# D+CP: Italian Pseudo-Relatives 

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## 1 The plot

Pseudo-relatives (PRs) consist of a subject $\left(\mathrm{DP}_{S}\right)$ and a finite $\mathrm{C}^{\prime}$-predicate with a subject gap (Radford 1977, Kayne 1975, Cinque 1992, et al.).
(1) $\quad\left[{ }_{P R}\left[D P_{S}\right.\right.$ Gianni $]$ che ballo $]$ è un evento da non perdere.

Gianni that dance BE.3SG an event to not miss.
'G. dancing is an event not to miss.'

We're going to argue that PRs are DPs, with a null (definite) D selecting a CP, which denotes an individual situation.


## Interesting twist with agreement

- Either $\mathrm{DP}_{S}$ can trigger matrix agreement or the whole PR can govern 3SG.
(3) $\quad\left[{ }_{P R}\left[{ }_{D P_{S}}\right.\right.$ Io $\left.\quad\right]$ che ballo $]$ è/sono un evento da non perdere. I.NOM that dance BE.3SG/BE.1SG an event to not miss.
'Me dancing is an event not to miss.' (Cinque 1992 (66))

Empirical Claim: Agreement with $\mathrm{DP}_{S}$ is a case of optional exceptional agreement with a subject embedded within the PR.

Proposal: Agreement is mediated by a clausal $\mathrm{D}_{C}$ : Case is transmitted from T down to $\mathrm{DP}_{S}$ via $\mathrm{D}_{C}, \phi$ is optionally transmitted from $\mathrm{DP}_{S}$ up to T via $\mathrm{D}_{C}$.


Bigger Picture Implications Agreement can be mediated by clausal determiners-suggested as a feature of some long distance agreement (LDA) constructions in Basque and Tsez (Bjorkman and Zeijlstra 2015, Preminger 2009).

## The competing hypothesis: Cinque 1992

Cinque claimed that the two agreement options in (3) correspond to two distinct parses: a DP parse in which the PR is merely an adjunct to the DP (DP-Adjunct-PR) and a true PR parse (which he claimed was a CP).
(5) DP-Adjunct-PR (agreement with DP)

(6) CP PR (agreement with CP/PR, 3sG)


If Cinque's hypothesis is right, there is nothing exceptional about the agreement options in (3). We are going to argue against Cinque's hypothesis, and show that the agreement patterns are exceptional.

## 2 PRs Basics

PRs consist of DP subject $\left(\mathrm{DP}_{S}\right)$, followed by a complementizer introducing a finite clause with a subject gap: [ $\left.\mathrm{DP}_{S} \mathrm{C}\left[T P \mathrm{e}_{s} \ldots\right]\right]$
(7) Ho visto Gianni che correva.

Italian
I.have seen Gianni that ran.IMPF
'I saw Gianni running.'
(8) J'ai vue Jean qui courait.

French
I.have seen Jean that ran.IMPF
'I saw Jean running.'
(9) He visto a Juan que corría.

Spanish
I.have seen to Juan that ran.IMPF
'I saw Juan running.'
(10) I Maria evlepe ton Jani pu etrexe. Greek the Mary watch.Past.IMP the John.acc that run.PAST.IMPF
'Mary was watching John running.' (Grillo \& Spathas 2014)

The most important thing:
PRs are constituents that describe an event/situation, not an individual.
a. Ciò ${ }_{1}$ che ho visto è [Mario che piangeva] ${ }_{1}$.
That which I.have seen is Mario that cry.IMPF
'What I saw was Mario crying'
b. ${ }^{*} \mathrm{Chi}_{2}$ ho visto è [ $\mathrm{Mario}_{2}$ che piangeva]. (OK if appositive rel.)
Who I.have seen is Mario that cry.IMPF
'Who I saw was Mario crying' (after Radford 1977: 160(98))

PRs are not relative clauses (Kayne 1975, Radford 1977, Guasti 1988, Rafel 1999, Koopman and Sportiche 2008, but see Koenig and Lambrecht 1999).

## Head restriction

Appositive relatives can have Proper Name heads, but they are set off by intonational pauses.
a. *John that ran is happy.
restrictive relative
b. John, who ran, is happy
appositive relative

This is true in Italian:

$$
\begin{array}{ll}
\text { a. *Gianni che correva e felice. } & \text { restrictive }  \tag{13}\\
\text { Gianni that ran-IMPF, is happy. } & \\
\text { 'Gianni who ran is happy.' }
\end{array}
$$

b. Gianni, che correva, é felice. appositive

Gianni, that ran-IMPF, is happy.
'Gianni, who ran, is happy.'

But PRs do not need to be set off by pauses like this:
(14) Ho visto Gianni che correva. (Italian)
I.have seen Gianni that ran-IMPF
'I saw Gianni running'

## Does not use relative pronouns

a. Il cane che abbaia é felice. the dog that barks is happy.
'The dog that is barking is happy'
b. Il can il quale abbaia é felice the dog, the which barks, is happy.
'The dog, who is barking, is happy.
(16) a. Sento il cane che abbaia.
I.hear the dog that barks.
b. *Sento il cane il quale abbaia.
I.hear the dog the which barks.
'I hear the dog barking'
(Casalicchio 2013)

## Subject Restriction

The 'gap' can only be in subject position. ${ }^{1}$
a. Ho visto Luigi ${ }_{1}$ che $e_{1} \quad$ salutava Maria I.have seen Luigi that greet-IMPF Maria
'I saw Luigi greeting Maria'
b. *Ho visto Luigi ${ }_{1}$ che Maria salutava $e_{1}$
I.have seen Luigi that greet-IMPF Maria
'I saw Luigi greeting Maria'
(Casalicchio 2013)

