Focusing on Reflexives
What We Can Learn about Grammar from Reflexive Pronouns

Byron Ahn

2014.11.19
1 Introduction

2 A Principle of Focus
   - Question-Answer Congruence
   - Grammar and Focus

3 Focusing on Reflexives
   - Reflexivity
   - Focused Reflexives
   - Analysis: URF and QAC

4 Conclusion
Today we’ll be talking about reflexive pronouns and the way they interact with focus

(1) a. Prove it to the skeptic!
(The skeptic should be the one who you prove it to.)
b. Prove it to me!
(I should be the one who you prove it to.)
c. Prove it to yourself!
(You should be the one who you prove it to.)
(You should be the one who proves it to you.)

There are two paraphrases for (1c)! Why?
Some Examples

When will this paper write itself? Maybe after I check my Facebook...

– someecards.com
Some Examples

– truthtshirts.com
Some Examples

– The Simpsons, S11 E07
Some Examples

The pitch track for this sentence:

and they practically raise themselves what with the internet and all
Some Examples

– Liberty Mutual TV Ad
Some Examples

The pitch track for this sentence:
Some Examples

But don't take our word for it.

Like any household detergent, keep away from children.

– Purex TV Ad
Some Examples

The pitch track for this sentence:

prove it to yourself

Pitch (Hz) vs Time (s) chart with phonetic notation and pitch values.
Why the Big Fuss?

- This kind of focus usage is productive, and used very often in natural discourse
  - As a speaker of English, you probably wouldn’t even notice anything remarkable about these sentences
  - In fact, they are very informative about our theory of reflexive pronouns, as well as our theory of grammar
Roadmap

- This talk will proceed as follows
  - First: Review our model of Grammar, and investigate focus
  - Next: Review reflexive structures, and investigate focused reflexives
  - Finally: Conclude reflexives are more similar between English and French than you might have thought
Introduction

A Principle of Focus
- Question-Answer Congruence
- Grammar and Focus

Focusing on Reflexives
- Reflexivity
- Focused Reflexives
- Analysis: URF and QAC

Conclusion
Questions and Answers

- Notice that the same sentence can have different pronunciation, depending on the question:
  
  (2) Q: Who did Jenna mock?  
       A1: Jenna mocked Dánny.  
       A2: #Jénnna mocked Danny.  
  
  (3) Q: Who mocked Danny?  
       A1: #Jenna mocked Dánny.  
       A2: Jénnna mocked Danny.  

[Mock-ee Question]  
[Mock-ee Focus]  
[Mocker Question]  
[Mocker Focus]
Questions and Answers

- It isn’t just about subject vs object, but rather about meaning

(4) Q: Who did Jenna mock?

A1: Jenna mocked Dánny.

A2: #Jénna mocked Danny.

A3: Dánny was mocked by Jenna.

A4: #Danny was mocked by Jénna.
Questions and Answers

- Here is a robust generalization (Halliday 1967, Krifka 2004, many others)

(5) **Question-Answer Congruence**
The part of the answer that corresponds to the question word must also have focus stress

(6) Q: Who did Jenna mock?
A1: Jenna mocked Dánny.
A2: Dánny was mocked by Jenna.

(7) Q: Who mocked Danny?
A1: Jénna mocked Danny.
A2: Danny was mocked by Jénna.
Semantics and Phonology

- Question-Answer Congruence (QAC) is a way of saying the way pronounce things must match up with the meaning of things
  - Semantics and Phonology both express focus
  - And the ways that they do should be maximally similar
Semantics and Phonology

- Descriptively, this is enough!
  - But! Semantics and Phonology are two very different modules of the language faculty
    - We want to know how they can talk to each other
  - We’ll do that by investigating a way in which QAC appears to fail
  - Before that, we must first understand some basics of Language
Grammar

- We can think of Grammar as the complete set of mental formulae that tell speakers of a language how to sentences can/can’t be formed
  - Everyone has a deep knowledge of Grammar, even if they don’t know it
  - “The experience of becoming conscious of previously unconscious phenomena is one of the principal joys of linguistic work.”

– Prof. Wallace Chafe
Components of Grammar

- What are the principle components of this mental recipe for Language, and how do they interact?
  - Three main components
    ① Word/Sentence Structure (Morphology and Syntax)
    ② Sound Systems (Phonetics and Phonology)
    ③ Meaning Systems (Semantics and Pragmatics)

- Information does not pass freely form each component into the others
Modern generative grammar is typically organized so that Syntax is the input to Phonology and Semantics.

