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Clausal complementation as relativization, revisited

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In Nez Perce, some but not all notional complement clauses show the characteristic morphology of relativization. In contrast to some cross-linguistic data emphasizing nominalization as the source of commonalities between notional complement clauses and relative clauses, I show that relative-like notional complement clauses in Nez Perce are simply CPs with no nominal superstructure. It is the internal syntax of these clauses that is relative-like, involving \bar{A} movement from a high functional projection inside CP. I show that the language makes a distinction between two types of notional complement clauses, those that involve \bar{A} movement of this sort (“relative embeddings”) and those that do not (“simplex embeddings”). One conclusion is that not all clausal complementation is relativization, *pace* work by Richard Kayne and especially by Boban Arsenijević (“Clausal complementation as relativization,” 2009, *Lingua* 119:1.39–50). Another conclusion is that relative-like notional complement clauses show variation across languages at least as concerns nominal superstructure and the generation of factive inferences.

Keywords: CP; complement clauses; relative clauses; \bar{A} movement; nominalization; typology; Nez Perce



1 Introduction

The bracketed clauses in (1) have appeared to many a student of introductory syntax to instantiate the same type of syntactic structure.

- (1) a. *She said [that they discovered the answer].*
 b. *the answer [that they discovered]*

Introductory classes typically marshal several types of facts (drawn from a long tradition in descriptive grammar) to dissuade the student from this view. Rather than grouping the clauses in (1) together, we must distinguish a (finite) complement clause, (1a), from a (restrictive) relative clause, (1b). Relevant English facts include:

- (2) a. Relative clauses but not complement clauses contain gaps.
 b. Relative clauses but not complement clauses may contain relative pronouns on the clause edge.
 c. Relative clauses are always optional, but complement clauses are sometimes obligatory.
 d. Relative clauses combine only with nouns, but complement clauses may combine with nouns, verbs, or adjectives.
 e. Relative clauses are islands, but complement clauses are not.

The student is thus led away from the hypothesis of a single structure for the clauses in (1) and toward a perspective on which complement clauses and relative clauses differ in both their internal and external syntax. Let us call this perspective the standard theory. According to the standard theory, internally, relative clauses but not complement clauses contain an \bar{A} dependency. This accounts both for the presence of a gap (the tail of the \bar{A} chain) and for the relative pronoun (the head of the \bar{A} chain), (2a, b). Externally, relative clauses are adjuncts, whereas complement clauses are (as the name suggests) complements; this accounts for the difference in obligatoriness, (2c). Like adjectives, relative clauses are a type of adjunct restricted to nominal projections (a fact potentially to be explained in semantic terms), accounting for (2d). These points together make island effects (2e) unsurprising, even overdetermined: extraction from a relative clause is extraction from an adjunct *and* from a nominal *and* across an intervening \bar{A} dependency—three distinct factors all of which are known to give rise to island effects independently.

The impetus for this article is a strand of literature that has nevertheless sought to vindicate the introductory student’s intuition of syntactic commonality between relative clauses and (at least some) notional complement clauses (Manzini & Savoia 2003, Nichols 2003, Aboh 2005, Kayne 2008, Arsenijević 2009, Aboh 2010, Haegeman & Ūrögdi 2010, Krapova 2010, Caponigro & Polinsky 2011, Haegeman 2012, Kayne 2014, Manzini 2014, Hanink & Bochnak 2017, Poletto & Sanfelici 2018, Pietraszko 2019, Bochnak & Hanink 2021, and Bondarenko 2022, among others; see De Cuba 2017 and De Cuba 2023 for an opposing view).¹ This work generally takes as its point of departure data from various languages showing morphosyntactic commonalities between the two varieties of clauses, often at the clause edge. Some of these commonalities involve indications of DP structure, as for instance in the Washo examples in (3); Hanink & Bochnak 2017 argues that the morpheme *ge*, glossed “REL,” is in fact uniformly a D head that composes with CP complements.²

(3) Washo³

- a. [DP *Mé:hu géwe ʔ-i:gi-yi-š-ge*] *lé:-saʔ l-i:gi-yi.*
 boy coyote 3-see-IND-SR-REL 1-also 1-see-IND
 ‘I also saw the coyote that the boy saw.’
- b. [DP *∅-háʔaš-i-š-ge*] *di-hámu-p’áy-i.*
 3-rain-IND-SR-REL 1-feel-nonsense-IND
 ‘I forgot that it rained.’

(Hanink & Bochnak 2017: (7), (9))

A further case where the similarity between notional complement clauses and relative clauses arguably reflects nominalization is discussed by Pietraszko 2019.

Other commonalities involve evidence of \bar{A} movement. In Italian and other Romance languages, for instance, an element (in Italian, *che*) appears at the edge

¹ I refer to the latter class of clauses throughout as “notional” complement clauses in view of a strand of work arguing that these clauses are in fact modifiers of a certain type; see discussion in Moulton 2015, Elliott 2017, Djärv 2019, Bochnak & Hanink 2021, Bondarenko 2022, Clem 2022, and Bondarenko 2025. (De Cuba 2023’s term *verb-related clauses* could alternatively be used as a relatively neutral term for these clauses.) I will not address the issue of complement versus modifier status here.

² See Bochnak & Hanink 2021 for a related proposal according to which *ge* is a nominal functional head (id_x^0) that occurs just below D.

³ Glossing abbreviations for this pair of examples: IND independent mood, REL relative marker, SR switch reference, 1 first person, 3 third person.

of relative clauses and finite complement clauses that is implicated in (other) \bar{A} dependencies, such as *wh* questions:

- (4) Italian
- a. *quelli che chiamo sempre*
those that I.call always
'the ones I always call'
 - b. *Mi hanno detto che vieni domani.*
to.me they.have said that you.come tomorrow
'They told you that you will come tomorrow.'
 - c. *No so che fare.*
not I.know what to.do
'I don't know what to do.'
 - d. *Che camicia hanno portato?*
what shirt they.have worn
'What shirt did they wear?'

(Manzini & Savoia 2003: 87)

Looking beyond the clause edge, commonalities in Adyghe in terms of \bar{A} -specific verb morphology are highlighted in Caponigro & Polinsky 2011: both the relative-like example in (5a) and the complement-like example in (5b) feature a marker of relativization of an oblique, namely the verbal “*wh*-agreement” prefix *zə-*.

- (5) Adyghe⁴
- a. [*č'ale-m xatə-r* \emptyset -*zə-r-jə-pč'e-š'tə*]
boy-ERG orchard-ABS 3SG.ABS-REL.OBL-APPL-3SG.ERG-weed-FUT
š_wanə-r
hoe-ABS
'the hoe that the boy will be weeding the orchard with'
 - b. [*Č'ale-r qə-zə-re-k_wež'ə-š'tə-r*] *ə-g_wə_{rə}'_weK.*
boy-ABS INV-REL.OBL-APPL-return-FUT-ABS 3SG.ERG-understood
'S/he understood that the boy will arrive.'

(Caponigro & Polinsky 2011: 85, 106)

⁴ Glossing abbreviations for Adyghe: ABS absolutive, APPL applicative, ERG ergative, FUT future, INV inverse, REL.OBL oblique relativizer, 3SG third person singular.

Such facts suggest that relative clauses and notional complement clauses may in fact be more similar than the standard theory had concluded; in particular, it may be that both types of clauses involve a DP layer and contain an \bar{A} dependency. Researchers drawing this conclusion differ in how thorough a rejection of the standard theory they endorse. At one end of the spectrum are Kayne 2008, Arsenijević 2009, and Kayne 2014, according to which relative- and complement-clause structures cross-linguistically are largely identical both in external and internal syntax. Externally, Kayne and Arsenijević propose, both types of clauses involve complementation, not adjunction (a claim that builds on the analysis of relative-clause syntax in Kayne 1994). Internally, clauses of both types involve an \bar{A} dependency between a clause-internal position and an element at the clause edge. Both types of clauses also involve a noun on the edge of the clause; this is the typical nominal head of a relative clause but often a covert noun in a notional complement clause. From this perspective, the differences listed in (2) between finite complement clauses and restrictive relative clauses in English must arise from properties of the particular position relativized, the inventory of relative pronouns, or the inventory of silent nouns. Concerning the presence of a clear gap in relative clauses but not in notional complement clauses, for instance, Kayne and Arsenijević both appeal to the particular position of the tail of the \bar{A} chain in notional complement clauses: for Kayne, complement to a silent P and, for Arsenijević, the specifier of a Force projection in the high left periphery.

A different picture is suggested by Caponigro & Polinsky 2011 on the basis of a thorough study of Adyghe. On Caponigro & Polinsky's view, the parallel between relative clauses and notional complement clauses is extensive but also language particular. On the one hand, relative clauses and notional complement clauses in Adyghe all involve \bar{A} movement, and a nominal is always present at the clause edge (though it may be silent). On the other hand, unlike Kayne and Arsenijević, Caponigro & Polinsky do not conclude that relative clauses and notional complement clauses have the same structure across languages. Instead, they suggest that variation emerges as a function of different functional inventories in different languages: Adyghe has only a relative complementizer, meaning that all CP embedding must involve relativization, whereas other languages possess non-relative complementizers and therefore allow for non-relative complement clauses. This means the standard theory could well be right for English, even if it doesn't extend to Adyghe. The idea

that some but not all notional complement clauses are similar to relative clauses is further explored by Aboh 2010, Haegeman & Ürögdi 2010, Krapova 2010, Haegeman 2012, Hanink & Bochnak 2017, and Bochnak & Hanink 2021.

In this article I seek to develop this latter type of perspective by exploring the syntax of a class of notional complement clauses in Nez Perce that show a striking resemblance to relative clauses. The Nez Perce relative-clause structure shown in (6a) and the notional-complement-clause type of interest, (6b), have in common the presence of the functional elements *yoχ* and *ke* at their left edge.⁵ As the glossing of these examples reflects, *yoχ* is a (nominative) relative pronoun, and *ke* is a complementizer linked to \bar{A} extraction (Deal 2016a).

(6) Nez Perce (field notes)

- a. *picpic [yoχ ke kine _ hi-pinmiix-sa-qa]*
 cat.NOM RP.NOM $C_{\bar{A}}$ here 3SUBJ-go.to.sleep-IMPERF-REC.PAST
 ‘the cat that was sleeping here’
 (20110623fd)
- b. *Watiisx Meeli hi-llooy-ca-qa [yoχ*
 one.day.away Mary.NOM 3SUBJ-be.happy-IMPERF-REC.PAST RP.NOM
ke kine picpic hi-pnim-sa-qa].
 $C_{\bar{A}}$ here cat.NOM 3SUBJ-sleep-IMPERF-REC.PAST
 ‘Yesterday Mary was happy that the cat was sleeping here.’
 (20190613bsfd)

These data thus speak to the type of pattern seen above in Italian (insofar as they involve common morphosyntax at the edge of the clause) and, more generally, to the type of pattern seen in Adyghe (insofar as they involve morphology specific to \bar{A} dependencies).

⁵ The following abbreviations are used in Nez Perce glosses in this article. ACC accusative case, ADJ adjectivalizer, AGT agentive nominalization, APPL applicative, $C_{\bar{A}}$ complementizer used in \bar{A} dependencies, CISLOC cislocative (sometimes used as inflection for second-person subject on first-person object; see Deal 2015b), DUNNO ignorance particle, EMPH emphatic, ERG ergative case, GEN genitive case, GONNA “low future” (see Deal 2010b), HAB habitual aspect, IMPERF imperfective aspect, INST instrumental case, LOC locative case, μ functional head present in possessor raising (Deal 2013), NEG negation, NOM nominative case, O.PL plural object agreement, P “P aspect” (common to perfective-like and perfect-like aspects; see Deal 2010b), PART participle, PL plural, PRES present tense, PROSP prospective aspect, REC.PAST recent past, REM.PAST remote past, RP relative pronoun, S.PL plural subject agreement, Y.N yes-no-question particle, 1SG (etc.) first person singular (etc.), 3OBJ third-person object agreement, 3SUBJ third-person subject agreement, 3/3 third-person subject and third-person object portmanteau.

There are several facets of the morphosyntax of Nez Perce that make this language an interesting one in which to study relative-like notional complement clauses, such as (6b). First, as both (6a, b) show, relative pronouns and complementizers co-occur in this language (i.e., there is no ban on “doubly filled comp”). Previous work has taken different perspectives on whether elements like Italian *che*, which occurs both in “complementizer” function and in “relative-pronoun” function, as in (4), should be analyzed strictly as a complementizer across these usages (Cinque 1978, Manzini & Savoia 2003) or strictly as a relative pronoun (Kayne 2014, Poletto & Sanfelici 2018). The fact that Nez Perce possesses separate, overt items in these functions makes it clearer what element plays what role in the syntax of this language.