## No long distance 'gaps'

a. Ho visto Luigi ${ }_{i}$ che $e_{1} \quad$ salutava Maria
I.have seen Luigi that greet-IMPF Maria
'I saw Luigi greeting Maria'
b. *Ho visto Luigi ${ }_{1}$ che Maria sosteneva che $e_{1}$ salutava Gianni I.have seen Luigi that Maria assert-IMPF that $e$ greet-IMPF Gianni 'I saw Maria asserting that Luigi was greeting Gianni'

[^0]c. *Ho visto Luigi ${ }_{1}$ che Maria sosteneva che Luisa diceva che $e_{1}$ salutava I.have seen Luigi that Maria assert-IMPF that Luisa say-IMPF that $e$ greet-IMPF Gianni
Gianni
'I saw Maria asserting that Luisa was saying that Luigi was greeting Gianni'

## Tense Matching

The PR typically requires that the matrix and embedded tense match and indeed this was thought to be obligatory (Radford 1975 a.o.). IMPF $=$ imperfective $=$ past imperfective (Schwarze 1974, Radford 1975, Guasti 1988, Kayne 1975, etc.)
a. Vedo Marco che corre /*correva /*ha corso $/{ }^{*}$ correrà I.see Marco that run.PRES /runs.IMPF /has run /will.run 'I see Marco running.'
b. Ho visto Marco che correva /*corre /*correrà I.have seen Marco that run.IMPF /run.PRES /will.run 'I saw Marco running.'
c. Vedrò Marco che corre /*correrà. I.will.see Marco that runs.PRES /will.run 'I will see Marco running'

This is not true of relatives, of course.

## Only closest subject gaps licensed, unlike relative clauses.

a. Ho visto Luigi ${ }_{1}$ che $e_{1}$ salutava Maria. I.have seen Luigi that greet.Impf Maria. 'I saw Luigi greet Maria.'
b. *Ho visto Luigi ${ }_{1}$ che Maria salutava $e_{1}$. I.have seen Luigi that Maria greet.IMPF 'I saw Maria greeting Luigi.'
c. *Ho visto Luigi ${ }_{1}$ che Paolo sosteneva che $e_{1}$ salutava Maria. I.have seen Luigi that Paolo assert.IMPF that greet.IMPF Maria. 'I saw Luigi assert that Paolo greeted Maria.'

## The PR subject is not an argument of the matrix clause.

Cinque 1992 argues that it is not necessary to directly perceive the PR-subject (but cf. Rizzi 1992, Ippolito 1999).
(21) Se senti Gianni che fa piangere il fratellino, chiamami.

If you.hear G. that makes cry the little.brother, call.me. 'Call me if you hear G. making his little brother cry.' (Cinque 1992: (96a))
(22) J'entends le vent qui souffle dans les arbres.

I'hear the wind that blows in the trees.
'I hear the wind blowing in the tree.'

- No $\theta$-relation between the matrix verb and the PR subject in constituent PRs.


## The Case of the PR Subject is whatever the whole PR is.

a. $[\mathrm{Io} / *$ me che fumo per strada $]$ è uno spettacolo che non [I.NOM $/ *_{\text {ACC }}$ that smokes in the.street ] is a sight that not raccomando.
recommend.1sG
'Me smoking in the street is a sight I cannot recommend.' (Cinque 1992 (66))
b. Ha visto [me/*io che fumavo per strada].

He.has seen me.ACC/*I that smoke-IMPF in street.
'He saw me smoking in the street.'

Important Caveat about a structural ambiguity: There is another, two-constituent parse of similar sequences in which what we've called $\mathrm{DP}_{S}$ is actually an object of the verb, and it's available with non-perception verbs.
(24) Hanno [colto Mario] [che rubava negli spogliatoi]. have.3PL caught Mario that steal.IMPF in.the dressing.room. 'They caught Mario stealing in the dressing room.'

It's not one constituent:

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*MARIO CHE FUMA, vorrei cogliere!
    Mario that smokes.PRES, I.would.like to.catch.
    'Mario smoking, I would like to catch.'
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A verb like vedere 'see' allows this parse, and this further permits the DP to cliticize and passivize.
(26) a. L'ho visto che correva a tutta velocità Him'I.have seen that run-IMPF at full speed 'I saw him running at full speed'
b. Gianni è stato visto che correva a tutta velocità Gianna was seen that run-IMPF at full speed 'Gianni was seen running at full speed' (Cinque 1992 (44a,b))

These are cases where the PR forms a secondary predicate, not in construction with the DP.

However verbs, like sopportare 'tolerate', that select only for the constituent PR, do not allow A-movement.
$\therefore$ Constituent PRs block A-Movement. (See Appendix A for more on A and A'-movement)

## Our basic analysis, reminder



In other work we provide reconstruction arguments that $\mathrm{DP}_{S}$ is base-generated high, and does not move from within the TP.

- The gap is PRO (Cinque 1992, Ippolito 1999), hence limited to subjects, and is bound by C creating a derived predicate (Chierchia 1989).
- Questions arise about finite PRO (for discussion) and agreement on PR T.


## 3 PRs are event-referential DPs (our claims)

|  | DPs | PRs | CPs | Inf's | Examples |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Complements Prepositions | $\checkmark$ | $\checkmark$ | $\boldsymbol{X}$ | $\boldsymbol{X}$ | $(11)$ |
| Coordinates with DPs | $\checkmark$ | $\checkmark$ | $\boldsymbol{X}$ | $\boldsymbol{X}$ | $(12)$ |
| Antecedes pro | $\checkmark$ | $\checkmark$ | $\boldsymbol{X}$ | - | $(13)$ |
| Used to express direct perception | $\checkmark$ | $\checkmark$ | $\boldsymbol{X}$ | $\checkmark$ | $(15-17)$ |
| Has definite interpretation | $\checkmark$ | $\checkmark$ | $\boldsymbol{X}$ | $\boldsymbol{X}$ | $(18-20)$ |

PRs may complement prepositions (27a), like DP (27b) but not CP (27c).
a. La vista di [ ${ }_{P R}$ Carlo che balla il tango ] è da non perdere. The sight of Carlo that dance.Pres the tango is to not miss.
'The sight of Carlo dancing the tango is not to be missed.' (Cinque 1992 (35b))
b. La vista di [DP Carlo ]
the sight of Carlo
'the sight of Carlo'
c. La storia (*di) [CP che Gianni ha sconfitto il drago ] non è vera.

