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The Case and Finiteness Restrictions of Italian Relative *che*

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Abstract: This paper addresses the restrictions of Italian relative *che* ‘what’ to finite environments and direct case gaps. While the standard analysis takes these restrictions to follow from the C status of *che*, this paper argues for an alternative approach, according to which *che* is a DP, on a par with other interrogative and relative elements. Specifically, it is argued that relative *che* is identical to interrogative *che* and relative *cui* ‘what.OBL’ in the narrow syntactic derivation, up to the point of TRANSFER. Realization of relative *che* is then blocked at EXT with oblique case gaps by the more specific *cui*, along the lines of the Elsewhere Principle. The status of *cui* as a specialized relative element is also discussed. The restriction to finiteness for relative *che* is treated as an instance of a more general phenomenon that precludes bare DPs from occurring at the edge of infinitival relatives. Here I adopt and extend (Richards, Norvin. 2010. *Uttering trees*. Cambridge, Massachusetts: MIT Press) Distinctness Theory to account for the facts of Italian.

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1 Introduction

Italian *che* ‘what’ can appear in interrogatives, headed relative clauses (RCs) and complement clauses (along with a multitude of other morphosyntactic

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environments, which will not be discussed here). As is well known, these uses of *che* do not share the same distribution. The distribution of interrogative *che* (che_{+Q}) and relative *che* (che_{+REL}) essentially varies along two dimensions: finiteness and case.

che_{+Q} can appear in both finite (1a) and non-finite clauses (1b), it can be embedded under prepositions, i.e., it licenses direct as well as oblique case gaps (1c),¹ and it can also function as a determiner taking a nominal complement (1d). On the other hand, che_{+REL} can appear only in finite clauses (2a), and is incompatible with oblique case gaps (2c). In infinitival clauses che_{+REL} is replaced by the prepositional complementizer *da* (2b). For oblique gaps in RCs, Italian makes use of two elements specialized for headed relatives: *cui* ‘what.OBL’ and Det + *qual-* ‘the which’. See Cinque (1978, 1982, 2008) for further details on the distribution of relativizers in Italian. Finally, (3) shows use of *che* as a finite sentential complementizer.

- (1) a. Che fai?
What do-2SG
‘What are you doing?’
b. Che fare?
What do-INF
‘What to do?’
c. Di che parli?
Of what speak-2SG
‘What are you talking about?’

1 Interrogatives with *che* seem to be degraded when *che* is moved from the external argument position, as in (i). In these cases, the *wh*-phrase (*che*) *cosa* (lit. ‘(what) thing’) is selected (ii) (Leonardo Savoia, p.c., Serena Crocchi, p.c.). Note that this issue does not concern the availability of nominative case for che_{+Q} , which it can bear (provided that che_{+Q} is moved from the internal argument position, as in *che succede?* ‘what happens?’). Note further that (*che*) *cosa* and *che* are otherwise in free distribution in interrogatives in Standard Italian. I leave this puzzling asymmetry for future research, referring the reader to Rizzi (2020) for discussion concerning the structural differences between che_{+Q} and (*che*) *cosa* (cf. also Cecchetto and Donati 2015 for an alternative view).

- (i) ??Che tira la carrozza?
What pulls the carriage?
‘What is pulling the carriage?’
(ii) Che cosa tira la carrozza?
What thing pulls the carriage?
‘What is pulling the carriage?’

- d. Che libri leggi?
 What books read-2SG
 ‘What books do you read?’
- (2) a. L'uomo che hai sposato
 The man what have-2SG married
 ‘The man you married’
 b. L'uomo *che / da sposare
 The man what/from marry-INF
 ‘The man to marry’
 c. L'uomo *di che / di cui / del quale parli
 The man of what / of what-OBL / of-the.MASC.PL which.MASC.PL speak-2SG
 ‘The man you are talking about’
- (3) Penso che andrò in vacanza
 Think-1SG what go-FUT-1SG in vacation
 ‘I think that I’ll go on vacation’

Despite their syncretic morphophonological basis, the standard analysis takes che_{+Q} and che_{+REL} to be two distinct elements instantiating different categories: while the former is a D(P), the latter spells out C, a functional head intrinsically specified for finiteness and other ‘clause-typing’ (Cheng 1991) properties (or Force, Chomsky 1995, Rizzi 1997). Accordingly, che_{+REL} would be a version of C that is specified as [+finite], *da* as [-finite], etc. The restriction to finite clauses has constituted a pivotal argument for the treatment of relative and sentential *che* (as well as English *that*, French *que* etc.) as instantiations of the same functional category (cf. Cinque 1978, 1982; Kayne 1976). In this paper, I will refer to the hypothesis that che_{+Q} and che_{+REL} are categorially distinct elements as the *C hypothesis*.

While the C hypothesis has essentially remained unchallenged for several years, the debate over the categorial status of (relative) complementizers has recently been revitalized (e.g., Baunaz and Lander 2018; Kato and Nunes 2009; Kayne 2014; Manzini and Savoia 2003; Poletto and Sanfelici 2018; Rinke and Aßmann 2017; Roussou 2020a; Sportiche 2011, among others). The main point of contention is that the C hypothesis offers no insight into the syncretism between complementizers and pronominal elements. Thus the syncretism between che_{+Q} and che_{+REL} , for instance, is argued to require an explanation, and should not be reduced to cross-categorial homophony or to the result of grammaticalization (cf. Poletto and Sanfelici 2018, 2019; Roberts and Roussou 2003; Roussou 2020b; van Gelderen 2009). The rejection of the D/C dichotomy is explicitly argued for in

Manzini and Savoia (2003) (and further elaborated in subsequent work: Manzini 2012, 2014a; Manzini and Savoia 2005, 2011). These authors propose that there is a single *che* in the Italian lexicon, of category D. Furthermore, Kayne (2014), Poletto and Sanfelici (2018) argue that the theoretical distinction between pronominal elements and complementizers lacks empirical support. The hypothesis defended by this line of research that *che*_{+Q} and *che*_{+REL} are categorially non-distinct will be referred to here as the *D hypothesis*.

The D hypothesis has the advantage of accounting for the syncretism between *che*_{+Q} and *che*_{+REL} in a simple and appealing way. However, it also effectively reinstates the issue of their different morphosyntactic distribution. Specifically, two problems remain unaddressed under the D hypothesis, namely (i) the inability of *che*_{+REL} to license oblique case gaps (henceforth, *the case problem*),² and (ii) the

2 An anonymous reviewer criticizes the generalization that *che*_{+REL} is incompatible with oblique case gaps on the basis of examples such as (i), from spoken varieties of Italian:

In (i) the verbal complex *avere bisogno* (lit. ‘have need’) assigns oblique case to its object, as witnessed by the declarative *Ho bisogno di qualcosa* (lit. ‘I have need of something’). Crucially, the reviewer points out, in these spoken varieties *che*_{+REL} is incompatible with a preceding P in RCs (**Non c’è niente di che ho bisogno*). Hence the reviewer suggests that the correct generalization concerning the distribution of *che*_{+REL} does not concern the nature of the gap, but rather the presence of a P. While I believe that the reviewer’s generalization does not undermine the substance of the analysis that I will propose in Section 3 to account for the distribution of *che*_{+REL} (namely, that *cui* blocks the realization of *che* at EXT), I disagree with them on the better accuracy of their generalization over ours. It is important to stress in this regard that the case or finiteness restrictions are meant only as descriptive generalizations, and are only targeted at Standard Italian. For reasons that will become clear, there is nothing intrinsic about *che*_{+REL}’s incompatibility with oblique case gaps (and/or Ps and/or finiteness): the empirical facts are derived from language-particular rules operating at EXT. In the case of Standard Italian, we can derive *che*_{+REL}’s incompatibility with oblique case gaps from the presence of a more specific exponent in the post-syntactic lexicon (/kui/), which replaces *che* in oblique contexts. Data like (i), therefore, are not unexpected if we make the reasonable assumption that spoken Italian has different rules operating in the EXT component (for instance, we could suggest that these varieties require obligatory P-dropping with *che*_{+REL} and lack a specialized exponent for oblique *che*_{+REL}, though the matter certainly deserves more investigation). Furthermore, if *che*_{+REL} were compatible with oblique case gaps but incompatible with Ps in Standard Italian, we would expect it to be at least marginally possible under P-dropping in examples like (iib), contrary to fact.

