

Sorting out Pseudo-Relatives

Clausal Determiners and Mediated AGREE

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Abstract A comprehensive analysis of constituent Pseudo-Relatives (PRs) (Radford 1977, Kayne 1975, Graffi 1981, Kayne 1981, Burzio 1986, Guasti 1988, Rizzi 1992, Cinque 1992, a.o.) is given. We establish that all constituent PRs are DPs, in which a null determiner combines with a clausal constituent. We show that the subject within these PRs enters an indirect AGREE relation with external probes (as reflected by Case and agreement). This relation is crucially mediated by the clausal determiner, in a fashion similar to the proposal in Preminger 2009 and others. Our results add to a growing body of literature arguing for determiners on clauses (Davies and Dubinsky 2002, 2010, Takahashi 2011, Hartman 2012, Kastner 2015) and the beginnings of a literature on the semantics of determiners that combine with event- and propositional-sized constituents (see Ferreira 2005, Iatridou 2014). Our results also cast doubt on the often-suggested DP-CP parallelism, since we show that Ds and Cs can co-occur in the same construction, both bearing distinct morpho-syntactic and semantic signatures.

Keywords Pseudo-relatives · AGREE · exceptional agreement and Case · clausal-level determiners · situations · events · perception complements

1 Four open questions about Pseudo-Relatives

Pseudo-relatives (PRs) are constructions found in many Romance languages (1), as well as Greek (2). They consist of a DP *followed* by a complementizer that introduces a finite clause with a gap related to the DP. In this respect, they are superficially like relative clauses, but are naturally translated as English ACC-ing constructions.¹

- (1) a. Ho visto **Gianni che correva**. (Italian)
I.have seen Gianni that ran.IMPF

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¹ Several other languages appear to allow constructions like or perhaps identical to PRs (e.g. Dutch and Serbo-Croatian) while others (e.g. Romanian) allow alternative constructions that are not usually characterized as PRs because they are not string identical to Relative Clauses (Alboiu and Hill, to appear). The status of PRs in these languages, however, is still understudied and we will mostly refer to the main Romance variety here, although the main claims of this paper appear to be valid also for Greek and Dutch.

- b. J'ai vue **Jean qui courait**. (French)
I-have seen Jean that ran.IMPF
- c. He visto **a Juan que corría**. (Spanish)
I.have seen to Juan that ran.IMPF
'I saw Juan/Gianni/Jean running'
- d. *I saw John that was running. (English)
- (2) I Maria evlepe **ton Jani pu etrexe**.
the Mary watch.PAST.IMP the John.ACC that run.PAST.IMPF
'Mary was watching John running.' (Grillo & Spathas 2014)

It is well-documented that PRs are not true relative clauses (Kayne, 1975; Radford, 1977; Guasti, 1988; Rafel, 1999; Koopman and Sportiche, 2008, but see Koenig and Lambrecht, 1999). First, PRs show tense restrictions not found of relatives clauses: unlike relatives (3b), PRs must match matrix tense (3a). Further, PRs only permit the invariant complementizer *che* (4b), not relative pronoun configuration *il quale* (4a).

- (3) a. *Vedo Maria che correva.
I.see.PRES Maria that run.IMPF.
'I see Maria that was running.'
- b. Vedo la ragazza che correva. RC/*PR
I.see.PRES the girl that run.IMPF.
'I see the girl that was running.'
- (4) a. Il cane **il quale** abbaia è felice
the dog, the which barks, is happy.
'The dog, who is barking, is happy.'
- b. Ciò che ho visto è Gianni {che/*il quale} ballava.
That which I.have seen is Gianni that/the which dance.IMPF
'I saw Gianni dancing.'

Finally, PRs only allow gaps in the highest subject position (5a) and not an object (5b) or lower subject position (5c).²

- (5) a. Ho visto Luigi₁ che *e*₁ salutava Maria.
I.have seen Luigi that greet.IMPF Maria.
'I saw Luigi greet Maria.'
- b. *Ho visto Luigi₁ che Maria salutava *e*₁.
I.have seen Luigi that that Maria greet.IMPF
'I saw Maria greeting Luigi.'
- c. *Ho visto Luigi₁ che Paolo sosteneva that *e*₁ salutava Maria.
I.have seen Luigi that Paolo assert.IMPF that greet.IMPF Maria.
'I saw Luigi assert that Paolo greeted Maria.'

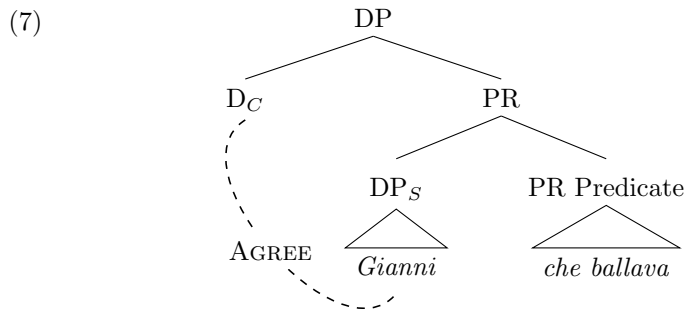
For this reason—and others given below—we will label the DP preceding the complementizer the 'PR subject' and the remaining *che*-clause the 'PR Predicate'. We call the whole construction a

² There are some exceptions to this. See Graffi, 1980, Casalicchio, 2013 and Angelopolous, 2015.

PR. There remain many open questions about PRs, among which are the following documented by Koopman and Sportiche 2008:

- (6)
 - i. What is the category of the PR? (CP, DP, or something else?)
 - ii. Where is the PR subject base-generated (within the PR-predicate or outside it?)
 - iii. How is the PR subject licensed? (internal or external to the PR? and if external, how?)
 - iv. What is the interpretation of PRs as compared to standard finite clauses, infinitives, and gerundives?

The answers to these questions revolve around our central claim: that all PRs, when they form constituents, are DPs headed by a null determiner, D_C . We provide both syntactic arguments for this (distributional evidence) and semantic arguments (the fact that PRs are referential descriptions of situations not propositions (cf. Cinque 1992, Koopman and Sportiche 2008)). We then show that the PR subject (DP_S) is base-generated as a sister to the PR predicate, outside the finite clause to which it is associated. The centrepiece of our results is that the PR subject is licensed indirectly by an external element (matrix v or T) via an AGREE relation with the null D_C . Our primary evidence is that PR subjects bear the case appropriate to the PR as a whole and that in Italian the PR subjects can, surprisingly, optionally determine phi-agreement on an external T . We present an analysis of these facts in terms of mediated agreement via D_C , following similar proposals for long-distance agreement as mediated by a determiner heading a clause Preminger (2009); Bjorkman and Zeijlstra (2015).



In these configurations, D_C always values Case on the DP_S (see, e.g. Reuland 1983). DP_S can further optionally transmit its phi-features upwards via D_C because, selecting a clausal element, D_C has no phi-bearing complement to value it (Embick and Iatridou 1997). D_C can in turn value a higher T , giving the exceptional agreement patterns we demonstrate in Italian PRs.

The paper is organized as follows. In section 2, we set the stage by reviewing some basic facts about PRs, arguing that (pace Cinque 1992) all constituent PRs distribute like DPs syntactically. This move allows us to identify certain optional agreement patterns in Italian PRs as truly exceptional (again, pace Cinque), thus motivating the role of mediated AGREE. In section 3 we demonstrate the full range of Case and agreement patterns and supply an analysis. Here we also provide novel empirical arguments that the PR subject is base-generated outside the PR predicate. In section 4, we provide further evidence for a DP analysis based on semantic properties of PRs: their referential status and the range of predicates they combine with. We conclude with a final piece of evidence for treating PRs as DPs—their status as strong islands.

We show how our proposal accounts for this, once PRs are distinguished from string-identical impostors.

