English embedded imperatives have a context-shifting operator

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0. Plan
- English has embedded imperatives.
- Imperatives have a functional head that is inherently associated with a 2nd-person feature.
- In embedded contexts, this feature must be shifted, through indexical shift.
- Overt pronouns are unaffected by indexical shift: there is a split between shiftable and unshiftable indexical features.
- This leaves a puzzle for binding theory. I argue that say introduces a null addressee-oriented PRO argument.

1. Embedded imperatives

English has embedded imperatives (Crnič & Trinh 2009):

(1)  John said [call Mary]

Embedded imperatives are not quoted imperatives. Evidence:

- Pronoun reference. A 3rd-person pronoun cannot typically be used to refer to the speaker of an utterance (2a), but it can be used in indirect speech – i.e. embedded clauses (2b).

(2)  a. #John$_i$ said, “Hey, call his$_i$ mom!”
    b. John$_i$ said call his$_i$ mom

- Quotes are syntactically opaque; embedded clauses are not:

(3)  a. NPI licensing: #No-one said, “Hey, buy anything!”
    No-one said [buy anything]
    b. Wh-movement: *Who$_i$ did John say, “Hey, call t$_i$ at three!”
    Who$_i$ did John say [call t$_i$ at three]

- English indexicals are interpreted according to the utterance context, which explains the contrasts in (4). In order for the embedded imperative to be a faithful report of the original utterance, the indexicals must be modified:

(4)  a. Emily (May 5): “Show up tomorrow”
    Me (May 6): “Yesterday, Emily said [show up today]”
    b. Emily (to me): “Be your own harshest critic”
    Me: “Emily said [be my own harshest critic]”
2. Zanuttini, Pak and Portner (2012)

Imperatives are part of a larger typology of **jussive** clauses, united by a common semantics – adding a commitment to the ‘To-do list’ of some conversational participant (Portner 2004, 2007, 2012).\(^1\)

Korean shows all three logically possible jussive clause types:

- **Imperatives** – update the To-do list of the **addressee**:

  \[(5) \text{Cemsim-ul sa-la} \]
  lunch-ACC buy-IMP
  “Buy lunch!”

- **Promissives** – update the To-do list of the **speaker**:

  \[(6) \text{Cemsim-ul sa-ma} \]
  lunch-ACC buy-PRM
  “(I promise that) I will buy lunch”

- **Exhortatives** – update the To-do list of the **speaker and addressee**:

  \[(7) \text{Cemsim-ul sa-ca} \]
  lunch-ACC buy-EXH
  “Let’s buy lunch”

In all jussives, the person/people having their To-do list updated (the **target**) is the **subject**. ZPP’s proposal involves a syntactic representation of the target, and links the target tightly with the subject:

- In all jussive clauses, there is a Jussive head (\(J^0\)) that merges with TP. It introduces the semantics for jussive interpretations.

- \(J^0\) carries a **valued person feature** which determines which conversational participant has their To-do list updated:

  \[(8) J^0_{\text{[person:2]}} \text{ update to-do list of addressee: imperative} \]
  \(J^0_{\text{[person:1]}} \text{ update to-do list of speaker: promissive} \]
  \(J^0_{\text{[person:1⊕2]}} \text{ update to-do list of speaker and addressee: exhortative} \)

- In Korean, each of these \(J^0\)s is spelt out as a clause-typing particle -la, -ma or -ca.

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\(^1\) Some so-called “3rd-person imperatives” don’t clearly update the semantics of a conversational participant, so could present a challenge to this view. Although in many cases the addressee does still get a new task: to relay the command.

\[(35) k\text{a:y} \text{ (Bhojpuri)} \]
  eat-IMP.3 ‘Eat! (polite)’/‘Let him eat!’ (interpreted as ‘You see to it that he eats’)

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• J⁰ combines with T⁰ (perhaps by head movement). J⁰ has an interpretable person feature and no other φ-features, T⁰ has no person features, but needs to check its uninterpretable Case feature (I leave aside Number here).

\[
\begin{align*}
J^0 + T^0 & \rightarrow J^0 + T^0 \\
\end{align*}
\]

• The subject is a null pro with an unvalued person feature (making it a ‘minimal pronoun’ in the sense of Kratzer 2009) and an unvalued Case feature.

\[
\begin{align*}
pro & \\
[Pers:_,] & [Case:_,] \\
\end{align*}
\]

• J⁰+T⁰ probes its c-command domain, and it locates the subject in Spec-vP as its goal. In this way the subject pro gets Case.

• J⁰ is an operator that semantically binds the subject, meaning the subject acquires a person feature from J⁰+T⁰ by Feature Transmission under Binding (Kratzer 2009).

