

Iterativity in Syntax

A Tutorial

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What we have learned so far?

Iterativity in syntax (if it exists) might not be the same as iterativity in phonology.

Finding an iterative syntactic phenomenon.

What is syntactic iterativity?

Table of Contents

- 1 Part 1: Find an Iterative Syntactic Phenomenon
 - Some Potential Cases
 - Some Potential Confounders in Finding Iterativity
- 2 Part 2: Try Different Strategies for Dealing with Syntactic “Iterativity”
 - Continue-Until-Satisfaction Approach
 - Continue-Until-Exhaustion-Strategy
 - Counterfeiting Iteration Approach
- 3 Part 3: Deal with Language Variation
- 4 What’s left to say

Two Types of One-to-Many-Relations

Many Targets – One Controller

One Target – Many Controllers

Table of Contents

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The following language examples should help to understand the general schemata of possible syntactic iterativity. I do not claim that these are iterative processes.

Multiple Wh-movement

- (1) Koj kogo kakvo e pital
who whom what AUX asked
'Who asked whom what?'

(Bulgarian, Bošković (1995), Richards (1997, 277))

One Target – Many Controllers

[		[uwh]	...	[wh₁]	...	[wh₂]	...	[wh₃]	...	→
[	[wh₁]	[uwh]	...	[wh₂]	...	[wh₃]	...			→
[	[wh₁]	[wh₂]	[uwh]	...	[wh₃]	...				→
[	[wh₁]	[wh₂]	[wh₃]	[uwh]	...					→

Successive Cyclic Movement

- (2) an tainm **a** hinndeadh dúinn **a** bhí __ ar an áit
the name **aL** was.told to.us **aL** was on the place
'the name that we were told was on the place'
(Irish, McCloskey (2002))

Many Targets – One Controller

[[urel] ... [EF] ... [rel] ...] →
[[urel] ... [rel] [EF] ...] →
[[rel] [urel] ... [EF] ...]

Long-Distance Agreement

(4) Shahrukh-ne tehni kaat-**nii** chaah-**nii**
Shahrukh-ERG branch.FEM cut-INF.FEM want-PFV.FEM
thii

be.PST.FEM.SG

‘Shahrukh had wanted to cut the branch.’

(Hindi, Bhatt (2005, 761))

Many Targets – One Controller

[[**u ϕ :**] [**u ϕ :**] [**u ϕ :**] [**ϕ_1**]] \rightarrow

[[**u ϕ :**] [**u ϕ :**] [**u ϕ : ϕ_1**] [**ϕ_1**]] \rightarrow

[[**u ϕ :**] [**u ϕ : ϕ_1**] [**u ϕ : ϕ_1**] [**ϕ_1**]] \rightarrow

[[**u ϕ : ϕ_1**] [**u ϕ : ϕ_1**] [**u ϕ : ϕ_1**] [**ϕ_1**]]

Case Stacking

- (5) Hipash-nin-**ta** kuya-: Hwan-**pa-ta**
daughter-3POSS-ACC love-1 Juan-GEN-ACC
'I love Juan's daughter.'

(Huallaga Quechua, Plank (1995, 47))

One Target – Many Controllers

[[case₁] [case₂] [ucase:]] →

[[case₁] [case₂] [ucase: case₁]] →

[[case₁] [case₂] [ucase: case₁, case₂]]

Multiple Case Assignment

- (6) John-**ga** Mary-**ga** me-**ga** waru-i to
John-NOM Mary-NOM eyes-NOM bad-PRES C
omoikondei-ta
believe-PST
'John thinks that Mary has a bad eyesight.'

(Japanese, Hiraiwa (2001, 73))

Many Targets – One Controller

[[**case₁**] [**ucase:**] [**ucase:**] [**ucase:**]] →
[[**case₁**] [**ucase: case₁**] [**ucase:**] [**ucase:**]] →
[[**case₁**] [**ucase: case₁**] [**ucase: case₁**] [**ucase:**]] →
[[**case₁**] [**ucase: case₁**] [**ucase: case₁**] [**ucase: case₁**]]

Table of Contents

- 1 Part 1: Find an Iterative Syntactic Phenomenon
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 - Some Potential Confounders in Finding Iterativity
- 2 Part 2: Try Different Strategies for Dealing with Syntactic “Iterativity”
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Confounder 1: No iteration on the surface

- (7) Kiowa (Adger and Harbour (2007))
- a. Thalíí hegó **gyá**-pɔɔbɔ́ɔ́tɔɔ
boy now I:to.you.SG:him-bring.FUT
'I'll bring the boy to you.'
- b. Hegó k!yátáík!ii-ɛj **em**-pɔɔbɔ́ɔ́tɔɔ
now chief-LOC I:you.SG-bring.FUT
'I'll bring you to the chief.'

Successive-cyclic movement

- (8) a. **Movement: Iteration Step 1**
- b. Other structure-building and Agree operations
- c. **Movement: Iteration Step 2**
- d. Other structure-building and Agree operations
- e. **Movement: Iteration Step 3**
- ...

Case stacking

- (9)
 - a. **Case Assignment: Iteration Step 1**
 - b. Other structure-building and Agree operations
 - c. **Case Assignment: Iteration Step 2**
 - d. Other structure-building and Agree operations
 - ...