2 PR Basics

PRs can form constituents. This is shown by the fact that the PR may topicalize (8a) or be isolated in a pseudo-cleft (8b):

- (8) a. MARIO CHE PIANGEVA, ho visto!
 Mario that weep.IMPF, I saw.
 ‘Mario weeping, I saw’ (Cinque 1992:(5))
 b. Ciò che₁/*Chi₂ ho visto è [Mario₂ che piangeva]₁.
 That which/(Who) I.have seen is Mario that cry-IMPF
 ‘What /(*Who) I saw was Mario crying’ (after Radford 1977: 160(98))

The latter diagnostic is particularly useful because the grammaticality of *ciò* ‘that (thing)’ instead of *chi* ‘who’ highlights that the constituent PR denotes not an ordinary individual (the subject) but the entire situation described by the PR complex.

Before treading further, it should be noted that in his seminal work on the topic, Cinque 1992 showed that there is another, non-constituent parse of PRs, in which the pre-complementizer DP is an object of a verb, and the PR-predicate forms a type of secondary predicate.³ The two-constituent parse (originally discussed in Kayne 1975) occurs with verbs that do not select for situations, but rather ordinary individuals, such as *meet* and *catch*.

- (9) 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.’

Constituency diagnostics prove this use of the PR is distinct from the constituent PR:

- (10) *MARIO CHE FUMA, vorrei cogliere!
 Mario that smokes-PRES, I.would.like to.catch.
 ‘Mario smoking, I would like to catch.’
 (11) *Quello che vorrei incontrare è Mario che corre
 That which I.would.like to.meet is Mario that runs-PRES.
 ‘What I would like to meet is Mario running.’
 (Cinque 1992 (16))

These we take to be instances of the PR-predicate serving as the secondary predicate in depictive constructions which are licensed with just these types of verbs (e.g. *I caught John drunk*).

While not the topic of this article, a note is in order regarding the non-constituent parse. Perception verbs like *vedere* ‘see’ may take either ordinary individuals along with secondary predicates

³ There appears to be cross-linguistic variation in the availability of the two-constituent, Spanish and Greek being claimed to have it, although we have found inter-speaker variation at least in Spanish.

or they select situation-denoting phrases, constituent PRs. In the examples we provide below we are careful to ensure that we are dealing with the constituent parse.⁴

Returning to constituent PRs, it can be demonstrated that they have the distribution of DPs. Like DPs (12a), but unlike standard CPs and infinitives (12c-d), PRs may complement prepositions (12b).

- (12) a. La vista di [_{DP} Carlo]...
 the sight of Carlo...
 ‘the sight of Carlo...’
 b. La vista di [_{PR} 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))
 c. La storia (*di) [_{CP} che Gianni ha sconfitto il drago] non è vera
 The story of that G. has defies the dragon not is true.
 ‘The story that G. defies the dragon is not true.’
 d. *La vista di [_{TP} Carlo ballare] ...
 the sight of C. dance.INF...
 ‘the sight of C. dancing’

Further, PRs may coordinate with other DPs.⁵ This is shown in subject position in (13). Both (13) and (14) demonstrate that coordinating a singular noun-based DP and a PR governs plural agreement.

- (13) [_{PR} Gianni che balla] e [_{DP} l’evento di cui mi parlavi] sono immagini
 G. that dances and the’event of which to.me you.spoke are images
 che non vorrei mai vedere.
 that NEG I.want never see.
 ‘G. dancing and the event you told me about are images I’d never want to see.’
 (14) Ciò che non vorrei mai vedere è [_{PR} Gianni che balla] e [_{DP}
 That which NEG I.would.want never to.see is Gianni that dances and
 l’evento di cui mi parlavi].
 the’event of which to.me you.spoke.
 ‘What I would never want to see is Gianni dancing and the event you told me about.’

In contrast, CPs do not coordinate with DPs in subject position:⁶

⁴ The non-constituent parse, unlike the constituent parse, allows passivization/cliticization of the DP (Cinque 1992).

⁵ Burzio (1986) first uses coordination with NPs as evidence for the NP analysis of PRs.

- (i) Ho visto [_{NP} Maria e [Giovanni che la seguiva]
 I.have seen M. and G. that her followed.
 ‘I saw M. and G. following her.’

(i), contrary to the examples provided here, is open to multiple interpretations, since it’s now widely accepted that a two constituent analysis is available in object position of perceptual verbs, one might coordination might be limited to the two DPs Maria and Gianni.

⁶ The example in (15) is marginally possible with a longer prosodic break between the conjuncts, which to us suggests a list reading. Crucially, no such modifications are required to make the examples in (14) and (13) acceptable.

- (15) *_{[CP} Che Maria è pazza] e _{[DP} 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.’

Cinque (1992) was, of course, aware that PRs could distribute as DPs (in fact, he reported the data in (12)). Yet Cinque claims that these are a distinct type of PR, different from the canonical constituent PRs in (8). He argues the canonical PRs are not DPs but extended projections of CP, and he identifies such PRs as propositions. Cinque’s argument for this syntactic and semantic categorization rests on the fact that the type of proform used for PRs, *il che*, typically refers to propositions and not individuals:

- (16) a. Ho visto Mario che scriveva nel sonno, **il che** non mi pareva poi
 I.have seen Maria the write-IMPF while asleep, the which not me seem then
 così strano.
 so strange.
 ‘I saw Mario writing while asleep, which did not seem that strange.’
 b. *Ho visto Mario, **il che** mi ha detto di salutarti.
 Have.I seen Mario, **the which** me has told to salute’
 ‘I saw Mario, who told me to say hello to you.’ (Cinque 1992: (13a,b))

These data do not, however, provide evidence for the syntactic category of PRs. More specifically, they do not show that PRs are CPs. Rather they merely show that the PR denotes a situation,⁷ not an ordinary individual. Besides being able to refer to CPs, in fact, *il che* can also refer to infinitives (17a), small clauses (17b), and crucially to DPs (17c)—as long as those DPs describe event or proposition-like things. ((17c) is clunky, possibly because of heavy redundancy with the overt NP ‘the event’):

- (17) a. Ho visto Mario scrivere nel sonno, *il che* non mi pareva poi così
 I.have seen M. write-INF in.the sleep, the which neg to.me seem then so
 strano.
 strange.
 ‘I saw Mario write in his sleep, which didn’t seem so strange to me.’
 b. Ho visto Mario ammalato, *il che* non mi pareva poi così strano.
 I.have seen M. sick, the which neg to.me seem then so strange.
 ‘I saw Mario sick, which didn’t seem so strange to me.’
 c. Gianni mi diceva dell’evento di Mario che scriveva nel sonno, *il*
 G. to.me tell of.the’event of M. that write-IMPF in.the sleep, the which
 che non mi è parso poi così strano.
 not me ed then so strange
 ‘G. was telling me of the event of Mario writing while asleep, which did not seem
 that strange.’

⁷ Cinque 1992 and Koopman and Sportiche 2008 call the interpretation ‘propositional’. We don’t wish to attribute to them by that label a commitment to any particular semantic analysis, we show in §4, PRs are referential descriptions of situations (type *s*) not propositions in the technical sense (type ⟨*s*,*t*⟩).

Pronominalization by *il che*, then, does not diagnose that PRs are CPs. These data are equally compatible with PRs being DPs. Given the distributional data in (12)–(15), we conclude that constituent PRs *are* DPs.

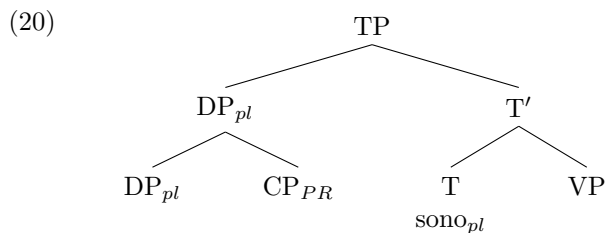
In contrast, Cinque 1992 contended that PRs with DP distribution actually constitute a distinct type of PR, demonstrated in (18). Here, the PR subject is a conjoined DP (*Carlo e Paolo*) and it governs plural agreement in the matrix clause.⁸

- (18) Carlo e Paolo che ballano il tango **sono** uno spettacolo da non perdere.
 Carlo and Paolo that dance-PRES the tango **are** a sight to not miss.
 Carlo and Paolo dancing the dance are a sight not to be missed. (Cinque 1992: (33))

Alongside (18) 3rd singular agreement is possible, with no discernible difference in interpretation.

