Basic problem

Some anaphors (i.e. reflexives) seem to be exempt from Condition A of the Binding theory: they are not subject to locality constraints under any version of locality:

Condition A counterexamples

a. Bill said that the rain had damaged pictures of himself.  
   (adapted from Pollard and Sag 1992)

b. In her opinion, physicists like herself are rare.  
   (adapted from Kuno 1987)

c. Max boasted that the queen invited Lucie and himself for a drink.  
   (Reinhart and Reuland 1993)
Research Questions

(i) How can we distinguish \textit{plain} (non-exempt) anaphors from \textit{exempt} anaphors?

(ii) What are the \textit{descriptive generalizations} about exempt anaphors?

(iii) How can we \textit{account for exemption} from Condition A?
Logophoricity is a crucial factor for exemption: exempt anaphors need to be anteceded by perspective centers.

Seemingly exempt anaphors are in fact locally bound by silent logophoric operators.

⇒ All anaphors are the same and subject to Condition A.
Notes on data

Sources for data:
- **novel** data (constructed sentences and corpus examples)
- data cited in the literature

Judgment markings such as */OK indicate **contrasts** and not necessarily absolute judgments.

There seem to be sharp **dialectal differences** with respect to exempt anaphors in English.

We are in the process of checking judgments experimentally using questionnaires:
- **NSF grant: Typology and Theory of Anaphora**
  
  [Link](http://www.nsf.gov/awardsearch/showAward?AWD_ID=1424054)
I. **Issue**: how to identify anaphors exempt from Condition A
II. **Generalization**: logophoric properties of exempt anaphors
III. **Analysis**: binding by logophoric operators
How to identify exempt anaphors?

Classical Condition A (Chomsky 1986)

An anaphor must be bound within the smallest XP containing a subject distinct from the anaphor.

\[
[YP \ldots [XP \text{ Subject } \ldots \text{ Anaphor } \ldots ] \ldots ]
\]

Condition A counterexamples

a. Bill said that the rain had damaged pictures of himself.
   (adapted from Pollard and Sag 1992)

b. In her opinion, physicists like herself are rare.
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c. Max boasted that the queen invited Lucie and himself for a drink.
   (Reinhart and Reuland 1993)
How to identify exempt anaphors?

cf. _Predicate-based theories_ of binding and exemption (Pollard and Sag 1992; Reinhart and Reuland 1993, a.o.):

- Exemption is based on **coargumenthood**: an anaphor is exempt iff it does not have a coargument.
- But Charnavel and Sportiche (2014) demonstrate that predicate-based theories are both **too strong** and **too weak** to account for the distribution of French anaphors. This applies to English anaphors as well.

We will assume a Chomskian-type theory of Condition A henceforth.
How to identify exempt anaphors?

Redefining the domain of locality for Condition A is not sufficient:

**Locality minimal pairs**

(1) a. *Tom thinks that Julie admires himself.*
   b. Tom thinks that Julie admires everyone but himself.

(2) a. *Anonymous posts about itself on the internet hurt the camera’s sales.*
   b. Anonymous posts about herself on the internet hurt Lucy’s feelings.
How to identify exempt anaphors?

Charnavel and Sportiche (2014): Inanimacy distinguishes between exempt anaphors and plain anaphors.

- **Inanimacy** is a **sufficient** condition for **plain** anaphor-hood.
- **Animacy** is a **necessary** condition for **exemption**.

Why?

- exemption seemingly related to **discourse perspective**
- speaker can only “get inside the head” of an animate individual
How to identify exempt anaphors?

Charnavel and Sportiche (2014): Inanimacy distinguishes between exempt anaphors and plain anaphors.

- Inanimacy is a sufficient condition for plain anaphor-hood.
- Animacy is a necessary condition for exemption.

Diagnostic: Exempt anaphors will be those animate anaphors that appear in configurations disallowing inanimate anaphors.

- configurations = syntactic position of the antecedent with respect to the anaphor
How to identify exempt anaphors?