- (i) Non c’è niente che ho bisogno
 NEG there is nothing what I have need
 ‘There’s nothing I need’
- (ii) a. Lo scienziato a cui diedero il premio Nobel
 The scientist to whom they gave the Nobel prize
 b. Lo scienziato cui/*che diedero il premio Nobel

restriction to finite contexts for *che*_{+REL} (henceforth, *the finiteness problem*). While I follow Manzini and Savoia in assuming that *che*_{+REL} is a DP like *che*_{+Q}, I depart from them in that I assume that these elements are identical only in narrow syntax. I argue that their different properties emerge after TRANSFER, and specifically at EXT, as a result of their different derivational history.

The present paper is organized as follows.

In Section 2, I discuss the empirical properties standardly assumed as diagnostics for the C/D dichotomy. I show that these properties are not reliable diagnostics for determining the categorial status of Italian *che*_{+REL}. I further discuss the D hypothesis of Manzini and Savoia and conclude that it leaves unanswered the case and finiteness problems.

In Section 3, I address the case problem by adopting a form of the D hypothesis. The solution I propose is that the realization of *che*_{+REL} is blocked at the mapping with phonology (EXT) by the more specific *cui*. I moreover discuss the theoretical status of specialized relative pronouns such as *cui*.

In Section 4, I address the finiteness problem, which I include within the larger issue of the conditions that prohibit bare DPs from occurring at the edge of infinitival relatives. Here I follow Richards (2010) in accounting for the unavailability of *che*_{+REL} in infinitival relatives as deriving from a violation of his Distinctness Condition.

Finally, Section 5 concludes the discussion.

2 Pronouns, Complementizers and the D Hypothesis

2.1 On the Differences Between Pronouns and Relative Complementizers

It is standardly assumed that relativizers can belong to different morphosyntactic categories. Thus for instance English relative *who* and *which* are assumed to be DPs, whereas relative *that* spells out the category C (to which sentential complementizers are also standardly assumed to belong). This is the position I refer to as the C hypothesis, which is motivated on the basis of four empirical properties that are assumed to classify relativizers into pronominal elements (DPs) and relative complementizers (Cs) (with arguments tracing back to Klima 1964, Kayne 1975, 1976): (a) animacy restrictions (b) case-marking; (c) compatibility with prepositions; and (d) sensitivity to the finiteness of the clause. Examples (4)–(7) illustrate this for English. (4) shows that the animacy restriction applies to relative pronouns

who and *which*, but not to *that*; (5) shows that pronoun *who* can be case-marked, unlike *that*; (6) shows that *who* and *which* can be embedded under Ps, in contrast to *that*; and (7) shows that *wh*-pronouns can be licensed in infinitival contexts, unlike *that*. The different morphosyntactic behaviour of *who* and *which* on the one hand and of *that* on the other is thus explained away as a difference in categorial status, according to this standard position.

- (4) The man *which / who / that John saw
The table which / *who / that John broke
- (5) The man whose wife / *that's wife John saw
- (6) The man with whom / *with that John spoke
The chair on which / *on that John sat
- (7) a. The man with whom to speak
b. *The man that (to) see

Insofar as properties (a–d) are real diagnostics for determining whether a given element is a D(P) or a C, however, it is never made quite explicit (to the best of my knowledge) how these properties should theoretically follow from a difference in categorial status. In other words, it is unclear why D elements should be subject to a different syntax vis-à-vis C elements. It is nonetheless implicit in the literature that the distribution of properties (a–d) is related to the assumption that Cs are functional heads strictly connected with the TP-layer of the sentence. This strict connection would then render C elements incompatible with properties (a–c), the hallmark of (pro-)nominal elements; on the other hand, Cs would be intrinsically specified for finiteness, and therefore display property (d).

Be that as it may, properties (a–c) have been challenged as diagnostics for the D/C dichotomy on empirical grounds (see in particular Kayne 2014, Poletto and Sanfelici 2018). Poletto and Sanfelici (2018) argue that Old Italian varieties featured relativizers that show a mixed behaviour with respect to properties (a–c). For instance, the Old Ligurian relativizer *che* falls into the C category according to property (c) (since incompatible with Ps), while at the same time this element showed sensitivity to the animacy of the antecedent in subject relatives, thus behaving as a DP with respect to property (a). As shown in (8) (from Poletto and Sanfelici 2018: 275), the agreeing relativizer *chi* was employed with a [+human] extracted subject (8a); otherwise, the default form *che* (also used as a sentential complementizer) was selected (8b).

- (8) a. questa femena chi m' à spanyunto questo inguento adosso
 this woman REL CL.1SG.ACC has Spread this unguent on.me
 'This woman that spread this unguent on me'.
 b. receveyva tuto zo che era dayto a Criste
 received-3SG all that REL was given to Christ
 'He received all that was given to Christ'

Conversely, Poletto and Sanfelici (2018) show that an element generally labeled as a DP, *qual-* 'which', could remain uninflected in relative constructions. This is the case of Old Neapolitan, where *quale* remained invariable regardless of the properties of its antecedent, as illustrated in (9) (from Poletto and Sanfelici 2018: 281). Old Neapolitan *quale* is comparable to Italian *che*_{+REL} in this respect, even though the latter is standardly taken to be a C.

- (9) a. Amico quale te si' [...]
 friend REL you are
 'Friend that you are [...]'
 b. Haverno facte cose quale mai tentarono fare
 have-3PL done things REL never tried do
 'They did things that they never tried to do'

In fact, it can be argued that properties (a-c) are inconclusive for determining the categorial status of relativizers even in Italian. The distribution between *che*_{+REL} and the relative *wh*-pronoun *cui*, for instance, only differs with respect to the case of the gap in the RC. As shown in (10)–(11), neither *che* nor *cui* display property (a), i.e., restrictions to animacy.

- (10) a. L'uomo che Gianni vede
 The man what G. sees
 'The man who Gianni saw.'
 b. L'uomo con cui Gianni parla
 The man with what.OBL G. speaks
 'The man with whom Gianni speaks.'
- (11) a. Il libro che Gianni legge
 The book what G. reads
 'The book that Gianni reads.'
 b. Il libro su cui Gianni studia
 The book on what.OBL G. studies
 'The book from which Gianni studies.'

