Restrictions on Indexicals in Directive Clauses

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Introduction

What is an **indexical**?

It is an element whose denotation depends on the context, and therefore varies from one context to another.

Canonical indexicals:
- Pronouns: *I, you, he, she, it*
- Demonstratives: *this, that*
- Temporal adverbs: *now, then, today, yesterday*
- Locative adverbs: *here, there*

Introduction

What do we mean by a **directive clause**?
    A clause whose form is conventionally associated with "directive force".

What do we mean by **force**?

Force refers to how a sentence updates the context. For example:
- Declaratives update the Common Ground (Force: Asserting)
- Interrogatives update the Question Set (Force: Asking)

Introduction

What do we mean by **directive force**?

- It's the force conventionally associated with canonical imperatives. (Force: Requiring, or directive force)
- Canonical imperatives update an addressee's 'To-Do List'.
- The 'To-Do List' is a set of properties, which represent the actions someone should take (Portner 2004).

Introduction

In this work we make two novel empirical observations:

- There is **a type of clause with directive force that differs minimally from canonical imperatives.**
- We will exemplify it with **Infinitival directives** in Italian and **Indirect imperatives** in Korean.
- **Some Indexicals cannot occur in this clause type** (and others are severely restricted).

INTRODUCTION

These restrictions are novel, interesting, and raise important questions:

- How do indexicals get interpreted in general?
- What prevents them from occurring in this clause type?
- How do these clauses differ from canonical imperatives?

Introduction

In this talk we will

- Describe **Infinitival directives** in Italian, contrasting them with canonical imperatives, and focusing on the distribution of indexicals
- Describe **Indirect imperatives** in Korean, contrasting them with direct imperatives, and focusing on the distribution of indexicals
- Discuss the challenges these clauses raise for the theories of indexicals within current syntactic and semantic theories

Infinitival directives in Italian

Infinitival directives in Italian

- **Infinitival directives** are root clauses that (a) have the verb in the infinitival form and (b) have directive force.

  (1)   **Indossare** la   mascherina protettiva.   (infinitival directive)
  wear–Inf   the mask   protective
  'Wear a protective mask.'
- They apply to people in general, or to those in the situation to which the directive is relevant (e.g., people about to enter a certain space, to which the sign applies)
- Found on signs in public spaces or in written instructions

Infinitival directives in Italian

- **Infinitival directives** form a minimal pair with **canonical imperatives**, which (a) have the verb in a form of the imperative paradigm and (b) have directive force.

  (2) a **Indossa** la mascherina protettiva. (imperative)
  wear-Imp.2nd.sg the mask protective
  'Wear a protective mask.'

  b **Indossate** la mascherina protettiva. (imperative)
  wear-Imp.2nd.pl the mask protective
  'Wear a protective mask.'

- Canonical imperatives are used to address a specific addressee or a plurality of addressees.

Infinitival directives with indexicals

- Novel observation:
  Infinitival directives are (mostly) incompatible with indexical elements
- Kaplan's (1989) list of indexical elements:
    - 1st, person pronouns (*I, me, mine*)
    - 2nd person pronouns (*you, yours*)
    - 3rd person pronouns (*he, she, it, ...*)
    - Demonstratives (*this, that*), ...
    - Temporal adverbs (*now, tomorrow, yesterday*)
    - Locative adverbs (*here, there*)
    - Certain adjectives (*actual, present*)

Infinitival directives with indexicals

1st person pronouns can occur in imperatives, but not in Infinitival directives:

(3)   Prima di partire,   **restituiscimi**   le chiavi. (imperative)
        before of leave–Imp return–imp.2nd.sg–me the keys
        'Before leaving, return the keys to me.'

(4)   a. *Prima di partire, **restituirmi** le chiavi.   (infinitival directive)
        b. *Prima di partire, **restituire**   le chiavi a **me**

(5)   Prima di partire,   restituire   le   chiavi.   (infinitival directive)
        before of leave–inf return–inf the keys
        'Before leaving, return the keys.'