Second, in interesting contrast to Adyghe and Italian, not all notional finite complement clauses have this relative-like character in Nez Perce. The difference is determined by the embedding predicate: some predicates (a subset of the factives) require their notional complement clauses to be “relative,” whereas others do not. The following pair of examples contrasts *lilooy* ‘be happy,’ whose notional complement is obligatorily relative-like in morphosyntax, with *cuukwe* ‘know,’ whose notional complement freely lacks this marking.

- (7) *'Aayat hi-llooy-ca-∅* [**(yoχ ke) ma-may'ac*
 woman.NOM 3SUBJ-be.happy-IMPERF-PRES RP.NOM C_A PL-child
hi-pa-paay-n-∅].
 3SUBJ-S.PL-arrive-P-PRES
 ‘The woman is happy that the children arrived.’
 (20150616fd)
- (8) *Waaqo' pro hi-cuukwe-ce-∅* [*hi-weeqi-se-∅*].
 now 3SG 3SUBJ-know-IMPERF-PRES 3SUBJ-rain-IMPERF-PRES
 ‘Now she knows it’s raining.’
 (20080616bs)

Nez Perce thus presents the opportunity, internally to a single language—holding constant the inventory of relative pronouns and other functional material (e.g., null nouns, as Kayne and others posit)—to ask: why do some notional complement clauses but not others appear relative-like? What is the syntax of “relative embedding,” that is, notional complement clauses with relative morphosyntax? In addressing similar questions for Washo, it is concluded in Hanink & Bochnak 2017 that the

key factor is nominalization: shared morphosyntax between relative clauses and certain notional complement clauses in that language realizes D. The investigation of Nez Perce reaches a different conclusion: notional complement clauses are never DPs in this language. Rather, the distinctive behavior of relative-like notional complement clauses involves \bar{A} movement. The overall picture is one where notional complement clauses vary, within and across languages, in including or not including the familiar syntactic ingredients of relative clauses. I take this to support the general typological perspective emerging from work such as Caponigro & Polinsky 2011 and Hanink & Bochnak 2017. At the same time, we will see that relative-like notional complement clauses in Nez Perce show systematic morphosyntactic differences from their counterparts in other languages, including Adyghe and Washo. This demonstrates that relative-like notional complement clauses are not a unitary phenomenon across languages but rather represent a range of ways in which notional complement clauses may be built up with relative-clause ingredients.

The article is structured as follows. In section 2 I begin with some background about the Nez Perce language, with particular attention to relative-clause syntax. I then present basic properties of Nez Perce relative embedding in section 3. Section 4 discusses the external syntax of relative embedding, arguing that the structures in question do not involve a DP or PP layer above the relative CP. Section 5 then turns to the internal syntax of these clauses, arguing that they involve \bar{A} movement from a position above the TP level. With this picture of the syntax of relative embedding in hand, section 6 turns to the language-internal contrast between relative and non-relative embeddings in Nez Perce, arguing against the position that all notional complement clauses in this language possess an underlying relative structure. Section 7, which doubles as a conclusion, reviews the resulting picture of cross-linguistic variation as concerns relative-like notional complement clauses.

2 Nez Perce background

Nez Perce is a Penutian language indigenous to the interior Columbia Plateau region; the traditional territory of Nez Perce speakers encompasses parts of the US states of Idaho, Washington, and Oregon (see Aoki 1994: viii). The language is currently severely endangered with only a small handful of elder native speakers remaining and active language-revitalization projects underway. The data in this article come from

work with two speakers, Florene Davis and the late Bessie Scott, conducted on the reservation of the Nez Perce Tribe of Idaho in Lapwai, Idaho, between 2006 and 2019.⁶

Nez Perce is a morphologically rich language with both head and dependent marking at the clausal level, quite free clausal word order, and very free *pro* drop of all arguments.⁷ The case system is tripartite, distinguishing ergative and accusative in transitive clauses, for example (9a), and nominative (unmarked) in intransitive clauses, for example (9b). There is no split ergativity based on clausal properties such as aspect, tense, or negation.

- (9) a. *Angel-nim hi-naas-wapaayata-sa-∅ ma-may'as-na.*
 Angel-ERG 3SUBJ-O.PL-help-IMPERF-PRES PL-child-ACC
 ‘Angel is helping the children.’
 (20150615bsfd)
- b. *'Aatway hi-tiy'a-sa-qa.*
 old.woman.NOM 3SUBJ-laugh-IMPERF-REC.PAST
 ‘The old lady was laughing.’
 (20170531bsfd)

The verbal agreement system is nominative–accusative, with largely separable exponents of person and number agreement. Agreement is overt for plural and (notably) for third person (like in English). Person agreement for the subject and/or object occurs leftmost in the verb word and indexes one or both core arguments, depending on person and number values. The person marker is followed by plural agreement for the subject and/or the object, for example, the object plural marker *naas* in (9a). Complexities of the agreement system, including relatively idiosyncratic restrictions on combinations of particular affixes, are described in Deal 2015b. Verbal inflection for tense–aspect–mood, which influences the particular form of subject number agreement, is described in Rude 1985 and Deal 2010b.⁸

⁶ Each example is annotated with metadata indicating the date of elicitation and the initials of the consultants present. (Some examples were elicited more than once, to confirm, though for simplicity I annotate with a single date.) Phonological details of the examples (esp. vowel length and glottalization) have been corrected based on information in Aoki 1994.

⁷ For ease of reading, I gloss *pro* arguments with the person and number information indicated by agreement and/or speakers’ translations, and I generally linearize covert arguments according to SVO order.

⁸ Glossing of the tense–aspect–mood system involves non-trivial questions of analysis, as discussed in Deal 2010b, given that not all tenses and aspects co-occur (among other complicating factors). Glossing decisions here generally follow that work; an exception is the glossing of *-o'qa* simply as “modal.”

Ergative case, accusative case, and object agreement in transitive clauses are tightly linked, and there are two types of circumstances in which all three must be absent (Rude 1985, Deal 2010a, Deal 2010b). (Such patterns will prove helpful in assessing the external syntax of relative embedding in section 4.) The first is when the subject binds the possessor of the object, as in (10). Note that both the subject and the object are nominative (when they are overt at all) and that there is no object agreement on the verb. Subject agreement proceeds as normal in such clauses.⁹

- (10) a. *Weet 'isii₁ hi-'nix-peeleyk-∅-e [pro₁ taaqmaatʔ]*?
 Y.N who.NOM 3SUBJ-put-get.lost-P-REM.PAST 3SG.GEN hat.NOM
 'Did anyone₁ lose their₁ hat?'
 (20091208bs)
- b. *pro₁ 'eetx 'ipeewi-s-iix-∅ ['ime-m₁ ciq'aamqal].*
 2PL 2PL.CLITIC look.for-IMPERF-S.PL-PRES 2PL-GEN dog.NOM
 'You₁ are looking for your₁ dog.'
 (20120706bsfd)

The second circumstance is when the object is a weak indefinite, that is, an indefinite description that takes narrow scope with respect to all clausal operators. This requirement of narrow scope is shown in (12). Note again that all arguments are in nominative case and that object agreement is absent.

- (11) *Weet 'isii ha-ani-∅-ya sam'xʔ*
 Y.N who.NOM 3SUBJ-make-P-REM.PAST shirt.NOM
 'Did anyone make a shirt?'
 (20060724bs)
- (12) *Weet'u pro cuukwe-ce-∅ [puute'ptit we'nipt]!*
 NEG 1SG know-IMPERF-PRES 100.NOM song.NOM
 'I don't know 100 songs!'
 (20070124bs)
- a. ✓ The speaker has been told to sing 100 songs. She is objecting to this request. ($\neg > 100$)
- b. ✗ The speaker has been asked to memorize a large number of songs and wants to report that 100 songs are still unknown to her. ($100 > \neg$)

⁹ There is no visible subject-agreement marker in (10b) because the subject is not third person. Outside of reflexives, local-person agreement on the verb is consistently null in Nez Perce.

Both circumstances just described result in unmarked case on both the subject and the object: ergative and accusative are lost together.¹⁰ These facts are discussed at length and analyzed in an Agree-based case theory in Deal 2010a and Deal 2010b.

Nez Perce relative clauses are described and analyzed in Deal 2016a. As that work notes, most relative clauses in the language are externally headed; all such relatives are post-nominal. They contain a case-marked relative pronoun *ko/yoχ*, drawn from the demonstrative inventory, the complementizer *ke*, and a gap inside CP. The same structure is used to relativize on all core argument positions, as well as on obliques. (There is no syntactic ergativity and no pronominal resumption.) The inflectional syntax of a relative clause is generally in line with the structure of simple finite clauses, showing the typical range of tense–aspect–mood values and case arrays. Example relative clauses are shown in (13).

- (13) a. *pro* 'e-'peewi-se-∅ *cepeepy'uχti's-ne* [_{CP} *ko-nya ke*
 1SG 3OBJ-look.for-IMPERF-PRES *pie-ACC* RP-ACC C_Ā
'aayato-nm paa-ny-∅-a ____].
 woman-ERG 3/3-make-P-REM.PAST
 'I'm looking for the pie that the woman made.'
 (20140826bsfd)
- b. *pro* 'e-'peewi-se-∅ *'aayato-na* [_{CP} *ko-nim ke* ____
 1SG 3OBJ-look.for-IMPERF-PRES *woman-ACC* RP-ERG C_Ā
paa-ny-∅-a ki-nye cepeepy'uχti's-ne].
 3/3-make-P-REM.PAST *this-ACC pie-ACC*
 'I'm looking for the woman who made this pie.'
 (20140826bsfd)

I will first review the evidence that Nez Perce relative clauses involve \bar{A} movement, following Deal 2016a. I will then discuss the morphosyntax of the relative pronoun *ko/yoχ* and the complementizer *ke*, with particular attention to factors that can help us identify their category as D (relative pronoun) versus C (complementizer).

¹⁰ The one exception to this pattern concerns person-based split ergativity: local-person subjects are always nominative, regardless of the presence of an object or its case. See Deal 2016b for data and analysis.

Relative clauses in Nez Perce show familiar evidence of \bar{A} movement. First, relativization is unbounded; the relative pronoun may be found one or more finite clauses away from the gap:

- (14) *'iniit yoχ ke [Jack hi-neki-se-∅*
 house.NOM RP.NOM C_A Jack.NOM 3SUBJ-think-IMPERF-PRES
[i'in hani-∅-ya _]]
 1SG.NOM make-P-REM.PAST
 'the house that Jack thinks he built'
 (20110623bsfd)
- (15) *pro hi-'nehpayk-∅-a hipt [ko-nya ke-x pro*
 3SG 3SUBJ-bring-P-REM.PAST food.NOM RP-ACC C_A-1 1SG
'a-w-cao-qa pro [weet'u pro 'a-himkasayq-ca-∅ _]].
 3OBJ-tell-IMPERF-REC.PAST 3SG NEG 1SG 3OBJ-find.tasty-IMPERF-PRES
 'He brought food that I told him I don't like.'
 (20140826bsfd)

Second, the relative pronoun may not be separated from the gap by an adjunct island or coordinate island:

- (16) **'Isii hii-we-s haama ko-nim ke-m pro lilooy-no'qa*
 who.NOM 3SUBJ-be.PRES man.NOM RP-ERG C_A-2 2SG be.happy-MODAL
[c'alawí _ paa-ni-yo'qa cepeepy'uχti's-ne]?
 if 3/3-make-MODAL pie-ACC
 Intended: 'Who is the man *x* such that you would be happy if *x* made pies?'
 (20140826bsfd)
- (17) **Mine hii-wes picpic yoχ ke [eek'ex kaa _]*
 where 3SUBJ-be.PRES cat.NOM RP.NOM C_A magpie.NOM and
hii-wes kasłciim?
 3SUBJ-be.PRES same.size
 Intended: 'Where is the cat *x* such that the magpie and *x* are the same size?'
 (20140826bsfd)

Third, relative clauses are themselves islands:

- (18) **'Ituu*₁ *pro* *'e-'peewi-se-∅* *'aayato-na* [_{CP} *yoχ*₂
 what.NOM 2SG 3OBJ-look.for-IMPERF-PRES woman-ACC RP.NOM
 ke *__*₂ *ha-ani-tato* *__*₁]?
 C_Ā 3SUBJ-make-HAB.PRES
 Intended: 'What₁ are you looking for the woman who makes *__*₁?'
 (20130702bsfd)

Language-internal evidence of an \bar{A} dependency comes from the fact that the same C element, *ke*, appears in relative clauses and in *wh* questions (where it is optional). (This example shows ϕ agreement on the complementizer, as do (15) and (16) above; this is discussed below.).