With regards to property (b), it is possible to consider *cui* to be case marked as an oblique. This is suggested by its distribution and by the affix *-ui*, which could mark non-nominative case in older stages of the language (cf. *egli* ‘he.NOM’ vs. *lui* ‘he.ACC/OBL’; see Benincà 2010 on some uses of *cui* in Old Italian; cf. Poletto and Sanfelici 2019). While *cui* is pronominal according to property (b), it cannot be excluded that it is simply an oblique form of *che*_{+REL} (as traditional (pre-generativist) grammars would have it). In fact, this assumption might account in a simple way for the distribution of *che*_{+REL} versus *cui* in modern Standard Italian. Specifically, the incompatibility of *che*_{+REL} with Ps (property (c)) could be attributed to the fact that the Italian lexicon contains a more specific element (*cui*), which would block the spell-out of *che*_{+REL} with oblique case gaps (along the lines of the Elsewhere/Subset Principle; Halle 1997; Kiparsky 1973). This is essentially what I will propose in Section 3.

Furthermore, as pointed out in Roussou (2020a: fn. 2), compatibility of Ps with purported C elements seems to be subject to cross-linguistic variation. The following example from Italian featuring sentential *che* is a case in point:

- (12) Gianni era favorevole a che ti sposassi
 Gianni was favorable to what CL.2SG married-SUBJ-2SG
 ‘Gianni was in favor of you getting married.’

Note however that this possibility is restricted to just the preposition *a* ‘to’ in Italian, which suggests that it is an idiosyncratic lexical rule rather than a generalized property. Still, the fact that it is possible at all to combine prepositions with elements standardly labeled as C indicates that property (c) cannot be used as a reliable categorial diagnostics.³ Let me also point out that the C hypothesis, while compatible with data like (2c) or (13a) below, does not force the empirical facts upon us. Even maintaining that *che*_{+REL} is a C, it would be unclear why *che* could not lexicalize both a relative DP and C (cf. 13b, where C is silent). Hence, the incompatibility of Ps with *che*_{+REL} (or equivalent) does not necessarily speak in favor of *che*_{+REL} belonging to the category C: something additional would need to be said to account for the unavailability of sentences like (13a).

3 Consider also the fact that in Italian the sentential complementizer *che* can be combined with the preposition *da* ‘from’ to generate the temporal conjunction *dacché* (also written as *da che*) ‘since’:

- (i) Non abbiamo più visto Gianni dacché si è sposato
 Not have.2PL more seen G. since he REFL be.3SG married
 ‘We haven’t seen Gianni since he got married’.

- (13) a. *L'uomo con che parlo spesso
 The man with what speak-1SG often
 'The man I often speak with'
 b. L'uomo [_{CP} [_{PP} con che] [_C <che> [parlo spesso]]].

The empirical evidence thus does not offer conclusive support for the argument that properties (a–c) cut across Ds and Cs. What about property (d)?

Sensitivity to finiteness *prima facie* appears to be a real discriminating property of elements standardly labelled as Cs. Consider the sentences in (14). In the infinitival relative (14a), *che* cannot be licensed, as opposed to *che* in the interrogative (14b) or *cui* in (14c). It is in particular the restriction to finite environments that has bolstered the hypothesis that elements such as *che*_{+REL} instantiate elements of a different categorial nature than, e.g., their interrogative counterparts (cf. Cinque 1978, 1982; Kayne 1976). The standard reasoning is that if *che*_{+REL} were a pronoun like *che*_{+Q} or *cui*, it would remain unexplained why its distribution is constrained by the finiteness of the clause, since pronouns do not seem to be subject to such a constraint.

- (14) a. *L'uomo che vedere
 The man what see-INF
 'The man to see.'
 b. Non sa che fare
 NEG know.3SG what do-INF
 'He/she doesn't know what to do.'
 c. L'uomo a cui affidarsi
 The man to what.OBL rely-INF-REFL
 'The man to rely on.'

However, there are reasons for being skeptical about a strict correlation between complementizers and finiteness.

First, consider the data in (15) (from Manzini 2012: 311), from Paulilätino (Sardinia), which features inflected infinitives. In (15a), the prepositional complementizer *dè* is compatible with both the inflected and the non-inflected infinitive. However, in (15b) *ki* (also used as a finite sentential complementizer) is also compatible with the inflected infinitive. These data then suggest that, whatever categorial status we attribute to elements like *ki/che*, these elements are not sensitive to the finiteness of the clause, but rather to the expression of nominal properties on T (i.e., its inflection).⁴

⁴ Manzini and Savoia (2011) derive the incompatibility of *ki* with the non-inflected infinitive from the assumption that *ki* is a DP seeking a propositional variable, while the non-inflected infinitive defines an open predicate, rather than a proposition. This account cannot be extended to elements

- (15) a. ... innantis de 'enn-εε-(nε) 'iεεεεε
 ... before to come-INF-(3PL) they
 b. ... innantis ki 'enn-εε-nε 'iεεεεε
 ... before that come-INF-3PL they
 '... before they came'

Second, as Manzini and Savoia (2005: 489) discuss, there are contexts in Italian that can license the relativizer *che* in non-finite environments. This is the case of light-headed relatives with an interrogative interpretation (20). If *che* were specified as a [+finite] C, one would counterfactually predict the use of *che* in (20) to be ungrammatical.

- (20) ?Non sa quello che dire
 NEG knows that what say-INF
 'He doesn't know what to say'

Third, it is not the case that pronominal elements do not show sensitivity to the finiteness of the clause. For instance, some very formal registers of Italian allow the use of Det + *qual-* in restrictive headed relatives with direct case gaps, provided that the verb in the RC is in the subjunctive mood (16a) (cf. Cinque 1978, 1982). Indeed, use of the indicative mood leads to severe deviance if Det + *qual-* is employed in such restrictive relatives (16b).

- (16) a. I cittadini i quali abbiamo riscontrato problemi...
 The citizens the which have-SUBJ-2SG found problems
 'The citizens who might have had problems...'
 b. ??/* I cittadini i quali hanno riscontrato problemi...
 The citizens the which have-IND-2SG found problems
 The citizens who might have had problems...'

The contrast in (16) points towards the conclusion that pronominal elements, too, can be sensitive to the finiteness of the clause. In this particular case, Det + *qual-* would be sensitive to the mood specification on T.

Finally, in languages such as French or English, *wh*-pronouns cannot be licensed in infinitival relatives unless they respect certain morphosyntactic requirements: they cannot occupy the edge of the relative as bare DPs (17)–(19), but must be either non-overt or embedded within larger phrases (19).

like *che*_{+REL}, however, if these elements seek argumental variables (see Section 2.2.). I leave open the issue of determining whether the analysis to be developed in Section 4 to account for the finiteness restriction of *che*_{+REL} could be extended to sentential *che*. See also Roussou (2010) for relevant discussion.

- (17) a. A man (*who) to marry.
b. A show (*which) to enjoy.
- (18) a. *A man whom to dance with.
b. *A brush which to paint with.
- (19) a. A man with whom to dance.
b. A brush with which to paint.

This asymmetry is well-known and has been extensively discussed in the literature (see references cited in Section 4). However, what is failed to be recognized is that the alleged relative ‘complementizers’ are barred under the same conditions that bar pronominal elements. Suppose that *che*_{+REL} projects a DP. If so, its restriction to finite environments should not come as a surprise given the comparable restriction of other bare DPs at the edge of infinitival relatives. As I argue in Section 4, an account of *che*_{+REL}’s restriction to finite clauses should be amenable to the same treatment, whichever it may be, that is offered to account for cases such as (17)–(19). The assumption that *che*_{+REL} is specified as [+finite] does not help achieve a comprehensive generalization of the factors that preclude bare DPs from occurring at the edge of infinitival relatives.