Infinitival directives with indexicals

2nd person pronouns can occur in imperatives, but not in Infinitival directives:

(6)　Imperative
Dopo l'esame, **consegna** 　il 　libretto al 　**tuo** insegnante.
after the-exam, hand in-Imp the booklet to-the your teacher

(7)　Infinitival directive
*Dopo l'esame, 　**consegnare** 　il 　libretto al 　**tuo** insegnante.
after 　the-exam, hand in-Inf 　the booklet to-the your teacher

(8)　Infinitival directive
Dopo l'esame, 　**consegnare** 　il 　libretto all'insegnante.
after 　the-exam, hand in-Inf 　the booklet to-the 　teacher

Infinitival directives with indexicals

1st and 2nd person pronouns inside a relative clause show the same asymmetry: they can occur in imperatives but not in Infinitival directives:

(9) Imperative
Porta   una foto   del   posto in cui   **vivi/vivo**.
bring-Imp.2nd.sg a   picture of-the place in which live-2nd.sg/1st.sg
'Bring a picture of the place where you/I live.'

(10) Infinitival directive
*__Portare__ una foto   del   posto in cui   **vivi/vivo**
bring-Inf a   picture of-the place in which live-2nd.sg/1st.sg

Infinitival directives with indexicals

3rd person pronouns can occur in imperatives, but not in Infinitival directives:

(11) Dopo l'esame, **consegna**   il   libretto al **suo** insegnante. (imperative)
      after the-exam, hand in-Imp.2nd.sg the booklet to his teacher
      'After the exam, hand in the booklet to his teacher.'

(12) *Dopo l'esame, **consegnare** il   libretto al   **suo** insegnante. (Infinitival dir.)
       after the-exam, hand in-Inf the booklet to-the his teacher

(13) Dopo l'esame,   **rimettere**   il   dizionario al   **suo** posto. (Infinitival dir.)
      after the-exam put back-Inf the dictionary to-the its   own place
      'After the exam, return the dictionary to its place.'

Infinitival directives with indexicals

Demonstratives can occur in imperatives, but not in Infinitival directives:

(14) Imperative
Usa **questo**.
use-Imp.2nd.sg this
'Use this.'

(15) Infinitival directive
*Usare **questo**.
use-Inf this

(15) is conceivable on a sign affixed to the object, though it would not be natural.

INFINITIVAL DIRECTIVES WITH INDEXICALS

Temporal indexicals can occur in imperatives, but not in Infinitival directives:

(16) Imperative
Lascia la camera entro **domani** sera.
leave–Imp.2nd.sg the room by tomorrow evening
'Leave the room by tomorrow evening.'

(17) Infinitival directive
*Lasciare la camera entro **domani** sera.
leave-Inf the room by tomorrow evening

Infinitival directives with indexicals

Locative indexicals can occur in imperatives, but not in Infinitival directives:

(18)   Imperative
Metti   una vite   **qui**.
put–Imp.2nd.sg a   screw here
                        'Insert a screw here.'

(19)   Infinitival directive
***Mettere** una vite   **qui**.
 put–Inf   a   screw here

INFINITIVAL DIRECTIVES WITH INDEXICALS

However, locative indexicals can occur in Infinitival directives in certain circumstances:

(20) a. **Lasciare** le   chiavi **qui**. (on a sign affixed on the key container)
         drop-Inf the keys   here
        ' Drop the keys here.'

   b. **Lasciare** le   chiavi **qui**. (on a sign with an arrow or a pointing finger)
      drop-Inf the keys   here
      'Drop the keys here.'

Indirect imperatives in Korean

INDIRECT IMPERATIVES IN KOREAN

- **Indirect imperatives** are sentences that have directive force and are used in mottos, protest slogans, picket signs and book titles (but not on public signs or written instructions).
- Indirect imperatives do not impose a requirement on a specific addressee, but rather on people in general.

(21) cengpwu-nun   enlon-uy cayu-lul   pocangha-**la**.
       government–Top press–Gen freedom–Acc guarantee–Imp.Indirect
       'As for the government, guarantee the freedom of press!'