- (19) *'Isii-nm* (*ke-m*) *__* *hi-wapaayata-yo'* *pro*?
 who-ERG C_Ā-2 3SUBJ-help-PROSP 2SG
 'Who is going to help you?'
 (20130626)

Notably, *ke* is not a general-purpose subordinator: it cannot occur in the complements of the verbs *hi* 'say/tell' or *neki* 'think,' as in (20a) and (20b), including in cases where these verbs are along the path of relativization, as in (20b).

- (20) a. *Beth* *hi-neki-se-∅* [_{CP} (**ke*) *Jill-nim*
 Beth.NOM 3SUBJ-think-IMPERF-PRES C_Ā Jill-ERG
 pee-siw'e-nu' *Matt-ne*].
 3/3-not.recognize-PROSP Matt-ACC
 'Beth thinks Jill won't recognize Matt.'
 (20140826bsfd)
- b. *Kii* *hii-wes* *'iniit* *ke* *yoχ*₁ *Jack*
 this.NOM 3SUBJ-be.PRES house.NOM C_Ā RP.NOM Jack.NOM
 hi-hi-ce-∅ [_{CP} (**ke-x*) *'iin* *hani-∅-ya* *__*₁].
 3SUBJ-say-IMPERF-PRES C_Ā-1 1SG.NOM make-PERF-REM.PAST
 'This is the house that Jack said he built.'
 (20140826bsfd)

In terms of features of the head noun, relative pronouns show concord with the head noun in number. A table of relative pronouns by case and number is shown in (22); examples of plural relative pronouns are shown in (23).¹¹

(22) Case and number in relative pronouns

| | SG | PL |
|-----|--------------|---|
| NOM | <i>yoχ</i> | <i>yoχme</i> |
| ERG | <i>konim</i> | <i>konmam</i> |
| ACC | <i>konya</i> | <i>konmana/yoχmene</i> (idiolectal variation) |

- (23) a. *Manaa we'nikt 'e-w-siix ha-'aayato-nm, [yoχ-me ke*
 how name.NOM 3GEN-be.PRES.PL PL-woman-GEN RP.NOM-PL C_A
hi-w-siix ti-ta'c we'np-e'weet]?
 3SUBJ-be.PRES.PL PL-good sing-AGT
 'What are the names of the women, the ones who are good singers?'
 (20130703bsfd)
- b. *Meeli-nm hi-'nahpayk-oo-∅-ya pro lepit ciq'aamqal*
 Mary-ERG 3SUBJ-bring-APPL-P-REM.PAST 1SG two dog.NOM
[yoχ-me ke-x hi-pa-ka'np-o'qa pro].
 RP.NOM-PL C_A-1 3SUBJ-S.PL-bite-MODAL 1SG
 'Mary brought me two dogs that could bite me.'
 (20160615bsfd)

The complementizer does not show any parallel behavior, either regarding case or regarding number. The core form of the complementizer is always *ke*, regardless of whether the gap is nominative (6a), accusative (13a), or ergative (13b) and whether the head noun is singular or plural. Rather than sensitivity to these factors, which are associated with the D status of the relative pronoun, the complementizer *ke* shows ϕ agreement with the subject and/or object of the embedded clause. This pattern is analyzed in the interaction–satisfaction theory of Agree in Deal 2015a: the ϕ probe borne by C agrees with all ϕ features, starting with those of the subject, until the feature [ADDR] is encountered. Person agreement is morphologically overt with first and second person but not with third. The examples in (24) involve relativization of

¹¹ The relative clause in (23b) occurs within the theme of a ditransitive, which is always nominative in Nez Perce. Note that this example shows case attraction: the relative-clause-internal gap is ergative, but the relative pronoun is nominative, like the head noun.

the theme of a ditransitive, which leaves two other nominals available for agreement in the clause. As these examples show, complementizer agreement may target the subject (24a, d), the primary object (24b), or both (24c), depending on the distribution of person features in the clause.

- (24) a. *ciickan* *yoχ* *ke-x* *pro* *'ew-'nii-∅-ye* *pro*
 blanket.NOM RP.NOM C_A-1 1SG 3OBJ-give-P-REM.PAST 3SG
 'the blanket that I gave to her'
 (20130627bsfd)
- b. *ciickan* *yoχ* *ke-x* *Beth-nim* *hi-'nii-∅-ye* *pro*
 blanket.NOM RP.NOM C_A-1 Beth-ERG 3SUBJ-give-P-REM.PAST 1SG
 'the blanket that Beth gave to me'
 (20130627bsfd)
- c. *ciickan* *yoχ* *ke-m-ex* *pro* *'inii-∅-ye* *pro*
 blanket.NOM RP.NOM C_A-2-1 1SG give-P-REM.PAST 2SG
 'the blanket that I gave to you'
 (20130627bsfd)
- d. *ciickan* *yoχ* *ke-m* *pro* *pii-'ni-∅-m-e* *pro*
 blanket.NOM RP.NOM C_A-2 2SG RECIP-give-P-CIS-REM.PAST 1SG
 'the blanket that you gave to me'
 (20130627bsfd)

This behavior would be unusual if *ke* were a D head; we expect a D head to expone its *own* ϕ features, rather than strictly those of *other* arguments. Furthermore, as I discuss in Deal 2015a, the Agree algorithm at play in *ke* agreement considers nominals in an order that begins with the highest argument in the embedded clause (the subject). This follows straightforwardly if the probe originates on the C head and probes into its c-command domain. It is less clear how to derive this pattern on a relative-pronoun analysis of *ke*.¹²

¹² Patterns of nominals apparently agreeing with each other are not unknown (see Troike 1981, Polinsky et al. 2017, and Clem & Deal to appear), but they are quite unlike what is found for Nez Perce *ke*. In Coahuilteco and Kolyma Yukaghir, ϕ features from the subject appear on the object; in Shawi and Archi, ϕ features from the absolutive appear on the ergative. In these systems, whether a certain DP hosts ϕ features from another argument is determined by the case and/or structural position of that DP. For *ke*, in contrast, the agreement pattern is not sensitive to what position is relativized. As I show in Deal 2015a, the Agree algorithm for *ke* starts with the subject and possibly (depending on the subject's features) then proceeds to consider lower arguments. The fact that the pattern of agreement found on *ke* is not sensitive to the case or structural position of what is relativized thus suggests that *ke* is not a relative pronoun.

- c. *Cicwaay* ‘be surprised’
 pro *cicwaay-ca-∅* [yoχ ke *lalχ* *hii-wes*
 1SG be.surprised-IMPERF-PRES RP.NOM C_A coffee.NOM 3SUBJ-be.PRES
yaw’ic].
 cold
 ‘I’m surprised that the coffee is cold.’
 (20180611bsfd)
- d. *Timiipni* ‘remember’
 ‘Aayat *hi-tmiipni-se-∅* [yoχ ke pro
 woman.NOM 3SUBJ-remember-IMPERF-PRES RP.NOM C_A 3PL
hi-pa-paay-n-a].
 3SUBJ-S.PL-arrive-P-REM.PAST
 ‘The woman remembers that they arrived.’
 (20150616bsfd)
- e. ‘Eey’s ‘be joyful,’ *q’eese* ‘be bothered, unhappy,’ *tim’neeneki* ‘be worried’
 pro *he-’eey’s-ce-∅* / *hi-q’eese’-ce-∅* /
 3SG 3SUBJ-be.joyful-IMPERF-PRES 3SUBJ-be.bothered-IMPERF-PRES
hi-tim’neenek-se-∅ [yoχ ke pro
 3SUBJ-be.worried-IMPERF-PRES RP.NOM C_A 3PL
hi-pa-paay-n-∅].
 3SUBJ-S.PL-arrive-P-PRES
 ‘She’s joyful/bothered/worried that they arrived.’
 (20150616bsfd)

The distinctive behavior of these predicates is that their clausal complement must contain a relative pronoun (*yoχ*) and a relative complementizer (*ke*). Omission of these elements produces ungrammaticality:

- (28) a. ‘Aayat *hi-llooy-ca-∅* *(yoχ ke) *ma-may’ac*
 woman.NOM 3SUBJ-be.happy-IMPERF-PRES RP.NOM C_A PL-child
hi-pa-paay-n-∅.
 3SUBJ-S.PL-arrive-P-PRES
 ‘The woman is happy that the children arrived.’
 (20150616fd)

- b. *pro cicwaay-ca-∅* *(yoχ *ke*) *pro kuleewit-nix*
 1SG be.surprised-IMPERF-PRES RP.NOM C_A 3SG evening-EMPH
hi-paay-no'
 3SUBJ-arrive-PROSP
 'I'm surprised that he/she will arrive very late at night.'
 (20190613bsfd)

As previewed in the introduction, I refer to this type of notional complement clause as a relative embedding, or RE (borrowing this term from Caponigro & Polinsky 2011). In this section I discuss the following basic properties of REs. First, the complement is indeed subordinated. Second, complementation possibilities remain constant across both verbal and adjectival uses of the root. Third, all such predicates are factive (even when their English translations are not).

Let us first consider the connection between the two clauses in examples like those in (27). Evidence that the bracketed clauses are indeed embedded (and not, say, high adjuncts) comes from Condition C. The baseline example (29a) shows that a pronoun in the embedded clause may co-refer with the matrix subject. However, the opposite is not possible, as (29b) shows. Example (29c) confirms that this judgment is not due to a general ban on cataphora in the language; thus the inability of the pronoun and the name to co-refer in (29b) suggests that the matrix subject c-commands the embedded clause.

- (29) a. *Meeli hi-llooy-ca-∅* [yoχ *ke pro*
 Mary.NOM 3SUBJ-be.happy-IMPERF-PRES RP.NOM C_A 3SG
hi-we'npi-se-∅].
 3SUBJ-sing-IMPERF-PRES
 'Mary_i is happy she_{i/j} is singing.'
 (20170612bsfd)
- b. *pro hi-llooy-ca-∅* [yoχ *ke Meeli*
 3SG 3SUBJ-be.happy-IMPERF-PRES RP.NOM C_A Mary.NOM
hi-we'npi-se-∅].
 3SUBJ-sing-IMPERF-PRES
 'S/he*_{i/j} is happy Mary_i is singing.'
 Consultant: "Someone else is happy that Meeli is singing."
 (20170612bsfd)

- c. *Ke mawa pro 'ip-nim-'niit-pa hi-paay-no', kaa pro*
C_A when 3SG 3SG-GEN-house-LOC 3SUBJ-arrive-PROSP then 1SG
'e-cewcew-nu' Mary-na.
3OBJ-call-PROSP Mary-ACC
 'When she_i arrives home, I will call Mary_i.'
 (20170523bsfd)

Note that these data directly contrast with data provided by Clem 2022 to show that notional complement clauses in Amahuaca are in fact adjuncts originating high in the matrix clause. The contrast suggests that notional complement clauses may indeed be high adjuncts in some languages—but not in Nez Perce.¹⁷

Further reason to think the embedded clause occurs relatively low in Nez Perce RE constructions comes from non-verbal RE predicates. Note to begin with that while various RE verbs in Nez Perce are translation equivalents of English adjectives, these items are clearly verbal rather than adjectival in the examples we have seen thus far. As noted in section 2, Nez Perce verbs inflect for the person and number of their arguments as well as for tense–aspect–mood. None of this inflection is available to adjectives; rather, for tense–aspect–mood to occur in the clause, predicative adjectives must occur with a copular verb. In (30), I exemplify this behavior for an uncontroversial verb (*paay* 'to arrive') and a simplex adjective (*himeeq'is* 'big').

- (30) a. *Harold hi-paay-ca-∅.*
 Harold.NOM 3SUBJ-arrive-IMPERF-PRES
 'Harold is arriving.'
 (20070611bs)

¹⁷ As a reviewer points out, Sells 1987 suggests an alternative explanation for the impossibility of co-reference in sentences like the English translation of (29b): any reference within the embedded clause to a "discourse-role holder" (that is, a source of a point of view) must be accomplished with a pronoun, not an R expression. (See further discussion in Dubinsky & Hamilton 1998.) If this principle is correct and universal, then the impossibility of the co-referent reading of (29b), in either Nez Perce or English, could be understood as arising from the discourse-role status of the attitude holder (i.e., the referent of the matrix subject).

I have two reservations about this type of analysis. First, it seems to me that the English judgments cited by Sells in support of his proposal may not be as clear-cut as reported. Second, Clem 2022's Amahuaca data provide reason to think that the principle is not correct for languages other than English. In Amahuaca, reference to the attitude holder with an R expression in the embedded clause is perfectly possible, even in clauses that crucially represent the attitude holder's perspective (to permit *de dicto* readings). See especially Clem's example (15). Why this difference? A simple syntactic explanation based on Condition C remains available: in Nez Perce (and English), the embedded clause is in the c-command domain of the subject, producing a Condition C violation. In Amahuaca, as Clem concludes, the embedded clause merges higher than the subject, and thus the environment for the relevant Condition C violation is not created.