All of the above then suggests that property (d) cannot ascertain whether a given element belongs to C or D. These considerations aside, it seems clear that in headed RCs *che*_{+REL} is restricted to finite contexts. The question that arises (to be addressed in Section 4) is why this should be the case if *che*_{+REL} is not a [+finite] C.

2.2 The D Hypothesis

In the previous section I argued that the categorial distinction between pronominal elements and relative complementizers rests on dubious empirical premises (cf. Kayne 2014; Poletto and Sanfelici 2018). There is another empirical aspect of the C hypothesis that has been subject to criticism in recent years (see Manzini and Savoia 2003 among others), namely that such a hypothesis falls short of accounting for the systematic syncretism between pronominal elements and the purported C elements across Indo-European.⁵ In particular, it can be argued that the C hypothesis lacks explanatory value insofar as such syncretism is treated in

⁵ The same correlation is observed in the Northwest Caucasian language Adyghe (Caponigro and Polinsky 2008).

terms of cross-categorial homophony or as the result of grammaticalization (cf. Baunaz and Lander 2018; Manzini and Savoia 2011). Moreover, the question arises as to why a functional specification that can host verbs (in, e.g., V2, T-to-C movement, etc.) would need to be lexicalized via an independently available pronominal element (Manzini and Savoia 2011: 14–5). It is uncontroversial that che_{+Q} as well as relative pronouns and their equivalents in *wh*-movement languages undergo Internal Merge to the CP-layer of the sentence. If che_{+REL} is assumed to belong to a non-nominal category subject to different syntactic operations, our theory would be missing an overarching generalization.

Manzini and Savoia (2003 *et seq.*) among others criticize this aspect of the C hypothesis. These authors take the syncretism between the different uses of *che* at face value, treating *che* as the very same lexical item in every context in which it appears. In particular, *che* is taken to be a DP capable of introducing a variable at LF, essentially on a par with a lambda operator (cf. Arsenijević 2009). The difference between the different uses of *che* would lie in the type of variable that *che* can bind. Specifically, *che* as an interrogative or relative element introduces a variable that ranges over individuals;⁶ as a sentential complementizer, *che* introduces a variable that ranges over propositions/possible worlds. This analysis has as an effect that there can now be a single *che* in the lexicon, with its interpretation being contextually determined.

The D hypothesis defended in Manzini and Savoia (2003 *et seq.*) is intuitively preferable over the C hypothesis on grounds of simplicity and explanatory power. As it stands, however, it is problematic in that it leaves unaddressed the case and finiteness problems mentioned in Section 1 (cf. fn. 4). Nonetheless, given the empirical problems faced by the C hypothesis, in this paper I attempt to solve these issues under some form of the D hypothesis. The major point of departure I take from Manzini and Savoia's proposal is that I assume a model of grammar where the lexicon is distributed across different modules (as in Distributed Morphology; e.g., Arregi and Nevins 2012; Halle and Marantz 1993). Under this model, I argue that elements like che_{+Q} and che_{+REL} are identical only for a portion of the derivation: until the point of TRANSFER. More specifically, I take che_{+Q} and che_{+REL} to instantiate the same (featurally indistinguishable) DP in the pre-syntactic lexicon and under the manipulation of the narrow syntactic component (with Manzini and Savoia). However, after TRANSFER, che_{+Q} and che_{+REL} effectively become different elements as a result of the different syntactic operations that they undergo in narrow syntax. After TRANSFER, and specifically at EXT, these different elements could potentially be assigned different phonological

⁶ Manzini and Savoia (2003) suggest that che_{+REL} introduces a propositional variable, just as *che* does in complement clauses. This position is revised in Manzini and Savoia (2005: 485).

exponents, which I argue is the case with the oblique forms of *che*_{+Q} and *che*_{+REL} (/ke/ vs /kui/).

3 Addressing the Case Problem

3.1 Preliminary Assumptions

This section addresses the case problem, i.e., the inability of *che*_{+REL} to license oblique case gaps, under the assumption that it is a DP. We are interested in providing an account of the pattern in (22)–(23):

- (22) Di *che* / **di cui* / **del quale* *parli*?
 Of what / of what.OBL / of-the.MASC.SG *which*.MASC.SG
 ‘What are you talking about?’

- (23) L’uomo **di che* / *di cui* / *del* *quale* *parli*
 The man of what / of what.OBL / of-the.MASC.PL *which*.MASC.PL *speak*.2SG
 ‘The man you are talking about’

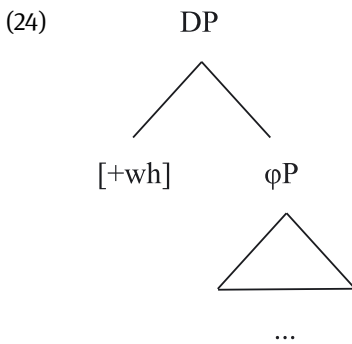
There are in fact two sides to this issue. On the one hand, we may wonder why *che*_{+Q} may be embedded under prepositions/license oblique case gaps, while *che*_{+REL} may not. On the other hand, we may also ask why *cui* or Det + *qual-* cannot be used at all in interrogatives. These issues are particularly acute in a generative theory of grammar, since it is not at all clear why *wh*-DPs should fall into construction-specific paradigms if the grammar is not driven by the notion of ‘construction’ (Chomsky 1981: 7). Moreover, abstracting away from the categorial status of *che*_{+REL}, relative and interrogative *wh*-elements have long been assumed to be subject to the same syntax (Chomsky 1977). It should therefore come as a surprise that empirically there exist such specialized *wh*-elements as e.g. Italian *cui*, French *dont*, Hungarian *amit*, Russian *kotorij*, etc. To my knowledge, the question of why some elements can be specialized for the (headed) relative construction has not been addressed in the literature.⁷ Against this backdrop, the case problem may actually be placed within the broader issue of why *wh*-elements show paradigmatic morphosyntactic properties (which issue includes, among others, the finiteness problem). Note in this regard that the C hypothesis would have to

⁷ See de Vries (2002: chapter 5) for a cross-linguistic survey of relative elements. Wiltschko (1998) and Boef (2013: chapter 4) contain insightful discussions on what can constitute a good relative pronoun; regrettably, these authors do not address the topic of why relative and interrogative pronouns should show morphosyntactic differences.

treat as separate issues the incompatibility of *che*_{+REL} with oblique case gaps and the unavailability of *cui* in interrogatives. Under the D hypothesis, these issues may potentially be amenable to a unifying treatment, which I attempt to develop in 3.2. Before doing so, however, it is important to spell out a few core assumptions.

First, I assume that *wh*-elements are not pre-syntactically specified for the syntactic environment in which they are to be inserted (via features such as e.g. [+interrogative] or [+relative]). This assumption is motivated by the theoretical desideratum of avoiding construction-specific statements in the grammar (cf. Wiltschko (1998)). Moreover, it is entailed by the Minimalist Program insofar as some form of the Inclusiveness Condition holds (which “bars introduction of features that are not inherent to lexical items”, Chomsky et al. (2019: 237); see however Bocci et al. 2021). Since interrogativity and relativity can reasonably be taken to be complex properties determined at the interface with semantics and pragmatics, I assume that such properties do not play a role in the featural make-up of DPs. As such, the notation +REL/+Q or the terms ‘interrogative’, ‘relative’ etc. are merely conventional and will have no theoretical import in the analysis to be developed.