Indirect imperatives in Korean

- **Indirect imperatives** form a minimal pair with **direct imperatives** to issue a directive to a specific addressee:

(22) a. **Indirect imperative (book title, class motto)**
      chengnyentul-iye, yelsimhi sal-**la**.
      youth–Voc,   diligently live-Imp.Indirect
      'Boys, live diligently!'

      b. **Direct imperative**
       atul-a,   yelsimhi sal-**ala**.
       son–Voc, diligently live-Imp.Direct
       'Son, live diligently!'

Indirect imperatives with indexicals

- Indirect imperatives show restrictions for indexicals.

1st person pronouns cannot occur with Indirect imperatives, but can occur with direct imperatives:

(23) a.   (***na**-eykey) hangsang cengcikha-**la**.   (Indirect imperative)
              me-Dat   always   be honest-Imp.Indirect

       b.   **na**-eykey hangsang cengcikha-**ala**.   (Direct imperative)
             me-Dat   always   be honest-Imp.Direct
             'Be always honest with me!'

Indirect imperatives with indexicals

2nd person pronouns cannot occur with Indirect imperatives, but can occur with direct imperatives:

(24) a. (***ne**-nun) hangsang cengcikha-**la**.   (Indirect imperative)
        you-Top always   be honest-Imp.Indirect

   b. **ne**-nun   hangsang cengcikha-**ala**.   (Direct imperative)
       you-Top always   be honest-Imp.Direct
       'You always be honest!'

Indirect imperatives with indexicals

2nd person pronouns used generically are acceptable with Indirect imperatives:

(25)   ne   casin-ul al-**la**.
        you self-Acc know-Imp.Indirect
        'Know thyself!'

In (25) the 2nd person pronoun 'ne casin' (yourself) is bound by a generic subject and in such cases, it is allowed in indirect imperatives.

Indirect imperatives with indexicals

1st and 2nd person pronouns inside a relative clause show the same asymmetry: they cannot occur in Indirect imperatives, but can occur in direct imperatives:

(26) a. ***ne**-ka sa-nun pang-ul chiwu-**la**. (Indirect imperative)
    you-Nom live-Adn room-Acc clean-Imp.Indirect

  b. **ne**-ka sa-nun pang-ul chiwu-**ela**. (Direct imperative)
    you-Nom live-Adn room-Acc clean-Imp.Direct
    'Clean the room you live in.'

Indirect imperatives with indexicals

A deictic 3rd person pronoun cannot occur in Indirect imperatives, but can occur in direct imperatives:

(27)   a. ***ku**-eykey hangsang cengcikha-**la**.   (Indirect imperative)
            he-Dat   always   be honest–Imp.Indirect

       b. **ku**-eykey hangsang cengcikha-**ala**.   (Direct imperative)
           he-Dat   always   be honest–Imp.Direct
           'Always be honest with him.'

Indirect imperatives with indexicals

Demonstratives cannot occur in Indirect imperatives, but can in direct imperatives:

(28) a. *__ikes__/__cekes__-ul   pohoha-__la__.   (Indirect imperative)
         this/that–Acc   protect–Imp.Indirect

       b. __ikes__/__ckes__-ul   pohoha-__ala__.   (Direct imperative)
         this/that–Acc protect–Imp.Direct
         'Protect this/that!'

INDIRECT IMPERATIVES WITH INDEXICALS

Temporal indexicals cannot occur in Indirect imperatives, but can occur in direct imperatives:

(29)　a. *****onul**-kkaci/**cikum**　ssuleyki-lul　chiwu-**la**.　　(Indirect imperative)
　　　　　today-by/now　　　　trash-Acc　　clean-Imp.Indirect

　　　　b.　**onul**-kkaci/**cikum**　ssuleyki-lul　chiwu-**ela**.　　(Direct imperative)
　　　　　today-by/now　　　　trash-Acc　　clean-Imp.Direct
　　　　　'Clean the trash by today/now.'

Indirect imperatives & Anaphoric temporals

(30) Statement
   mayil   **nayil**   mek-ul achim-ul   cwunpihan-ta.
   everyday tomorrow eat-Adn breakfast-Acc prepare-Dec
   'Everyday I prepare breakfast for the next day.'