- b. *Yoŋ saaslaqs hii-wes himeeq'is.*
 DEM.NOM moose.NOM 3SUBJ-be.PRES big
 'That moose is big.'
 (20130702bsfd)

The examples in (31) show the same contrast for forms built from the root *lilooy* 'be happy.' The verbal version, (31a, b), shows ϕ inflection (the prefix *hi-* for third-person subject) and tense–aspect–mood inflection (the suffix *-ca*, for imperfective aspect) flanking the root. The adjectival versions, (31c), require a ϕ - and tense–aspect–mood-inflected copula, along with an adjectivalizing morpheme on the root.¹⁸

- (31) a. *Haacwal hi-llooy-ca-∅.*
 boy.NOM 3SUBJ-be.happy-IMPERF-PRES
 'The boy is happy.'
 (20160526fd)
- b. *pro lilooy-ca-∅.*
 1SG be.happy-IMPERF-PRES
 'I am happy.'
 (20091208bs)
- c. *pro lilooy-'c / lilooy-nin' wees.*
 1SG be.happy-ADJ be.happy-PART be.PRES
 'I am happy.'
 (20091208bs)

The relative complementation structure is preserved under adjectivalization, as (32) shows. (See (27c) for *cicwaay* 'be surprised' occurring as a verb.)

- (32) a. *'Aayat lilooy-'c hii-wes yoŋ ke ma-may'ac*
 woman.NOM be.happy-ADJ 3SUBJ-be.PRES RP.NOM C_A PL-child
hi-pa-paay-n-∅.
 3SUBJ-S.PL-arrive-P-PRES
 'The woman is happy the children arrived.'
 (20150616bsfd)

¹⁸ For this particular root the adjectivalizer can be either *-c*, which generally derives adjectives, or the participle-forming suffix *-(n)in'*. On the latter see Deal 2019.

- b. *Cicwaay*-’s *yoχ* *ke weet’u hi-weeqi-se!*
 be.surprised-ADJ RP.NOM C_A NEG 3SUBJ-rain-IMPERF-PRES
 ‘(It’s) surprising that it isn’t raining!’
 (20170606bsfd)

This fact suggests that adjectivalization occurs above the level at which the root combines with its notional complement, which in turn suggests that the embedded clause occurs relatively low—in a standard complement position or similar—inside the matrix clause.¹⁹

We now add an important basic semantic property to the profile of REs that is taking shape: REs are factive. While this is perhaps unsurprising for predicates such as *lilooy* ‘be happy,’ *cicwaay* ‘be surprised,’ and *timiipni* ‘remember,’ whose English translations are factive, it is true as well for predicates such as *tim’neeneki* ‘be worried,’ whose English translations are not uniformly factive. (On ‘be worried’ in English, see note 15.) In making this assessment I draw on methodological work in Tonhauser et al. 2013 on projective content cross-linguistically. Following the themes of that work, I asked consultants to imagine they had overheard certain snippets of conversation in Nez Perce; I then asked them whether they would draw particular inferences from the overheard sentences. An example is shown in (33) for *lilooy* ‘be happy.’ (The glossing and parenthesized English translation are for the ease of readers and were not provided to consultants as part of the task.)

(33) Linguist: “Suppose you overheard this:

Weet’u ’in-haama *hi-llooy-ca-∅* [*yoχ* *ke*
 NEG 1SG-husband.NOM 3SUBJ-be.happy-IMPERF-PRES RP.NOM C_A
Fido *hi-ckiliitoq-∅-a*].
 Fido.NOM 3SUBJ-go.back-P-REM.PAST
 (‘My husband isn’t happy that Fido went back.’)

Would you think the husband was happy?”

Consultant: “No.”

¹⁹ To be clear, these data do not speak to the question of whether notional complements are indeed complements, or rather very low modifiers, as some recent work has proposed (e.g., Bochnak & Hanink 2021); see note 1. They simply suggest that notional complements occur in close proximity to the root, such that the addition of derivational morphology does not alter their ability to compose.

Linguist: “Would you think the dog went back?”

Consultant: “Went back, uh-huh (yes). Wherever he came from.”

(20170612bsfd)

In this example, the consultant was asked both about a matrix-clause inference (concerning the husband) and about an embedded-clause inference (concerning Fido, the dog). Crucially, the matrix clause is negated. As expected for a factive predicate embedded under negation, the attitudinal content of the predicate is negated (the husband is not happy), but the content of the embedded clause escapes negation (Fido *did* go back); that is, it projects. The latter of these judgments is the crucial data point indicative of factivity. An example showing a similar inference to the complement under matrix negation is given in (34), this time with *tim’neeneki* ‘be worried.’

(34) Linguist: “Suppose you overheard this:

Weet’u ’in-haama hi-tim’neenek-se-∅ [yoχ ke
 NEG 1SG-husband.NOM 3SUBJ-be.worried-IMPERF-PRES RP.NOM C_A

kimti ciq’aamqal hi-wahoo-tato].

new dog.NOM 3SUBJ-howl-HAB.PRES

(‘My husband isn’t worried that the new dog howls.’)

Would you think that dog was a howler?”

Consultant: “The dog *is* a howler, and the husband, it doesn’t bother him.

That’s what it’s referring to.”

(20170612bsfd)

In a series of trials, sentences containing the RE verbs *lilooy* ‘be happy,’ *ciwaay* ‘be surprised,’ *timiipni* ‘remember,’ and *tim’neeneki* ‘be worried’ were presented to consultants in this type of format. In nine cases, the predicate in question was presented in an entailment-canceling environment, whether in the scope of negation (as in the examples above), in a question, or in the antecedent of a conditional. Across all of these trials, consultants endorsed the complement of the RE verb. This indicates reliable projective behavior for the complements of these predicates. As expected, these inferences were also drawn when the predicate occurred in a simple upward-entailing environment (without an entailment-canceling operator). Also as expected, these inferences notably contrasted with control trials using the verb *neki*

‘think’ (which does not take a relative complement). When the matrix verb is *neki*, consultants do not make an inference to the embedded-clause content:

(35) Linguist: “Suppose you overheard this:

Weet’u pro *hi-neki-se-∅* [watiisx
NEG 3SG 3SUBJ-think-IMPERF-PRES one.day.away
hi-weeqi-yu’].

3SUBJ-rain-PROSP

(‘S/he doesn’t think it’s going to rain tomorrow.’)

Would you think it was going to rain the next day?”

Consultant: “No ... I don’t think so.”

(20170607bsfd)

(36) Linguist: “Suppose you overheard this:

Weet Angel hi-neki-se-∅ [hiteemenew’*eet*
Y.N Angel.NOM 3SUBJ-think-IMPERF-PRES student.NOM
hi-pe-kuu-∅-ye *Siminikem-x*]?

3SUBJ-S.PL-go-P-REM.PAST Lewiston-to

(‘Does Angel think the students went to Lewiston?’)

What would you think about the kids?”

Consultant: “They must have planned on going. I don’t know if they went or not; she’s asking if Angel *thinks* they went. Sounds like no one knows for sure.”

(20170609bsfd)

Recent work on presupposition is careful to distinguish content that is projective, that is, able to escape entailment-canceling operators, versus content that is familiar/given/discourse old. (See Tonhauser et al. 2013 as well as the specific discussion of factivity in Djärv 2019.) Note that the methodology just discussed assesses only projection—thus in claiming that RE verbs are factive, what I claim is that their complement clause content is projective.

4 External syntax: REs are CPs

Previous work on REs across languages has reached mixed conclusions concerning the presence of a DP layer outside the CP. On one hand, Aboh 2005 argues that REs in Gungbe are relative CPs lacking an outer DP. Similar conclusions are reached by

agreement on the verb. When both arguments are third person singular, as in (38), agreement takes the portmanteau form *pee* ‘3/3’ (shown in this example with vowel harmony that yields *paa*).

- (38) *Meeli-nm paa-’yaŋ-n-a John-ne.*
 Mary-ERG 3/3-find-P-REM.PAST John-ACC
 ‘Mary found John.’
 (20170606bsfd)

REs, by contrast, pattern with formally intransitive clauses: nominative subjects, no accusative objects, and only subject agreement on the verb, never object agreement. The constructed minimal pair in (39) contrasts a typical (formally intransitive) RE sentence, (39a), with an attempt at transitive morphosyntax in the matrix, (39b). In the transitive version, the subject is ergative and the verb bears the portmanteau agreement prefix *pee* ‘3/3’ (here with pre-glottal shortening). This is never attested, regardless of whether the RE complement contains a nominative relative pronoun (*yoŋ*) or its accusative counterpart (*konya*).

- (39) a. *’Aayat he-’ey’s-ce-∅ [yoŋ ke pro*
 woman.NOM 3SUBJ-be.joyful-IMPERF-PRES RP.NOM C_A 3PL
hi-pa-paay-n-∅].
 3SUBJ-S.PL-arrive-P-PRES
 ‘The woman is joyful that they arrived.’
- b. **’Aayato-nm pe-’ey’s-ce-∅ [yoŋ / ko-nya ke pro*
 woman-ERG 3/3-be.joyful-IMPERF-PRES RP.NOM RP-ACC C_A 3PL
hi-pa-paay-n-∅].
 3SUBJ-S.PL-arrive-P-PRES
 Intended: ‘The woman is joyful that they arrived.’

While Nez Perce does allow notionally transitive clauses with nominative–nominative case frames (and no object agreement), as discussed in section 2, recall that this occurs only when either (a) the object is a weak indefinite or (b) the subject binds the possessor of the object (Rude 1985, Deal 2010a, Deal 2010b). The latter possibility seems unlikely here. Concerning the former possibility, the case–agreement behavior seen with REs would certainly follow if the CPs in these examples occurred inside weak indefinite objects. Weak indefinite objects in Nez Perce (unsurprisingly) cannot

be anaphoric (Deal 2010b: 219). This, however, is in marked contrast to the idea in the factivity literature that factive clauses are parallel to *definite* (or referential, specific, familiar, or given) DPs (Haegeman & Ürögdi 2010, Kastner 2015, Hanink & Bochnak 2017, Bochnak & Hanink 2021). What the pattern in (39) shows is that RE clauses in Nez Perce have a case–agreement profile markedly unlike that of DPs with these semantic properties.

Selection provides a second type of evidence against DP status. A long-standing factor motivating nominal analyses of factive complements in English and other languages is that verbs taking factive CPs (also) allow DP arguments, while non-factive verbs often do not:

- (40) a. *I resent/remember/know the claim that John stole the jewels.*
 b. **I think/said/claimed the story/idea/N that John stole the jewels.*
 (Haegeman & Ürögdi 2010: 133)

Similarly, Caponigro & Polinsky 2011 demonstrates for Adyghe that verbs allowing RE complements also allow ordinary nominal complements. The logic is straightforward: if apparent CP complements/factive complements are always DPs, we expect to see them occurring only in positions where DPs are otherwise licensed. For Nez Perce, however, it is not the case that verbs allowing RE complements consistently allow DP complements. Certain verbs taking REs simply cannot take DPs. The sentences in (41) show that *'eey's* 'be joyful,' for instance, is unacceptable with a DP object regardless of whether the object triggers transitive case and agreement.

- (41) a. **Naaqc-nim qiiwn-e pe-'eey's-ce-∅.*
 one-ERG old.man-ACC 3/3-be.joyful-IMPERF-PRES
 Intended: 'Someone is joyful about the old man.'
 (20160601fd)
 b. **pro he-'eey's-ce-∅ titwaatit.*
 3SG 3SUBJ-be.joyful-IMPERF-PRES story.NOM
 Intended: 'S/he is joyful about a story.'
 (20180621bsfd)

REs are also possible as apparent complements to the unanalyzable particle *qe'ciyew'yew* 'thank you,' which disallows all nominal complements:

- (42) a. *Qe'ciyeew'yew'* [yoʃ *ke-m* pro *tamtaayn-im* pro].
 thank.you RP.NOM C_A-2 2SG tell.news-CISLOC 1SG
 'Thank you for informing me.'
 (20180619bsfd)
- b. **Qe'ciyeew'yew'* *hipt* / *tamtaayn*.
 thank.you food.NOM news.NOM
 Intended: 'Thank you for the food/news.'
 (20180619bsfd)

The fact that REs do not have the external distribution of nominals again suggests that they are not DPs.