Second, I assume that *wh*-elements have internal structure (cf. Barbiers et al. 2009; Boef 2013). I assume this structure to be quite minimal. Focusing on argumental *wh*-elements,⁸ I take these elements to be Ds merged with a collection of ϕ -features. The assumed underlying structure is represented in (24).



The D head encodes the *wh*-feature, which is what gives *wh*-elements their semantic flavor. We may assume that the *wh*-feature signals the property of introducing a variable at the interpretive interface (e.g. Nishigauchi 1990), essentially like Heimian indefinites (Heim 1982; cf. Postma 1994; see however Caponigro 2003

⁸ I largely neglect adjunct *wh*-elements such as ‘where’ or ‘how’ in this paper. The structure in (24) is assumed for both *wh*-pronouns and determiners.

for a different view). As far as I can tell, nothing crucial hinges on this assumption. What is important is that *wh*-elements have a semantic core that is syntactically represented, and invariant across constructions.

The other ingredient of *wh*-elements, the φ P (cf. Déchaine and Wiltschko 2002), encodes the usual features of gender, number, person and animacy. I assume that these features may restrict the range of the variable to be bound (e.g. Heim 2008; Heim and Kratzer 1998: 244). For instance, if the animacy feature is specified as [+human], the range of the variable is restricted to [+human] entities.

The syntactic structure is illustrated as a bundle of features in (25a). For the sake of simplicity, we may avoid representing each individual φ -feature, and adopt instead the reduced but equivalent version of (25a) in (25b).

- (25) a. [+wh, + φ : [[gender:] [number:] [person:] [animacy:]]]
 b. [+wh, + φ : [...]]

In short, I take relative and interrogative argumental *wh*-DPs to be structurally identical: the null hypothesis.⁹

Nevertheless, the empirical evidence shows that interrogative and relative *wh*-DPs can be different from a morphophonological point of view (e.g., *che*_{+Q} vs *cui*). The question that arises, then, is how the grammar can classify *wh*-DPs into construction-specific paradigms. In this paper I assume that the distinction between interrogative and relative DP arises at EXT on the basis of the Agree operation.

Consider the sentences in (26)–(27). In the interrogative (26), the spell-out of the *wh*-DP as *who* signals that the range of the variable to be bound is restricted to [+human] entities. In the relative (27), on the other hand, *who* does not serve the same semantic purpose. It rather seems to act as a bound variable whose range is restricted by the nominal head *man*. The spell-out of the DP as *who* seems to be demanded by a purely formal morphophonological requirement of the English grammar, which is inconsequential for the C-I interface. Support for this conclusion comes from dialects of English where *what* can be used as a relative pronoun to refer to [+human] antecedents (cf. (28), from Edwards 1993: 228).

- (26) Who did it?
 (27) The man who did it
 (28) The girl what's coming over

⁹ This may also be the case of the relative *d*-elements and the interrogative *wh*-elements of West Germanic languages. I leave this issue to future research. See Brandt and Fuss (2014) for an analysis of the licensing conditions of relative *d*- and *wh*-elements in German. See also Kayne (2019) for relevant discussion.

In (26), I assume that *who* enters the derivation with the animacy feature pre-syntactically valued as [+human]. In the case of relative pronouns such as *who* in (27), I follow Kratzer (2009), Landau (2015) among others and assume that these elements (along with different types of bound variables, e.g., PRO, reflexives) enter the derivation as *minimal pronouns*: they are Ds with an unvalued set of φ -features.¹⁰ Moreover, following Rooryck and Vanden Wyngaerd (2011), minimal pronouns are related to their antecedent via the operation Agree, whereby they also acquire the antecedent's φ -features. In other words, I assume that relative DPs are born without values for φ -features, which are valued under Agree with the antecedent (cf. Furuya 2017).¹¹ The ultimate shape of the *wh*-DP can be determined at EXT, according to language-particular rules, as notoriously advocated by DM.

According to an anonymous reviewer, the assumption concerning a pre-syntactically valued *who* (interrogative) and a syntactically valued *who* (relative) implies two separate entries for *who*: one for interrogative *who* and one for relative *who*. This is partly correct. The reviewer is correct in claiming that we are assuming two separate entries for *who*. However, these two entries are not implied by our assumption that φ -features can be valued either pre-syntactically or syntactically. Even if we assumed that *who* entered the derivation with a pre-syntactically valued [+human] feature in both interrogatives and RCs, we would still have to assume two separate entries for *who*. Consider *why*. As discussed, the empirical evidence shows that grammars can classify *wh*-elements into construction-specific paradigms. The information about which paradigm a given DP belongs to is not, we assume, part of the featural make-up of DPs; rather, it must somehow be acquired from the syntactic context. Hence, whatever the nature of this information, there is a sense in which we can end up with distinct bundles of features after TRANSFER, e.g., one bundle containing the information that the DP is in an interrogative clause and another bundle containing the information that the DP is in a RC. Therefore, at EXT Standard English would still map the exponent /hu:/ onto two (minimally) different bundles of features (thereby generating two different entries), irrespective of whether or not the relative DP enters the derivation with a valued [+human] feature. Note that this distinct (interrogative/relative) mapping is necessary also in order to rule out *what* from occurring in RCs: the EXT component of

10 Kratzer's (2009) analysis differs from the one presented in the text in that she assumes that minimal pronouns acquire the values for φ -features via functional heads. Since nothing crucial hinges on this point for our purposes, for the sake of simplicity I assume that relative pronouns can acquire their φ -features directly via the nominal antecedent (cf. Heim 2008).

11 Possibly divided in the two operations of Agree-Link and Agree-Copy (Arregi and Nevins 2012 and references cited therein). The former applies in the syntactic component to establish hierarchical relations among constituents; the latter applies at EXT to generate their morphophonological shape.

Standard English does not allow the mapping of /wɒt/ onto a relative DP to take place (though this mapping is allowed in some dialects, cf. (28)).

Under our approach, then, the difference between interrogative and relative *wh*-DPs would lie in the way in which they reach the interfaces. Interrogative *wh*-DPs can reach the interfaces with pre-syntactically valued φ -features, as in the case of the animacy feature of English interrogative *who*, Italian interrogative *chi*, etc. On the other hand, relative *wh*-DPs enter the derivation as minimal pronouns and must establish Agree with their antecedent, as roughly sketched in (29).¹²

- (29) a. [man_[+human]]<sub>[CP [+wh, φ : \emptyset]] ...] (pre-Agree configuration)
 b. [man_[+human]]_{[CP [+wh, φ : {+human}]] ...] (post-Agree configuration)}</sub>

Consequently, interrogative and relative *wh*-DPs are structurally identical in the narrow syntactic derivation; however, they differ after TRANSFER, in that relative *wh*-DPs have undergone Agree. We may therefore tentatively propose that it is the establishment of such an Agree relation that makes a *wh*-element count as ‘relative’.¹³

The assumptions I made so far can be surmised as in (I–IV):

- (I) Construction-specific features are not part of the featural make-up of DPs.
- (II) Argumental *wh*-elements are phrases comprising a D head and a collection of φ -features, which may restrict the range of the variable.
- (III) Relative *wh*-DPs enter the derivation as minimal pronouns, i.e., with an unvalued set of φ -features.
- (IV) Relative *wh*-DPs are defined by their entering an Agree relation with their antecedent.