The story of that Gianni has defies the dragon not is true.
'The story that Gianni defies the dragon is not true.'
PRs may coordinate with other DPs (28a) unlike CPs (28b).
(28) a. [PR Gianni che balla] e [DP l'evento di cui mi parlavi ] sono

Gianni that dances and the'event of which to.me you.spoke are
immagini che non vorrei mai vedere.
images that NEG I.want never see.
'Gianni dancing and the event you told me about are images I'd never want to see.'
b. ?*[CP Che Maria è pazza ] e [ ${ }_{D P}$ la cosa che mi hai raccontato di Lisa ] That Maria is crazy and the thing that me have.you told of Lisa
sono storie ridicole.
are stories ridiculous.
'That Maria is crazy and the thing you told me about Lisa are ridiculous stories.'

## PRs can antecedent pro, unlike CPs.

As Iatridou and Embick (1997) discovered, clauses cannot antecede pro; they suggest this is because CPs don't bear the requisite $\phi$-features needed to identify pro.
(29) Standard finite CPs

A: $\left[\text { Gianni }_{j} \text { è sempre in ritardo }\right]_{i}$.
G. is always late .
'G. is always late.'
B: *Proprio così, e $\quad \operatorname{pro}_{j / * i}$ ha convinto suo padre a comprargli una macchina. Just so, and has convinced his father to buy.him a car. 'Indeed, and it convinced his father to buy him a car.'

PRs, however, can antecede pro, suggesting they are like DPs in bearing $\phi$-features (we'll see later just what kind).
(30) Pseudo-Relatives

A: [Gianni e Maria che ballano il tango $]_{i}$ sarà eccitante. Gianni and Maria that dance the tango be.fut.SG exciting. 'Gianni and Maria dancing the tango will be exciting.'
$\mathrm{B}: \mathrm{Si}, \quad$ pro $_{i}$ ma spaventerà Luisa a morte. Yes, but frighten.FUT Luisa to death. 'Yes, but it will frighten Luisa to death.'
(31) Islandhood
a. *La persona con cuii ho visto $\left[P R\right.$ tua sorella che stava parlando $\left.\mathrm{t}_{i}\right]$ è The person with whom have.I seen your sister that she.was talking is questa. this.
'This is the person with whom I have seen your sister talking' (Cinque 1992 (71a))
b. ${ }^{*}{ }^{C o m} \grave{e}_{i}$ che Gianni ha visto ${ }_{P R}$ Maria che picchiava il ragazzo $\mathrm{t}_{i}$ ]? How.is that Gianni has seen Maria that beat-IMPF the guy.
'How did Gianni see [Maria beating the guy $\mathrm{t}_{i}$ ]?

These can be compared to the relatively acceptable extraction from infinitival complements in direct perception (Burzio 1986):
a. ?Con chi hai visto Maria parlare $\mathrm{t}_{i}$ ? with who have. 2 sg seen Maria speak 'With whom did you see Maria speak?
b. ?Com'è che hai visto Maria picchiare Gianni $\mathrm{t}_{i}$ ?

How'is that have.2sg seen Maria hit Gianni
'How did you see M. hit G.?'

Our proposal invites reducing the islandhood in PRs to that found in overt complex DPs like (33):
(33) a. *La persona con $\operatorname{cui}_{i}$ ho visto $\left[\begin{array}{l}D P\end{array}\right]$ 'evento di tua sorella che stava The person with whom have.I seen the.event of your sister that she.was parlando $\mathrm{t}_{i}$ ] è questa. talking is this.
'This is the person with whom I have seen the event of your sister talking is this'
b. *Com'è che Leo ha visto [ ${ }_{D P}$ l'evento di Maria che picchiava il ragazzo $\mathrm{t}_{i}$ ]? How.is that Leo has seen the.event of M. that beat-IMPF the guy.
${ }^{\prime} \mathrm{How}_{i}$ did Leo see the event of [Maria beating the guy $\mathrm{t}_{i}$ ]?
The PR subject can extract but this is due to the two-constituent parse (see our paper).

## 4 Evidence for referential DP status

With respect to intensionality, PRs behave like infinitives not standard finite CPs:
(34) Gianni ha visto dalle lacrime che Maria piangeva, \#ma pensava ridesse. Gianni has seen from.the tears that Maria cry.IMPF, but thought laugh.sUbJ. 'Gianni saw from the tears that Maria was crying, \#but thought she was laughing.'
(35) Gianni ha visto Maria piangere ...ma pensava ridesse.

Gianni has seen Maria cry.INF ...but thought laugh.subj
'Gianni saw Maria crying but thought she was laughing.'
(36) Gianni ha visto [ ${ }_{P R}$ Maria che piangeva]...ma ha pensato che ridesse. Gianni has seen Maria that cry.IMPF ...but has thought that laugh.SUBJ 'Gianni saw Maria crying ... but he thought she was laughing.'

## Barwise 1981

Direct perception complements denote an individual situation/event s

Indirect perception complements denote a proposition $\mathbf{p}$

- Substitution of extensional equivalents salva veritate possible with direct, but not indirect perception: (Barwise 1981; see Kratzer 2007)
(37) Direction Perception Reports

Mario saw Silvia sprinkle white powder on his dinner.
The white powder is poison.
Mario saw Silvia poison him. (follows automatically)

## Indirect Perception Reports

Mario saw that Silvia sprinkled white powder on his dinner.
The white powder is poison.
Mario saw that Silvia poisoned him. (does not follows automatically)

## Another demonstration:

The Maple Leafs scored a goal in the 1 st period. Phil saw this, but at the time assumed they would still lose. It turns out the final score was 1-0.
a. Phil saw the Maple Leafs score the winning goal.
b. \#Phil saw that the Maple Leafs scored the winning goal.