Finally, a third point indicative of a lack of nominal structure in REs comes from the internal syntax of the relative complement. While some proposals for a nominal superstructure in notional complement clauses have called simply for a DP layer above CP (Krapova 2010, Hanink & Bochnak 2017, and Pietraszko 2019, among others), Caponigro & Polinsky show for Adyghe that an overt noun with a meaning such as 'news' or 'validity/verity/truth' can occur immediately after the CP, that is, in the position where relative-clause heads typically appear in the language:

- (43) Adyghe
 [DP [CP *Č'ale-r* *qə-zə-re-k_wež'ə-s'tə*] *qeba-r*]
 boy-ABS INV-REL.OBL-APPL-return-FUT news-ABS
ə-g_wə²rə_wek.
 3SG.ERG-understood
 'S/he understood that the boy will arrive.'
 (Caponigro & Polinsky 2011: 106)

Nez Perce is again different. As (44) illustrates, the noun *tamtaayn* 'news' cannot be added to the edge of an RE; indeed, I have not found any noun that may be added in this position.

- (44) pro *hi-llooy-ca-∅* [(**tamtaayn*) yoʃ *ke Angel*
 3SG 3SUBJ-be.happy-IMPERF-PRES news.NOM RP.NOM C_A Angel.NOM
hi-wehye-∅-m-∅].
 3SUBJ-arrive-P-CIS-PRES
 Intended: 'S/he is happy about the news that Angel will arrive.'
 (20180619bsfd)

The overall conclusion is that REs lack both the internal and external syntax of DPs: they do not interact with case and agreement as DPs do, do not pattern with DPs for selection, and are not built on nominal projections as DPs are.

A variant of the DP analysis calling for special attention in light of these arguments is that of Krapova 2010. Krapova analyzes REs in Bulgarian as DPs contained inside a larger, sometimes covert, PP layer. The predicates that allow REs in Bulgarian are emotive factives, like many Nez Perce RE predicates are. In support of the PP analysis, Krapova reports that Bulgarian emotive factive predicates allow REs if and only if they also select the preposition *za* ‘for.’ She proposes accordingly that Bulgarian REs are really *za* PPs. Extending this analysis to Nez Perce potentially explains why REs do not have the selectional behavior or case–agreement behavior of DPs: there *is* a DP layer, but only encased within a larger PP.²¹ And this approach has some initial plausibility: predicates that allow REs also allow phrases marked with the instrumental suffix *-ki* (discussed in section 2 as a case marker assigned by a null P head; see (25, 26)). Structures featuring *ki* PPs receive translations that are reminiscent of the meanings of sentences containing REs. The *ki* PP, like the RE, specifies what the attitude is about:

- (45) pro *he-'eey's-ce-∅* [PP P *kon-ki picpic-ki*].
 3SG 3SUBJ-be.joyful-IMPERF-PRES that-INST cat-INST
 ‘She’s joyful about that cat.’
 (20180627bsfd)
- (46) pro *'etqew-ce-∅* / *tim'neenek-se-∅* [PP P *tamtaay-ki*].
 1SG be.sad-IMPERF-PRES be.worried-IMPERF-PRES news-INST
 ‘I’m sad/worried about the news.’
 (20180619bsfd, 20180621bsfd)

There remain two important challenges for a PP approach. First is the problem (again) of selectional mismatch: the distribution of *ki* PPs with ‘about’ readings is wider than the distribution of REs. REs are impossible with *hi* ‘say/tell’ and *neki* ‘think,’ but *ki* PPs with ‘about’ readings are possible:

²¹ As to why no noun is possible, Krapova posits a direct DP shell above CP; see Hanink & Bochnak 2017 and Pietraszko 2019 (and from a different direction, Hankamer & Mikkelsen 2021) for similar proposals.

- (47) *Hi* ‘say/tell’
- a. pro *'a-w-caa-qa* *'in-lawtiwaa-na* [(**yoχ* *ke*)
 1SG 3OBJ-say-IMPERF-REC.PAST 1SG-friend-ACC RP.NOM C_A
hi-weeqi-yu].
 3SUBJ-rain-PROSP
 ‘I told my friend it is going to rain.’
 (20180625bsfd)
- b. pro *'ew-∅-ce-ne* *'in-lawtiwaa-na* [P *tamtaay-ki*].
 1SG 3OBJ-say-IMPERF-REM.PAST 1SG-friend-ACC news-INST
 ‘I told my friend about the news.’
 (20180625bsfd)
- (48) *Neki* ‘think’
- a. pro *hi-neki-se-∅* [(**yoχ* *ke*) *hi-waaqi-sa-qa*
 3SG 3SUBJ-think-PRES RP.NOM C_A 3SUBJ-rain-IMPERF-REC.PAST
watiisx].
 one.day.away
 ‘She thinks it was raining yesterday.’
 (20180619bsfd)
- b. pro *neki-se-∅* [P *kimti tamtaay-ki*]. *Weet'u ta'c* pro
 1SG think-IMPERF-PRES new news-INST NEG good 3SG
hii-wes.
 3SUBJ-be.PRES
 ‘I’m thinking about the latest news. It’s not good.’
 (20180628bsfd)

Ki PPs with ‘about’ readings have the general behavior of adjuncts: they can appear with any predicate, modulo semantic incompatibility. REs, on the other hand, have the general behavior of arguments: they must be selected by a predicate, and some attitude roots but not others are able to select them.²²

The second challenge comes from relative-pronoun marking. In Bulgarian, according to Krapova 2010, the *za* P can be silent when followed by an RE. However,

²² Note that this type of issue has potential bearing on Bulgarian as well. Krapova 2010 claims not that *all* predicates that allow *za* PPs take REs but strictly that emotive factives that allow *za* PPs take REs (pp. 1266–1267). The question is how to account for this double requirement.

it may also surface overtly with the relative complementizer *deto*, forming *zadeto*, as in (49). In a *zadeto* RE, we see the PP structure overtly.

- (49) Bulgarian²³
Săžaljavam, [PP *za-* [CP *deto srešta-ta im se e provalila*]].
 regret.1SG for- C.REL meeting.DEF their REFL is failed.PART
 ‘I regret that their meeting has failed.’
 (Krapova 2010: 1268)

Nez Perce grammar offers the opportunity for a similar signal of PP structure, though coming from a different morphosyntactic direction. Nez Perce relative clauses permit case attraction: the relative pronoun may surface in the case assigned to the DP containing the relative clause rather than in the case assigned internally to the relative clause (Deal 2016a). In (50), the relative-clause-internal case is nominative, and the case assigned to the larger DP in the matrix is accusative. The relative pronoun appears in the baseline nominative case in (50a) and in the attracted accusative case in (50b).

- (50) a. pro 'e-suki-se-∅ 'aayato-na yoŋ ke __NOM
 1SG 3OBJ-recognize-IMPERF-PRES woman-ACC RP.NOM C_A
hi-paay-n.
 3SUBJ-arrive-P-PRES
 ‘I recognize the woman who just came in.’
 (20100727bsfd)
- b. pro 'e-suki-se-∅ 'aayato-na ko-nya ke __NOM
 1SG 3OBJ-recognize-IMPERF-PRES woman-ACC RP-ACC C_A
hi-paay-n.
 3SUBJ-arrive-P-PRES
 ‘I recognize the woman who just came in.’
 (20100727bsfd)

Relative pronouns can be case attracted to the instrumental *ki* case, as (51) and (52) show. Note that (52), just like (51), features a true, noun-modifying relative clause, not an RE.

²³ Glossing abbreviations for this example: C.REL relative complementizer, DEF definite, PART participle, REFL reflexive, 1SG first person singular.

- (51) pro *tiw'elixnik-se-∅* [PP P [DP *sooχ̂-ki* [RC *yoχ̂₁* / *kon-ki₁* *ke-x*
1SG stir-IMPERF-PRES spoon-INST RP.NOM RP-INST C_A-1
pro *hani-∅-ya* __1]].
1SG make-P-REM.PAST
'I'm stirring with the spoon that I made.'
(20180625bsfd)
- (52) pro *lilooy-ca-∅* [PP P [DP *tamtaay-ki* [RC *yoχ̂₁* / *kon-ki₁*
1SG be.happy-IMPERF-PRES news-INST RP.NOM RP-INST
ke-x Angel-nim hi-'nii-se-ne pro __1]].
C_A-1 Angel-ERG 3SUBJ-give-IMPERF-REM.PAST 1SG
'I'm happy about the news that Angel gave me.'
(20180625bsfd)

If REs similarly contain a P head, we expect a similar pattern: the relative pronoun should be able to occur in instrumental case here as well. But case attraction to the supposed hidden P is impossible in REs:

- (53) a. *pro *lilooy-ca-∅* [PP P [DP [RC *kon-ki ke weet'u*
1SG be.happy-IMPERF-PRES RP-INST C_A NEG
hi-weeqi-se-∅]].
3SUBJ-rain-IMPERF-PRES
Intended: 'I'm happy it's not raining.'
(20180621bsfd)
- b. pro *lilooy-ca-∅* [*yoχ̂ ke weet'u*
1SG be.happy-IMPERF-PRES RP.NOM C_A NEG
hi-weeqi-se-∅].
3SUBJ-rain-IMPERF-PRES
'I'm happy it's not raining.'
(20180621bsfd)
- (54) a. *pro *tim'neenek-se-∅* [PP P [DP [RC *kon-ki ke-x pro*
1SG be.worried-IMPERF-PRES RP-INST C_A-1 1SG
picpic k'oomay-ca-∅]].
cat.NOM be.sick-IMPERF-PRES
Intended: 'I feel worried about the fact that my cat is sick.'
(20180621bsfd)

- b. pro *tim'neenek-se-∅* [yoχ *ke-x* pro *picpic*
 1SG be.worried-IMPERF-PRES RP.NOM C_Ā-1 1SG cat.NOM
k'oomay-ca-∅]].
 be.sick-IMPERF-PRES
 'I feel worried about the fact that my cat is sick.'
 (20180621bsfd)

I conclude that, despite its initial attraction, maintaining a PP analysis leads to over-generation both in terms of the distribution of REs (for selection) and in terms of their internal shape (morphological case).

A remaining analytical option is that REs are exactly what they look like: CPs. This provides a straightforward approach to the data that were problematic for the DP and PP approaches. CP objects aren't expected to render the clause formally transitive (presumably because they lack ϕ features), accounting for the case and agreement facts.²⁴ The absence of nouns is expected; nouns are not freely generated on CP edges. CPs, DPs, and *ki* PPs simply have different distributions; we might expect CPs to appear in positions in which these other phrases are not licensed and vice versa. And finally, the fact that the relative pronoun must be nominative and cannot be case attracted follows from the fact that CPs do not participate in the case system. Since CPs do not receive case, there is no "external" case assigned that the relative pronoun can be attracted to. These conclusions suggest that the view advanced by Kayne 2008, Arsenijević 2009, and Kayne 2014, according to which all apparent CP-complementation structures involve (potentially hidden) nominal structure, is too strong. The overall picture is instead in line with the CP treatment of REs by Aboh 2005 and Haegeman & Ürögdi 2010.

5 Internal syntax: high relativization

Let us now consider the internal structure of the relative complement, in particular the question of why and how a relative pronoun and an \bar{A} complementizer appear on the edge of these clauses. The appearance of the complementizer *ke*, which is

²⁴ Whether or not CPs bear ϕ features is discussed as a point of cross-linguistic variation by Halpert 2019. The idea that CPs lack ϕ features in Nez Perce is discussed in connection with hyper-raising in Deal 2017.

found otherwise only in cases of \bar{A} movement to spec-CP, provides strong initial evidence that \bar{A} movement is present in these clauses as well. In this section I argue that REs do indeed involve \bar{A} movement of a relative operator to spec-CP and that the relative operator originates in a high functional projection in the relative clause.

Beyond the morphological similarities between relative clauses and REs, one major reason to posit movement of a relative operator in REs comes from island effects. REs have in common with relative clauses the fact that they are fully opaque for \bar{A} extraction, that is, that they are strong islands. Contrast the baseline declarative in (55a) with attempted extraction of the embedded object, (55b), or of the embedded subject, (55c).