Summary:
• J⁰ provides jussive semantics. The target of the jussive semantics is represented in the syntax by an interpretable person feature.
  - Korean J⁰ can have [Person:1], [Person:2] or [Person:1⊕2] features, meaning it has all three logically possible jussive clause types
  - English J⁰ can only have a [Person:2] feature, meaning English has only one jussive clause type – imperative.
• J⁰ licenses featurally-deficient subjects by binding them. Null subject pro lacks a person feature, but acquires one from J⁰ by Feature Transmission under Binding.
There are imperatives in which the subject is not the target:

(12)  *Ragazzi, che tutto sia in ordine quando torno questa sera!*  
      Kids, that all be in order when return this evening  
      ‘Kids, everything be in order by the time I get back this evening!’

ZPP’s system can account for these: \(J^0\) simply does not enter any relation – binding or agreement – with the subject.

3. Embedded imperatives in a ZPP framework: the problem

In an embedded imperative, a null subject is licensed and imperative semantics are found, hence why (13b) is a faithful report of (13a):

(13)  
      a. Bill, to John: “Call Mary!”  
      b. Fred, to John: “Hey, Bill said [call Mary]. Why haven’t you done it yet?”

This means that \(J^0\) is present in the embedded clause.

In (13b), this works fine: embedded \(J^0\) introduces a 2nd-person feature (picking out John), and it binds the null subject of the imperative, transmitting its 2nd-person feature to the subject \(pro\).

(14)  Hey, Bill said \([J^0_{Pers:2} \ pro_{Pers:2}]\ call Mary]\)

But the following sentence (15-16) show a problem:

(15)  Mama said [knock you out]\(^2\)

   o The target of *knock you out* (the one who has knocking you out on his To-do list) is the speaker (1st-person), rather than the addressee.

(16)  Context: The reason why there is no food in the house, is that the football team came by and…

      Janie said [help themselves], so they did

       o The target of *help themselves* (those who had helping themselves on their To-do list) is the football team (3rd-person), rather than the addressee.

Sentences (15-16) are inconsistent with \(J^0\) introducing an interpretable 2nd-person feature which binds the imperative subject: the subject/target of these imperatives is clearly not the addressee.\(^3\)

How can we alter/augment the model to account for this data, while keeping the fundamental insight of the \(J^0\) head? Two options:

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2 This is the title of a 1995 song by LL Cool J, brought to my attention by Raffaella Zanuttini.

3 Kaufmann & Poschmann (2013) show that for those German speakers who allow embedded imperatives, the addressee of the embedded imperative must be coreferential with the utterance addressee. They term this the **Addressee Constancy Requirement**. As far as I can tell, this does not hold for those English speakers who accept embedded imperatives.
• Solution 1: J⁰ may bear other person features in embedded contexts (Section 4).

• Solution 2: embedded J⁰ still bears a 2nd-person feature, which is somehow interpreted according to the context of the reported utterance (Section 5).

4. Solution 1: a less restricted J⁰

Embedded J⁰ can enter the derivation with a wider range of person features than main clause J⁰.

• This means that there is some special fact about English main clauses that restricts J⁰ to being [Person:2], but in other contexts, J⁰ can be [person:1/2/1⊕2].

A prediction: in a language where the person feature on J⁰ is morphologically realized (e.g. Korean -la/-ma/-ca), an embedded J⁰ should spell out the person feature of the target.

• That is, clause-typing morphology should reflect the POV of the utterance context, rather than the reported context.

This is not borne out: reported jussives in Korean retain the clause type of the original utterance:

• Embedded promissive – embedded J⁰ ‘should’ be 3rd-person, but we see still see promissive morphology (i.e. Spell-out of J⁰[Pers:1]).

(17) Ku salam-i Inho-eykey [Swuni-lul towacwu-ma]-ko malhayss-ta
that person-NOM Inho-DAT [Swuni-ACC help-PRM]-COMP said-DEC
‘He said to Inho that he promises to help Swuni’

• Embedded imperative – embedded J⁰ ‘should’ be 3rd-person, but we still see imperative morphology (i.e. Spell-out of J⁰[Pers:2]).

(18) Ku salam-i Inho-eykey [Swuni-lul towacwu-la]-ko malhayss-ta
that person-NOM Inho-DAT [Swuni-ACC help-IMP]-COMP said-DEC
‘He told Inho to help Swuni’

• Embedded exhortative – embedded J⁰ ‘should’ be 3rd-person, but we still see exhortative morphology (i.e. Spell-out of J⁰[Pers:1+2]).

(19) Ku salam-i Inho-eykey [Swuni-lul towacwu-ca]-ko malhayss-ta
that person-NOM Inho-DAT [Swuni-ACC help-EXH]-COMP said-DEC
‘He said to Inho that they should help Swuni’

(Pak et al. 2008:170)

If embedded J⁰ (i.e. the clause-typing particles) in (15-16) had a 3rd-person feature, both embedded clauses should have the same clause-typing particle. They don’t, therefore J⁰ featurally distinguishes promissives from exhortatives in embedded contexts.
5. Solution 2: indexical shift

The idea is: embedded J⁰ bears the person-feature that it would get in the reported context – so in (17), ma is a Spell-out of a 1ˢᵗ-person feature; in (18), la is the Spell-out of a 2ⁿᵈ-person feature, and so on.