- Phonology and Semantics do not communicate with each other directly.
Example

- Here is an idealized example

Syntax

Phonology

Semantics

Example: Danny mocked Jenna

Phonology: /ʤɛnə # makt # dæni/

Semantics: \[[\text{mock}](\text{[jenna]}, \text{[danny]})]
A Question about QAC

- An obvious question is, if Phonology and Semantics do not communicate, how do we explain apparent shared effects?

(5) **Question-Answer Congruence**

The part of the answer that corresponds to the question word must also have focus stress.

- The answer to this question depends on how we represent focus in the grammar:
  
  - Focus must be represented in Phonology and Semantics... Syntax too?
Hypothesis: Focus is marked in Syntax, affecting both Phonology and Semantics (Selkirk 1984, Rooth 1985, Selkirk 2007, Büring 2013)
An Answer for QAC

- This is the reason QAC is a correct generalization
  - Semantics and Phonology only share information via the Syntax
  - Focus interpretation and focus stress are in the same place, because of where focus is represented in the sentence structure
1 Introduction

2 A Principle of Focus
   ■ Question-Answer Congruence
   ■ Grammar and Focus

3 Focusing on Reflexives
   ■ Reflexivity
   ■ Focused Reflexives
   ■ Analysis: URF and QAC

4 Conclusion
A Review of Reflexives

- Before we talk about focused reflexives, let’s first review reflexives in general
  - First: what do we mean by “reflexive”s?
  - In English, reflexives are the pronouns that end if ‘self’ or ‘selves’ (i.e. (8))

(8) myself, yourself, himself, herself, itself, ourselves, yourselves, themselves

- A key property of reflexives is that where they can show up in a sentence is highly constrained
A Review of Reflexives

- For example:

  (9)  
  a. Kenneth expects you to live forever  
  b. Kenneth expects himself to live forever  
  c. Kenneth expects that you will live forever  
  d. *Kenneth expects that himself will live forever

- We want to know why it is that reflexive reflexives are licensed in some positions, but not others
A Review of Reflexives

- Why study reflexives?
  - Not because it’s a particularly pressing issue in the world at large
  - But because every language exhibits grammatical constraints on how referential expressions (like reflexives) are distributed
  - So exploring reflexives act as a window into the architecture of Language
Types of Reflexives

- We can boil down past research on reflexives to two main findings:
  1. Certain grammatical relationships must hold between reflexives and their antecedent.
  2. ... but only sometimes. Reflexives do not behave uniformly, even within a language.

- To understand reflexives, we must account for both of these facts.
  - **Goal**: formalize the appropriate conditions for ① while accounting for ②
For some reflexives, being c-commanded by its antecedent is critical

(10)  

a. Frank showed Lynne to herself

b. * Frank showed herself to Lynne
Reflexive Types: Whirlwind Review

- For certain other reflexives, c-command does not obviously matter
  
  (11)  
  a. Frank showed Lynne to a clone of herself
  b. Frank showed a clone of herself to Lynne

- Yet these same reflexives still require an antecedent in the sentence

  (12)  
  a. * Frank showed me to a clone of herself
  b. * Frank showed a clone of herself to me
Finally, there are reflexives for which there need not be any pronounced antecedent in the sentence

(13)  a. How about you?
     b. How about yourself?
Reflexive Types: Whirlwind Review

- In addition, some reflexives must be in the same clause as their antecedent
  
  (14)  
  a. Roberta watched [Werner burn himself]  
  b. *Roberta watched [Werner burn herself]

- Though others (which require antecedents) can be in different clauses (in some dialects)
  
  (15)  
  a. Roberta watched [the fire burn herself]  
  b. *I watched [the fire burn herself]

- (Another example from television)
  
  (16) You hired [someone to investigate yourself]?

[30 Rock, S2 E03]
After reviewing these and other facts, there are at least this many types of reflexives:

- Reflexives
  - No Structural Conditions (Exempt)
  - Needs a Antecedent in the Structure
    - Higher Clause (Long Distance)
    - Same Clause (Local)
      - Non-Subject-Oriented
      - Subject-Oriented
A View of Reflexive Types

- Recall the generalizations we saw earlier
  ① Certain grammatical relationships must hold between reflexives and their antecedent.
  ② ... but only sometimes. Reflexives do not behave uniformly, even within a language.