Charnavel and Sportiche (2014): Inanimacy distinguishes between exempt anaphors and plain (non-exempt) anaphors.

Animacy minimal pairs

(1) a. Bill said that the rain had damaged pictures of himself.
   b. *The computer indicated that the hard-drive failure had corrupted stock photos of itself.

(2) a. Anonymous posts about herself on the internet hurt Lucy’s feelings.
   b. *Anonymous posts about itself on the internet hurt the camera’s sales.

⇒ The reflexives in (1a) and (2a) are exempt.
⇒ The reflexives in (1b) and (2b) are plain.
Toward a theory of exemption

Exempt anaphors seem to be characterized by the properties of their antecedents (at least animacy).

Next step: examine properties of animate anaphors and their antecedents in configurations disallowing inanimate anaphors.
Hypothesis: English exempt anaphors are logophoric, i.e. they need to be anteceded by perspective holders.

- cf. logophoric pronouns in West-African languages (a.o. Hagège 1974; Clements 1975; Culy 1994)
Hypothesis: English exempt anaphors are logophoric, i.e. they need to be anteceded by perspective holders.

The relevant notion of logophor needs to be clarified.

- Under any definition of logophoricity, inanimates are not logophoric: inanimates cannot be perspective centers.
- Animacy is a necessary condition for exemption; inanimacy is a sufficient condition for plain anaphor-hood
Hypothesis: English exempt anaphors are logophoric, i.e. they need to be antecedced by perspective holders.

Three kinds of perspective holders:

- **Attitude holders** (intellectual)
- **Empathy loci** (emotional)
- **Deictic centers** (perceptual)
Logophoric properties of exempt anaphors

Comparison to Sells (1987) division into subtypes of logophoricity:

\[
\begin{align*}
\text{Source} & \quad > \quad \text{attitude holder} \\
\text{Self} & \\
\text{Pivot} & < \quad \text{empathy locus} \\
& \quad < \quad \text{deictic center}
\end{align*}
\]

Motivations for combining Source and Self into attitude:

- Crosslinguistic: no known languages that license exempt anaphors when anteceded by a Source but not a Self, or vice versa.
- Empirical: many linguistic phenomena are specifically sensitive to attitude contexts (epithets, evaluative expressions, expressives, etc.).
Logophoric properties of exempt anaphors

Comparison to Sells (1987) division into subtypes of logophoricity:

\[
\text{SOURCE} \quad \text{attitude holder}
\]
\[
\text{SELF} \quad \text{empathy locus}
\]
\[
\text{PIVOT} \quad \text{deictic center}
\]

Motivations for division of PIVOT into empathy and deixis:

- **Crosslinguistic:**
  - **Empathy contexts**
    - French anaphors: ✓
    - English anaphors: ✓
  - **Deictic contexts**
    - French anaphors: ×
    - English anaphors: ✓

- **Empirical:** the presence of a distinct empathy locus prevents a deictic center from anteceding an exempt anaphor.
Attitude contexts

First subtype: exempt anaphors are anteceded by *intellectual* perspective centers, i.e. *attitude holders*.

**Attitude examples**

a. Bill said that the rain had damaged pictures of himself.
b. In her opinion, physicists like herself are rare.
c. Max boasted that the queen invited Lucie and himself for a drink.
d. According to Tom, the article was written by Ann and himself.
e. Joe worried that his girlfriend was pulling away from himself.
f. In the prince’s opinion, a man handsomer than himself could not be found.
g. John decided that Mary’s remarks had been intended for himself.
   (Cantrall 1974)
h. John was going to get even with Mary. That picture of himself in the paper would really annoy her, as would the other stunts he had planned.  
   *[free indirect discourse]*  
   (Pollard and Sag 1992:274)
Diagnosing attitude contexts

Dubinsky and Hamilton (1998): an epithet like *the idiot* is antilogophoric: it cannot be anteceded by a perspective-bearer.

Dubinsky and Hamilton (1998:688)

a. *It was said by John that the idiot lost a thousand dollars on the slots.*

b. It was said about John that the idiot lost a thousand dollars on the slots.