So how does the 2ⁿᵈ-person feature on the embedded J⁰ get interpreted according to the reported context, rather than the utterance context?

- I follow Pak et al. (2008), Park (2011) and say that we need indexical shift.

5.1 Indexical shift

In some languages, indexical pronouns (1ˢᵗ and 2ⁿᵈ-person pronouns) embedded under certain attitude predicates may be interpreted according to the reported context, rather than the utterance context:

(20) a. John [jāgnə ȵ-نى] yil-all (Schlenker 2003 – Amharic)
   John [hero be.PF-1sO] 3M.say-AUX.3M
   ‘John; says that he; (‘I’) is a hero’

      ‘Who did the prophet say to Oedipus; that he; (‘you’) would kill and marry?’
      (Özyıldız 2013 – Turkish)

Background: indexical expressions are evaluated with reference to the context, composed of the coordinates identifying (at least) the author, addressee, time and location of the utterance.

(21) <AUTH, ADDR, t, l,...>

Therefore, indexical shift is when indexical pronouns are interpreted according to a new context, under certain attitude verbs in certain languages (e.g. say in Amharic; say, believe in Turkish).

I assume Anand & Nevins’ (2004) approach to indexical shift:

- Anand & Nevins (2004):
  Some attitude verbs select a context-shifting operator (OP) which scopes over the complement clause of the attitude verb. All indexical pronouns invariantly refer to the local context.
  →Attitude verbs are may or may not introduce a shifting operator; pronouns are invariant

So applying Anand & Nevins’s system to (20a) gives this structure:

(22) Bill: “John OP [jāgnə ȵ-نى] yil-all
     John [hero be.PF-1sO] 3M.say-AUX.3M
     |        |        |
     C:<AUTH:bill ...> C:<AUTH:john ...>
5.2 Application to embedded imperatives

In (23), the attitude verb *say* alters the context of the embedded clause. Therefore embedded J$^0$’s [Person:2] feature gets a shifted interpretation:

(23) Kate, to Bill: “Janie said [J$^0$[Pers:2] pro help themselves]”

But there is a problem: let’s apply the same analysis to (24). There is an overt pronoun *you* in the embedded clause, which *cannot* be interpreted as shifted:

(24) LL Cool J, to Ben: “Mama said [J$^0$[Pers:2] pro knock you out]”

Paraphrase: “Mama said to me (LL) that [I (LL) should knock you (Ben) out].”

The context inside the embedded clause is shifted such that J$^0$’s [Person:2] feature refers to the addressee of the reported speech act (LL Cool J himself), rather than the addressee of the utterance therefore J$^0$’s [Person:2] feature is shifted.

- But the overt pronoun *you*, which also has a [Person:2] feature, must refer to the addressee of the utterance, not the reported speech act – i.e. it is unshifted.
- Therefore an embedded imperative like (24) may contain both shifted and unshifted [person]-bearing elements.
- Crucially, full pronouns (e.g. *you*) are unshiftable while J$^0$ is shiftable.

Podobryaev (2014) shows that a language may divide pronouns into *shiftable* and *unshiftable* classes:

- Unshiftable pronouns are immune to ‘context shift’; they are interpreted according to the utterance context.
- Shiftable pronouns are susceptible to ‘context shift’; they are interpreted according to the assignment function.
  - In this model, ‘context’-shifting operators actually manipulate the assignment, not the context. The assignment is enriched with diacritics indicating person-features (Sudo 2012).

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4 Note that this is not the case for German. The Addressee Constancy Constraint can be simply translated into a ban on shifting J$^0$, which amounts to saying that *say* does not introduce a context-shifting operator.
• In Mishar Tatar, null indexicals are shiftable, overt indexicals are unshiftable:

(25) \[ \text{min } \text{Marat-ka [pro sine sü-mi-sey diep] at'-ty-m} \]
‘I told Marat; that he; doesn’t love you.’
(lit. ‘I told Marat; that you; don’t love you’)

Therefore in an embedded imperative like (26), embedded J\(^0\) has a shiftable [person:2] feature and you has an unshiftable [person:2] feature:

(26) Mama said OP \[ J^0 \text{ pro knock you out} \]
\[ \text{[Pers:2]shiftable [Pers:2]unshiftable} \]

• (N.B. Like in Mishar Tatar, the null element has a shiftable feature, the overt element has an unshiftable feature. The same contrast is also reported for Turkish (Şener & Şener 2011).)