- (19) Carlo e Paolo che ballano il tango **è** uno spettacolo da non perdere.
 Carlo and Paolo that dance-PRES the tango **is** a sight to not miss
 Carlo and Paolo dancing the dance is a sight not to be missed.

What this suggested to Cinque was that while (19) is a standard constituent PR (for him a CP with default 3SG agreement), (18) involves an individual-denoting DP (*Carlo and Paolo*), modified by the CP predicate portion of the PR, perhaps along the lines of (20), a hypothesized structure we label the DP-adjunct-PR.



The agreement in (18) follows straightforwardly from (20). Yet initially the most plausible analysis, we argue that this conclusion is ultimately unwarranted. We will show that the examples in (18) are not a construction *sui generis*, but rather that (18) and (19) are both standard constituent PRs: both DPs, and both situation-denoting. The difference in agreement patterns between the two, we claim, is not meaningful. It reflects a more general—and far more interesting—pattern which allows PR subjects to optionally and indirectly enter an AGREE relation with matrix T. In the next section, we present arguments for a unified treatment of (18) and (19), before turning in §3 to our analysis.

⁸ These kinds of examples are modeled after English cases discovered by Akmajian 1977.

- (i) [[The moon and Venus] rising in conjunction] have/has often been observed by the astronomers at Kitt Peak.

Both singular and plural agreement suggest two structures: a gerundive (singular) and a DP-modifying participial (Declerck, 1981).

2.1 Arguments against DP-adjunct-PR parse

While the agreement facts in (18) do initially suggest that the subject in these cases is projected from a DP headed by the ordinary-individuals described by *Carlo* and *Paolo*, it turns out that the distribution of such PRs is not that of a individual but a situation-denoting expression. The predicate in (18) ‘is a sight not to be missed’ can take both individual- and situation-denoting arguments. In contrast, the natural language word *evento* ‘event’ cannot be predicated of ordinary individuals (21a) but it can of event or situation-denoting expressions (21b).

- (21) a. #Carlo e Paolo sono un evento da non perdere.
 C. and P. are an event to not miss.
 ‘Carlo and Paolo are an event not to miss.’
 b. La distruzione di Roma era un evento da non perdere.
 the destruction of Rome was an event to not miss.
 ‘The destruction of Rome was an event not to miss.’

However, the counterpart of (21a) with a PR is grammatical and—crucially—with plural agreement governed by the PR subject:

- (22) Carlo e Paolo che bestemmiano sono un evento da non perdere.
 Carlo and Paolo that swear BE.3PL an event to not miss.
 ‘Carlo and Paolo swearing is an event not to miss.’

What this means, then, is that the PR in (22) does not denote an ordinary individual, but instead denotes an event/situation. The surprising conclusion is that the agreement in (22) is between the subject of a constituent PR and the T of the clause that selects the PR as a whole.

So the agreement facts uncovered by Cinque do not guarantee that we are dealing with an individual-denoting PR. Indeed, we think there are reasons to doubt the existence of the DP-adjunct-PR in general. Take (23), where a constituent PR appears as the complement of the noun *evento* ‘event’. Crucially, ordinary individual denoting DPs cannot appear here (23b), but neither (as we saw above) can CPs appear here (23c), because only DPs can complement the preposition *di*.

- (23) a. L’evento [_{PP} di [_{PR} Carlo che balla il tango]] è da non perdere
 The.event of Carlo that dance-PRES the tango is to not miss
 ‘The event of Carlo dancing the tango is not to be missed’
 b. *L’evento di Carlo è da non perdere.
 The.event of Carlo is to not miss.
 ‘The event of Carlo is not to be missed.’
 c. *L’evento di che Gianni ha sconfitto il drago non è vero.
 The.event of that G. has defies the dragon not is true.
 ‘The event that G. defies the dragon is not true.’

Here we see that, indeed, the PRs that distribute like DPs are situation-denoting (not individual-denoting).

Other arguments can be constructed that cast doubt on the existence of the purported DP-adjunct PR. Predicates that only select for ordinary individuals, like the verb *camminare* ‘walk’, do not accept the purported DP-adjunct-PR:

- (24) *Gianni e Maria che si vestono da soldati camminano sul palco.
 G. and Maria that SE dress as soldiers walking-3pl on stage.
 G. and Maria dressing as soldiers were walking out on stage.

If DP-adjunct PRs truly denote ordinary individuals, then it is surprising why they cannot be arguments of individual-taking predicates.⁹

Another argument against the DP-adjunct-PR parse comes from binding diagnostics. If the DP-adjunct PR structure exists we expect it to behave like an individual-denoting DP externally—binding reciprocals, for instance. But this is not possible.

- (25) *Gianni e Mario che si vestono da soldati si infastidiscono l’un l’altro
 G. & M. that SI dress as soldier SI bother the.one the.other.
 ‘G. and M. dressing as soldiers bother each other.’

As a control, note that just such a PR can be the subject of a verb like *infastidiscono* ‘bother’, which is expected if all PRs are situation-denoting.

- (26) Gianni e Mario che si vestono da soldati infastidiscono Maria.
 G. & M. that SI dress as soldier bother Maria.
 ‘G. and M. dressing as soldiers bother Maria.’

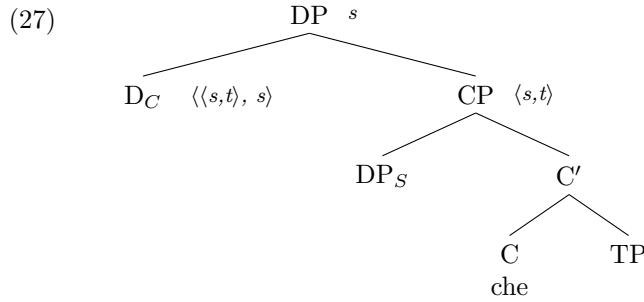
Once again, when we probe further we discover that Cinque’s purported DP-adjunct-PRs do not actually denote ordinary individuals, but rather situations. In summary, we have seen reason to doubt the existence of the DP-adjunct-PR parse. Even admitting the existence of the DP-adjunct-PR, perhaps with an as-yet unknown constrained distribution, we still see that it will not account for the agreement facts: as the contrast between (21a) and (22) shows, PRs that describe events still permit agreement between the PR subject and the matrix clause. So we conclude that the agreement is not standard agreement, but exceptional agreement between a head and a DP constituent *inside* the PR. We propose constituent PRs are DPs, headed by a null determiner D_C , and that they denote individual situations.

⁹ Cinque does suggest in passing that his proposed DP-adjunct-PRs have a special semantics, unlike a DP with a reduced relative (ia), but rather something more like (ib) with an as- or when-clause.

- (i) a. C & P, (who are) dancing the tango, are a real sight.
 b. C & P as/when they are dancing the tango, are a real sight.

One way of implementing this intuition would be to think of DP-adjunct-PRs as stage-level descriptions of individuals (Carlson 1977). Is it possible that this special semantics prohibits DP-adjunct-PRs from combining with the range of predicates above? We think this is unlikely, because stage-like DPs—those modified by clear cases of as/when-clauses or absolute construction modifiers Stump 1985—can be arguments of ordinary-individual taking predicates:

- (ii) a. Standing on the chair, John touched the ceiling
 b. While dressed as soldiers, Carlo and Paolo walked down the street.



We will argue that the PR subject — DP_s — is Case-licensed indirectly via D_C . We further argue that the exceptional agreement shown above is a further reflection of this mediated licensing by D_C , following proposals in Preminger 2009.