Using epithets to identify attitude contexts:

**Epithet Test**

Replace the anaphor by a coreferring epithet and check whether the sentence becomes unacceptable.

⇒ antecedent is attitude holder
Other tests for attitude (intensional) contexts:

- **Double orientation test**: replace the anaphor by an evaluative expression and check whether it can be evaluated by both the speaker and the antecedent.
- **Substitution test**: replace the anaphor by two different coreferent terms and check whether the truth conditions change. (cf. Frege 1892)
- Exempt anaphors can be anteceded by attitude holders iff they are read *de se*. (cf. Chierchia 1989)
Corpus examples (attitude contexts)

a. Morales’ entire speech is about himself. (NPR Morning, 1996)
b. It fueled, he said, a hatred toward himself and a hatred toward God. (NPR Daybreak, 2006)
c. In an overwrought state, Mozart became obsessed with the idea that his Mass for the Dead was intended for himself and that he would not live to finish it. (Saturday Evening Post, 1991)
d. Sometimes she looked at Megan and thought her daughter’s entire existence was a protest against herself, an accusation of emotional and moral untidiness. (The Virginia Quarterly Review, 2005)
e. Isabel hoped her face wasn’t showing the heat she felt rising inside herself. (The Kenyon Review, 1998)

Empathy contexts

Second subtype: Exempt anaphors are anteceded by emotional perspective centers, i.e. empathy loci.

- **Empathy locus**: the participant of the event with whom the speaker **identifies** most (Kuno 1987; Oshima 2007)
- cf. Japanese “giving verbs”
  - **yaru** the event is described from the point of view of the subject or the neutral point of view → **nominative** = empathy locus
  - **kureru** the event is described from the point of view of the referent of the dative object → **dative** = empathy locus
Empathy contexts

Second subtype: Exempt anaphors are anteceded by emotional perspective centers, i.e. empathy loci.

- “Empathize with” is a technical term!
  - $\approx$ “take the mental perspective of”
  - not to be confused with informal notions like “admire,” “like,” “have sympathy for,” “pity,” etc.
- In other words, even a discourse participant towards whom the speaker has a negative attitude can be an empathy locus.
Empathy contexts

Second subtype: Exempt anaphors are anteceded by emotional perspective centers, i.e. empathy loci.

- Exempt anaphors anteceded by empathy loci crucially appear in non-attitude contexts:

<table>
<thead>
<tr>
<th>Epithet test</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. His computer screen-saver features a picture of himself kissing a fish.</td>
</tr>
<tr>
<td>b. His computer screen-saver features a picture of the silly fool kissing a fish.</td>
</tr>
</tbody>
</table>

The application of the epithet test in (b) indicates that this configuration is not an attitude context.
Empathy contexts

Second subtype: Exempt anaphors are anteceded by emotional perspective centers, i.e. empathy loci.

Examples

a. Anonymous posts about herself on the internet hurt Lucy’s feelings.
b. The horrible posts about herself on the internet hurt Lucy’s feelings.
c. *Anonymous posts about herself on the internet hurt Lucy’s popularity.

- Again, not an attitude context: horrible is evaluated by the speaker, not Lucy.
- Even under the Belletti and Rizzi (1988) analysis of psych-verbs, Lucy does not c-command herself at LF.
Empathy contexts

More empathy examples

a. Newspaper articles about himself frequently aroused the President’s ire.

b. The flood of urgent emails addressed to herself dampened Mary’s spirits.

c. Paul worked with his wife at a university where physicists like himself were highly regarded.

d. He sat down at the desk and opened the drawers. In the top right-hand one was an envelope addressed to himself. (Zribi-Hertz 1989)
Inanimates (or **deceased** animates) cannot be empathy loci:

**Inanimacy and empathy**

(1) a. *Anonymous posts about itself on the internet hurt the camera’s sales.*
    b. Anonymous posts about herself on the internet hurt Lucy’s feelings.