## Another demonstration:

a. Phil saw Maple Leafs win, but thought they lost.
epistemically neutral
b. Phil saw that the Maple Leafs won, \#but thought they lost. epistemically positive

An syntactic explanation? (see Rochette 1988, a.o.)

- Finite CPs denote propositions
- (Bare) Infinitives denote individual events/situations.

No!

In most modern theories of semantics, especially situation semantics, there are propositions all the way up the tree!

- Portner 1992, Kratzer 1989 Kratzer 2007
- even in theories with distinct event and temporal arguments, a bare infinitive denotes a property of events or times, not an individual event


## Higginbotham 1983

It's not about size per se: (bare) infinitives under direct perception verbs are existentially quantified event (aka situation) descriptions:
a. John saw Mary's departure.
b. John saw Mary depart.
$\rightsquigarrow \exists \mathrm{s} \exists \mathrm{s}^{\prime}\left[\operatorname{depart}(\right.$ Mary $\left.)\left(\mathrm{s}^{\prime}\right) \& \operatorname{saw}(\mathrm{John})\left(\mathrm{s}^{\prime}\right)(\mathrm{s})\right]$
(Definite)

Unlike infinitives, however, PRs are referential, carrying an existence commitment under negation.

Since Maria has never danced...
a. \#G. non ha mai visto M. che ballava

PR
G. neg has never seen M. that dance.IMPF. 'G. never saw M. dancing.'
b. Gianni non ha mai visto Maria ballare. Infinitive G. NEG has never seen M. dance.
'G. has never seen M. dance.'

## PRs behave like definites under higher quantifiers.

Infinitives can scope under the universal, giving rise to a multiple events reading (43a). PRs in the same context strongly resist this (43b).
a. Tutti hanno visto Maria ballare. Infinitive: multiple events of dancing All have seen M. dance.InF 'Everyone saw M. dance.'
b. Tutti hanno visto Maria che ballava.

PR: single event of dancing
All have seen Mary that dance.ImpF.
'Everyone saw M. dancing.'
Multiple event readings for PRs only become easily available if the PR contains a variable pronoun bound by the quantifier:
(44) Ogni ragazzo ${ }_{i}$ ha visto sua $_{i}$ sorella che ballava.
multiple dancings
Every boy has seen his sister that dance.IMPF.
'Every boy $_{i}$ saw his ${ }_{i}$ sister dancing.'
This is expected if the PR is referential:
a. Every boy saw the dance.
b. Every boy $_{i}$ saw the dance that his $_{i}$ sister performed.

## single dance <br> multiple dancings

Conclusion: PRs are definite descriptions of events and are DPs.


Under ever, infinitives give rise to a non-specific indefinite interpretation, making the response in (46)[B] felicitous. In contrast, the use of the PR in (46)[ $\left.\mathrm{B}^{\prime}\right]$ is infelicitous, which is expected if the $P R$ is referential, just a definite DPs or specific indefinite DPs make bad responses in (46) [B"].
(46) A: Max voleva proprio ballare con Lea al matrimonio M. want.IMPF really dance.InF with L. at.the wedding. 'M. really wanted to dance with L. at the wedding.'
B: Ma l'aveva mai vista Lea ballare? But her'had ever seen L. dance.Inf
'But had he ever seen L. dance?'
B': ??Ma l'aveva mai vista Lea che ballava?
But her'had ever seen L. that dance.ImpF
'But had he ever seen L. dance?' I realized that I used a clitic in this example... now
I see why I had a feeling that we were looking at a two constituent structure...
$\mathrm{B}^{\prime \prime}$ : ??But has he ever seen the dance by Lea/a certain dance by Lea?

Again, this shows that PRs are not existentially quantified like infinitives but pattern like referential terms.

## Under future operators PRs deliver a scheduled-event interpretation.

(47) Max vorrà vedere Lea ballare.
M. want.fut see L. dance.Inf.
'M. will want to see L. dance.' (L. might dance or not)
...wherever or whenever that may happen, if it does.
(48) Max vorrà vedere Lea che balla.
M. want.fut see L. that dance.Pres.
'M. will want to see L. dancing.' (L. will dance, it is scheduled)
\#...wherever or whenever that may happen, if it does.

Cf. definites:
(49) a. I want to see a hockey match (any one will do).
b. I want to see the/a certain hockey match. (has not happened, but scheduled to)

### 4.1 No scoping out of PR

The PR version of (50) can only describe the improbable case in which there is one situation that contains each event of Gianni's children's birth and Gianni sees this one large situation on one occasion. This contrasts with infinitive complements (50), where we saw exportation delivered multiple perceived events.
(50) \#Gianni ha visto tutti i suoi figli che nascevano.

Gianni has seen all the his children that born-IMPF
'Gianni saw all his children being born.'
(51) Gianni ha visto tutti i suoi figli nascere.

Gianni has seen all the his children born.INF
$' G i a n n i$ saw all his children being born.' $\forall \mathrm{x} \exists \mathrm{s}\left[\right.$ his_child $\left.(\mathrm{x}) \rightarrow \exists \mathrm{s}^{\prime}\left[\operatorname{be\_ } \quad \mathrm{born}(\mathrm{x})\left(\mathrm{s}^{\prime}\right) \& \operatorname{saw}\left(\mathrm{~s}^{\prime}\right)(\mathrm{G})(\mathrm{s})\right]\right]$

The PR is felicitous if Gianni sees multiple women giving birth in one room at the same time.
(52) Five Children were born at Dr. Rossi's hospital
a. Dr. Rossi ha visto tutti i bambini nascere.

Dr. Rossi has seen all the children born.INF.
'Dr. Rossi saw all the children be born.'
b. Dr. Rossi ha visto tutti i bambini che nascevano.

Dr. Rossi has seen all the children that born.IMPF.
'Dr. Rossi saw all the children being born.'