In the following section, we present the full range of Case and agreement facts, followed by our proposal of mediated AGREE via D_C . Following this are two sections which provide further support for our proposed structure in (27). As well, we motivate the internal structure of PRs, showing that DP_s is first-merged outside the PR-predicate, hence their needs for ‘exceptional’ Case. In the final section, we provide distributional and semantic evidence that PRs are DPs that denote individual situations, which in turn provides independent motivation for D_C .

3 Licensing the PR subject: Mediated AGREE

So far we have seen that even when constituent PRs are situation-denoting DPs, as in (28), the PR subject can optionally trigger agreement with matrix T (28a). As in all cases below, 3rd singular agreement is also possible (28b).

- (28) a. [Carlo e Paolo che bestemmiano] sono un evento da non perdere.
 Carlo and Paolo that swear BE.3PL an event to not miss.
 ‘Carlo and Paolo swearing is an event not to miss.’
 b. [Carlo e Paolo che bestemmiano] è un evento da non perdere.
 Carlo and Paolo that swear BE.3SG an event to not miss.
 ‘Carlo and Paolo swearing is an event not to miss.’

This ‘exceptional’ agreement extends to person as well. Here we use pronouns, which demonstrate that the Case PR-subjects is determined by the grammatical function of the whole PR (we return to Case below). (29a) shows agreement with a 2nd person PR subject, and note again that the matrix predicate ensures that we are dealing with a event/situation-denoting PR. (29b) illustrates the optionality of such agreement. (30) demonstrates the same pattern with first person.

- (29) a. [Tu che balli] sei un evento da non perdere.
 You that dance BE.2SG an event to not miss.
 ‘You dancing is an event not to be missed.’
 b. [Tu che balli] è un evento da non perdere.
 You that dance BE.3SG an event to not miss.
 ‘You dancing is an event not to be missed.’

- (30) a. [io che ballo] sono un evento da non perdere.
 I that dance BE.1SG an event to not miss.
 ‘Me dancing is an event not to miss.’
 b. [io che ballo] è un evento da non perdere.
 I that dance BE.3SG an event to not miss.
 ‘Me dancing is an event not to miss.’

While most speakers accept both 3rd person and 1st/2nd person agreement, others only accept 3rd person. 1st/2nd person agreement was accepted by 10 out of 14 native Italian speakers we interviewed. Variation across speakers is standard in Italian. What’s important for us is not the universal availability of exceptional agreement, but the reliability of its existence.

The agreement pattern is not limited to matrix copula verbs:

- (31) 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 e Mario che vi vestite da soldati infastidite/infastidisce Maria.
 G. & M. that VI dress as soldier bother.2PL/3SG Maria.
 ‘G. and M. dressing as soldiers bother/bothers Maria.’

The agreement with PR-subject systematically replicates all the signature properties of subject-verb agreement in Italian. So for instance, when 2nd and 3rd person subjects are conjoined, 2nd person agreement prevails (32a). The same agreement optionally appears when the PR subject is such a conjoined DP (32b).

- (32) a. [Tu e Paolo] siete ridicoli.
 You and Paolo BE.2PL ridiculous.
 ‘You are Paolo are ridiculous.’
 b. [Tu e Paolo che ballate il tango] siete/è un evento da non perdere.
 You and Paolo that dance the tango are.2pl/is an event to not miss.
 ‘You and Paolo dancing the tango is an event not to miss.’

In addition to these new agreement patterns, it has long been known that Case on the PR Subject is determined by the whole PR (Cinque 1992). When the whole PR in subject position, the case of the PR’s own subject is nominative (33). PR subjects of PRs in object position of verbs (33a) are accusative. Accusative is also required for prepositional objects (33b).

- (33) [Io/*me che fumo per strada] è uno spettacolo che non raccomando.
 [I.NOM/*me that smokes in the.street] is a sight that not recommend-1sg
 ‘Me smoking in the street is a sight I cannot recommend.’
 (34) a. 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.’
 b. L’evento di [me/*io che ballo il tango] è da non perdere
 The.event of me.ACC/I that dance-PRES the tango is to not miss
 ‘The event of me dancing the tango is not to be missed’

This kind of ‘exceptional’ case licensing must be ‘internal’ to the PR. For instance, it is not subject to adjacency requirements (35), unlike canonical exceptional Case Marking (ECM) or raising to object found in small clauses (36) (data based on Cinque 1992).

- (35) Non sopportavo in Francia [G. che fumava in quel modo...]
 Not stand in France [G. that smoke-IMPF in that way...]
 ‘I couldn’t stand in France G. smoking that way...’

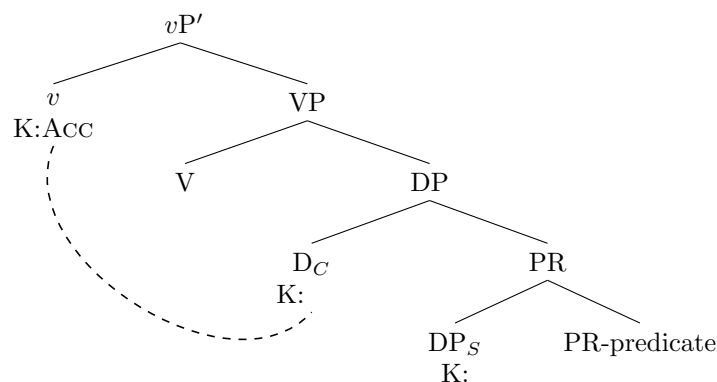
- (36) *?Ritenevo in Francia [Gianni onesto]
 I.believed in France G honest
 ‘I believe G honest in France.’

The kind of adjacency requirements seen in small clauses (and subjects of infinitives (not shown)), suggests that in these cases the subject is licensed by exceptional case marking (ECM) or raising to object position (see Runner and Moulton, to appear). In either case, this means that the licenser is in the matrix clause, and the subject must either move close to the licenser (e.g. *v* or *V*) or there must not be material that intervenes between the licenser and the embedded subject (ECM). The PR subject behaves differently, suggesting that case is not *directly* licensed by a matrix element. This was Cinque’s conclusion, and he suggested that the PR subject inherited Case from the PR as a whole, and proposed a story similar to Reuland (1983) classic *govern-ING* configurations. Now we can see that the number agreement cases that motivated Cinque’s DP-adjunct-PR are really just reflections of this exceptional agreement.

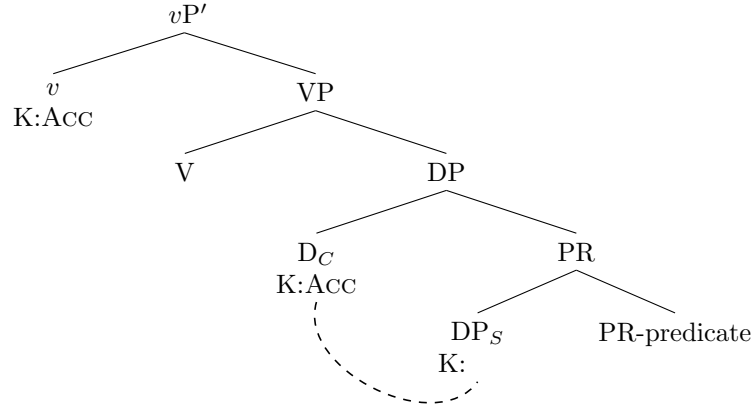
We envision this as a two-step process of AGREE, whereby the probing Case (K) assigner (say *v* accusative) values case on D_C , and valued D_C values D/DP_S .

- (37) a. Ha visto [$_{DP} D_C$ [$_{PR}$ me che fumavo per strada]].
 He.has seen me.ACC that smoke-IMPF in street.
 ‘He saw me smoking in the street.’

b.



