Bambara

NOT HERE
Exploration: Application comparative Germanic: OV to VO..

- finding a finer sequence of Merge
- Comparative Germanic

Scattering, antisymmetry, hierarchies and Merge.

- If in a language we find DP objects (or DP constituents), they must have been formed by internal Merge.

  ⇒ DP objects cannot be in-situ, but must occur at least at the level where the "D" is merged.

- How?
  Cinque 05. Modeling U20. ⇒ Predictions for scattering objects; VO/OV

- levels of embeddings? Relative order of Merge? word order? Comparative Germanic

Universal 20: from Greenberg 1966[10] to Cinque 2005 (and beyond)

- *Prenominally*:
  The order of demonstrative, numeral, and adjective (or any subset thereof) conforms to the order Dem Num A
  "virtually" uncontested

  These three red balloons

- *Postnominally*
  The order of the same elements (or any subset thereof) conforms either to the order Dem Num A or to the order A Num Dem.
  Many more orders post nominally. Any constraints? Hawkins, 83.. no; Cinque 05: yes

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[10]Hawkins 83, Croft &Deligianni 01, Rijkhoff 81...

Cinque 05

- These four basic elements: 1Dem, 2Num, 3 Adj, 4N
- Possible Combinations (4!=24) Attested: 14/24.

Attested 14/24 ✓; 0 Un-attested [11]

1234	✓	1324	0
1243	✓	1342	✓
1423	✓	1432	✓
4123	✓	4132	✓
2134	0	2314	0
2143	0	2341	✓
2413	0	2431	✓
4213	0	4231	✓
3124	0	3214	0
3142	0	3241	0
3412	✓	3421	✓
4312	✓	4321	✓

- Why are some patterns not attested? They cannot be generated.

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[11]Frequency of patterns omitted, alternative orders not included/not known

Analytical ingredients: Theory

1. Hierarchy: 4 "regions" 1=Dem 2=Num 3=A 4=N.
2. Antisymmetry SHC (Kayne 94)
3. Movement (Internal Merge): different surface orders/constituencies
4. Leftward movement of a constituent that must contain the N[12].
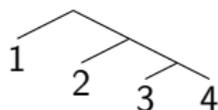
   no focus

5. No order variability prenominally
6. General properties of movement (Pied-piping) yield Post N variability
7. Excluded patterns: cannot be derived

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[12]Modern incarnation of head movement. Different ways to do this (leftward movement of a constituent that has the relevant property) with largely the same results (Koopman & Sz 00
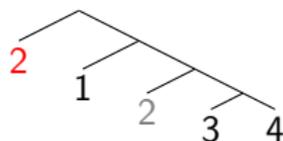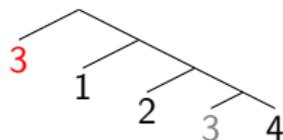
- Input:

- Output: * (Leftward movement of 2(=Num) or 3(=A) does not contain N)

*213: Num Dem A

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13 2134 can arise if the first position attracts the closest available Spec in which case 2 will vary (NUM, A, N),..depending on the type of DP Dem A N, Dem N A, Dem N) ect. 1 will show the characteristics of some types

Generalized U20 patterns: since (00-05...

Same patterns and restrictions found in many other domains.

- Verbal complexes[14]
- Morphology[15]
- Cinque

attributive A	(94), (10)
A	10
Adverbs	(99)
circumstantial PPs	(02, 05)
Mood > Tense > Aspect	08
etc.	

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[14] Koopman & Szabolcsi 00, Barbiers, 05, Abels 12

[15] Koopman 05, "nanosyntax" Starke 10, 12, Caha, 08, 12

Lessons from U20: numerous domains

Same patterns and restrictions found in many other domains.
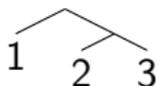
- 5 patterns
- no order variability preceding surface position of 3 ($\Rightarrow$ finding hierarchies..)
- variability post 3 (312, 321) ($\Rightarrow$ structural ambiguities)
- *213. [16]

.. a (better) chance to find the hierarchy of Merge in OV languages.

(5) Hungarian: .... V ..

     a. Preverbal domain: hierarchy, and surface scope

     b. Postverbal domain: scrambling (free word order: but order in verbal complexes is restricted).

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[16] unless second position: there is a position to the left of 1 which attracts the closest type of constituent: A D N, but Poss D A N, N d X, etc.

To scatter or not? Predictions: use U20 generalizations results to investigate

- Theory A: If UG allows low spell out $->$ of definite O, we should find some cases in some (types of) O V languages, (and in some VO languages).

