## IGRA 01

Opacity in Syntax

Greg Kobele
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Counter-feeding in Syntax

## Wanna Contraction

## 1. Control vs ECM

1.1 Who do you want to meet ?
1.2 Who do you wanna meet?
1.3 Who do you want to meet Mary ?
1.4 * Who do you wanna meet Mary?

Coarse Analysis
Two operations:
Wanna-contraction (optional)
contract adjacent want and to
Wh-movement (obligatory)
front a wh-word

## Counter-bleeding in Syntax

## Reflexivization in Imperatives

2. Reflexivization in Imperatives
2.1 * Wash you!
2.2 Wash yourself!

## Analysis

Two processes:
Principle A an anaphor is bound within its minimal clause
Imperative subject deletion In imperatives, subjects are deleted

## Wh-movement from ECM Complements

3. Who ${ }_{1}$ do [TP you believe [TP $\mathrm{t}_{1}$ to have left]] ?

## Problematic assumptions

ECM complements are TPs
(because CPs block case assignment)
Subjacency
movement cannot cross two bounding nodes

- Bounding nodes in English: DP and TP


## Examples for Subjacency

* How ${ }_{1}$ does [tp she know [cP [which car] ${ }_{2}$ [TP Mary fixed $\left.\left.\mathrm{t}_{2} \mathrm{t}_{1}\right]\right]$ ] ? How $_{1}$ do [TP you think [CP $\mathrm{t}_{1}$ [TP Mary fixed the car $\left.\left.\left.\mathrm{t}_{1}\right]\right]\right]$ ?


## Revised assumptions

Goal Preserve spirit of assumptions
New Assumptions

- ECM complements are TPs at some point
- All sentential complement verbs select for CPs
- new operation: Structure removal
- can delete heads


## Solution

## believe selects CP

do [TP you believe [CP who ${ }_{1}\left[T P \mathrm{t}_{1}\right.$ to have left]]]
move WH
who $_{1}$ do [TP you believe [CP $\mathrm{t}_{1}$ [TP $\mathrm{t}_{1}$ to have left]]]
case via structure removal
$w^{w h o}{ }_{1}$ do [TP you believe [TP $\mathrm{t}_{1}$ to have left]]

## Remnant movement in German

4. Anti-freezing vs freezing
4.1 [vp $\mathrm{t}_{1}$ gelesen] ${ }_{2}$ hat [das Buch] ${ }_{1}$ keiner $\mathrm{t}_{2}$
$4.2 *$ Was $_{1}$ denkst du [vp $\mathrm{t}_{1}$ gelesen] $]_{2}$ hat keiner $\mathrm{t}_{2}$
$4.3 * \mathrm{Was}_{1}$ hat $\left[\mathrm{vp} \mathrm{t}_{1} \text { gelesen }\right]_{2}$ keiner $\mathrm{t}_{2}$

## Analysis

CED Movement cannot cross a barrier

1. an XP is a barrier iff it is not a complement
2. ... iff it has been moved

X-Criterion an [X]-marked YP must show up in SpecZP, where $Z$ requires $[\mathrm{X}]$

- i.e. movement is feature-driven, consent is required from both parties
- [TOPIC], [SCRAMBLE], [WH]

A case study on syntactic copying

## Background

- Yoruba is
- an official language of Nigeria
- spoken natively by $\sim 40$ mil people
- useful to think of as a Kwa language
- Yoruba has
- three level tones (H, M, L)
- (Subject-)Verb-Object, Noun-Determiner, Noun-Possessor
- three areal constructions:

1. serial verbs
2. predicate clefts
3. verbal relatives

## Simple sentences

1. Jimo ra adie

Jimo buy chicken
'Jimo bought a chicken'
2. Adie ti Jimo ra kere
chicken that Jimo buy little
'The chicken Jimo bought was little'

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## Verbal relatives

> | Jimo ra adiẹ |
| :--- |

1. Adie ti Jimo ra kere chicken that Jimo buy little "The chicken that Jimo bought is little."
2. Rira ti Jimo ra adie ko da buying that Jimo buy chicken not good
"The way/fact that Jimo bought the chicken wasn't good."
3. Rira adie ti Jimo ra adie ko da buying chicken that Jimo buy chicken not good