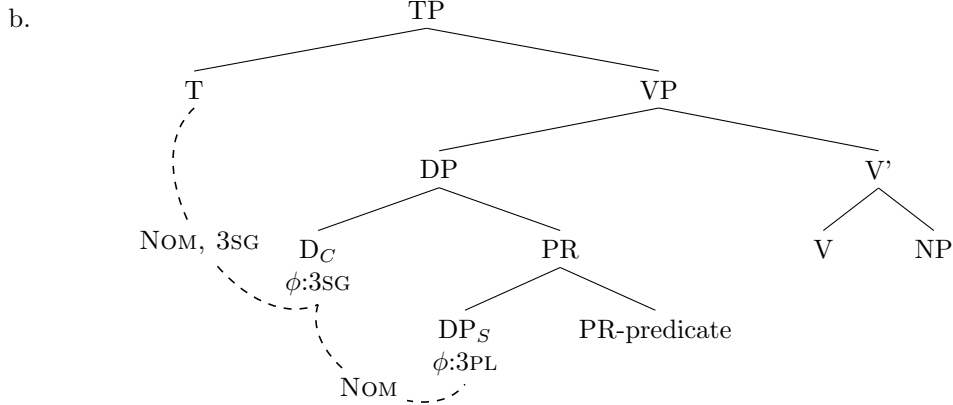
c.



If DP_C AGREES with T, DP_S will also be valued as nominative. As for ϕ -features, D_C has unvalued ϕ -features at merge. Typically, an NP (NumP, Ritter, 1991) would value its governing D's number features (and analogous heads or features would value person). However, in PRs, the D combines with a constituent (which we label PR for convenience, but may just as likely be CP) that does not bear ϕ -features. Iatridou and Embick 1997 have established that CPs generally do not govern ϕ -agreement in the languages of interest here.¹⁰ Two options, both attested above, arise. D_C can take on default 3SG, which is typically of clausal determiners.

(38) Default 3SG on D_C

- a. [Carlo e Paolo che bestemmiano] è un evento da non perdere.
 Carlo and Paolo that swear BE.3SG an event to not miss.
 'Carlo and Paolo swearing is an event not to miss.'



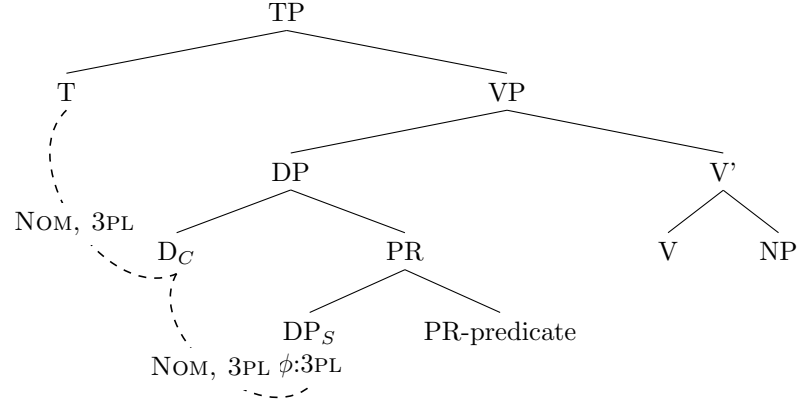
The other option for D_C , attested by (39), is to value its ϕ features using DP_S . The D in DP_S *does* combine with an NP projection which bears ϕ features that value D_S . This leads to two more AGREE relations: between T and D_C and D_C and D_S (40), allowing the phi-features of D_S (3PL) to percolate up and Case (NOM) to percolate down.

¹⁰ Of course, looking beyond Indo-European, it may very well be that CPs govern agreement, see e.g. Halpert 2015 for Zulu; Polinsky and Potsdam (2001) for Tsez.

(39) Mediated ϕ -AGREE by D_C

- a. [Carlo e Paolo che bestemmiano] sono un evento da non perdere.
 Carlo and Paolo that swear BE.3PL an event to not miss.
 ‘Carlo and Paolo swearing is an event not to miss.’

b.



Similar configurations have been proposed in recent literature.¹¹ Preminger:2009 discusses several types of long-distance agreement (LDA) configurations in substandard Basque. One of these involves a complement clause that is headed by a nominalizer NMZ and an article *a* (D_C). A DP within the nominalized clause may trigger agreement on matrix T.

- (40) Uko egin d- i- ϕ e- ϕ [[agindu horiek]_{DP}
 refusal(ABS) done 3.ABS- have- sg.ABS- **3pl**.DAT- 3sg.ERG order(s) those_{pl}(ABS)
 bete-tze-a-ri]_{DP_C}.
 obey-NMZ-ART-DAT
 ‘He or she has refused to obey those orders.’
 (Extepare 2006:(99))

Preminger proposes that the DP argument values the ϕ -features on D_C , because as with our PRs, this D has no NP (or NumP) complement. The number features of D_C then value the probe on T.

Now, the Basque Case is limited to number for reasons documented in Preminger. In PRs, we see that if the language allows it, this can extend to Case and person features. One might imagine that the extent to which a D can mediate a features is dependent on whether D can itself host that feature. Determiners in Italian are capable of hosting such ϕ -features: number is encoded on determiners, and so too is person, if pronouns and pronominal clitics are species of D, e.g. *io* 1SG, *lui* 3SG, etc. As such, determiners are capable of transmitting such features ‘upwards’ to T from a local DP it c-commands.

Bjorkman and Zeijlstra (2015) suggest this kind of mediation via D on the edge of a clause is what licensed LDA in Tsez (Polinsky and Potsdam 2001)). Like the Basque example above, the clause from which embedded Topics can do LDA have a nominalizer. In this case, the matrix

¹¹ All these proposals share with Reuland’s GOVERN-ing the idea that features from a nominal head (for him *-ing*) are transferred down to a DP within that nominal’s domain.

verb *know* bears agreement appropriate to the embedded object *bread*, which is construed as a topic.

- (41) eni-r [už-ā magalu b-āc'-ru-hi] 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))

While Bjorkman and Zeiljstra's (2015) interest is in how these data support Upward Agree over Downward Agree, they nonetheless offer yet another striking case where D acts as intermediary.

Mediators are a general feature of cross-clausal LDA. In Hindi, embedded objects can agree with matrix T so long as (defective) intermediate T bears the agreement as well.

- (42) Vitek-ne [kitaab parh-nii] chaah-ii
 Vivek-ERG book.FEM read-INF.FEM want-PFV.FEM.SG
 'Vivek wanted to read the book' (Bhatt 2005: 760(4))

Bhatt (2005)'s makes this kind of mediation a central ingredient for LDA. Butt (1995) has argued that infinitival clauses in Hindi-Urdu have nominal properties (cf. Bhatt 2005). We leave for future research whether the "nouni-ness" of an embedded clause correlates this strongly with 'mediated' agreement.

3.1 High Merge for DP_S

One ingredient of the analysis we have not defended is the merge position of the PR subject. We would not expect the PR-subject to be appear matrix case if it were base-generated in the (finite) PR-predicate. And, indeed, we can verify that the PR subject is first-merged outside the PR predicate using binding diagnostics. This position is rather common in the literature (see e.g. Kayne 1975; Graffi 1980; Cinque 1995; Rafel 1999; Casalicchio 2013), but we believe these are the first arguments from reconstruction to be presented. Since PR-subjects are limited to corresponding to the subject position of the PR-predicate (see §2), in order to test whether the PR subject originates inside the PR predicates we use psych-verbs which all their surface objects to binding their surface subjects (43a), without producing a weak crossover violation.¹² The standard way of capturing this state of affairs is to first-merge the surface subject below the surface object (Belletti and Rizzi, 1988), as in (43b).

- (43) a. Le prestazioni della sua squadra_i preoccupano ogni allenatore_i
 the performances of his_i team worry every trainer_i
 'The performances of his_i team worry every trainer_i'
 b. worried [every trainer_i < worried > the performances of his_i team].

Various types of leftward movements of the surface subject preserve this binding configuration, such as the focus fronting in (44a) and A-movement in (44b). This is in contrast to subjects that are base-generated higher, such as the (non-raised) matrix subject in (44c).