(2) (Cantrall 1974:107)
    a. The picture of **himself** that hangs in Obama’s study is quite dignified looking.
    b. *The picture of **himself** that hangs in Lincoln’s study is quite dignified looking.*
Diagnosing empathy contexts

**His dear test**

Replace the anaphor by *his dear N* and check if the sentence is fine (under a non-ironic reading).

- *His dear* is intrinsically evaluative and first-personal: “dearness” can only be evaluated by the person experiencing the feeling.

**Examples**

a. Anonymous posts about *her dear son* on the internet hurt Lucy’s feelings.

b. *Anonymous posts about *her dear son* on the internet hurt Lucy’s popularity.

c. *Anonymous posts about *its dear lens* on the internet hurt the camera’s sales.*
Empathy contexts

Corpus examples (empathy contexts)

a. The picture of himself ill and immobilized sends him into a paroxysm of giggles. (Saturday Evening Post, 1993)

b. Everything they (feminists) are pushing for seems to be centered around themselves, their choices, their jobs, themselves. (USA Today, 1991)

c. He’s everything you want in a quarterback. […] He never wants to have a bad play, and that comes from inside himself. (Sporting News, 2009)

d. A week later, in the British embassy in Paris, Mr. James Somerset, attaché to the ambassador, smoothed the pages of two letters he had received that morning by diplomatic pouch. One was from Lord Dalmar and addressed to himself. (The Worldly Widow, 1990)

e. His computer screen-saver features a picture of himself kissing a fish. (San Francisco Chronicle, 1997)

From the Corpus of Contemporary American English (COCA)
Deictic contexts

Third subtype: exempt anaphors are anteceded by perceptual perspective centers, i.e. deictic centers.

Examples

a. The woman is standing in the background with the cello/*keyboard behind herself.

b. The woman is standing in the background with the cello/keyboard behind her.

Detail of the Music Lesson, Vermeer
Deictic contexts

Spatial prepositions like *behind* or motion verbs like *come/go* create deictic contexts.

Deictic Test
Check whether the antecedent of the exempt anaphor has to be the physical point of view.

Examples

(1) (Sells 1987:465)
   a. He was happy when his own mother *came* to visit him in the hospital.
   b. ??He was happy when his own mother *went* to visit him in the hospital.
   c. He was happy when his mother *went* to visit him in the hospital.

(2) The adults in the picture are facing away from us, with the children placed behind *themselves*. (Cantrall 1974:146–7)
Deictic contexts

Only *animates* can be deictic centers: *perception*, not *orientation*, is crucial.

**Examples**

(1) (adapted from Cantrall 1974)

a. *The woman* is standing in the background with the cello behind herself.

b. *The house* is standing in the background with an elm tree behind *itself*.

c. The *house* is standing in the background with an elm tree behind *it*.

(2)


b. *The black-and-white photograph of the bed* hung above *itself*.

c. The *black-and-white photograph of the bed* hung above *it*.
Corpus examples (deictic contexts)

a. A sudden flurry of activity a few tables away pulled their attention away from themselves. (Still Alice: a novel, 2009)

b. Jerry threw a dirt clod and hit the steer when he ran into the pen at the end of the arena, and my father laughed and reached down, setting the boy up behind himself on Peaches. (Sewanee Review, 2000)

c. She could see herself there, as if in a mirror. And behind herself was the wormhole again... (Analog Science Fiction and Fact, 2004)

d. Abandoning the image of himself floating above himself, he caressed the physical objects around him... (Comfort & Joy: a novel, 2003)

From the Corpus of Contemporary American English (COCA)
Logophoricity **necessary** but not **sufficient** condition for exemption:

- Logophoric anaphors cannot appear in object positions of verbs.
  
  a. *Tom thinks that Julie admires himself.*
  b. **Tom** thinks that Julie admires everyone but **himself**.

Theoretical question:

- Why must exempt anaphors display a logophoric interpretation although prima facie they have no specific lexical properties to impose such an interpretation?