	Theory A: expected languages low copy def O	high copy defO
OV	yes	yes
VO	yes	yes

- Theory B. scattering and antisymmetry. different types of objects occur in different positions: $\Rightarrow$ should be the case in O V languages, and in VO languages (can we show it?)

	Theory B: expected languages: low copy def O	high copy defO
OV	no	yes
VO	no	yes

- A stable hierarchy and leftward movement of a phrasal constituent

Scattering: what is expected

Expectations for 123: .....O_{def} ..O.. $_{indef}$ .. V [17]

Expected to occur ✓; (predicted gaps 0)		
1..2 ..3	.....O_{def} .. O_{indef} .. V	✓
1..3..2	.....O_{def} .. .. V ..O_{indef}	✓
3..1 ...2	V .... O_{def} .. ...O_{indef}	✓
3..2 .. 1	[V ... O_{indef}] ...O_{def} ..	✓
2..3.. 1	[O_{indef} V] .. O_{def}	✓
2..1..3	O_{indef} O_{def} V	0

- 5 possible patterns
- 1 impossible pattern *213.

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[17]Subjects not taken into account

What is attested .....$1=O_{def}$ .. $2=O_{indef}$.. $3=V$ [18]

Patterns expected to occur ✓; (predicted gaps 0)

1..2 ..3	.....O_{def} .... O_{indef} .. V	✓	Dutch,..
1..3..2	.....O_{def} .. V ..O_{indef}	✓	Yiddish..
3..1 ...2	V ... O_{def} .. ...O_{indef}	✓	Icelandic..
3..2 .. 1	[V ... O_{indef}] ...O_{def} ..	✓	Malagasy, Samoan
2..3.. 1	[O_{indef} .. V] O_{def}	✓	?Nahualt
2..1..3	O_{indef} O_{def} V	0	?

- no variation preverbally. Surface scope.
- variation post verbally: hierarchy, optional pied-piping; modified vs non modified, scope, reconstruction, particles.
- empirical picture to be completed: test against as many languages as possible.

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[18]Malagasy Pearson (00), Samoan, Koopman 13

OV: OV T.V.T and S T [O V x] : Scattering should be visible

- O(def) (Adv) O (indef) V $\rightarrow$ seems to holds of O (T) V (T) languages[19])
  $\Rightarrow$ At least (some) scrambling. Strenghten to landing site for (def) object higher than merge site for definite, at least for some Adv.
- but ..no such expectation for V Adv Odef.
- What about S T Aux O V X languages?
  1. Are (def) objects ever in situ in any OV language (Low spell out)
  2. Are objects scattered in all languages (i.e. different locations for different types of objects?)
- $\rightarrow$ look at Bambara (Mande). [20].
  A potential challenge to ?Yes : OV in Bambara.

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[19]cf Kayne 05 Antisymmetry and Japanese
[20]Koopman (87, 92)

Bambara (Mande, Niger Congo)

- S (T$_{past}$) Aux O V X (extremely rigid word order.)

  (AdvP/CP) DP "INFL" $\boxed{\text{DP}}$ V (PP) (ADV/CP)

- DP P; Poss N; N A Num Dem (Pl).
- all DPs followed by an overt Case assigner: DP AUX; DP V; DP P; DP Poss[21]
- No "scrambling": DefO (Adv) V not surprising
- No overt A' movement (this is surprising!), no heavy NP shift (Koopman 87,92)), no head external relatives, head internal relatives (correlatives) ..
- lack of expletives with NP associates (it's a boy (lit. "boy is"), there is peace (lit "peace is")), "there are kids in the room", lit "kids are in the room").

Questions about Bambara:

- Are objects in situ? (No: A movement)
- Are definite objects in situ? "scattered" (or not?) as expected?
- Given scattering, how do we expect scattering to manifest itself ?

Objects in Bambara are not in situ, i.e. in thematic positions

- Objects appear to the left of little vp when we can test it. ("Case", Koopman 87, 92).(Spec, VP, K87,92; AgrO,Chomsky 89,95)

1. Small clause predicates (Koopman 87,92).

    u   ye   a   kè   kuntigi ye.   (K92, ex29)
    they PERF him make chief   YE
    They made him chief.

2. Causatives: v_{cause} and V (each with their own independent tone).

    A bè | den | la- | kasi | .   S/he made the child cry.
    s/he INFL child.Def make- cry

    K [... v_{cause} [$_{VP}$ child [cry]]

    Kayne 05: | no OV languages with in-situ objects |

Do preverbal objects in Bambara "scatter" for def/indef, (as expected under theory B)?

- At first sight: no .