The PR can report the scenario: there's one big situation in which all children were born at roughly the same time (say, in the same room too) and Dr. Rossi witnessed this situation. ${ }^{2}$

Similar effect found with Greek PRs:
(53) O Janis idhe ola ta pedja tu pu jeniontusan. the John saw all the children his that born.PAST.ImPF 'John saw all of his children being born.'
Consultant's comments: This implies that John's one wife (only) had twins or multiples.

[^1]
## 5 Case and Agreement Patterns

Recall that the Case of the PR Subject is whatever the whole PR is.
Case must not come directly from higher clause, since there are no adjacency requirements in $\mathrm{DP}_{S}$ (54a), unlike other cases of 'ECM' (54b):
a. Non sopportavo in Francia [Gianni che fumava in quel modo...]

Not stand in France [Gianni that smoke-ImPF in that way...]
'I couldn't stand in France Gianni smoking that way....'
b. *?Ritenevo in Francia [Gianni onesto]
I.believed in France Gianni honest
'I believe G honest in France.'

Romance generally does not have Case assignment to Spec, CP; nor does it have ECM in the standard case (but see Rizzi 1982, Kayne 1981, Massam 1985, Bošković 1997 for ways out for Romance ECM).
*Mario affermava [ questa donna non volerlo sposare ]
Mario stated this woman not to.want.him to.marry
'Mario said this woman did not want to marry him.' (Rizzi 1982 (3b))

This is why the D is there in PRs - to give $\mathrm{DP}_{S}$ Case. ${ }^{3}$

- But this turns the PR into a referential description of events, so it cannot complement ECM or indirect perception verbs.
(56) Mediated Agree: The external Determiner passes Case to $\mathrm{DP}_{S}$ (compare to Reuland 1983's 'governing' -ing):

$\mathrm{D}_{C}$ must get converted into a Case-valuer after its own case is valued.
- Is this plausible, folks?

[^2]
### 5.1 Exceptional $\phi$-Agree

The PR subject can also - optionally - trigger person and number agreement on the verb:

## Exceptional Plural

(57) [Carlo e Paolo che ballano il tango] sono/è uno spettacolo da non perdere. Carlo and Paolo that dance.Pres the tango are/is a sight to not miss. Carlo and Paolo dancing the dance are a sight not to be missed. (Cinque 1992 (33))

## Exceptional Person

a. [Tu che balli] sei/è un evento da non perdere.

You that dance BE.2SG/BE.3SG an event to not miss.
'You dancing is an event not to be missed.'
b. [Io che ballo] sono/è un evento da non perdere.

I that dance BE.1SG/BE.3SG an event to not miss.
'Me dancing is an event not to miss.'

Not limited to copula verbs
a. [Carlo e Paolo che si vestono da soldati] infastidiscono/infastidisce Maria. Carlo and Paolo that SI dressed as soldiers bother.3PL/3SG Maria. 'Carlo and Maria dressed as soldiers bother/bothers Maria.
b. [Tu che ti vesti da soldato] infastidisci/infastidisce Maria. You that TI dress as soldier bother.2SG/3SG Maria. 'You dressing as a soldier bother/bothers Maria.'

See appendix for empirical support from an acceptability study.

## 6 Exceptional Agreement arises in event-referential PRs

Cinque claimed that there are distinct parses: a DP parse in which the PR is merely an adjunct to the DP (DP-Adjunct-PR) and a true PR parse (which he claimed was a CP).
DP-Adjunct-PR


CP PR (CPs are 3sG, perhaps by default)


If this were true, the agreement patterns would not be exceptional.

## Arguments against a DP-Adjunct-PR analysis of Exceptional Agreement:

In (62), the verb precedono relates situations - not individuals - and still agreement is with the PR subject.
(62) [Carlo e Paolo che ballano il tango] precedono sempre l'arrivo di Maria. C. and P that dance the tango precede.PL always the'arrival of Maria. 'C. and P. dancing tango always preceeds M.'s arrival.'

In (63a), we see that we cannot predicate 'is a scene' of an individual denoting DP, but can of an event denoting DP (63b); PRs act like event-denoting DP (63c) -and allow exceptional agreement here too.
a. \#Carlo e Paolo sono una scena da non perdere. C. and P. are a scene to not miss. 'Carlo and Paolo are a scene not to miss.'
b. La distruzione di Roma è stata una scena da non perdere. the destruction of Rome was a scene to not miss. 'The destruction of Rome was a scene not to miss.'
c. [Carlo e Paolo che ballano] sono una scena da non perdere. Carlo and Paolo that ballano Be.3pl a scene to not miss. 'Carlo and Paolo dancing is a scene not to miss.'

Similar argument with clefts:
a. Ciò che ho visto è [Mario che piangeva]. That which I.have seen is Mario that cry.IMPF
'What I saw is Mario crying.'
b. Chi/*Ciò che ho visto sono [Mario e Silvio]. Who/That which I.have seen are Mario and Silvio 'Who I saw were Mario and Silvio.'

## A way out for Cinque?

Cinque does suggest in passing that the proposed DP-adjunct-PRs have a special semantics, unlike a DP with a reduced relative but rather something like (65a) with an as- or whenclause. ${ }^{4}$ Maybe this is responsible for their event-denoting distribution?

No.
DPs modified by when-clauses behave differently from PRs.
a. Maria, quando balla, è raggiante/molto arrabbiata. M., when she.dances, is radiant/very angry. 'M., when dancing, is radiant/very angry.'
b. *Maria che balla è raggiante/molto arrabbiata.
M. that dances is radiant/very angry.
'M. dancing is radiant/very angry.'
a. Gianni che balla è la scena più bella del film. G. that dances is the scene most beautiful of.the movie. 'G. dancing is the most beautiful scene of the movie.'
b. *Quando balla, Gianni è la scena più bella del film. When dances, G. is the scene most beautiful of.the movie. 'When dancing, G. is the most beautiful scene of the movie.'