3.2 On the Case Problem and Specialized Relative Elements

Let us now return to the issue of Italian *che*. If *che*_{+REL} is born with unvalued φ -features (as per (III)), then it is featurally identical to *che*_{+Q} in narrow syntax. This

¹² As pointed out in Boef (2013:53) and explicitly assumed in Brandt and Fuss (2014), this would constitute a case of Reverse/Upwards Agree (e.g., Bjorkman and Zeijlstra 2019; Zeijlstra 2012), i.e., with the goal c-commanding the probe, which reverses the locality conditions of Agree proposed in Chomsky (2001). Cf. the following footnote.

¹³ I assume that *wh*-determiners in interrogatives such as *which* in *which man did you see?* do not enter Agree with their nominal complement. In the case of DP-internal agreement, a different operation must take place, possibly Concord (cf. Chomsky 2001: fn. 6). See Norris (2014), Baier (2015) among others on the differences between Agree and Concord and why our theory of grammar should countenance both operations.

is because che_{+Q} does not specify any restriction on the range of the variable (cf. Manzini 2014b: 192). As shown in (30), a felicitous answer to an interrogative with che_{+Q} can refer to both human and non-human entities. Assuming that (i) the answer to an interrogative provides the value for the variable, and that (ii) φ -features restrict the range of the variable, we can conclude that che_{+Q} reaches the interfaces with unvalued φ -features.¹⁴

- (30) A: Che vedi?
 What see.2SG
 ‘What do you see?’
 B: Un uomo / Un orso
 A man / A bear

Therefore, che_{+REL} and che_{+Q} enter the derivation as the same minimal pronoun, represented as the feature-bundle in (31) (\emptyset represents lack of values). This hypothesis is in line with Manzini and Savoia’s (2003 *et seq.*) proposal that che_{+REL} and che_{+Q} constitute one and the same element.

- (31) [+wh, + φ : [\emptyset]]

However, I depart from Manzini and Savoia in that I assume that che_{+REL} and che_{+Q} are identical *only* in narrow syntax (before TRANSFER takes place). As discussed above, relative DPs differ from interrogative DPs in that the former reach the interfaces having established Agree with their antecedent. Thus, assuming that the mapping to morphophonology (EXT) can “see” whether Agree has taken place, I propose that relative DPs may potentially be assigned a different morphophonological exponent from their interrogative counterparts (cf. Rooryck and Vanden Wyngaerd 2011 for a similar proposal applied to the empirical domain of reflexives). Italian happens to employ the same exponent when binding direct case gaps, as shown in the lexical entries in (32). (32a) shows the lexical entry for che_{+Q} : a *wh*-element that reaches the interfaces with unvalued φ -features (+ φ : [\emptyset]); (32b) shows the lexical entry for che_{+REL} : a *wh*-element that reaches the interfaces with φ -features valued under Agree (I use the notation {v} to indicate valuation under Agree). In both cases, the same exponent /ke/ is assigned at EXT.

- (32) a. [+wh, + φ : [\emptyset]] ↔ /ke/ (che_{+Q})
 b. [+wh, + φ : {v}] ↔ /ke/ (che_{+REL})

¹⁴ I follow Preminger (2011) among others in assuming that unvalued features at the interfaces do not cause the derivation to crash.

However, syncretic exponents are not required in principle. Indeed, empirically we observe that languages can have different exponents for what in Italian would be *che*_{+Q} and *che*_{+REL}. This is the option selected, for instance, by several dialects of Italian (Manzini and Savoia 2003, 2005), as well as standard varieties of English (*what* vs *that*). Some insight into this variation can be gained under the assumption that a *wh*-DP may be assigned a different phonological exponent at EXT depending on whether it has undergone Agree in the derivation.^{15, 16}

This assumption analogously accounts for why some languages use elements specialized for the headed relative construction: they use a different exponent for a *wh*-element that has undergone Agree. Abstracting away from the issue of Det + *qual*- (to which I return below), I propose that this is why Italian has the specialized element *cui* for oblique case gaps in headed relatives: oblique *che*_{+Q} and oblique *che*_{+REL} have different phonological exponents (cf. (33) and (34)). Specifically, the exponent /kui/ is assigned to a *wh*-DP that (i) has established Agree in the derivation; and (ii) bears oblique case (+OBL). On the other hand, /ke/ is assigned to a *wh*-DP that (i) has not established Agree in the derivation; and (ii) bears no specifics for case. This latter point accounts for why *che*_{+Q} licenses direct as well as oblique case gaps (see however fn. 1).

(33) [+wh, +φ: [∅]] ↔ /ke/ (*che*_{+Q})

(34) [+wh, +φ: {v}, +OBL] ↔ /kui/ (*cui*)

The assumption that the exponent /kui/ is assigned to a *wh*-DP that has established Agree in the derivation can account for why it is specialized for the relative function. Interrogatives do not feature nominal antecedents; hence, *wh*-elements

15 English relative *that* might also be considered a form of *what*, if Kayne (2014) is right in claiming it is a pronoun that undergoes *wh*-movement. However, the reason why languages can vary in this aspect, i.e., how exactly to state the parameter that languages may or may not have a relative *wh*-element that is phonologically identical to an interrogative ‘what’ needs to be further elucidated.

16 How can EXT be sensitive to whether an element has undergone Agree in the derivation? We can assume with Rooryck and Vanden Wyngaerd (2011) that EXT is sensitive to whether a given feature is shared (in the sense of Pesetsky and Torrego 2007) between members of an Agree-chain or not, and potentially assign dedicated morphophonological exponents to elements whose features are shared. Note that a similar kind of sensitivity can be assumed to be at play for the treatment of copies versus repetitions (on which see Collins and Groat 2018), i.e., EXT can distinguish ‘shared’ members of an A’-chain (i.e., copies related by Internal Merge) from pure repetitions (unrelated by any kind of syntactic operations), and potentially delete the former but not the latter.

cannot establish Agree in these contexts. This predicts that *cui* will never occur in an interrogative in Standard Italian.¹⁷

Furthermore, if *cui* is specialized as +OBL, we can begin to understand why *che*_{+REL} cannot license oblique case gaps, assuming that some form of the Elsewhere Principle (Kiparsky 1973) plays a role at EXT. In general terms, the Elsewhere Principle (or the Subset Principle in DM; Halle 1997) states that a more specific rule apply over a more general one. For the case at hand, this means that /kui/ will be realized at EXT whenever the feature-bundle [+wh, +φ: {v}, +OBL] reaches the interface. Realization of /kui/ represents a more specific rule than the general /ke/, since unlike the latter it also specifies case. Thus, realization of /ke/ is blocked in relative contexts with oblique cases by the more specific /kui/.

The hypothesis that *cui* blocks realization of *che*_{+REL} with oblique cases raises the question of why *cui* does not block realization of Det + *qual* ‘the which’ in the same contexts. As mentioned in previous sections, Det + *qual* is grammatical with both direct and oblique cases (cf. the restrictive relatives in (35) and the appositive relatives in (36)). This distribution indicates that Det + *qual*- isn’t specified for case, just like *che*_{+REL}. Therefore, by the Elsewhere Principle *cui* should block realization of Det + *qual* in oblique contexts, since more specific. This is not the case, however: *cui* and Det + *qual*- are in free distribution in oblique contexts (cf. (23) *supra*).¹⁸

- (35) a. I cittadini i quali abbiamo riscontrato problemi...
 The citizens the which have.SUBJ.2SG found problems
 ‘The citizens who might have had problems...’
- b. Una malattia contro la quale lotta da anni
 A sickness against the which fight.3SG since years
 ‘A sickness that he’s been fighting for years.’
- (36) a. L’uomo, il quale Gianni disprezza ...
 The man, the which G. despises ...
 The man, who Gianni despises ...