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## Copying in VRels

Jimo ra adiẹ

-     * Jije ti Jimo ra adie eating that Jimo buy chicken
- *Rira nkan ti Jimo ra adie buying something that Jimo buy chicken
- *Rira adie ti Jimo ra nkan buying chicken that Jimo buy something


## Phrasal copies in Yoruba I: Serial Verbs

- Bode ti Akin ṣubu

Bode push Akin fall
"Bode pushed Akin down.'

- Titi ti Bode ti Akin ṣubu pushing REL Bode push Akin fall "The fact/way Bode pushed Akin down"
- Titi Akin ṣubu ti Bode ti Akin ṣubu pushing Akin fall REL Bode push Akin fall
- Titi ṣubu ti Bode ti Akin ṣubu pushing fall REL Bode push Akin fall


## Phrasal copies in Yoruba II: Tones

- Olu rā adiẹ

Olu buy chicken

- Rirà ti Olu rā adiẹ buying REL Olu buy chicken
- Rirā adiẹ ti Olu rā adiẹ buying chicken REL Olu buy chicken


## Simple Sentences

- Rira ti Jimo ra adie ko da
buying that Jimo buy chicken not good
"The way/fact that Jimo bought the chicken wasn't good."
- Rira adie ti Jimo ra adie ko da buying chicken that Jimo buy chicken not good



## Complex Sentences

- Titi ti Bode ti Akin subu ko da pushing that Bode push Akin fall not good
"The way/fact that Bode pushed Akin down wasn't good."
- Titi subu ti Bode ti Akin subu ko da pushing fall that Bode push Akin fall not good
- Titi Akin subu ti Bode ti Akin subu ko da pushing Akin fall that Bode push Akin fall not good

The derivational history of serial verb constructions:

- $V_{1}$
- $\mathrm{V}_{1} \mathrm{~V}_{2}$
- $\mathrm{V}_{1} \mathrm{OV}_{2}$


## Verbal Relative Clauses and Typology

$$
\mathrm{S}\left[\mathrm{~V}_{1} \mathrm{O} \mathrm{~V}_{2}\right]_{\mathrm{VP}}
$$

- Yoruba (Yoruboid: Nigeria) copying of $\mathrm{V}, \mathrm{V}_{1}+\mathrm{V}_{2}$, and VP
- Wolof (Atlantic: Senegal):
copying of $\mathrm{V}, \mathrm{V}_{1}+\mathrm{V}_{2}$
- Twi (Kwa: Ghana):
copying of V


## The Structure of Serial Verbs

- Argument Sharing in SVCs mediated by PRO



## The Structure of Serial Verbs

- Argument Sharing in SVCs mediated by PRO
- Verbs in a series have then the following gross structure:


The Structure of Serial Verbs


The Structure of Serial Verbs


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## Deriving Opaque Copies

## Titi ṣubu ti Bode ti Akin ṣubu

- [ti șubu] $\leftarrow$ copy here!
- [Akin [ti ṣubu]]
(merge ti and \{ṣubu\})
- [ti [Akin [ ṣubu]]]
(merge Akin)
- [Bode [ti [Akin [ șubu]]]]
(head move ti)
(merge Bode)
- [ti [Bode [ti [Akin [ ṣubu]]]]] (merge ti)
- [[ti ṣubu] [ti [Bode [ti [Akin [ ṣubu]]]]]] (merge copy of ti ṣubu)


## Deriving Opaque Copies II

> Rira ti Olu ra adiẹ

- [rà] $\leftarrow$ copy here!
- [rà adie]
- [rā adiẹ]
- [Olu [rā adiẹ]]
- [ti [Olu [rā adiẹ]]]
- [rà [ti [Olu [rā adiẹ]]]]
(merge ra and \{adie\})
(tone change rule) (merge Olu) (merge ti)
(merge copy of ra)