[^3]
## 7 Conclusion and Mechanics of Mediated Agree

How does the clausal determiner $\mathrm{D}_{C}$ participate in Agree?

- typically, an NP (NumP, Ritter 1991) would value a D's $\phi$ features
- in PRs, $\mathrm{D}_{C}$ combines with a clausal constituent CP that does not bear $\phi$-features (Iatridou and Embick 1997)
- the grammar allows two options:
$\mathrm{D}_{C}$ bears 3SG

$\mathbf{D}_{C}$ takes $\mathrm{DP}_{S} \phi$-features


Question for discussion: What kind of derivational timing does this require? What about phases? Implications for licensing pro, etc.

## Similar configurations have been proposed in recent literature on LDA

Preminger 2009 LDA configurations in substandard Basque allow an embedded object in a nominalized clause to trigger agreement on matrix T .
(67) Uko egin d- i- $\quad \phi \quad$ e- $\quad \phi \quad\left[[\text { agindu horiek }]_{D P}\right.$ refusal(ABS) done 3.ABS- have- sg.ABS- 3pl.DAT- 3sg.ERG order(s) those ${ }_{p l}(\mathrm{ABS})$ bete-tze-a-ri $]_{D P_{C}}$.
obey-NMZ-ART-DAT
'He or she has refused to obey those orders.' (Extepare 2006:(99))

Preminger (2009, p.631) proposes that the DP argument values the $\phi$-features on $\mathrm{D}_{C}$, and these then then value the probe on T .

Bjorkman and Zeijlstra (2015) have suggested that nominal elements at the clause edge mediates LDA in Tsez (Polinsky and Potsdam 2001).
eni-r [už-ā magalu b-āc'-ru-ti] b-iy-xo
mother-DAT [boy-ERG bread.III.ABS III-eat-PSTPRT-nmz III-know-PRES
'The mother knows the boy ate the bread.'
(Polinsky and Potsdam 2001: 606(48a))

Bigger question: Is mediation by clausal D a general feature of Long Distance Agreement? If so, why?

## 8 Deriving the right situation

In sum, we have seen that PRs are referential descriptions of situations. They must denote type $s$. Putting these observations together with the syntactic evidence that (all) constituent PRs are DPs (§2), it is natural to suppose that the null D is responsible for converting a CP constituent containing the PR-subject and the CP that denotes type $\langle\mathrm{s}, \mathrm{t}\rangle$ to type $s$.


The CP portion of the PR, like any CP, is of type $\langle\mathrm{s}, \mathrm{t}\rangle$, a property of (possible) situations. The determiner converts this property into a description of an individual situation. For present purposes, it is sufficient to identify this as a definite - hence the $\iota$ operator. ${ }^{5}$ This referential description of a past event then serves as the complement to direct perception see. As definites, the PR's existence presupposition will project out of negation and conditionals (42b)-??. Covarying interpretations (43)-(44) will only be available with a bound variable pronoun, just as is the case with definites (e.g. Everyone saw the play vs. Everyone $i_{i}$ saw the play he wrote.) Infinitives, we saw, showed evidence of being existentially quantified. We suggest that infinitives denote properties of situations and combine with a property-taking see in (70) (see Geenhoven 2000, Zimmermann 1993). This will allow them to scope under negation (71). ${ }^{6}$
a. Infinitive/property-taking $\llbracket$ see $\rrbracket=\lambda \mathrm{P} . \lambda \mathrm{x} . \lambda \mathrm{s} . \exists \mathrm{s}^{\prime}\left[\operatorname{see}\left(\mathrm{s}^{\prime}\right)(\mathrm{x})(\mathrm{s}) \& \mathrm{P}\left(\mathrm{s}^{\prime}\right)\right]$
b. Individual/PR-taking $\llbracket$ see $\rrbracket=\lambda s^{\prime} . \lambda \mathrm{x} . \lambda \mathrm{s} .\left[\operatorname{see}\left(\mathrm{s}^{\prime}\right)(\mathrm{x})(\mathrm{s})\right]$
(71) Gianni non ha mai visto Maria ballare.
G. NEG has never seen M. dance.Inf.
'G. has never seen M. dance.' Neg $>\exists$
$\lambda \mathrm{s} . \neg \exists \mathrm{s}^{\prime}\left[\operatorname{see}\left(\mathrm{s}^{\prime}\right)(\mathrm{I})(\mathrm{s}) \&\right.$ dance $\left(\right.$ Maria) $\left.\left(\mathrm{s}^{\prime}\right)\right]$

The determiner, in sum, allows the PR to refer to situations described by the $\mathrm{CP}\langle\mathrm{s}, \mathrm{t}\rangle$. The question is what set of situations this describes. The simplest hypothesis would be that the PR refers to the Davidsonian (1967) event described by the verb phrase in the PR, much as Higginbotham claimed for bare infinitives. This won't work for the PR, however, because of the presence of tense and aspect in PRs. Guasti (1988) documented a number of temporal properties of PRs, but the most salient is that PRs must generally, if they are interpreted as episodic, ${ }^{7}$ be

[^4](a) simultaneous and (b) contain imperfect aspect. Simple past SP (the Italian passato remoto) is not possible (72b).
a. Ho visto Gianni ballava.

I saw G. dance.IMPF
'I saw Gianni dancing.'
b. *Ho visto Gianni balloò.

I saw Gianni dance.SP.
'I saw G. dance.'

In Italian, imperfective is semantically decomposable into past tense and imperfective viewpoint aspect. That is, (73) reports that an event of Gianni dancing was ongoing at some reference/topic time, which is supplied here by the when-clause.
(73) Quando Maria è entrata nella stanza, Gianni ballava.