- (55) a. *'Aayat hi-llooy-ca-∅ [yoχ ke*
 woman.NOM 3SUBJ-be.happy-IMPERF-PRES RP.NOM C \bar{A}
ma-may'as-nim poo-paayata-s-ix-∅ qiiwn-e].
 PL-child-ERG 3/3-help-IMPERF-S.PL-PRES old.man-ACC
 'The woman is happy that the children are helping the old man.'
 (20150618bsfd)
- b. **'Isii-ne 'aayat hi-llooy-ca-∅ [yoχ ke*
 who-ACC woman.NOM 3SUBJ-be.happy-IMPERF-PRES RP.NOM C \bar{A}
ma-may'as-nim poo-paayata-s-ix-∅ __]?
 PL-child-ERG 3/3-help-IMPERF-S.PL-PRES
 Intended: 'Who₁ is the woman happy that the children are helping __₁?'
 (20150618bsfd)
- c. **'Isii-me-m 'aayat hi-llooy-ca-∅ [yoχ ke*
 who-PL-ERG woman.NOM 3SUBJ-be.happy-IMPERF-PRES RP.NOM C \bar{A}
 __ *poo-paayata-s-ix-∅ qiiwn-e]?*
 3/3-help-IMPERF-S.PL-PRES old.man-ACC
 Intended: 'Who₁ is the woman happy that __₁ are helping the old man?'
 (20150618bsfd)

Intransitive subjects also cannot be extracted from REs, as shown in (56b); contrast baseline (56a).

- (56) a. *Meeli hi-cciwaay-n-a* [yo̘ ke
 Mary.NOM 3SUBJ-be.surprised-P-REM.PAST RP.NOM C_A
ku-'isi hi-we'npi-se-∅].
 DUNNO-who.NOM 3SUBJ-sing-IMPERF-PRES
 'Mary was surprised that someone is singing.'
 (20170606bsfd)
- b. **'Isii Meeli hi-cciwaay-n-a* [yo̘ ke __
 who.NOM Mary.NOM 3SUBJ-be.surprised-P-REM.PAST RP.NOM C_A
hi-we'npi-se-∅]?
 3SUBJ-sing-IMPERF-PRES
 Intended: 'Who₁ was Mary surprised __₁ is singing?'
 (20170606bsfd)

This opacity is of special interest in light of two facts. First, as argued in the previous section, REs are CPs and lack a nominal superstructure. The island effect must therefore result from the structure of the CP itself, rather than from a ban of whatever sort on DP subextraction. Second, Nez Perce generally permits cross-clausal \bar{A} movement. Recall that the language distinguishes RE predicates from non-relative-embedding predicates (a distinction we return to in the next section). Complements of the latter type, which lack the distinctive *yo̘ ke* of RE, are \bar{A} transparent:²⁵

- (57) a. *'Isii-ne Meeli hi-neki-se-∅* [pro *pee-x-nu'* __]?
 who-ACC Mary.NOM 3SUBJ-think-IMPERF-PRES 3SG 3/3-see-PROSP
 'Who does Mary think she will see?'
 (20170605bsfd)
- b. *'Isii-nm 'im-lawtiwaa-nm hi-hi-n-e* pro [__ 'ee
 who-ERG 2SG-friend-ERG 3SUBJ-tell-P-REM.PAST 2SG 2SG.CLITIC
hi-'peewi-se-∅]?
 3SUBJ-look.for-IMPERF-PRES
 'Who did your friend tell you is looking for you?'
 (20120713bsfd)

²⁵ In contrast to *neki* 'think' and *hi* 'say/tell,' extraction from the complement of *cuukwe* 'know' was sometimes rejected by consultants—a fact that is perhaps unsurprising in view of the general slight degradation of extraction from the complements of 'know' in English (see, e.g., Djärv 2019: 38).

- c. 'Isii-ne Meeli hi-cuukwe-ce-Ø, [pro 'e-ex-nu' __]?
 who-ACC Mary.NOM 3SUBJ-know-IMPERF-PRES 1SG 3OBJ-see-PROSP
 'Who does Mary know she will see?'
 (20170605bsfd)

Such data confirm that it is some particular property of the CP in the RE structure that gives rise to the strong island effect. The obvious candidate for this property is the presence of a relativization dependency, given that relativization generally creates strong islands in Nez Perce (and cross-linguistically).

What is the origin site of the relative pronoun in an RE? This is a question that (like DP vs. CP status) has seen diverging views in previous cross-linguistic work. On one hand, several strands of research have converged on a view of REs as involving movement of a relative operator originating relatively high in the functional structure of the clause. Caponigro & Polinsky 2011 makes this proposal for the visibly relative-like complement clauses in Adyghe discussed in the previous section; Arsenijević 2009 and Haegeman & Ürögdi 2010 reach the same conclusion for cases where the purported relativization structure is more covert. In contrast, Aboh 2005 and Aboh 2010 note for Gungbe that either a direct object or a verb copy may be fronted in relative-like embedding, arguing that these relatively low, lexical elements bear an event-related feature that triggers their relativization:

(58) Gungbe²⁶

- a. [Àgásá₁ ló lé dǎ mí wlé __₁] vé ná Kòfí.
 crab DET NUM that.REL 1PL catch hurt for Kofi
 'The fact that we caught the crabs hurt Kofi.'
- b. [Wlé₁ dǎ mí wlé₁ àgásá ló lé] vé ná Kòfí.
 catch that.REL 1PL catch crab DET NUM hurt for Kofi
 'The fact that we caught the crabs hurt Kofi.'

(Aboh 2005: 274)

I will now show that Nez Perce REs behave more like Adyghe than like Gungbe in this respect: what is relativized in this language is a *functional* element that originates *high* in the clausal structure, rather than a lexical element originating low.

²⁶ Glossing abbreviations for Gungbe: DET determiner, NUM number, REL relative, 1PL first person plural.

Note to begin with that whatever is relativized in a Nez Perce RE is not obviously an argument. While the language of course permits arguments to be null inside REs (as it does in general), REs are also perfectly well formed with all of their arguments overt and in situ inside the CP (as well as the verb in a typical position). The examples in (59) show this for intransitive and transitive clauses.

- (59) a. *pro* *cicwaay-ca-∅* [yoχ *ke* *lalχ* *hii-wes*
 1SG be.surprised-IMPERF-PRES RP.NOM C_A coffee.NOM 3SUBJ-be.PRES
yaw'ic].
 cold
 'I'm surprised that the coffee is cold.'
 (20180611bsfd)
- b. *'Aayat* *hi-llooy-ca-∅* [yoχ *ke*
 woman.NOM 3SUBJ-be.happy-IMPERF-PRES RP.NOM C_A
ma-may'as-nim *poo-paayata-s-ix-∅* *qiiwn-e*].
 PL-child-ERG 3/3-help-IMPERF-S.PL-PRES old.man-ACC
 'The woman is happy that the children are helping the old man.'
 (20150618bsfd)

Seeing as all lexical elements remain inside CP, these data suggest that what is relativized is a functional element.

It is also notable that the case of the relative pronoun is always nominative in Nez Perce REs:

- (60) *Angel* *hi-llooy-ca-qa* yoχ / **ko-nim* /
 Angel.NOM 3SUBJ-be.happy-IMPERF-REC.PAST RP.NOM RP-ERG
 **ko-nya* *ke* *Caan-im* *poo-paayata-sa-qa* *Meeli-ne*.
 RP-ACC C_A John-ERG 3/3-help-IMPERF-REC.PAST Mary-ACC
 'Angel was happy that John was helping Mary.'
 (20170607bsfd)

This is in contrast to true relative clauses, where the relative pronoun surfaces in a variety of cases, depending (modulo case attraction) on its original position in the embedded clause. The data in (61) show that the relative pronoun is nominative when an intransitive subject is relativized, ergative when a transitive subject is relativized, and accusative when an object is relativized.

- (61) a. *Mine hii-wes picpic [yoʔ ke kine _*
 where 3SUBJ-be.PRES cat.NOM RP.NOM C_A here
hi-pinmix-sa-qa]?
 3SUBJ-sleep-IMPERF-REC.PAST
 ‘Where is the cat that was sleeping here?’
 (20110623fd)
- b. *Mine hii-wes picpic [ko-nim ke-x _ hi-ip-e’ni-s-∅*
 where 3SUBJ-be.PRES cat.NOM RP-ERG C_A-1 3SUBJ-eat-μ-P-PRES
pro cuu’yem]?
 1SG fish.NOM
 ‘Where is the cat that ate my fish?’
 (20110627bsfd)
- c. *Mine hii-wes sam’x [ko-nya ke-x pro*
 where 3SUBJ-be.PRES shirt.NOM RP-ACC C_A-1 1SG
’a-sayqi-ca-∅ _]?
 3OBJ-like-IMPERF-PRES
 ‘Where is the shirt that I like?’
 (20130622bs)

As noted in Deal 2016a, nominative is the default case used in Nez Perce for hanging topics, base generated in the left periphery:

- (62) [_{DP} *kii cepeepy’uʔtin*]₁, *pro ’e-cuukwe-ce-∅ haama-na*
 this.NOM pie.NOM 1SG 3OBJ-know-IMPERF-PRES man-ACC
*ke ko-nim paa-ny-∅-a pro*₁.
 C_A RP-ERG 3/3-make-P-REM.PAST 3SG
 ‘This pie, I know the man who made it.’
 (20140825bsfd)

A high origin site for relativization in REs predicts the nominative-only pattern of the RE relative pronoun: if the operator that is relativized in REs originates in the left periphery, it will never be within the syntactic domain in which other cases are assigned. Default case (nominative) is correctly predicted to be the only option available for its morphological encoding.

A final piece of evidence for high relativization in Nez Perce REs comes from the position of relative pronouns. As discussed in Deal 2016a, in ordinary relative clauses, Nez Perce relative pronouns freely alternate between two positions (without semantic consequences). One is a position to the left of C, between C and the NP head, as seen in (63a). I will call this the high position. The other is immediately to the right of C, apparently inside the relative clause, as seen in (63b). I will call this the low position.²⁷

(63) a. High relative pronoun

sam'x̂ [CP *ko-nya* *ke-x* pro 'a-sayqi-ca-∅]
 shirt.NOM RP-ACC C_A-1 1SG 3OBJ-like-IMPERF-PRES
 'the shirt that I like'
 (20140825bsfd)

b. Low relative pronoun

sam'x̂ [CP *ke-x* *ko-nya* pro 'a-sayqi-ca-∅]
 shirt.NOM C_A-1 RP-ACC 1SG 3OBJ-like-IMPERF-PRES
 'the shirt that I like'
 (20140825bsfd)

I show in Deal 2016a that relative pronouns undergo \bar{A} movement regardless of which position they surface in; in both cases, relative-pronoun movement is unbounded, island sensitive, and subject to \bar{A} intervention. In that work I propose that the two options arise due to cyclic movement of relative operators: the relative operator moves through an \bar{A} outer specifier of TP on its way to spec-CP, and it may be pronounced in either position.²⁸ Thus the difference between the two examples above concerns the pronunciation of copies in a movement chain. As to why movement of the relative pronoun transits through spec-TP, in Deal 2016a I argue based on data from English and other languages that TP is a phase in relative clauses. It is notable, then, that in REs, the relative pronoun does not occur in the low position—only in the high one:

²⁷ The careful reader will note that both structures have occurred in the restrictive-relative-clause data presented thus far. Examples with a relative pronoun in the low position can be found in (20b) and (62).

²⁸ Support for a structural distinction between the two relative-pronoun positions comes from the fact that while high relative pronouns can be case attracted, low ones can't. See Deal 2016a.

- (64) pro *lilooy-ca-∅* {*yoχ ke / *ke yoχ*} pro
 1SG be.happy-IMPERF-PRES RP.NOM C_A C_A RP.NOM 3PL
hi-we'np-s-ix-∅.
 3SUBJ-sing-IMPERF-S.PL-PRES
 'I am happy that they are singing.'
 (20180619bsfd)

This follows if the origin site of the relative operator is not within the TP domain: the relative operator does not originate low enough to pass through the TP phase and so cannot be pronounced in spec-TP.

In sum, we have seen in this section that REs not only possess the CP-edge morphology of relative clauses but also show the same island behavior. This confirms that the presence of similar morphology at the edge of REs and relative clauses is not due to a relatively trivial similarity such as shared CP status (as posited by De Cuba 2017). We have also seen that what is relativized is not an argument but rather a functional element originating above the TP domain. This conclusion echoes Arsenijević 2009, Haegeman & Ürögdi 2010, and Caponigro & Polinsky 2011. The reader is referred to Caponigro & Polinsky 2011 for an explicit semantic analysis of this high relativization that may also be applicable to Nez Perce.

6 Relative versus non-relative embedding

Having now seen central aspects of the internal and external syntax of REs in Nez Perce, let us return to the question of why some notional complement clauses but not others appear relative-like. Nez Perce presents us with the opportunity to ask the question internally to a single language, as some but not all notional complement clauses use the RE morphosyntactic strategy. The verbs *neki* 'think' and *hi* 'say/tell' strictly reject this strategy. The complements to these verbs have the morphosyntax of ordinary matrix clauses, as seen in (65). I will call this **simplex embedding**.