(31) Indirect imperative
   onul ha-l   il-ul   **nayil**-lo   milwu-ci   mal-**la**.
   today do-Adn work-Acc tomorrow-to postpone-CI do not-Imp.Indirect
   'Do not put off the work of today to tomorrow!'

(32) Indirect imperative
   cikum tangcang   ha-**la**.
   now   immediately do-Imp.Indirect
   'Do it right away!'

Indirect imperatives with indexicals

Locative indexicals cannot occur in Indirect Imperatives, but can occur in direct imperatives:

(33) a.   ***yeki**-lul   cikhi-**la**.   (Indirect imperative)
              here-Acc secure-Imp.Indirect

     b.   **yeki**-lul   cikhi-**ela**.   (Direct imperative)
              here-Acc secure-Imp.Direct
              'Protect/secure here.'

     c.   ?**yeki**-lul   cikhi-**la**. (Indirect imperative, shouted by people at the spot)
              here-Acc secure-Imp.Indirect

Similarities and Differences

	1st pers. pronoun	2nd pers. pronoun	deictic 3rd pron.	demonstra-tive	locative indexical
It. infinitival directives	*	*	*	?	?
K. indirect imperatives	*	* referential ✓ generic	*	*	?

Table 1: Comparison of indexicals in the two clause types

	'today' & 'tomorrow'	'now'
It. infinitival directives	*	*
K. indirect imperatives	✓ "anaphoric" uses * otherwise	✓ with *tangcang* * otherwise

Table 2: Comparison of temporal indexicals in the two clause types

Summary

- Infinitival directives and indirect imperatives give a way to distinguish true indexicals from other context-dependent elements: quantifiers with contextual domain restrictions, relative adjectives with a contextual standard, definite noun phrases whose reference can be recovered from the lexical material.

(34). a. Mettere tutte le   matite nel   contenitore piccolo. (Infinitival directive)
      put   all   the pencils in-the container small
      'Put all the pencils in the small container.'
   b. motun   celm-un   cenghiin-ul   ppop-ula!   (Indirect imperative)
      all   young-Adn politician-Acc vote-Imp.Indirect
      'Vote for all young politicians!'

Theoretical Implications

THEORETICAL IMPLICATIONS

Classical view of indexicality: Kaplan (1989)

Each phrase is interpreted in terms of a context consisting of Author (or Agent or Speaker), Time, Place and World:

(35) $c = \langle c_A, c_T, c_P, c_W \rangle$

The first person pronoun refers to the Author, so it has a denotation in any context (Same for other indexicals).

- What prevents this in the directive clauses under discussion?

THEORETICAL IMPLICATIONS

Possibility 1:

- Perhaps infinitival directives and indirect imperatives cannot be interpreted with respect to a context c (in Kaplan's sense) – there is no c.
- If there is no c, indexicals cannot be interpreted.

Challenges:

- Why are locative indexicals possible (to some extent)?
- How do we enforce the requirement that there be no context?

Theoretical Implications

Possibility 2:

- Perhaps infinitival directives and indirect imperatives are interpreted with respect to a context c (in Kaplan's sense) that has fewer components – for example, it lacks an Author.
- If there is no c_A, 1st person indexicals cannot be interpreted.

Challenges:

- What does it mean for a context to lack an Author?
- Someone made the rule/wrote the sign, why don't they count as an Author?

Theoretical Implications

Possibility 3:

- A context-shifting operator overwrites the Author parameter and prevents the 1st person pronoun to refer to the author of the context. (Schlenker 2003, Anand & Nevins 2004, Deal 2020, a.o.)
- 1st person indexicals cannot be interpreted.

Advantages and challenges:
- Every root context c has an Author (though it may not be accessible).
- We need to restrict this to a small set of directive clauses.

Theoretical Implications

Possibility 4:

- Suppose that 1st and 2nd person pronouns are licensed by some element in the left periphery – like a feature or a syntactic operator (Sigurðsson 2004, Bianchi 2006, Baker 2008, Miyagawa 2012, Haegeman & Hill 2013, Isac 2015, Zu 2018, a,o.)
- It is possible that this syntactic licensing requirement is not met in Infinitival directives and Indirect imperatives due to the lack of a feature or an operator is missing in these clause types.