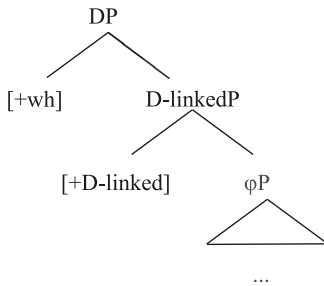
¹⁷ Of course, this is language-particular. As an anonymous reviewer points out, *cui* could be used in interrogative clauses in older stages of the language. This could be captured under our account by simply assuming syncretic exponents for oblique *che*_{+O}/*che*_{+REL}. Likewise, we can account for the fact that English has case-marked allomorphs that are possible in both interrogatives and RCs (such as *whom* or *whose*) by assuming that their exponents are mapped syncretically onto the relevant feature-bundles.

¹⁸ This is abstracting away from differences in register. At least in my own idiolect, Det + *qual*- belongs to a slightly more formal register than *cui* in oblique contexts.

- b. Le nuove proposte, sulle quali il governo lavora da mesi ...
 The new proposals, on which the government works from months
 ‘The new proposals, on which the government has been working for
 months...’

Abstracting away from the issue of the determiner in Det + *qual-*,¹⁹ suppose that *qual-* realizes a different structure than *che*_{+REL} and *cui*. In particular, suppose that *qual-* has an additional functional layer that encodes its D(iscourse)-linked (Pesetsky 1987) character, as in (37). Indeed, note that *qual-* as an exponent realizes an inherently D-linked element in interrogatives, as does English *which*, German *welch-*, etc. If this particular semantics is encoded in a dedicated functional head, as in cartographic approaches (e.g., Rizzi and Cinque 2016), it could be assumed that (37) is realized by a specialized exponent (38).

(37)



(38) [+wh, +D-linked, +φ: {+sg}] ↔ /k^wale/

Note that this hypothesis is not in conflict with the minimal pronoun approach that we are advocating. The relative *wh*-DP would still enter the derivation with unvalued φ-features. The only difference from the other relative *wh*-DP would be the presence of an additional functional layer encoding the D-linked semantics.

If this is accepted, Det + *qual-* would not be in competition with *cui* (nor with *che*_{+REL}). A solution to the case problem can therefore be obtained by simply assuming that realization of /ke/ is blocked at EXT by the more specific /kui/.

An anonymous reviewer suggests an alternative analysis of the *che/cui* alternation in RCs. According to the reviewer, the proposal made here is

¹⁹ We may assume with Bianchi (1999: 103–4) that this determiner is merely an agreement marker expressing the gender feature (*qual-* only expresses number). If so, the determiner can be realized at EXT via a Fission-like operation (Halle 1997) and need not be present in the syntactic derivation. Since it would exceed the scope of this paper, I leave a full-fledged analysis of this issue to future work.

problematic in that *cui* should be expected to show up also in interrogative clauses containing oblique case gaps in a [*che* [NP]] configuration, assuming that *che* and its NP complement enter into Agree as in RCs. Assuming a raising analysis of RCs (e.g., Bianchi 1999; Kayne 1994) the reviewer instead proposes that the realization of oblique *che*_{+REL} as *cui* must be associated with the raising step of the derivation (cf. Kato and Nunes 2009; Poletto and Sanfelici 2019 for this type of ‘movement-triggered allomorphy’ approach), as sketched in (39).

- (39) ho affidato l’incarico [a che studente]
 I have assigned the task [to what student]
 [a che studente] ho affidato l’incarico <[a che studente]> (wh-movement)
 Lo studente [a che <studente>] ho affidato l’incarico <[a che studente]>
 (Raising)
 Lo studente a cui ho affidato l’incarico (movement-triggered allomorphy)

However, the problem noted by the reviewer disappears if DP-internal agreement is kept separate from DP-external agreement (cf. fn. 13). Note that the alternative proposed by the reviewer must assume the raising derivation as the only available derivation for RCs (restrictive and non-restrictives), which as known raises some non-trivial issues (pertaining to e.g. the derivation of anti-reconstruction effects or the derivation of non-restrictive relatives). While I cannot exclude that Raising could be active in the derivation of (some) RCs, I believe there are reasons to suspect that Raising cannot be at the basis of the *che/cui* allomorphy (the same could be argued to be the case of Matching, though I leave discussion of this issue to a future occasion).

4 Addressing the Finiteness Problem

4.1 The Finiteness Problem Reframed

In the previous section I argued that *che*_{+REL} is a DP entering the derivation as a minimal pronoun, identical to *che*_{+Q} and *cui* in the narrow syntactic derivation up to the point of TRANSFER. This hypothesis seemingly exacerbates the issue of why *che*_{+REL} is restricted to finite contexts (i.e., the finiteness problem), whereas e.g. *che*_{+Q} and *cui* are not. In particular, the question arises as to why the same *wh*-DP should show restriction to finiteness in some syntactic environments but not in others. I think that some light on this issue can be shed once we consider that the finiteness problem does not affect just *che*_{+REL} or other relative ‘complementizers’ across languages, but generally affects DPs under the same conditions. In other words, *che*_{+REL} is not very special with respect to the restriction to finiteness. As a

matter of fact, one would expect the unavailability of *che*_{+REL} in infinitival relatives to be the case.

As mentioned in Section 2, *wh*-elements are generally excluded from occurring bare in languages such as French and English. The situation of Italian mirrors the one observed in English and French; see (40)–(43), adapted from Sportiche (2011: 100–1).²⁰ Note that sentences such as (40) become grammatical when the *wh*-DP is embedded within a larger phrase (43). Note further that the preposition in an English relative must be pied-piped along with the *wh*-DP to the clausal edge (43c–d).

- (40) a. *un uomo *che/il* quale invitare.
 b. *un homme qui inviter.
 c. *a man who to invite.
- (41) a. *qualcosa *che/la* quale fare.
 b. *quelque chose quoi faire.
 c. *something which to do.
- (42) a. *il momento quando dormire.
 b. *le moment quand dormir.
 c. *the moment when to sleep.
- (43) a. un bambino di cui/del quale parlare.
 b. un enfant de qui parler.
 c. a child of whom to speak.
 d. *a child whom to speak of.

The generalization that can be gleaned from (40)–(43) is that bare *wh*-DPs cannot sit at the edge of infinitival relatives. If we take *che*_{+REL} to be a DP, we can therefore reframe the finiteness problem as the issue of what grammatical factor(s) is responsible for barring bare DPs from occurring in such positions.

This issue has extensively been debated in the literature (e.g., Chomsky 1977; Douglas 2016; Hasegawa 1998; Kayne 1976; Law 2000; Pesetsky and Torrego 2006; Sportiche 2011, among several others). To my knowledge, however, there still lacks consensus over which account is best suited to handle these facts. Of course, given its scope, this debate cannot be settled within the context of this paper. My more modest goal here is to include the finiteness problem within this larger debate, and

²⁰ In Italian, infinitival relatives with Det + *qual*- are ungrammatical in the unmarked case. However, there is also stylistically more marked construction that allows use of bare Det + *qual* in infinitival relatives; see (53) in the text. I return below to a discussion of these cases.

suggest a potential solution for its treatment by extending Richards' (2010) Distinctness Theory (DT) to the facts of Italian.