- (65) a. pro *hi-neki-se-∅* [(**yoχ ke*)
 3SG 3SUBJ-think-IMPERF-PRES RP.NOM C_A
hi-waaqi-sa-qa watiisx].
 3SUBJ-rain-IMPERF-REC.PAST one.day.away
 'She thinks it was raining yesterday.'
 (20180619bsfd)
 = (48a)

- b. pro *hi-i-caa-qa* [*(*yoχ ke) watiisx*
 3SG 3SUBJ-say-IMPERF-REC.PAST RP.NOM C_A one.day.away
hi-weeqi-∅-ye].
 3SUBJ-rain-P-REM.PAST
 ‘She said it rained yesterday.’
 (20180619bsfd)

With the verb *cuukwe* ‘know,’ the pattern is similar but with a slight nuance. Unlike RE verbs such as *lilooy* ‘be happy’ and *timiipni* ‘remember,’ *cuukwe* ‘know’ typically occurs without RE morphology, as in (66a); the complement looks like a matrix clause. Consultants did on rare occasions accept an RE with this verb, however, and on one documented occasion produced such a structure, (66b).

- (66) a. *Waaqo’* pro *hi-cuukwe-ce-∅* [*hi-weeqi-se-∅*].
 now 3SG 3SUBJ-know-IMPERF-PRES 3SUBJ-rain-IMPERF-PRES
 ‘Now she knows it’s raining.’
 (20080616bs)
- b. %*Weet’u* pro *hi-cuukwe-ce-∅* [*yoχ ke*
 NEG 3SG 3SUBJ-know-IMPERF-PRES RP.NOM C_A
hi-weeqi-sa-qa watiisx].
 3SUBJ-rain-IMPERF-REC.PAST one.day.away
 ‘She doesn’t know it was raining yesterday.’
 (20180619bsfd)

It should be emphasized that structures like (66a), with simplex embedding, are extremely well documented, whereas the status of (66b) is more marginal. A conservative generalization would be that *neki* ‘think,’ *hi* ‘say/tell,’ and *cuukwe* ‘know’ are distinct from the RE verbs discussed so far in this article in that they permit their notional complement clause to lack relative morphology.

We can set aside the idea that the simplex-embedding examples above involve juxtaposition of clauses (or high adjunction) rather than subordination, thanks to the same type of Condition C data reviewed in section 3 for REs. In simplex clauses, like in REs, the matrix subject c-commands the embedded subject:

- (67) a. *Meeli hi-cuukwe-ce-∅* [pro *hi-wixne-nu'*
 Mary.NOM 3SUBJ-know-IMPERF-PRES 3SG 3SUBJ-travel-PROSP
Pasxa-px].
 Boise-to
 'Mary_i knows she_{i/j} will go to Boise.'
 (20170613bsfd)
- b. pro *hi-cuukwe-ce-∅* [*Meeli hi-wixne-nu'*
 3SG 3SUBJ-know-IMPERF-PRES Mary.NOM 3SUBJ-travel-PROSP
Pasxa-px].
 Boise-to
 'S/he*_{i/j} knows Mary_i will go to Boise.'
 Consultant: "It sounds like someone else knows."
 (20170613bsfd)

The contrast between simplex embedding and REs also helps to clarify the relationship of RE morphosyntax to factivity. Using the same methodology applied to REs in section 3, we can confirm that *cuukwe* 'know' is factive, even when this verb does not take relative morphology in its complement. In (68), for instance, a 'know' report is embedded in a conditional antecedent, and consultants conclude that the complement clause is true.

- (68) Linguist: "Suppose you overheard this:
C'alawi sepehiteemenew'et hi-cuukwe-ce-∅ [*'iin*
 if teacher.NOM 3SUBJ-know-IMPERF-PRES 1SG.NOM
k'oomay-ca-∅], *weet'u* pro *hi-cewcew-nuu-yu'-kum* pro.
 be.sick-IMPERF-PRES NEG 3SG 3SUBJ-call-APPL-PROSP-CIS 1SG
 ('If the teacher knows that I am sick, she won't call me.')
- Would you think that person was ill?"
- Consultant: "Well, I would think that person *was* ill. So he or she will not call her, if she knows."
 (20170609bsfd)

Factivity cross-cuts the distinction between REs and simplex embedding. This suggests that the factive behavior of certain notional complements in Nez Perce cannot be uniformly attributed to some aspect of RE morphosyntax.

There are two primary perspectives to be contrasted on the difference between simplex embedding and REs. One is that the split between the two classes of clauses is merely at the surface level. This is the perspective of Kayne 2008, Arsenijević 2009, and Kayne 2014: all notional complement clauses are really relative clauses, underlyingly. The other is that the surface split is indicative of a deeper reality: notional complements with visible relative morphology have relative structures, whereas those without this morphology lack relative structures. Some but not all notional complements are relativization based, then, as proposed by Haegeman & Ürögdi 2010, Caponigro & Polinsky 2011, and Haegeman 2012. I will present two types of arguments for this second type of perspective.

The first comes from a body of evidence showing that simplex complements need not contain an \bar{A} dependency. We saw above that these complements do not require (and in many cases, do not allow) relative pronoun $yo\hat{x}$ plus \bar{A} complementizer *ke*. Furthermore, the complementizer *ke* does not occur by itself on the edges of these clauses; when this configuration is presented to consultants, it is rejected. Consider first a simple structure such as (69), where no visible \bar{A} dependency is present.

- (69) *Beth hi-neki-se-∅ [CP (*ke) Jill-nim*
 Beth.NOM 3SUBJ-think-IMPERF-PRES $C_{\bar{A}}$ Jill-ERG
pee-siw'e-nu' Matt-ne].
 3/3-not.recognize-PROSP Matt-ACC
 'Beth thinks Jill won't recognize Matt.'
 (20140826bsfd)

Ke is also rejected on the edges of simplex clauses when \bar{A} movement passes through these clause edges but does not terminate there:

- (70) a. *Kii hii-wes 'iniit ke yo\hat{x}_1 Jack*
 this.NOM 3SUBJ-be.PRES house.NOM $C_{\bar{A}}$ RP.NOM Jack.NOM
*hi-hi-ce-∅ [CP (*ke-x) 'iin hani-∅-ya _1].*
 3SUBJ-say-IMPERF-PRES $C_{\bar{A}}-1$ 1SG.NOM make-PERF-REM.PAST
 'This is the house that Jack said he built.'
 (20140826bsfd)

- b. *'Ituu*₁ *pro neki-se-∅* [*(*ke-m) taaqc* *pro*
 what.NOM 2SG think-IMPERF-PRES C_Ā-2 soon 3PL
hi-pe-kewyek-u' *pro* *__*₁]?
 3SUBJ-S.PL-feed-PROSP 2SG
 'What do you think they're going to feed you?'
 (20130626bsfd)

Data of this type are discussed in Deal 2016a as evidence that *ke* occurs in the C head in whose specifier \bar{A} movement terminates. If simplex complements contain an \bar{A} dependency parallel to that seen in REs, it is quite surprising that this complementizer cannot appear. The argument is similar to that made by De Cuba 2017 and De Cuba 2023 on the basis of languages such as Swedish and Basque, in which certain complementizers appear in cases of operator movement but are not found in notional complement clauses. All notional complement clauses in these languages behave like Nez Perce simplex embeddings.

Island data yield similar results, as touched on already in section 5. As we saw in that section, REs are strong islands, like relative clauses. Simplex embeddings, however, are not:

- (71) a. *'Isii-ne Meeli hi-neki-se-∅* [*pro pee-x-nu'* *__*]?
 who-ACC Mary.NOM 3SUBJ-think-IMPERF-PRES 3SG 3/3-see-PROSP
 'Who does Mary think she will see?'
 (20170605bsfd)
- b. *'Isii-nm 'im-lawtiwaa-nm hi-hi-n-e* *pro* [*__ 'ee*
 who-ERG 2SG-friend-ERG 3SUBJ-tell-P-REM.PAST 2SG 2SG.CLITIC
hi-'peewi-se-∅]?
 3SUBJ-look.for-IMPERF-PRES
 'Who did your friend tell you is looking for you?'
 (20120713bsfd)
- c. *'Isii-ne Meeli hi-cuukwe-ce-∅,* [*pro 'e-ex-nu'* *__*]?
 who-ACC Mary.NOM 3SUBJ-know-IMPERF-PRES 1SG 3OBJ-see-PROSP
 'Who does Mary know she will see?'
 (20170605bsfd)
- = (57)

data in (72) demonstrate is that this type of argument cannot be made for all simplex complement clauses in Nez Perce: at least some show a total absence of island effects. This fact provides a syntactic counterpart to the morphological evidence seen above concerning the lack of *yoχ* and *ke* in simplex embeddings. Both in morphological terms and in syntactic ones, simplex embeddings show no sign of an \bar{A} dependency in Nez Perce. This strongly suggests that not all notional complement clauses are relativization based in this language.

The second type of data I would like to bring forward is less specific to relativization, though still in support of the overall claim that REs and simplex embeddings are structurally distinct. This is that the two types of embedding constructions present two types of perspectival differences, as discussed in depth in Deal 2025. The first concerns indexical shift (Deal 2014, Deal 2020). Simplex complements to *hi* ‘say/tell,’ *neki* ‘think,’ and *cuukwe* ‘know’ allow shifted readings of local-person pronouns (as well as locative indexicals). In (73), the embedded first-person pronoun *'iin* ‘I’ refers to the embedding attitude holder, Jack, rather than to the speaker. In (74), similarly, the null embedded first-person pronoun subject refers to the embedding attitude holder, Mary. These are “shifty” readings. (\bar{A} movement out of the clause with the shifty pronoun is useful here in ruling out a parse as a clausal quote under ‘say’ or ‘know.’)

- (73) *Kii hii-wes 'iniit ke yoχ₁ Jack*
 This.NOM 3SUBJ-be.PRES house.NOM C \bar{A} RP.NOM Jack.NOM
hi-hi-ce-∅ ['iin hani-∅-ya __₁].
 3SUBJ-say-IMPERF-PRES 1SG.NOM make-PERF-REM.PAST
 ‘This is the house that Jack said he built.’
 (20140826bsfd)

- (74) *'Isii-ne Meeli hi-cuukwe-ce-∅, [pro 'e-ex-nu' __]*?
 who-ACC Mary.NOM 3SUBJ-know-IMPERF-PRES 1SG 3OBJ-see-PROSP
 ‘Who does Mary know she will see?’
 (20170605bsfd)

As discussed in Deal 2020, shifty readings are possible for pronouns in Nez Perce regardless of their case and of whether they are overt or *pro* dropped. What is notable for present purposes is that pronouns cannot receive shifty readings in REs. The only possibility here is a non-shifted reading:

- (75) *pro hi-llooy-n-a* [yoχ *ke-x pro 'iyaaχ-n-a*
 3SG 3SUBJ-be.happy-P-REM.PAST RP.NOM C_A-1 1SG find-P-REM.PAST
pro siloo'ayn].
 1SG.GEN glasses.NOM
 a. ✓ 'She was happy I found my glasses.'
 b. ✗ 'She was happy she found her glasses.'

(20160524fd)

The second perspectival phenomenon that distinguishes these two types of clauses concerns tense. Nez Perce distinguishes three tenses, an unmarked present tense and two marked past tenses, recent *qa* and remote *ne*. In simplex embedding, tense receives a relative reading: a tense indicates the temporal relation between the events of the embedded clause and the “internal now” of the attitude. In an intuitive sense, this means that the embedded tense matches the tense that would be used if the attitude holder themselves were to make an assertion. For a simultaneous reading of the embedded clause, embedded present tense must be used. This behavior of tense is perhaps familiar from languages such as Japanese, Hebrew, and Russian (Ogihara & Sharvit 2012, Sharvit 2018). Consider (76). Here we begin by establishing what Mary says at a certain point in the past (day 1). When reporting her speech the next day, the recent past tense is used for the matrix verb, since the speech itself is in the recent past. The embedded clause, however, is in the present tense, since the rain time overlaps the “internal now” of Mary’s speech report. As (76b) shows, the simultaneous reading cannot be expressed with a tense that matches the matrix tense; embedded present tense is the only option. (One way of describing these facts is in terms of the absence of sequence of tense.)

(76) Context:

On day 1, Mary says:

pro hi-weeqi-yuu-se-∅ pro.
 3SG 3SUBJ-rain-APPL-IMPERF-PRES 1SG
 ('It's raining on me.')