- No linear order difference of a well known type between indef and def or other types of Os. (i.e. * O Adv V); * O neg V, * negative quantifiers (noone), no infinitival markers (zu), agreement...

- Nothing (but ...) can intervene between O and V [22]

- expectations scattering? independent support for scattering (the position of determiners/ and focus marker *de.*)

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[22]In other Mande languages, we find bare Manner expressions after the object..

A sketch[23]

- The structural differences related to interpretation are located on the right edge of O, between NP and V. Hmm, a step in the scattering derivation?

| (6)	a.	Den ` ye cè ye.	indefinite, bare
		child D PERF man see	
		The child saw some man.	
	b.	Den ` ye cè dó ye.	specific indefinite
		Child D PERF man certain see	
		The child saw a particular man	
	c.	Den ` ye cè ` ye.	definite sing
		Child D PERF man D see	
		The child saw the man	
	d.	Den ` ye cè nin u ye.	N_3 Dem_1 PL2
		Child D PERF man Dem D.Pl see	
		The child saw these men	
	e.	Den ` ye a ye.	pronoun
		Child D PERF him see	
		The child saw him	

- and.... Focus marker intervenes.

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[23]More fieldwork is needed w.r.t. numerals, disappearing tones etc

The focus marker *de*

(7)   a.   Den `   ye   cè de   ye.
           Child D PERF [man] FOC see
           The child saw a MAN

   b.   Den `   ye   [cè belebele] de   ye.
           Child D PERF[man big .....] FOC see
           The child saw a BIG MAN[24]

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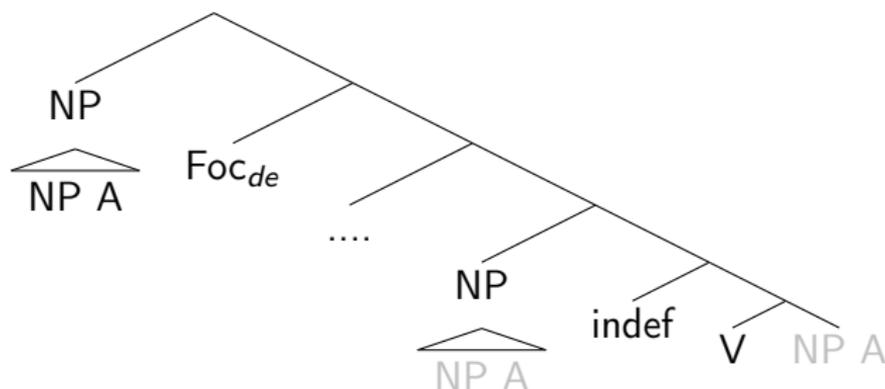
[24]Check the available readings: a BIG man/ a big MAN, a BIG MAN/

But why no: Odef Adv O V

- No linear order difference of a well known type between indefinite and definites or other types of Os. (i.e. * O Adv V); * O neg V, * negative quantifiers (noone), no infinitival markers (zu), agreement, particles...

- Few adjectives $\rightarrow$ few adverbs
  Need adverbs that can merge *below* Def region
  Adverbs always surface VP/vP/AspP/TP finally, or initially [[OV small clauses] Adv]
  whether O is indefinite or definite.

- $\rightarrow$ Bambara is a "heavy" pied-piping language (move big parts): From:
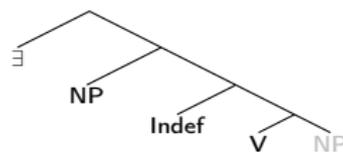
  (8)   Adv [O V] $\rightarrow$ [O V] Adv $\rightarrow$ O def [O V] Adv

  OV.. pied-pipes to the left of Adv: Adv O V
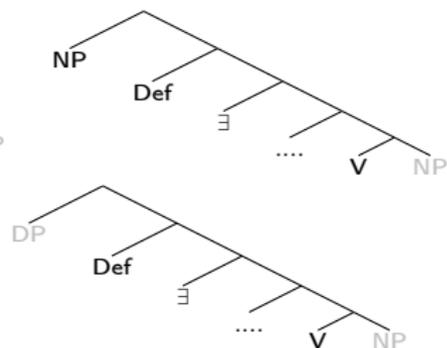
- $\rightarrow$ O_{def} Adv O_{indef} V cannot arise because of properties of adverbs, and the location of T.

Consistent with scattering?

(simplified theory B)

(simplified theory A)
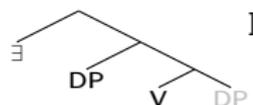
- Surface order is consistent with scattering.
- → Bambara does not invalidate scattering: neutral w.r.t. whether overt object movement to different interpretive positions is forced in all (OV) languages. Evidence will come from other languages, (comparative Mande), or gaps. → independent support? What to expect from scattering?