When M. is entered in.the room, G. dance.IMPF.
When M. entered the room, G. was dancing.
Now, importantly the imperfective aspect is truly interpreted as such in PRs: (72a) can mean that Gianni saw an ongoing event of Maria dancing. The object of perception, then, corresponds to a situation contained within an event of Gianni dancing. This suggests that that the object of perception is the temporal/situation argument that corresponds to the Kleinian topic, the situation that is contained in the event/situation described by the lexical verb. ${ }^{8}$ Independent evidence that the PR describes a Kleinian topic situation (not a Davidsonian event) comes from PRs that contain perfects. PRs generally disallow auxiliaries, but in a narrow set of circumstances, they can contain a perfect construction (74):
(74) Ho visto Maria che aveva appena rotto la finestra. I.have seen M. that had just broken the window. 'I saw M. who had just broken the window'. Giusti 1992, cited in Casalicchio, 2013
(74) can report that what Gianni saw was a result situation that contains Mary and a broken window. Assuming a particular theory of perfects (see e.g. Giorgi and Pianesi 1997), in which they introduce topic situations that denote result states that incorporate their subjects, the meaning of (74) follows naturally if PRs describe situations introduced by high verbal inflectional heads.

To implement our analysis, we adopt a standard approach to the semantics of the verbal projection (Smith 1991, Klein 1994, Kratzer 1998a) in which verbs denote properties of situations that correspond to Davidsonian events; viewpoint aspect maps properties of such situations to properties to Kleinian topic times; and tense relates topic times to the utterance time. However, we adopt a
claim involve habituals.
${ }^{8}$ Infinitival complements of perception verbs in Romance also deliver the same ongoing interpretation (Giorgi and Pianesi 1997), unlike English bare infinitives. It remains very much an open question about whether the ongoing interpretation is delivered by the verb root itself or by other functional structure (Zucchi 1999). For PRs, the facts are pretty clear though: imperfective is responsible.

Kratzerian (Kratzer 1989) situation semantics, and uniformly treat both temporal and event arguments as situations, which have both spatial and temporal properties (Portner 1992, Cipria and Roberts 2000, Kratzer 2007). Finally, we adopt a referential theory of tense (Partee 1973, Kratzer 1998a), whereby tense denote contextually salient situations whose temporal ordering with respect to the utterance situation $\left(\mathrm{s}_{o}\right)$ is given by a presupposition. ( $\leq$ indicates the inclusion relation for the imperfective.) ${ }^{9}$
a. $\quad \llbracket$ IMPF $\rrbracket=\lambda \mathrm{P}_{\langle s, t\rangle} \lambda \mathrm{s} . \exists \mathrm{s}^{\prime}\left[\mathrm{s} \leq \mathrm{s}^{\prime} \& \mathrm{P}\left(\mathrm{s}^{\prime}\right)\right]$
b. $\llbracket$ ball- $\rrbracket=\lambda$ s. $\lambda$ x.dance $(\mathrm{x})(\mathrm{s})$
c. 【 past $\rrbracket^{c}$ is only defined if c provides a situation s that precedes $s_{o}$ (the utterance situation). If defined, then $\llbracket$ past $\rrbracket^{c}=\mathrm{s}$.

What we want is for the PR to describe the topic situation of the embedded clause. To that end, the situation pronoun that serves as the topic situation is abstracted over. We implement this by an object-language lambda abstraction operator in C. (We show also abstraction over a $P R O$ in subject position, and the PR subject in a $\mathrm{Spec}, \mathrm{CP}$, consistent with the claims that PRs are small clauses with a CP predicate.)

$$
\begin{equation*}
\left.\left[D P \text { D [CP Maria } \mathrm{C}_{\lambda_{\langle 1,2\rangle}}\left[T P \text { past/s } \mathrm{s}_{2}\left[\text { AspP } \operatorname{IMPF}\left[V P \text { pro }_{1} \text { ballava }\right]\right]\right]\right]\right] \tag{76}
\end{equation*}
$$

When headed by D , the imperfective PR denotes a situation that is contained in an ongoing event of Maria dancing:
$\llbracket(76) \rrbracket=\iota \mathrm{s}:$ s precedes $\mathrm{s}_{o} . \exists \mathrm{s}^{\prime}\left[\mathrm{s} \leq \mathrm{s}^{\prime} \&\right.$ dance(Maria) $\left.\left(\mathrm{s}^{\prime}\right)\right]$
$\rightsquigarrow$ the situation $s$ that is contained in an ongoing dancing event by Maria, with the presupposition that $s$ is a past situation.

The account makes the right predictions when the embedded predicate is an accomplishment. In this case, the perceived event can exclude the culmination of the accomplishment (in which case we do not see the house painted, just an in-progress event). Alternatively, (78) report the perception of the completed painting of the house.
(78) Ho visto [PR Gianni dipingera la casa].

I saw G. paint.ImpF the house.
'I saw Gianni painting/paint the house.'

$$
\begin{equation*}
\llbracket \mathrm{PR} \rrbracket=\iota \mathrm{s}: \mathrm{s} \text { precedes } \mathrm{s}_{o} . \exists \mathrm{s}^{\prime}\left[\mathrm{s} \leq \mathrm{s}^{\prime} \& \text { paint(G.)(the house) }\left(\mathrm{s}^{\prime}\right)\right] \tag{79}
\end{equation*}
$$

The topic situation $s$ of the PR serves as the as the object of perception. It can be a proper sub-part of a painting situation/event $\mathrm{s}^{\prime}$, which gives rise to percpetion of an incomplete event. Less salient, though stil possible, is an interpretation in which the perception is of a completed event of Gianni painting the house. This is possible becuase the topic time can be co-extensive

[^5]with the event time. We know this becuase matrix imprefective sentences can imply culmination if the topic time is suitably 'extended' by a adjunct clause describing an 'extended' topic time:
(80) Mentre Maria guardava la TV, Gianni dipingeva la casa.

While M. watched the TV, G. was.painting the house.
'While M. watched TV, G. was painting the house.
In (80), Gianni can complete the house painting during the time which Maria is watching TV. This is the case where the imperefective allows the event time to be co-extensive with the topic time.