- The grammatical relationships that matter depend on the type (①), as we just saw
A View of Reflexive Types

Many languages use a unique word / morpheme / construction for Local Subject-Oriented Reflexives

(17) a. Jacques s’ assigne à Henri
Jacques assigned himself to Henry
“Jacques assigned himself to Henry”

b. Jacques assigne Henri à lui-même
Jacques assigned Henry to himself
“Jacques assigned Henry to himself”

French uses se for LSOR cases, whereas it uses lui-même for others (Charnavel & Sportiche 2014)

We find that English distinguishes LSOR and non-LSOR as well
Reflexives bearing focus stress are semantically ambiguous, unlike non-reflexives

(1)  

a. Prove it to the skeptic!  
(The skeptic should be the one who you prove it to.)

b. Prove it to me!  
(I should be the one who you prove it to.)

c. Prove it to yourself!  
(You should be the one who you prove it to.)
(You should be the one who proves it to you.)
The interpretation in (18b) is unlike the others

(18) Prove it to yourselves!
   a. You should be the one who you prove it to.
   b. You should be the one who proves it to you.

We’ll call (18b) the Unexpected Reflexive Focus (URF)

(18b) means something similar to focus on the subject
Back to Focused Reflexives

- URF occurs where you would normally focus the subject, even though the reflexive is the object

  (19) Q: Who mocked Danny?
    A1: #Danny mocked Dánny.
    A2: Dánny mocked Danny.

  (20) Q: Who mocked Danny?
    A1: Danny mocked himself.
    A2: #Dánny mocked himself.

- Only reflexives seem to give us this kind of unexpected location for focus stress
  - Because of Question-Answer Congruence
Back to Focused Reflexives

- Are examples of URF just an exception to QAC?
  - Hypothesis: focusing an anaphor can be like focusing its antecedent
    - Because of the way reflexives come to refer to their antecedents (Spathas 2010)
  - Prediction: focusing any reflexive should give an interpretation focusing its antecedent
Hypothesis Testing: Subjects vs Objects

- This works when the antecedent is a subject
  
  (21)  Q: Who assigned Ken to Angie?  
       A1: Angie assigned Ken to **herself**.  
       A2: **Ángie** assigned Ken to **herself**.

- The “dual focus” pattern is different from the URF pattern
- URF doesn’t have any focus stress on the antecedent, but the Dual Focus pattern does
Hypothesis Testing: Subjects vs Objects

- URF does not involve focus stress on the antecedent
- Because URF of this, the subject does not need to be pronounced in URF

(22)  A: Assign Ken to me.
       B1: No! Assign Ken to *yoursélf*. [✓ URF]
       B2: No! *Yóu* assign Ken to *yoursélf*. [Dual Focus]

- Dual Focus, does require a pronounced subject
- We will see that the Dual Focus pattern can occur in places that URF cannot
Hypothesis Testing: Subjects vs Objects

- What if the antecedent is an object?

(23) Q: Who did Angie assign _ to Ken? [Assign-ee Question]
A1: # Angie assigned Ken to himself. [#URF]
A2: Angie assigned Ken to himself. [Dual Focus]

(24) A: Assign me to myself.
B1: # No! Assign yourself to yourself. [#URF]
B2: No! You assign yourself to yourself. [Dual Focus]

- URF is not possible with an object antecedent
This finding is critical!

- URF cannot be as simple as “focused reflexive means focused antecedent”
- Instead, the antecedent must be the subject
- This sounds like the LSOR reflexive in French, *se*!
- Is the reflexive in URF constructions the same type of reflexive as French *se*?
Hypothesis Testing: Movability

- A general property of language is that things move around in the syntactic structure, but that movement is constrained

        b. What else did Liz devour ___ quickly?
        c. Liz devoured [cheese and something else] quickly.
        d. *What else did Liz devour [cheese and ___] quickly?

- It is impossible to move out of a coordinate structures (“cheese and what else”)
Hypothesis Testing: Movability

- French *se* also appears to have moved
  
  (26)  
  a.  Jacques assigne Jeanne à Henri  
  b.  Jacques s’ assigne ___ à Henri  
  c.  Jacques assigne [Jeanne et Claire] à Henri  
  d.  *Jacques s’ assigne [Jeanne et ___] à Henri  

- LSOR reflexives like *se* move, and cannot move away from a coordinate structure
Hypothesis Testing: Movability

- URF reflexives also cannot occur in a coordinate structure

(27) Q: Who was talking to [Sebastian and Emma]?
A1: #Emma was talking to [Sebastian and hersélf].

A2: Émma was talking to [Sebastian and hersélf].

- URF is not possible when the reflexive can’t move
Movable Reflexives Only

- Another critical finding!
  - URF reflexives must move
  - Maybe this movement is related to why they can only refer to the subject (Ahn 2014)

- This is additional evidence that the reflexive in URF constructions the same type of reflexive as French se
What’s Missing Here

- What I haven’t shown you
  - Why URF has the interpretation is has
  - How that’s related to the fact that URF requires (i) the reflexive to be able to move, and (ii) its antecedent to be a subject
  - It’s in the appendix!
Conclusions: URF is only possible with LSOR reflexives

- This is an important step for understanding the following two aspects of reflexivity:
  1. Certain grammatical relationships must hold between reflexives and their antecedent.
  2. ... but only sometimes. Reflexives do not behave uniformly, even within a language.