Main proposal

An exempt anaphor is **locally bound** by a syntactically represented logophoric operator.

- The interpretation of the anaphor is wholly derived from its binder.
- **Exempt anaphors are in fact not exempt**, but locally bound by a silent operator!
Logophoric operators instantiate logophoric centers.
(cf. Koopman and Sportiche 1989; Anand 2006; Sundaresan 2012)

Logophoric operators are similar to silent pronouns that are coreferent with the antecedent (or in a relation of non-obligatory control) and bind logophoric elements.

\[ \text{[Antecedent}; \ldots [\text{OP}_{\text{LOG}_i} \ldots X_{\text{LOG}_i} \]

They can thereby trigger \textit{de se} readings.

- Anand (2006): the operator is an abstractor and is the immediate complement of a referential item that denotes the \textit{de se} center.
What is the position of logophoric operators?

Charnavel and Sportiche (2014)

An anaphor must be interpreted within the spellout domain containing it.

⇒ Logophoric operator must be spellout domain internal, i.e. not in the CP periphery, but within tensed TP (spellout domain of the C phase).
Analysis: Position of the operator

What does this mean for the Condition A locality?

**Prediction**: inanimate anaphors within subject of a finite embedded clause with matrix antecedent should **not** be licensed, *contra* the classic Chomskian theory:

**Test examples**

(1) *The theory assumes that [a simplified version of itself is satisfied by three base cases].

(2) (Postal 2006:10)

   a. Winston Q. Felix argued that [no one except himself was of any value].
   b. *The Nature of it All* argued that [no book except itself was of any value].
Evidence for the existence of these operators: *At most one* logophoric operator in the relevant *domain* (cf. Koopman and Sportiche 1989; Sundaresan 2012)

**Example**

*According to Tom, Sue said that physicists like himself and chemists like herself are rare.*

- cf. clausemate long distance *ziji* in Mandarin must corefer (Huang and Liu 2001)
Analysis: Interaction between logophoric centers

Attitude and Empathy interactions:

Attitude-empathy examples

a. Mary believes that Sue’s beloved boyfriend will write a poem dedicated to herself/*herself.
b. Mary believes that Sue’s beloved boyfriend will write a poem dedicated to her.
c. Sue’s beloved boyfriend will write a poem dedicated to herself.

⇒ Attitude ≫ Empathy
Analysis: Interaction between logophoric centers

Similarly constructed examples show:

- **Attitude** \(\gg\) **Deixis**
- **Empathy** \(\gg\) **Deixis**

Possible implementation:

- **Hierarchy**: **Attitude** \(\gg\) **Empathy** \(\gg\) **Deixis**
- **Hypothesis**: the anaphor must be bound by the **closest** logophoric operator

\[
[\text{OP}_{\text{DEIXIS}}] \\
[\text{OP}_{\text{EMPATHY}}] \\
[\text{OP}_{\text{ATTITUDE}}] \quad \text{EXEMPT ANAPHOR}
\]
Conclusion

- Some anaphors seem to be exempt from Condition A. → we need a theory of exemption

- Exempt anaphors need to be antecedced by a perspective center: Logophoricity is a necessary condition for exemption.

- Inanimates cannot be perspective centers: Inanimacy is a sufficient condition for plain anaphor-hood.

- There are at least 3 kinds of logophoric centers: attitude holder ≫ empathy locus ≫ deictic center

- Logophoric centers are represented as logophoric operators that locally bind the ‘exempt’ anaphors, which in fact obey condition A.

- Logophoricity is not a sufficient condition for exemption: another system based on Reflexive Voice prevents anaphors in complement position of verbs from being exempt.
There is only one type of anaphor (same form), but anaphors can fall into three types of systems:

- **Condition A**: binding in a local domain (spellout domain of a phase) by an *overt antecedent* → specific configuration
- **Exemption**: binding in a local domain (spellout domain of a phase) by a *covert logophoric operator* → specific interpretation
- **Reflexive Voice**: subject oriented anaphors as complements of verbs → specific position
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References