On day 2, I say to you:

- a. ✓ *Meeli hi-i-caa-qa* [pro
Mary.NOM 3SUBJ-say-IMPERF-REC.PAST 3SG
hi-weeqi-yuu-se-∅ pro].
3SUBJ-rain-APPL-IMPERF-PRES 1SG
(‘Mary said it was raining on her.’)
- b. ✗ *Meeli hi-i-caa-qa* [pro
Mary.NOM 3SUBJ-say-IMPERF-REC.PAST 3SG
hi-weeqi-yuu-sa-qa pro].
3SUBJ-rain-APPL-IMPERF-REC.PST 1SG

(20170607bsfd)

Tense in REs is different. Consider the near-minimal pair in (77). Example (77a) is a simplex embedding, as above, and embedded present tense is used for a simultaneous reading. Example (77b), however, is an RE. Here present tense *cannot* be used, and the simultaneous reading is expressed with a tense that matches that of the matrix clause.

- (77) a. pro *hi-weeqi-se-ne* *met’u Meeli weet’u*
3SG 3SUBJ-rain-IMPERF-REM.PAST but Mary NEG
hi-cuukwe-ce-ne [pro *hi-weeqi-se-∅*].
3SUBJ-know-IMPERF-REM.PAST 3SG 3SUBJ-rain-IMPERF-PRES
‘It was raining but Mary didn’t know that it was raining.’
(20170612bsfd)
- b. pro *hi-weeqi-se-ne* *met’u Meeli weet’u*
3SG 3SUBJ-rain-IMPERF-REM.PAST but Mary.NOM NEG
hi-cciwaay-n-a [yoχ *ke* pro
3SUBJ-be.surprised-P-REM.PAST RP.NOM C_A 3SG
✓ *hi-weeqi-se-ne* / ✗ *hi-weeqi-se-∅*].
3SUBJ-rain-IMPERF-REM.PAST 3SUBJ-rain-IMPERF-PRES
‘It was raining but Mary wasn’t surprised that it was raining.’
(20170612bsfd)

I argue in Deal 2025 that the simultaneous reading of embedded tense in REs reflects a *de re* reading of tense (Abusch 1997, Sharvit 2018), rather than the application of a sequence-of-tense rule.³⁰

Why should it be that simplex embedding and REs diverge in terms of indexical shift and relative readings of tense? What does this tell us in particular about the syntax of these clauses? In Deal 2025, addressing the semantics of the two clause types, I argue that they denote different types of objects (sets of perspectival tuples in the case of simplex embeddings, sets of possible worlds in the case of REs), and I derive the perspectival differences from this distinction. Without entering into the details of that analysis, I would like to highlight the following consequence. The principle of compositionality requires that the meaning of a constituent arise strictly from the meanings of its parts and the way those parts are arranged. A standard understanding is that “the way those parts are arranged” is to be understood in terms of natural-language syntax. Given this, if a simplex complement and a relative complement have different meanings, they must contain different syntactic pieces and/or structures—they cannot be merely *phonologically* different.³¹ This confirms the impression from the morphology of the clause edge and from island effects and their absence, as reviewed above: REs have a distinct syntactic profile in Nez Perce, in a way that strongly suggests that not all complementation structures in the language involve relative clauses.

7 Conclusions and prospects for cross-linguistic variation

The picture of REs in Nez Perce that has taken shape in this article is one where they have a limited distribution (i.e., not all notional complement clauses are REs) and a mix of relative-like and non-relative-like syntax. The central property of REs that is similar to relative clauses is the presence of an \bar{A} dependency. A core difference

³⁰ In light of this analysis, we expect sentences like (56a), with present tense inside the complement of a past-tense RE verb, to have what has been called a “double-access” reading (Abusch 1997), much like its English translation *Mary was surprised that someone is singing*. (Note that the sentence suggests that the singing obtains both when Mary is surprised (in the past) and at the moment of utterance (in the present)—hence the “double access.”).

³¹ Alternative accounts of the perspectival differences point to the same conclusion, as far as I can see. In view of the idea that indexical shift arises from operators that merge at the left periphery of the clause (Anand & Nevins 2004, Anand 2006, Shklovsky & Sudo 2014, Deal 2020), one might for instance seek to connect the absence of indexical shift in REs with the idea that certain factive clauses have an impoverished left periphery (Haegeman 2006, De Cuba 2007) and/or that relative clauses do (Caponigro & Polinsky 2011). It remains true on this type of view that REs and simplex embeddings are syntactically different.

is that relative clauses occur inside nominal projections, whereas REs lack nominal superstructure. As noted in the introduction, Hanink & Bochnak 2017 argues that in Washo, the apparent similarity between relative clauses and certain notional complement clauses is simply due to nominalization; the morphology shared across the two lexicalizes D. The Nez Perce RE data support the opposite type of conclusion: the similarity between relative clauses and notional complement clauses in this language is indicative of \bar{A} movement but not a DP layer. This contrast between Washo and Nez Perce makes it clear that relative clauses and notional complement clauses may appear morphosyntactically similar for different reasons and thus that a proper understanding of the behavior of REs across languages will require detailed engagement with cross-linguistic data. The data that are available at this point clarify several dimensions of variation in connection with relative-like notional complement clauses within and across languages.

One important dimension of variation was touched on already in section 4. There I argued that Nez Perce REs are CPs: they do not behave like DPs in distributional terms or for case or agreement. This is in direct contrast with their counterparts in Adyghe, which behave like DPs distributionally and in terms of case and agreement (Caponigro & Polinsky 2011). Nez Perce REs also do not behave like PPs in terms of distribution or case. This is in contrast to their counterparts in Bulgarian (Krapova 2010). The contrasts among these three languages show that languages may place varying amounts of functional superstructure on top of the core CP that constitutes an RE. Nez Perce illustrates a sort of “minimal” RE with no additional structure above CP. Adyghe adds N and D projections. Bulgarian adds D and P projections. While these three languages have in common the presence of an \bar{A} dependency internal to the CP, the same range of options is attested for CPs that do not contain an \bar{A} dependency. In Nez Perce simplex embeddings (and in English), a CP lacking an internal \bar{A} dependency may occur as the notional complement of a verb, where N and D are absent; in English, such a CP may occur as the notional complement of a noun inside a DP (or perhaps in the type of DP shell with an N co-argument envisioned by Hankamer & Mikkelsen 2021). CP under D under P (absent any \bar{A} dependency) occurs in Ndebele, where CPs are systematically wrapped in a DP layer (Pietraszko 2019), as (78) illustrates; similar structures are also possible in Washo (Bochnak & Hanink 2021: 987).

- (78) Ndebele³²
Si-khuluma [PP *nga* [DP *u-kuthi abantu babambane*]].
 1PL.SUBJ-talk about AUG-15.COMP people be.united
 ‘We are talking about the fact that people are united.’
 (Pietraszko 2019: 75)

The following table summarizes this range of variation.³³

- (79) Internal and external syntax of notional complement clauses

| | \bar{A} dependency in CP (RE) | No \bar{A} dependency in CP |
|-----------------|---------------------------------|---|
| V CP | Nez Perce REs | Nez Perce simplex embedding, English simplex V complementation |
| V D N CP | Adyghe REs | English N complementation |
| V P D CP | Bulgarian REs | Ndebele embedding |

The typological picture makes clear that CPs built with relativization of a high functional position, as in Nez Perce, Adyghe, and Bulgarian, behave cross-linguistically like other CPs in the range of larger structures in which they can occur. This is largely what syntactic theories predict: the internal syntax of a clause does not predict its external syntax.

Another dimension of variation concerns factivity. We have seen that in Nez Perce, all REs are factive but not all factives are REs. A similar situation holds in Bulgarian, according to Krapova 2010. Factivity thus cross-cuts the distinction between notional complements that do and don’t have the morphosyntax of \bar{A} extraction. Such data show that RE syntax is not necessary to ensure factivity (and thus cast doubt on the idea that factivity and related semantic notions, e.g., CP “referentiality,” can be used to diagnose RE syntax, *pace* Haegeman & Ürögdi 2010). Caponigro & Polinsky 2011: 115 reports that in Adyghe, all notional complementation uses the RE strategy, regardless of factivity. This shows that RE syntax by itself is not sufficient to ensure factivity. The overall picture is one where factivity and RE syntax vary independently to at least some extent:

³² Glossing abbreviations: AUG augment, COMP complementizer, 1PL.SUBJ first-person-plural subject, 15 noun class 15.

³³ The possibility of V D CP (lacking N) has also been defended in the literature, for example, for Washo (Bochnak & Hanink 2021); I would expect this to be possible in an RE as well, though I do not have an example language for this combination of properties.

(80) RE structure versus factivity

| | \bar{A} dependency in CP (RE) | No \bar{A} dependency in CP |
|--------------------|---------------------------------|-------------------------------|
| Factive | Nez Perce REs | Nez Perce, English ‘know’ |
| Not factive | Adyghe REs | Nez Perce, English ‘think’ |

The same dissociation holds for factivity and nominalization, as summarized in (81): Nez Perce REs are factive but not nominal, whereas Turkish allows nominalized complements that are not factive, for example, with verbs like *düşün-* ‘think’ (Özyıldız 2017).

(81) Nominalization versus factivity

| | Nominalization of CP | No nominalization of CP |
|--------------------|----------------------|---------------------------------|
| Factive | Washo ‘forget’ | Nez Perce REs, e.g., ‘be happy’ |
| Not factive | Turkish ‘think’ | Washo, Nez Perce ‘think’ |

The (imperfect) correlation between these factors could have its source in a diachronic pathway, as Krapova 2010: 1266 suggests. Alternatively, it could be that some specific property of REs as instantiated in Bulgarian and Nez Perce is connected to the generation of a factive inference, though future research would be required to ascertain exactly what this is.

A final potential source of variation in REs concerns the precise origin site of the relative operator. The conclusion reached in section 5 was that this operator must originate in a functional position above the TP in Nez Perce. This largely converges with the view from previous work, in particular Caponigro & Polinsky 2011’s treatment of Adyghe. It contrasts, however, with the idea from Aboh 2005 and Aboh 2010 that what is relativized in Gungbe REs bears an event-related feature found lower in the clause on lexical material. We saw in section 5 that Gungbe REs allow fronting of the object and doubling of the embedded verb (possibilities that are ruled out in Nez Perce REs):

(82) Gungbe

- a. [Àgásá₁ ló lé dǽ mí wlé __₁] vé ná Kòfi.
 crab DET NUM that.REL 1PL catch hurt for Kofi
 ‘The fact that we caught the crabs hurt Kofi.’

- b. [Wlé₁ dĕ mí wlé₁ àgásá ló lĕ] vé ná Kòfí.
 catch that.REL 1PL catch crab DET NUM hurt for Kofi
 ‘The fact that we caught the crabs hurt Kofi.’
 (Aboh 2005: 274)
 = (58)

One tricky consequence of positing relativization from a high, functional projection is that the direct evidence of that relativization might be null. That is, without the relative C head and visible relative pronoun of Nez Perce or the distinctive \bar{A} verb morphology of Adyghe, one might entirely miss the presence of an \bar{A} dependency in the relevant contexts in these languages. An intriguing possibility raised by these considerations is that Gungbe may not actually be so different from Nez Perce and Adyghe as it initially seems. It could be, for instance, that a high functional projection is relativized in (82) but that this relativization occurs in a structure wherein a *different* head in the left periphery drives overt movement of the object or verb. This might be a focus-related head, given the intuitions about “emphasis” in these examples that Aboh reports.³⁴ Certainly, further research is required to assess the plausibility of this analysis.

This possible analysis brings us back to the contrast between English notional-complement-clause and relative-clause structures with which the article began. English is a language in which C lacks a visibly relative form and in which relative pronouns can be null. Could it be, then, that notional complement clauses in this language do contain an \bar{A} dependency? Our exploration of Nez Perce suggests two main responses to this type of suggestion. The first is simply that the relatively programmatic views that would force this type of analysis (Kayne 2008, Arsenijević 2009, Kayne 2014) cannot be maintained. Given that not *all* notional complement clauses are relative clauses, the attraction of a relative-clause analysis of data like (1a) is diminished. The second response centrally features island effects: if English notional complement clauses are relative clauses, they should show relative-clause-like island effects (as REs do in Nez Perce). But this is not so; English notional complement clauses instead behave like Nez Perce simplex complements in lacking even weak-island behavior. This provides English-internal confirmation of a non-relative structure in at least some notional complement clauses.

³⁴ An alternative possibility sketched by Bhatt 2010 is that the relevant Gungbe clauses are sentential subjects inside of which a constituent is topicalized.

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Ethics and consent

Collaborative research with Nez Perce speakers was approved by the Committee for Protection of Human Subjects of the University of California, Berkeley under protocol 2016-05-8758, by the Institutional Review Board of the University of California, Santa Cruz under protocol HS2203, and by the Institutional Review Board of the University of Massachusetts Amherst under protocol OGCA 109-0075.

Competing interests

The author declares that they have no competing interests.

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