¹² We thank Valentina Bianchi for suggesting to use psych-verbs for this test.

- (44) a. I PROBLEMI DEI SUOI_i GENITORI angosciano ogni ragazzo_i.
 The problems of his parents anguish every boy
 ‘The problems of his_i parents anguish every boy_i.’
 b. I propri_i figli sembrano preoccupare Gianni_i
 the own children seem to.worry Gianni
 ‘His own children seem to worry Gianni.’ (Casalicchio, to appear)
 c. *I propri_i figli credono di PRO preoccupare Gianni_i.
 The own children believe of worry Gianni.
 ‘His own children believe to worry Gianni.’ (Casalicchio, to appear)

Turning to PRs, we show that a pronoun within the PR subject cannot be bound by a psych-object in the PR predicate, suggesting that the PR-subject has not moved from within the PR predicate. This is shown in (45a) using a PR that appears as the complement of a preposition (*con* ‘with’) and in (45b) with a PR that appears as the complement of a perception verb (an example from Casalicchio, to appear, based on our examples).

- (45) a. *[Con [_{PR} [_{DP_s} le prestazioni della sua_i squadra] che preoccupano ogni
 With the performances of his_i team that worries every
 allenatore_i]], il torneo non può continuare
 trainer_i, the tournament not can proceed
 ‘With the/certain performances of his_i team worrying every_i trainer, the tournament
 can’t proceed.’
 b. *Vedere [_{PR} [_{DP_s} i propri_i figli] che preoccupano Gianni_i] mi dispiace.
 see.INF the own children that worry Gianni me displeases
 ‘to see his children worrying Gianni makes me sad.’

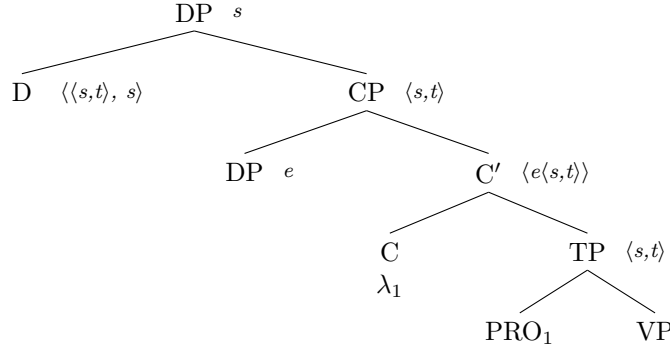
In sum, the reconstruction evidence suggests that the PR subject is base-generated outside the PR-predicate.¹³ The PR-predicate, then denotes a predicate of individuals, with the PR-subject combines in the fashion of a small clause. We leave for another occasion to explore the mechanics that create the PR predicate and how the subject is presented, but one likely candidate is that the subject position is occupied by either PRO, and is abstracted over by a binder in C to derive a predicate. Such derivations have been standard since Chierchia 1989’s analysis of control. This approach has the desired advantage of capturing the fact that the *che*-clause is a predicate (type ⟨e,st⟩) (see Cinque 1992 for extensive evidence) and that the DP and CP form a small clause.

(46)

¹³ A question arises as to whether a quantificational PR-subject reconstructs for scope reasons. Below we test whether an indefinite PR-subject can scope below the universal within the PR-predicate. Imagine a context where there are four boys and one cake of Maria’s with six slices. An answer of N-cakes implies a low scope response; N-cakes implies , it implies that N cakes were eaten:

- (i) Con una fetta di torta di Maria che viene fatta mangiare ad ogni ragazzo siamo messi male.
 With a slice of cake of Maria that comes made eat to every boy we are put bad.
 ‘With there being a slice of Maria’s cake being fed to every boy we are in troubles.’

There is disagreement among our informants. However, the inverse scope interpretation may well arise not from reconstruction of the PR-subject *into* the PR-predicate, but QR of the universal above the PR-subject. If the PR-subject is *within* the CP domain, this is a possible domain in which QR may apply (May 1985).



The analogy to control further explains the restriction of gaps to subject position in PRs.

4 Semantic arguments for D_C

In addition to the syntactic arguments we made in §2 that constituent PRs are DPs, in this section we provide a number of arguments from interpretation for this conclusion. While a number of authors have described constituent PRs as propositional, the distribution of PRs is distinct from those expressions that denote propositions, at least in the technical sense of complementing propositional attitude verbs. PRs are unavailable under such verbs, *sostenere* ‘claim’ (47), *intuire* ‘guess’, (48) and *dedurre* ‘deduce’ (49) while standard finite CPs are of course possible:

- (47) a. Gianni sostiene che Maria corre.
 Gianni claims that M. runs.
 ‘Gianni claims that Maria runs.’
 b. *Gianni sostiene Maria che corre.
 Gianni claims Maria that runs.
 ‘Gianni claims Maria running.’
- (48) a. Gianni ha intuito che Maria correva.
 Gianni has guessed that M. runs.
 ‘Gianni guessed that Maria runs.’
 b. *Gianni ha intuito Maria che correva.
 Gianni has guessed Maria that runs.
 ‘Gianni guessed Maria running.’
- (49) a. Gianni ha visto la stanza vuota e ha dedotto che Maria correva.
 Gianni has seen the room empty and has deduced that M. run-IMPF.
 ‘Gianni saw the empty room and deduced that Maria was running.’
 b. *Gianni ha visto la stanza vuota e ha dedotto Maria che correva.
 Gianni has seen the room empty and has deduced that M. run-IMPF.
 ‘Gianni saw the empty room and deduced Maria running.’

The semantic difference between PRs and standard finite clauses is illustrated most dramatically under perception reports. Setting aside PRs for the moment, we know that epistemically positive perception reports (Barwise and Cooper, 1981)—so-called indirect perception reports—are expressed by finite CPs (as in the Italian example in (50)), whereas epistemically neutral perception

reports—direct perception—are typically expressed with infinitives (51). The epistemic nature of indirect perception reports is highlighted by the continuations in (50) and (51) showing that indirect perception reports ascribe a belief to their subjects, whereas direct perception report complements are transparent.

- (50) 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.
- (51) 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.

Crucially, PRs express transparent, epistemically neutral direct perception, like infinitival complements and unlike ‘normal’ finite clausal complements. That is, the continuation in (52) is possible just as it is with infinitives (see also Graffi, 1980).

- (52) Gianni ha visto [_{PR} **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) established that direct perception verbs describe a relation between a perceiver and an individual situation, whereas indirect perception describes a relation between a perceiver and a proposition, a set of situations (Kratzer, 1989). In the case of direct perception, it follows that substitution of extensionally equivalent descriptions of a situation preserves truth. That is, direct perception complements, unlike indirect perception complements, can be replaced by an extensionally equivalent description of an event *salva veritate* (Barwise 1981; see Kratzer 2007 for a useful discussion, on which the following examples are modeled, in terms of situation semantics). If, by sprinkling white powder into Mario’s dinner, Silvia was in reality poisoning him, we can always report (53a) and (53b) interchangeably with direct perception:

- (53) a. Mario saw Silvia sprinkle white powder on his dinner.
 b. Mario saw Silvia poison him.

However, the two event descriptions (poisoning and sprinkling) are not necessarily interchangeable as part of the complements of indirect perception reports. Mario will feel very different about Silvia depending on the truth of the two attitude ascription in (54):

- (54) a. Mario saw that Silvia was sprinkling white powder on his dinner.
 b. Mario saw that Silvia was poisoning him.

Since PRs are used to express epistemically neutral direct perception, they must supply an individual situation, not a proposition. The fact that PRs cannot combine with verbs like ‘claim’ etc. is simply a reflection of semantic selection: these verbs select for propositions (something of type $\langle s, t \rangle$ on standard possible-worlds accounts of propositional attitudes (Hintikka, 1969)) not for an individual situation, which is what PRs are.