Now we turn to what rules out the simple past SP in PRs. To determine why this is the case, we need to establish what SP means in Italian. Kratzer (1998) provides a point of departure. She notes that German and English differ in the context in which simple past is licensed. The dialogues in (81) are to be asked out-of-the-blue.
(81) Who built this church? Boromini built it.
a. *Wer baute diese Kirche. Borromini baute diese Kirche. Who built this church. Borromini built this church. 'Who built this church Borromini build this church.
b. Wer hat diese Kirche gebaut? Borromini hat diese Kirche gebaut. Who has this church built? Borromini this church built has. 'Who built this church? Borromini built this church.'

If past tense is pronominal, Kratzer points out, then the fact that the English SP is acceptable in a n out-of-the blue context is unexpected since there is no contextually salient past time in this context. (The German simple past behaves as expected.) From this Kratzer concludes that English simple past is not pronominal, but involves past shifting via a Perfect operator (and the pronominal tense reference is to indexical present). The symbol $<_{p}$ represents temporal ordering.

$$
\begin{equation*}
\llbracket \operatorname{Perfect} \rrbracket=\lambda \mathrm{P}_{\langle s, t\rangle} \lambda \mathrm{s} . \exists \mathrm{s}^{\prime}\left[\mathrm{s}^{\prime}<_{p} \mathrm{~s} \& \mathrm{P}\left(\mathrm{~s}^{\prime}\right)\right] \tag{83}
\end{equation*}
$$

Boromini $s_{\text {pres }}$ Perfect built this church.
$=\exists \mathrm{s}^{\prime}\left[\mathrm{s}^{\prime}<_{p} \mathrm{~s}_{\text {pres }} \&\right.$ build(Boromini)(this church) $\left.\left(\mathrm{s}^{\prime}\right)\right]$
Italian SP works like English simple past: it can describe a past situation in an out-of-the-blue context.

Chi costruì questa chiesa? Borromini costruì questa chiesa.
Now when we attempt to put a SP PR under a perception verb, as in (86) repeated from above, we predict anomaly because it will refer to the (present) situation that merely follows a completed dance by Gianni, not to a situation that contains any dancing:
(86) *Ho visto [ $P R$ Gianni ballò]. I.have seen G. dance.SP. 'I saw G. dance.'

$$
\begin{equation*}
\llbracket \mathrm{PR} \rrbracket=\iota \mathrm{s}: \mathrm{s}=\mathrm{s}_{o} . \exists \mathrm{s}^{\prime}\left[\mathrm{s}^{\prime}<_{p} \mathrm{~s}_{\text {pres }} \& \text { build(Boromini) }(\text { this church })\left(\mathrm{s}^{\prime}\right)\right] \tag{87}
\end{equation*}
$$

Further, this PR refers to a present situation, which will run afoul of whatever simultaneity requirements are required for direct perception making (86) an unacceptable way of reporting that I saw a past event of Gianni dancing.

## 9 Appendix: Acceptability Study

$\mathrm{EA}=\mathrm{LDA}=$ exceptional/long distance agreement with $\mathrm{DP}_{S}$
In a $2[\text { Agreement (3-sing vs. EA) }]^{*} 2[$ Position(Embedded vs. Free) $]$ acceptability study we compared 3 -sing agreement (i.e. è) with grammatical and ungrammatical EA (e.g. sono, sei). The baseline ungrammatical EA was generated by embedding the PR within an event-taking nominal (e.g. picture-NP). 16 item, 4 lists in Latin Square style, 40 fillers.

|  | 3rd-sing | LDA |
| :--- | :--- | :--- |
| Nominal | La scena di te che balli $\grave{\boldsymbol{e}} \ldots$ | / $^{\text {* sei }}$ un evento da non perdere |
| PR | $\boldsymbol{T} \boldsymbol{u}$ che ballo $\grave{\boldsymbol{e}}$ un evento da non perdere | /sei un evento da non perdere |



Mean ratings ( $\mathrm{N}=26$ ) and standard error

- Significant interaction between Agreement and Embedding ( $p<.01$ )
- No difference between PR-LDA and PR-3.sg ( $p=.59$ )
- Significant effect of Agreement in Nominals ( $p<.01$ )

Conclusion: Agreement is equally possible with whole PR (3.SG) and $\mathrm{DP}_{S}(=\mathrm{LDA})$.

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[^0]:    ${ }^{1}$ There are exceptions to this, see Casalicchio 2013.

[^1]:    ${ }^{2}$ As for Negative QP subjects, we have not thoroughly tested negative QPs inside PRs, and these do seem to export but in this case the Negation appears to be in the matrix clause already. It is not clear, then, since negation is housed outside the complement, exportation is not necessary for a sensible reading and therefore this doesn't tell us much.

[^2]:    ${ }^{3}$ Spec, CP can be a Case position (Massam 1985 and Bruening 2001)

[^3]:    ${ }^{4}$ One way of implementing this intuition would be to think of DP-adjunct-PRs as stage-level descriptions of individuals (Carlson 1977). See also Stump 1985.

[^4]:    ${ }^{5}$ Grillo and Moulton (2015) argue against a definite, and instead claim the PR is a specific indefinite, the null D corresponding to a choice function (Fodor and Sag 1982, Kratzer 1998b, Matthewson 1999). Angelopolous (2015) argues that Greek PRs are definite.
    ${ }^{6}$ We are not ready to attribute the variable scope of infinitives to a syntactically represented existential quantifier (a DP) heading them because infinitival complements in perception contexts are transparent for not just A-bar movement, but A-movement (clitics, passive), which may be at odds with the infinitive being a DP, indefinite or otherwise.
    ${ }^{7}$ See Grillo \& Moulton 2015 for an event-kind analysis of apparent cases of Tense mismatch in PRs which we

[^5]:    ${ }^{9}$ There are alternatives that may work here too. We could treat PRs like sequence of tense complements, specially as though the tense is uninterpreted, but perhaps abstracted over (see e.g. Kratzer's zero tense, or Kusumoto 2005).