Position of Determiners: a sketch

- Two steps.
  1. Given scattering: What do we expect to find?
  2. Independent support?

(9)   a.   .. cè ye.   indefinite
           .. man see
      b.   .. cè $\boxed{\text{dó}}$ ye.   specific indefinite
           .. man certain see
      c.   .. cè ` ye.   definite
           .. man $\boxed{\text{Def}}$ see
      d.   .. cè nin ù ye. $\boxed{\text{N Dem D.Pl}}$
           .. man $\boxed{\text{Dem Pl}}$ see
      e.   .. [cè belebele] de   ye. $\boxed{\text{FOC indef}}$
           .. [man big .....] FOC $\boxed{\text{D}}$ see

Pure Scattering?

a.	.. ∃ cè ye.		indefinite
	.. man see		
b.	.. cè $\boxed{\text{dó}}$ ∃ cè ye.		specific indefinite
	.. man certain see		
c.	.. cè ` ∃ cè ye.		definite
	.. man $\boxed{\text{Def}}$ see		
	.. cè $\boxed{\text{nin ù}}$ ∃ cè ye.		$\boxed{\text{NP}_3 \text{ Dem}_1 \text{ Pl}_2}$
	.. man Dem Pl see		

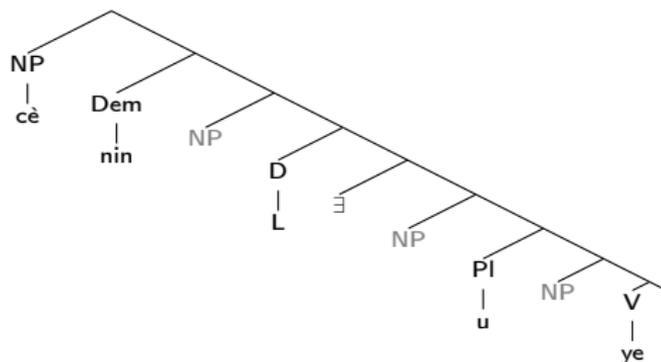The right linear order.
Is this the surface constituency? Support? Constituency, and
islandhood..

NP Dem Pl V order

- NP Dem Pl : Dem $> \exists >$ Pl $>$ N

A simplified tree (with or without D (tonology)): Constituency!

- $\to$ DP is not a surface constituents | No movement of DPs |.
- If vP/VP is surface constituent may behave as one
- O V/ S I/ .. P/ ..ka sequence cannot be split up by anything else than by Ds, Focus.

If DPs are not (remnant) constituents..

- you cannot "isolate" just DPs.. DPs are always followed by a functional element P/AUX/V/ka.
  $\rightarrow$ No A' movement, no A movement of DPs (*unless V is removed: causatives*).
- Answers: tabali *(don): table AUX but not *tabali. (table)
- citation forms: extra citation tone (Leben 74) (which is related to the tone found in copula constructions.)
- Coordination: need further exploration: DP a-ni ... (a=3SG))

On Perfective -ra/vs ye: vP/VP shell movement

- ye only with transitive perfective Vs with overt objects: S (tun) ye O V.
  All other perfect: suffix -ra.

- Intransitive verbs: -ra/*ye

  (10) a. A (tun) kasi- ra.
            s/he (Past) cry   PERF
            S/he cried.
        b. *A (tun) ye kasi.
            s/he PERF cry

- Unaccusative verbs: -ra/*ye

  (11) a. A (tun) taa- ra.
            s/he (past) go   PERF
        b. *A (tun) ye taa.
            s/he (tun) PERF go

Passive verbs -ra/*ye

- Passive verbs -ra/*ye

  (12)   a.   [Ji   (tun) min]- na   sisan (den fè).
              water drink PERF now child by
              The water has been drunk now (by the child).
         b.   *Ji   ye   min sisan (den fè).
              water PERF drink now   child by

- A smuggling derivation (Collins 05):
- vP/VP contains the existential domain: no there insertion, and existential readings
- spell out PERF as -ra when merged with vP/VP
- spell out PERF as ye elsewhere.

Bambara S T AUX OV X conclusion

- Not inconsistent with U20 predictions and scattering.
  In fact, support for scattering: position of Ds and Focus
  particle.
- (strongly suggest): Bambara reveals a step that underlies DP
  formation and scattering, i.e. merge in the spine.
- Support from other languages. (comparative Mande, and
  correlated differences), from gaps, or comparative syntax.
- surface scope in OV: follows from theory. If no movement,
  then no inverse scope.
- inverse scope/QR in VO: follows from theory. Must follow
  from opaque surface structures, due to pied-piping of V past
  all object types.