There is independent evidence that embedded imperatives involve indexical shift:

• Shifted pronouns are interpreted de se (Anand 2006).

• Embedded imperative subjects are interpreted de se (de te) – that is, an embedded imperative can only be used to report a command directed at that individual. So (27), from Kaufmann (2014), is infelicitous:

(27) Context: at a party, John is told that ‘Mary’ is being particularly obnoxious. He tells the person he is having a conversation with that ‘Mary should leave’. But that person is none other than Mary herself.

\# John-ka Mary-eykey [ttena-ra]-ko malhayssta
John-NOM Mary-DAT [leave-IMP]-COMP say.PAST
‘John told Mary to leave’

So we have the following set-up: but what about the person-feature on pro?

(28) Mama said OP \[ J^0 \text{ pro knock you out} \]
\[ \text{[Pers:2]shiftable [Pers:2]unshiftable} \]

Given the theory of Zanuttini et al., we should think that pro is bound by J\(^0\) and gets a [Person:2] feature from J\(^0\) via Feature Transmission Under binding. But that doesn’t quite work…

6. A Remaining Puzzle

It looks like pro can bind an anaphor with a different feature specification: in (29), J\(^0\) is [Person:2] and myself is [Person:1].
(29) Context: John tells Lucy that she can help herself to the food in his fridge. John’s wife Kate comes home and finds Lucy eating her food. Kate demands an explanation, and Lucy replies as follows:

Lucy: “John said \[J^0 \text{ pro, help } \text{ myself}\] so I did!”

If \text{pro} agrees with \text{J}^0, then \text{pro} must get \text{J}^0’s \text{[Person:2]} feature. But \text{pro} binds \text{myself}, so we have a \text{φ}-feature mismatch.

What if subject \text{pro} isn’t actually bound by \text{J}^0? Recall from (9) that the subject may be independent (i.e. not bound by any other element):

(9) Ragazzi, che \text{tutto} sia in ordine quando torno questa sera!

Kids, that \text{all} be in order when return this evening

‘Kids, everything be in order by the time I get back this evening!’

Here, the subject \text{tutto} is disjoint from the addressee \text{ragazzi}. This means that \text{J}^0 does not necessarily bind the subject.

If we de-link \text{J}^0 and subject \text{pro} in English embedded imperatives too, then there really could be a binding relation between subject \text{pro} and the anaphor, as in (30), without triggering a \text{φ}-feature mismatch between \text{J}^0 and \text{pro}.

(30) John said \text{pro} [\text{J}^0 \text{ i help myself i}]

\text{[Pers:2]} \text{shiftable} \text{[Pers:1]} \text{un-shiftable}

But where does \text{pro} now get its \text{[Person]}-feature from? We cannot say it merges with its person-feature already specified (as with (9)), because that does not capture the restriction that the imperative subject must be the addressee of its clause.

Tentative solution: \text{say} introduces a null addressee argument (\text{PROADDR}).

- \text{PROADDR} has the \text{[Person]} feature of the reported addressee, from the POV of the utterance.
  - Therefore in (30), because the addressee of the reported speech act is the speaker, \text{PROADDR} has a \text{[Person:1]} feature.

So (30) becomes:

(31) John said \text{PROADDR} \text{OP} [\text{J}^0 \text{ i help myself i}]

\text{[Pers:1]} \text{[Pers:2]} \text{shiftable} \text{[Pers:1]} \text{un-shiftable}

(Note that it doesn’t matter whether \text{pro}’s person-feature is shiftable or unshiftable – it is not interpretable).
Independent evidence for a PROADDR argument:

- **Addressee-oriented control** – the referent of the subject of the control clause cannot be the matrix subject.

(32) John\textsubscript{i} said PRO\textsubscript{j/k} to leave

- If there is an overt addressee, PRO must refer back to them:

(33) To Billy\textsubscript{i}, John\textsubscript{j} said PRO\textsubscript{i/j/k} to leave

- This patterns like obligatory object control, but with a null object.

(34) John said PROADDR [PRO to leave]

\[ \text{Say \ introducing a PROADDR also fits with the other ‘addressee-oriented’ cross-linguistic properties of say:} \]

- In languages with indexical shift of pronouns, *say/tell* are the only predicates to license shifting of 2\textsuperscript{nd}-person pronouns.
- In languages with addressee-oriented logophoric pronouns, only *say/tell* license them.

7. Conclusions

- Embedded jussives, including English embedded imperatives, require context shift.
- The context-shifting operator scopes over the Jussive head (J\textsuperscript{0}).
- In English, the [Person:2] feature on J\textsuperscript{0} is shiftable, but the [Person:2] features on an overt pronouns is unshiftable.
- Tentatively, the imperative null subject *pro* can be bound by J\textsuperscript{0}, OR by the PROADDR introduced by *say*.

References