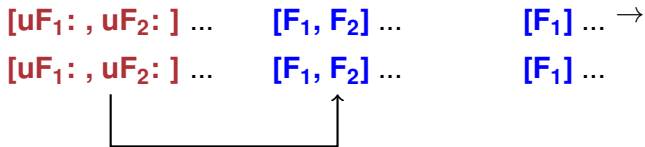
Table of Contents

- 1 Part 1: Find an Iterative Syntactic Phenomenon
 - Some Potential Cases
 - Some Potential Confounders in Finding Iterativity
- 2 Part 2: Try Different Strategies for Dealing with Syntactic “Iterativity”
 - Continue-Until-Satisfaction Approach
 - Continue-Until-Exhaustion-Strategy
 - Counterfeiting Iteration Approach
- 3 Part 3: Deal with Language Variation
- 4 What’s left to say

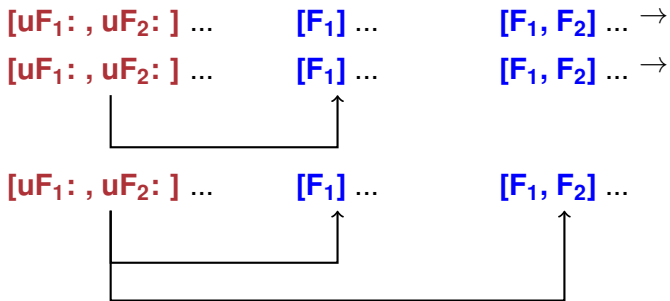
Table of Contents

- 1 Part 1: Find an Iterative Syntactic Phenomenon
 - Some Potential Cases
 - Some Potential Confounders in Finding Iterativity
- 2 Part 2: Try Different Strategies for Dealing with Syntactic “Iterativity”
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Continue-Until-Satisfaction Approach



Continue-Until-Satisfaction Approach



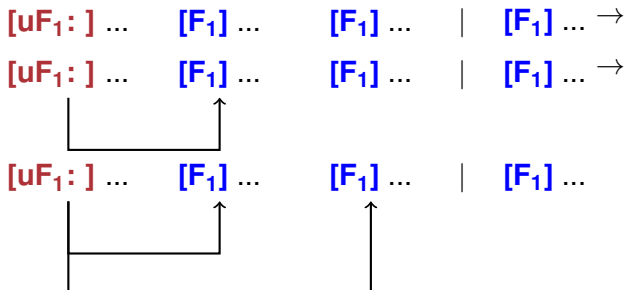
(For agreement, see e.g. Anagnostopoulou (2005); Béjar and Řezáč (2009);
for movement, see e.g. Müller (2011))

Table of Contents

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Continue-Until-Exhaustion Approach

aka the 'Unsatisfiable Probe' Approach



Note:

This approach seems to be equivalent to having multiple targets, each triggering one process

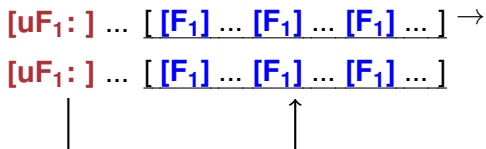
(See e.g. Chomsky (2007) on non-deletion of edge features)

Table of Contents

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Counterfeiting Iteration Approach

aka the 'In-Bulk' Approach



(See e.g. Hiraiwa (2001); Nevins (2007) for agreement; see remnant movement approaches to multiple/parallel movement, e.g. Fanselow (1991); Müller (1998, 2003))

Possible Empirical Predictions

	Intervention	Maximization
Continue-Until-Satisfaction	yes	no
Continue-Until-Exhaustion	yes	yes
Counterfeiting Iteration	no	yes

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Features that do not delete cause iterativity

Whether or not a feature deletes, is subject to cross-linguistic variation

Multiple Wh-Movement

One Target – Many Controllers

[		[uwh]	...	[wh₁]	...	[wh₂]	...	[wh₃]	...	→
[	[wh₁]	[uwh]	...	[wh₂]	...	[wh₃]			...	→
[	[wh₁]	[wh₂]	[uwh]	...	[wh₃]				...	→
[	[wh₁]	[wh₂]	[wh₃]	[uwh]					...	

No Multiple Wh-Movement

One Target – Many Controllers

[[uwh] ... [wh₁] ... [wh₂] ... [wh₃] ...] →
[[wh₁] [uwh] ... [wh₂] ... [wh₃] ...]

All syntactic processes are always iterative or never iterative. Variation is a problem of other components of the grammar.

[[wh₁] [wh₂] [wh₃] [uwh] ...]

⇒(Multiple wh-movement)

Koj kogo kakvo e pital ...

[[wh₁] [wh₂] [wh₃] [uwh] ...]

⇒(No multiple wh-movement)

Who asked ...

Table of Contents

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Derivation \neq Iteration

We may say that, in a syntactic “program”, we apply chunks of code over and over again.

```
for each cycle in the derivation
{
Merge stuff;
if Agree {Apply Agree};
if Move {Apply Move};
}
```

This is a very trivial understanding of iterativity.

Tentative Conclusion

Many targets – **One controller** relations are not iterative processes.

This leaves us with **one target** – **many controllers** relation.
However, ...

We might have reason to believe that there is a massive **mismatch** between surface iterativity and abstract (derivational) iterativity:

- **Abstract iterativity, but no surface iterativity** (maybe Kiowa and other PCC languages)
- **Surface iterativity, but no abstract iterativity** (maybe Huallaga Quechua and other case stacking languages)

We are at the point where we started:

What is syntactic iterativity?

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