		Semantic selection
(55)	Propositional attitudes/indirect perception	$\langle s, t \rangle$
	Direct perception	s

How does this difference in semantic type offer evidence that PRs are DPs and not CPs? We will show that while both PRs and infinitives are alike in describing individual situations—are therefore suitable as objects of direct perception—they differ in their quantificational force. PRs are referential, and we capture this with our proposed D_C .

4.1 Quantification and Perception

Higginbotham 1983 established that the complements of direct perception are existentially quantified event descriptions (56a).¹⁴ Higginbotham suggests that (bare) infinitival complements are the indefinite versions of an event description; so the only difference between (56a) and (56b) is that the first is indefinite and the second definite.

- (56) a. John saw Mary depart.
b. John saw Mary's departure.

This not an idiosyncratic feature of the English bare infinitive. Italian infinitives likewise exhibit existential force under perception verbs. This is demonstrated, among other things, by the fact that infinitives may scope below negation. For instance, (57) does not entail that there was an event of Maria dancing. (Of course, the sentence can also be true in a scenario where the event happened.)

- (57) Dato che Maria non ha mai ballato, Gianni non ha mai visto **Maria ballare**.
Given that M. NEG has never danced, G. NEG has never seen M. dance.
'Since M. has never danced, G. has never seen M. dance.'

This is precisely where PRs differ from infinitives. Unlike infinitives, PRs carry an existence commitment under negation (58).¹⁵

- (58) #Dato che M. non ha mai ballato, G. non ha mai visto **M. che ballava**
Given that M. NEG has never danced, G. NEG has never seen M. that dance.-IMPF.
'Since M. has never danced, G. never saw M. dancing.'

This contrast is borne out in Spanish. An infinitival complement is possible in (59) but the PR in (60) presents a contradiction.

¹⁴ Higginbotham's main goal was to argue for an event-based analysis of direct perception over Barwise's (1981) claims that situations are needed; Higginbotham's claims about the quantification force of infinitives are what concern us here.

¹⁵ It is crucial here to read the PR as episodic. Surprisingly, there is also the possibility of construing PRs with a habitual meaning, and these alter the scope judgments. In Grillo and Moulton 2015 these readings are explained via reference to event kinds. Even in that case, the PR is referential (to kinds) and implicates a meaningful determiner.

- (59) Juan no vio a Lea bailar, porque Lea no llegó a bailar.
 J. NEG saw OBJ L. dance.INF, because L. NEG arrive to dance.INF
 ‘Juan didn’t see Lea dance, because she didn’t get to dance.’
- (60) #Juan no vio a Lea que bailaba, porque Lea no llegó a bailar.
 J. NEG saw OBJ L. that dance.IMPF, because L. NEG arrive to dance.INF
 ‘Juan didn’t see Lea dance, because she didn’t get to dance.’

The Greek PR in (61b) contrast with Greek *na*-clauses (61a) in the same way.

- (61) Context: Gianni never danced in his life.
- a. Opote, kanis den ton idhe/exi dhi na xorevi sto parti
 therefore nobody not him saw/has seen SUBJ dance at.the party
 ‘Therefore, no one saw/ has seen him dance at the party.’
- b. #Opote, kanis den ton idhe/exi dhi pu xoreve sto parti
 therefore nobody not him saw/has seen that dance.PAST.IMPF at.the party
 ‘Therefore, no one saw/ has seen him dance at the party.’

PRs exhibit their referential, non-quantificational status under other operators too. For instance, while the infinitive within the conditional in (62a) does not force the presupposition that there was an event of Gianni dancing, the use of the PR in the same position suggests that Gianni was dancing:

- (62) a. Se Maria avesse visto Gianni ballare si sarebbe arrabbiata.
 If M. had.COND seen G. dance.INF SI would.be angry.
 ‘If M. had seen see G. dance she would have got angry.’
- b. Se Maria avesse visto Gianni che ballava si sarebbe arrabbiata.
 If M. had.COND seen G. that dance.IMPF SI would.be angry.
 ‘If M. had seen G. that dance she would have got angry.’

Under universal quantifiers, infinitives show an expected ambiguity: they can be interpreted as describing events that scope under the universal, giving rise to a multiple events reading (63a). PRs in the same context strongly resists a distributive interpretation (63b).

- (63) a. Tutti hanno visto Maria ballare. $\forall > \exists$; **multiple events of dancing**
 All have seen M. dance.INF
 ‘Every one saw M. dance.’
- b. Tutti hanno visto Maria che ballava. $*\forall > \exists$ **single event of dancing**
 All have seen Mary that dance.IMPF.
 ‘Every one saw M. dancing.’

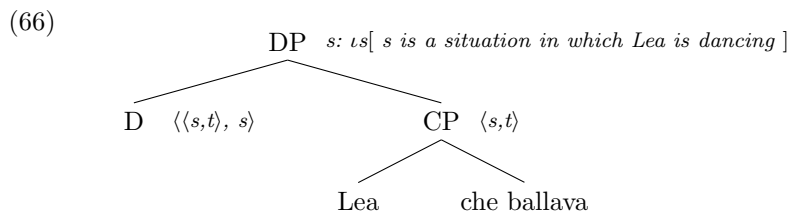
Multiple event readings for PRs only become easily available if it contains a variable pronoun bound by the quantifier:

- (64) Ogni ragazzo_i ha visto sua_i sorella che ballava. $\forall > \exists$; **multiple events of dancing**
 Every boy has seen his sister that dance.IMPF.
 ‘Every boy saw his sister dancing.’

Finally, we would like to add two more striking contrasts between PRs and infinitives under other operators. First, under *ever*, infinitives give rise to non-specific interpretation, making the question in (65)[B] felicitous. In contrast, the use of the PR in (65)[B'] is infelicitous, which is expected if the PR is referential, just a definite DPs or specific indefinite DPs are (cf. (65)[B'']).

- (65) 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?'
- B'': ??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. 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 constituent containing the PR subject and the CP that denotes type $\langle s, t \rangle$ to type *s*.



What is important is that the CP portion of the PR is of type $\langle s, t \rangle$, a set of (possible) situations. Moulton and Grillo 2015 present a compositional analysis that provides this property. 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 ι operator.¹⁶ 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 (57)–(62). Co-varying interpretations (63)–(64) 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 saw the play he_i 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* (see Geenhoven, 2000; Zimmermann, 1993). This will allow them to scope under negation.¹⁷

¹⁶ 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 (1998); Matthewson (1999)). Angelopolous 2015 argues for a definite DP in Greek PRs.

¹⁷ We are not ready to attribute the variable scope of infinitives to an existential quantifier heading them because, given the ideas we're playing with here, that may implicate a syntactic D. But infinitival complements in perception contexts are transparent for not just A-bar movement, but A-movement (clitics, passive), which in the Indo-European context is at odds with the infinitive being a DP, indefinite or otherwise.

- (67) a. Infinitive/property-taking **see** = $\lambda P.\lambda s.\lambda x.\exists s'[\text{see}(s')(x)(s) \ \& \ P(s')]$
 b. Individual/PR-taking **see** = $\lambda s'.\lambda x.\lambda s.[\text{see}(s')(x)(s)]$
- (68) Gianni non ha mai visto **Maria ballare**.
 G. NEG has never seen M. dance.
 ‘G. has never seen M. dance.’ NEG > \exists
 $\lambda s.\neg\exists s'[\text{see}(s')(I) \ \& \ \text{dance}(\text{Maria})(s')]$

There are several additional advantages to treating PRs as DPs. One of these, already noted, is that it explains the kinds of predicates that constituent PRs can combine with. In fact, our proposal makes a number of further correct predictions in this respect. Cinque (1992) argues that PRs essentially have the same distribution as small clauses. However, there is only partial overlap in distribution. For instance, while adjectival small clauses can complement propositional attitude verbs like *ritenere* ‘believe/consider’ (69a), PRs cannot (69b).