- This means even English distinguishes LSOR and non-LSOR, and Grammar treats LSOR as different.
Meaning of URF Reflexives

- URF only arises in cases with LSOR reflexives
  - Hypothesis: LSOR reflexives have a different meaning in the Semantics than other reflexives
    - Their meaning is essentially “me and the subject are the same”
  - Other non-LSOR reflexives don’t have this meaning in the Semantics
    - They don’t require a subject to be identical to
URF and QAC

- Let’s go back to our URF data

  (28)  Q:  Who mocked Danny?  
  A:  Danny mocked **himself**.

- Focusing the LSOR anaphor in (29) is a way of saying “Actually, the mocker of Danny is [the same as the subject (Danny)]_{Foc}”

- This is why URF is impossible when the the antecedent of the reflexive is not the subject

- The location of semantic focus and the location of focus stress is identical – QAC is still the correct description
Introduction

A Principle of Focus
- Question-Answer Congruence
- Grammar and Focus

Focusing on Reflexives
- Reflexivity
- Focused Reflexives
- Analysis: URF and QAC

Conclusion
QAC Maintained

- English URF is only possible with LSOR reflexives
  - Because of what LSOR reflexives mean
  - QAC is still correct
    - Because focus is marked in Syntax which goes to both Semantics and Phonology
Many languages distinguish LSOR and non-LSOR reflexives in obvious ways

- e.g. Danish, French, Inuit, Japanese, Kannada, Lakhota, Russian, Shona, Τόρο

- English does too, but in less obvious ways

- LSOR is must arise from some core part of Grammar, as it is attested in a huge number of languages

- Not all languages show this obviously, and but closer investigation can uncover its effects
Thank you!


The URF meaning only arises in contexts where reflexivity is focused information.

(29) Q: Who embarrassed Jenna?
A1: #Jénna embarrassed herself. [#Subject Focus]
A2: Jenna embarrassed herself. [URF]

(30) Q: Who embarrassed herself?
A1: Jénna embarrassed herself. [Subject Focus]
A2: #Jenna embarrassed herself. [#URF]

What is F marked is the semantic reflexivity function.
Appendix

- This function may be instantiated by the anaphor (as said here) or by an abstract silent head (Ahn 2014)
  - The semantic reflexivity that is focused in URF is only in derivations where the reflexive moves to a position associated with grammatical voice
    - Generalization: LSOR reflexives in the world’s languages are unavailable in the passive voice – URF is also unavailable in passive voice
    - Conclusion: LSOR reflexives depend on a specific non-passive voice head, which causes the movement
Appendix

- This movement leads to subject-orientation
  - Because of the semantics of the reflexivizer
  - This necessitates that reflexive anaphors aren’t universally reflexivizing functions
    - They only behave as such in LSOR contexts
  - LSOR derivations have two atoms of reflexivity: the anaphor and a reflexive voice
    - This derives why reflexivity can appear as an argument pronoun, a verbal suffix, or both in the world’s languages
Appendix

The derivation defended in Ahn 2014:

SubjectP  

\[ \text{Tense/Aspect/Mood/Polarity/...} \]

PredP: \( \lambda e_\langle s_\rangle . \text{IDENT}([\text{himself}_2]^g, [\text{Jack}]) \) \( \& \) \( [\Theta\text{-Domain}](e) \)

VoiceP: \( \lambda y_\langle e_\rangle \lambda e_\langle s_\rangle . \text{IDENT}([\text{himself}_2]^g, y) \) \( \& \) \( [\Theta\text{-Domain}](e) \)

Voice': \( \lambda x_\langle e_\rangle \lambda y_\langle e_\rangle \lambda e_\langle s_\rangle . \text{IDENT}(x, y) \) \( \& \) \( [\Theta\text{-Domain}](e) \)

REFL\(_{u\text{EPP}}\) \( \lambda P_{\langle st \rangle} \lambda x_\langle e_\rangle \lambda y_\langle e_\rangle \lambda e_\langle s_\rangle . \text{IDENT}(x, y) \) \( \& \) \( P(e) \)

\( \Theta\text{-Domain}: \lambda e_\langle s_\rangle . \text{AGENT}([\text{Jack}], e) \) \( \& \) \( \text{THEME}([\text{himself}_2]^g, e) \) \( \& \) \( \text{HIT}(e) \)

Jack hit himself