4.2 Richards' (2010) Distinctness Theory

The gist of Richards' (2010) DT is that the derivation of a sentence crashes if a linearization statement containing two non-distinct elements, i.e., of the form $\langle \alpha, \alpha \rangle$, is generated. Crucially, the derivation crashes only if $\langle \alpha, \alpha \rangle$ is generated within the same Spell-Out domain — the complement of the phase head that is sent to TRANSFER. The derivation does not crash if two non-distinct elements belong to different Spell-Out domains, which is the case when there is an intervening phase head between the two. Moreover, Richards takes CP, v^*P , PP and KP to be phases, but crucially not DP. Richards further assumes that what α amounts to may be subject to parametrization. For English, he assumes that α might simply amount to a syntactic label. Consequently, according to DT, English cannot linearize $\langle \alpha, \alpha \rangle$ if (i) $\alpha = X(P)$; and (ii) $\langle \alpha, \alpha \rangle$ is generated within the same Spell-Out domain.

Richards (2010: 34–8) thus argues that DT may be responsible for the ungrammatical status of infinitival relatives in English such as (42a). In particular, (44a) is barred because the determiner merged with the relative head bears the same label as the *wh*-pronoun and both elements belong to the same Spell-Out domain (an assumption to which we return momentarily) (cf. (44b)).

- (44) a. *The man whom to see.
 b. [_{DP} the man [_{CP} [_{DP} whom] C [to see]]].

On the other hand, a *wh*-element with a pied-piped preposition is allowed to occur in an infinitival relative (45a) because the preposition is a phase head, according to Richards. This latter assumption ensures that the *wh*-element is part of a different Spell-Out domain than the upper determiner (45b).

- (45) a. The man with whom to dance.
 b. [_{DP} the man [_{CP} [_{PP} [_P with [_{DP} whom]]] C [to dance]]].

It is crucial for this type of account that infinitival relatives do not contain an intervening phase head between the lower and the upper DP. On the other hand, this phase head must be present in tensed relatives. Richards assumes that this is the case, following Bianchi's (1999) configurations for (non-)finite relatives (cf. also Douglas 2016). Abstracting away from the specifics of Bianchi's (1999) analysis (which, as Richards notes, are not crucial for his account), we can sketch the structural configuration for tensed and infinitival RCs as in (46) and (47),

respectively (irrelevant details omitted, the boldfaced C_1 is a phase head).²¹ According to (46) and (47), the *wh*-DP and the upper DP are separated by a phase boundary in tensed relatives (C_1); hence, the two DPs are part of two different Spell-Out domains and no Distinctness effects arise. On the other hand, in infinitival relatives the upper DP and the *wh*-element are not separated by an intervening phase head. This may potentially result in violations of Distinctness.

(46) [DP the man [C_{1P} **C_1** [C_{2P} [DP who] C_2 [she married]]]]

(47) *_{[DP the man [C_{1P} [DP who] **C_1** [to marry]]]}

The account proposed in Richards (2010) can be extended straightforwardly to the case of Italian for our purposes. Suppose that Distinctness in Italian, like in English, is concerned with labels.²² If so, the ungrammaticality of (48) is derived from the same conditions that bar (44) in English, i.e., the linearization statement $\langle DP, DP \rangle$ is generated within the same Spell-Out domain. Likewise, the grammaticality of (49)–(50) is amenable to that of (47): the *wh*-DP *cui*/Det + *qual-* is part of the complement of the phase head *a* ‘on’ (lit. ‘to’) and is therefore in a different Spell-Out domain than the upper determiner *l(o)* ‘the’.

(48) a. *L’uomo che vedere
‘The man to see.’
b. [DP l’uomo [CP [DP che] c [vedere]]].

(49) a. L’uomo a cui affidarsi
‘The man to rely on.’
b. [DP l’uomo [CP [PP [P a [DP cui] c [affidarsi]]].

(50) a. L’uomo al quale affidarsi
‘The man to rely on.’
b. [DP l’uomo [CP [PP [P a [DP il quale] c [affidarsi]]].

A potential problem for this analysis may be raised by a more stylistically marked use of *cui*, whereby *cui* can be licensed on its own, i.e., without a preposition, as

²¹ I remain agnostic about the nature of the C heads. C_1 and C_2 are respectively called Force and Topic in Bianchi (1999).

²² As Richards (2010) argues at great length, this may not be the whole story: what looks like sensitivity to labels may actually involve sensitivity to more fine-grained features. The obvious problem raised by the assumption that Distinctness is sensitive to labels in Italian is how to treat cases of two phrase-internal DPs such as Det + *qual-* or possessive phrases such as *il mio X* (lit. ‘the my X’). A full-fledged exploration of the properties over which Distinctness operates in Italian is beyond the scope of this paper, however.

illustrated in (51). In these cases, it may be sufficient to assume that *cui* is embedded under a non-overt PP/KP, as in (52).

(51) L'uomo cui chiedere consiglio
'The man to ask for advice'

(52) a. [DP l'uomo [CP [PP [P <a> [DP cui]]] C [chiedere consiglio]]
b. [DP l'uomo [CP [KP [K [DP cui]]] C [chiedere consiglio]]

Finally, a further potential problem may be raised by infinitival relatives with bare Det + *qual* (cf. fn. 20). An example of this construction is given in (53) (from Cinque 1982: 282).

(53) ?Cercavo una ragazza la quale poter invitare alla cerimonia di
inaugurazione
I was looking for a girl to be able to invite to the inauguration ceremony'

A solution to this problem may be obtained by assuming, with Richards (2010), that Distinctness is subject to parametric variation. Suppose that the formal register to which this (highly marked) construction belongs constitutes an I-language (relatively) distinct from Italian. If so, it can be proposed that this register has a different setting for the parameter that dictates what the properties relevant for Distinctness are. I leave it to future research, however, to determine exactly which properties these may be.

5 Conclusions

This paper discussed the restriction to finiteness and case for che_{+REL} under the D hypothesis. I argued that such restrictions, while constituting the central argument in favor of the C hypothesis, can be accounted for assuming that che_{+REL} is a DP, on a par with other interrogative and relative *wh*-elements.

More specifically, I argued that che_{+REL} is identical to che_{+Q} and *cui* in the narrow syntactic derivation, until the point of TRANSFER. After TRANSFER, and specifically at EXT, *wh*-DPs may potentially be assigned different phonological exponents depending on whether they have undergone Agree in the derivation. This assumption moreover accounts for why *cui* is specialized for the headed relative construction. In particular, the exponent /kui/ is assigned to a *wh*-DP that has undergone Agree in the derivation and is marked as +OBL. Assuming that some form of the Elsewhere Principle holds at EXT, the unavailability of che_{+REL} with oblique case gaps is thus accounted for via the assumption that realization of /kui/, being a more specific rule, blocks realization of /ke/ in such contexts. Clearly, such

language-particular analysis cannot be extended to account for the incompatibility of Ps with relativizers in others languages, like English *that*, where other explanations must be sought under the D hypothesis (see Kayne 2014; Seppänen 1997).

With regards to the restriction to finite contexts, I argued that this restriction is not unique to *che*_{+REL}, but generally applies to bare DPs that occur at the edge of infinitival relatives. As such, the problem of the unavailability of *che*_{+REL} in infinitival relatives can (and should) be treated as another instance of the larger issue of what precludes bare DPs from occurring in such positions. This problem is notoriously a difficult one to solve, especially so within current minimalist frameworks. Nonetheless, I attempted to show a potential solution for its treatment by extending Richards' (2010) analysis of English infinitival relatives to the facts of Italian.

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