Theoretical Implications

Possibility 4:

- Isac (2015), working on Romanian, claims that canonical imperatives have a Speech Event head that introduces 2nd person features
- In contrast, infinitival directives lack such a head. Hence, 2nd person pronouns are not allowed in infinitival directives.

Challenge:
Isac's (2015) Speech Event head introduces 2nd person features and its absence results in the absence of 2nd person pronouns in infinitival directives. How do we account for the impossibility of the other indexical elements?
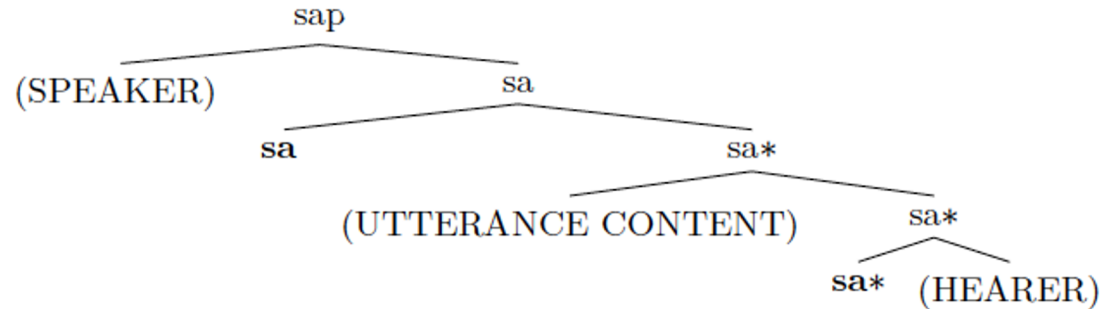
Theoretical Implications

- Another interesting consequence of our empirical observations

Speas and Tenny (2003): force results from a particular structural configuration of **Speaker** and **Addressee** with respect to the clause

(36) Declaratives

Theoretical Implications

- Interrogatives are formed via the Hearer raising to a position higher than the Utterance context, from where it commands it.
- That is, the structural relations between Speaker, Hearer, and Utterance Content are different across different clause types and this results in difference in force.
- Force and the representation of discourse participants are closely intertwined.

THEORETICAL IMPLICATIONS

- Such tight and direct relationship between the structural representations of discourse participants with force is problematic for Infinitival directives and Indirect imperatives.

    a. Both infinitival directives and indirect imperatives clearly have directive force.
    b. However, no 1st and 2nd person pronouns are allowed.

- This suggests that, if force is encoded in the syntax, it *cannot* depend on its relative position with respect to Speaker and Addressee in a simple way.

Theoretical Implications

How can we reconcile Speas and Tenny's proposal with our data? Two possibilities:

- Speaker and Addressee are present in the syntactic representation but are defective, so they cannot license 1st and 2nd person pronouns.
- Speaker and Addressee are not present in the syntactic representation and force is not syntactically represented in these directive clauses.

Challenges:
- What does it mean for Speaker and Addressee to be defective?
- When is force encoded in the syntax and when is it not?

Theoretical Implications

- There are other works that assume that the speech participants are encoded in the syntax but do **not** assume a direct relationship between them and the representation of force:

    a. Baker (2008): 1st person is bound by Speaker, and 2nd person by Addressee in the left periphery. No relation to force.
    b. Portner et al. (2019): cP in the left periphery encodes the Speaker and Addressee. These elements are not related to the representation of force.

- These proposals can more easily account for the data we have discussed: a sentence could lack what licenses indexicals and still have force.

Conclusion

- We have made two novel observations:
  - There is a type of clause that has directive force and forms a minimal pair with canonical imperatives
  - Indexical elements are ungrammatical (or severely limited) in this clause type
- We have discussed some challenges these sentences pose for capturing the restrictions within current syntactic and semantic theories given common assumptions about indexicals.
- We leave for future research exactly how the restrictions on indexicals in these clause types can be accounted for.

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