- (69) a. Ritengo Gianni bello
 Believed.I Gianni beautiful.
 ‘I consider/believe Gianni beautiful.’
 b. *Ritengo Gianni che parte
 Believe.I Gianni that leave
 ‘I believe G. leaving.’
 c. Ritengo che Gianni parta troppo presto
 Believe.I that Gianni leaves too early
 ‘I believe that G. leaves too early.’

This follows because *believe*-verbs select propositions, not individual situations.

In sum, the semantic evidence shows that PRs are referential descriptions of situations. The most natural implementation of this involves a meaningful determiner, that converts a set of situations (a proposition) to a individual situation. The semantic contrast between PRs and infinitives (referential, vs. existential) mirrors their syntax (a DP vs. a infinitive without a D).

5 Conclusion and Remaining Issues

We have argued that all constituent PRs are DPs, based on their syntactic distribution and semantic interpretation. We then showed that PR subjects, while within this DP, can nonetheless enter an indirect AGREE relation with an external T. This is revealed by the Case which the PR subject bears, and the surprising option that the PR subject can optionally trigger agreement on a matrix T. To uncover the latter fact, we had to demonstrate that the PRs showing this ‘exceptional’ agreement are not individual denoting projections of the subject, but are just like all other PRs, situation-denoting constituent PRs headed by a CP-taking determiner.

5.1 Extraction

One final apparent benefit of treating PRs as (definite) DPs (as already pointed out by Kayne 1981) is that it straightforwardly captures their islandhood. PRs are strong islands, blocking A-bar extraction of arguments and adjuncts.

(70) Islandhood

- a. *La persona con cui_i ho visto [_{PR} tua sorella che stava parlando t_i] è questa.
 The person with whom have.I seen your sister that she.was talking is this.
 ‘This is the person with whom I have seen your sister talking’ (Cinque 1992: 18(71a))
- b. *Com’è_i che Gianni ha visto [_{PR} Maria che picchiava il ragazzo t_i]?
 How.is that Gianni has seen Maria that beat-IMPF the guy.
 ‘How did Gianni see [Maria beating the guy t_i]?’

These can be compared to the relatively acceptable extraction from infinitival complements in direct perception (Burzio 1986):

- (71) a. ?Con chi hai visto Maria parlare t_i?
 with who have.2sg seen Maria speak
 ‘With whom did you see Maria speak?’
- b. ?Com’è che hai visto Maria picchiare Gianni t_i?
 How.is that have.2sg seen Maria hit Gianni
 ‘How did you see M. hit G.?’

It is tempting to reduce the islandhood in PRs to that found in overt complex DPs like (72):

- (72) a. *La persona con cui_i ho visto [_{DP} l’evento di tua sorella che stava parlando t_i] è questa.
 The person with whom have.I seen the.event of your sister that she.was 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 [_{DP} l’evento di Maria che picchiava il ragazzo t_i]?
 How.is that Leo has seen the.event of M. that beat-IMPF the guy.
 ‘How_i did Leo see the event of [Maria beating the guy t_i]?’

Indeed, aside from the presence of a noun, our proposal has given the same DP analysis to constituent PRs. The one possible wrinkle in this story, though, is that it has been claimed that the PR subject of single constituent PRs¹⁸ can *wh*-extract:

- (73) Chi_i non sopporti t_i che fuma in quel modo?
 who can’t you.stand that smokes in that manner?

¹⁸ Extraction of the PR-subject of two constituent PRs is obviously predicted to be perfectly grammatical by any approach to PRs. While it is easy to force the two-constituent reading (e.g. by using verbs like meet/catch), it is much harder to force the single constituent reading in a way that would still allow for *wh*-movement, which explains the importance of exclusively single-constituent contexts like ‘sopportare’ and absolute-with constructions.

Who can you stand smoking in that manner?
(Cinque 1992: p.12 (46))

In this section we provide both syntactic and semantic arguments showing that while (73) is indeed grammatical, it is not a case of extraction from a PR and is thus uninformative for the present discussion. We then show that when the test sentences are disambiguated toward constituent PR readings, extraction of even the PR subject is not possible..

The example in (73) cannot be a PR because it contains an individual-level predicate ('know'), something that unambiguous PRs cannot as shown in (74):

- (74) a. *Ho visto Gianni che conosce il Sanscrito.
I.have seen G. that knows the Sanskrit.
'I saw G. knowing Sanskrit.'
b. *Ciò che non sopporto è Gianni che conosce il Sanscrito.
What that neg stand is G. that knows the Sanskrit.
'What I can't stand is G. knowing Sanskrit.'

The example in (73), we claim, is not a PR but a relative clause that is stranded (or extraposed) from an object that has undergone *wh*-movement.¹⁹

That such configurations are possible is shown in (75):

- (75) Con chi parli che conosce il Sanscrito?
With whom you.speak that knows the Sanskrit?
'With whom do you speak who knows Sanskrit?'

This example, of course, does not contain a PR, because verbs like *parlare* 'to speak' does not select PRs of either the one- or two-constituent variety:

- (76) *Parlo con [Gianni che fumava].
I.speak with G. that smoked.
'I speak with G. that was smoking.'

A way to ensure that we are dealing with a true constituent PR is by examining the semantics. Standard PRs under 'sopportare' like (77), simply convey that I can't stand a certain situation, i.e. the situation involving Gianni smoking in my house. Importantly, it does not imply that I can't stand Gianni.

¹⁹ It is easy to show that the extraction cases observed here do not originate from a standard CP-complement clause. The embedded predicates in all the examples above are in the indicative present form. Clausal complements in this environments, however, necessarily involves subjunctive in Italian (i).

- (i) a. Non sopporto che Gianni fumi in casa mia.
Neg I.stand that G. smoke.subj in house mine.
'I can't stand that G. smokes in my house.'
b. *Non sopporto che Gianni fuma in casa mia.
Neg I.stand that G. smoke.pres in house mine.
'I can't stand that G. smokes in my house.'

- (77) Non sopporto Gianni che fuma in casa mia.
 NEG I.stand G. that smokes in house mine.
 ‘I can’t stand G. smoking in my house.’

Contrary to (77), an answer to the question in (73) requires indicating who is the person such that you can’t stand that person—not merely an event. The extracted element in (73) behaves like the internal semantic argument of the verb. This is reminiscent of Cinque (1992)’s observations about the behaviour of PRs under perception verbs. Using examples like (78), Cinque shows that it is not necessary to directly perceive the PR-subject, in contrast with Rizzi 1992.

- (78) 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.’

These are constituent PRs. Now, if our analysis is on the right track, we would expect wh-movement of the PR-subject to change this state of things in predictable ways: i.e. forcing it to be directly perceived. This prediction is confirmed in (79).

- (79) Chi hai sentito che faceva piangere il fratellino?
 who you.have heard that made cry the little.brother?
 ‘Who have you heard who was making his little brother cry?’

Finally, if our claim that (73) is really extraction of a matrix internal argument, stranding an RC, not a PR, then we expect that the gap in the *che*-clause could be an object. If it were a PR, which only allows subject gaps in the *che*-clause, this would not be possible. This prediction is borne out, as shown in (80).

- (80) Chi_i non sopporti che Maria bacia t_i
 who NEG you.stand that Maria kisses t_i.
 ‘Who can’t you stand who Maria is kissing?’

The degraded acceptability in (80) is simply due to the reduced acceptability of object-gap relatives. An PR-predicate internal object gap in a *bona fide* PR is completely unacceptable in this context (81):

- (81) *Non sopporto Gianni che Maria bacia ____.
 NEG I.stand G. that M. kisses ____.
 ‘I can’t stand Gianni being kissed by Maria.’

While the full nature of extraction requires a full exegesis, we have collected a wealth of evidence supporting a DP analysis of single constituent PRs: PRs can coordinate with other DPs, but not with CPs; they can appear in syntactic and semantic environments that select for DPs, but not for CPs; they are referential descriptions of situations; they show scopeless behaviour typical of referential DPs.

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