To scatter or not? Predictions? use U20 generalizations results to investigate

- Theory A: If UG allows low spell out $->$ of definite O, we should find some cases in some (types of) O V languages, (and in some VO languages).

Theory A: expected languages: wrong predictions for OV languages

	low copy def O	high copy defO
OV	* yes	yes
VO	? yes	yes

Theory B: expected languages:

	low copy def O	high copy defO
OV	no √?	yes
VO	no	yes

- Theory B. scattering should be the case in O V languages, *and* in VO languages (can we show it?)
- Certain patterns should never be found.

OV/VO in general

- for SO (T)VT languages:
  Minimal pairs. Do def objects have to scramble?
- need to further develop databases that can answer these questions:
  SSWL and Terraling;
  A start has been made in the domain of objects.
- build apps that can aid us calculate derivations.

How to argue for Theory B for VO?

Theory B: expected languages:

	low copy def O	high copy defO
VO	no	yes

We need a finer cartography...

Comparative Germanic OV/VO and generalized U20.

- Evidence may come from comparative syntax between closely related languages or language change

Scattering in Germanic: object scrambling and object shift

Focus on what precedes the V. (Opacity after V due to pied-piping)

- Germanic OV: Dutch
- OV/VO: Yiddish (Diesing 97)

- Icelandic
- Mainland Scandinavian
- English

A finer hierarchy than Def> Indef: where to start?

- Use preverbal domain in Hungarian, to generate hypotheses about Dutch preverbal object positions.[25]

- ... $\boxed{\text{w.pron}}$ .. $\boxed{\text{Top/Def}}$ .. $\boxed{\text{Dist}}$ .. $\boxed{\text{Neg}}$ $\boxed{\text{Foc}}$ $\boxed{\text{Indef}}$ PP Pred $\boxed{\text{V}}$ $\boxed{\text{CP}}$ [26] [27]

- potential object positions. Hierarchy, scope, and left and right environment.

- predictions about possible languages and impossible languages.

  (13)   a.   *V weak pronoun, but linear order V DP(Def) is impossible.
         b.   *OV Languages in which definites end up closer to the V that indefinites

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[25]from Koopman & Szabolcsi 00, based in part on a comparison with the Hungarian preverbal domain. Top = Ref (Beghelli and Stowell 97) =Def

[26]DistP/QP for Dutch after Beghelli and stowell 97

[27]Vs raises above full CP complement clauses (infinitival, tensed...) Moulton 14

verb forms. Participles

- verb forms: finite, finite auxiliary, infinitives, participles
  (clusters)
  Participles:
  $\boxed{\text{E}}$ = English,.. $\boxed{\text{Y}}$ = Yiddish, $\boxed{\text{D}}$ = Dutch

  > $\boxed{\text{E}}$ pronoun ..DefO DistO NegO $\boxed{\text{Y}}$ Foc $\boxed{\text{Y}}$ Indef
  > (Pred) $\boxed{\text{D}}$ CP

-
  It is difficult to see scattering of objects in English because of the hi
  We need fairly developed theories!

- Icelandic participles:

  a. $\boxed{\text{I}}$ pronoun ..DefO ...Indef O (Pred) $\boxed{\text{D}}$ CP
  b. $\boxed{\text{?I}}$ DistO NegO $\boxed{\text{I}}$?Foc Indef O (Pred) $\boxed{\text{D}}$ CP

Investigate: a research program around scattering

- Is there scattering or not?

- $->$ Use "General Lessons" from antisymmetry and research around U20. $->$ Look at OV languages.

- Develop predictions, what is expected to be found and not found, and check what is found.

- Test general predictions for OV languages; (future: extend to as many languages as possible).

- Concentrated on Bambara (S AUX O V) and whether Os are scattered.

- Hypothesized a fine cartography based on well-researched cases (Dutch/Hungarian, Beghelli and Stowel)

- Germanic VO and OV derive from a common hierarchy underlying scattering, by leftward movement of a constituent containing V, $+/-$ pied-piping

- a timid start: much work is needed, and a lot of manpower is needed.
  Continue to build up the community database to verify predictions

Help develop SSWL_{http://sswl.railsplayground.net/} and the next platform Terraling http://terraling.com

SSWL
Syntactic Structures of the World's Languages

- SSWL
- set up special groups to test theoretical predictions:
- questionnaire: comparative Germanic
- Italian dialects test..

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