PREDICATE-SENSITIVE EPP[*]

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In this paper, I make three main claims: First, that there are two feature sets that can check the Extended Projection Principle (EPP) cross-linguistically: nominal and predicate features. Second, that three EPP types that have been proposed in the literature (the VP-EPP of Niuean, the √-EPP of Inuktitut, and the V°-EPP of Irish) are all united as one type, which I call predicate-EPP. Finally, that although a variety of verbal constituents sometimes check the EPP, verbal features themselves are not able to check the EPP.

The Extended Projection Principle (EPP) was first proposed by Chomsky (1981, 1982) to account for why a subject is obligatory in initial position in English clauses. For this paper, I define the EPP as the obligatory move of some element into the inflectional domain. Throughout the years, a variety of EPP types have been identified cross-linguistically. Massam and Smallwood (1997) argue that the EPP in Niuean is checked by VPs, and Davies and Dubinsky (2001) argue for a contrast between D- and V-prominent EPP. Meanwhile, Alexiadou and Anagnostopoulou (1998) argue that the EPP can vary in the size (X° or XP) of the element that checks it by considering Greek and Romance, and Richards and Biberauer (2005) propose that the EPP pied-pipes the entire *v*P in several Germanic languages. Johns (2007) argues for a √-EPP in Inuktitut. However, few researchers have attempted an in depth comparison of EPP effects across multiple language families — most focus on just one language or language class, and perhaps compare it to English. In this paper, I will compare the EPP types that involve the raising of verbal constituents in a variety of languages, and show that they are not uniform, but rather, have the range of variation presented in Table 1. Each row in the table represents a different goal for the EPP probe, whether a D feature found on the verbal head, a DP, or the entire predicate. The two columns, on the other hand, represent the contrast between raising the entire *v*P, as occurs in the maximal pied-piping languages, and raising a smaller constituent. Note that the EPP type exemplified by English is the only one that does not normally result in the raising of a verbal constituent.

This paper is structured as follows. In section 1, I will describe the properties of the languages which have an EPP checked by predicate features. This will be followed by a description of several other EPP types that are characterized by verb-raising in sections 2 and 3. In section 2, I will describe the properties of languages which have an EPP checked by nominal features found on the verb head (D-on-V languages), following Alexiadou and

	Min Pied-Piping	**Max Pied-Piping**
D-on-V	Greek, Italian (A&A 1998)	German, Icelandic (R&B 2005)
DP	English	Dutch, Afrikaans (R&B 2005)
Predicate	Celtic (except Breton) (Biberauer 2010)	Niuean (M&S 1997)

Table 1: The EPP Typology

Anagnostopoulou (1998), while in section 3, I will describe the languages which have an EPP checked by nominal features by pied-piping the entire *v*P, as argued by Richards and Biberauer (2005). Finally, in section 4, I will show how two languages which have verb raising but also require a DP in the specifier of TP, Finnish and French, do *not* have the properties of the languages in which the EPP is checked by raising a verbal constituent. Section 6 concludes.

1.   Predicate EPP

A verb-sensitive EPP has been proposed for several languages, including Irish, Inuktitut, and Niuean, in which the raised constituent does not necessarily contain any nominal features. I argue that, in these languages, the EPP probes for the predicate, based on two observations. First, as already stated, the raised constituent does not necessarily include nominal features. Second, non-verbal predicates belong to the class of constituents that raise, while functional verbal elements, such as auxiliaries, light verbs, and the copula, do not belong to the class of constituents that raise (unlike for verb-raising in French and Finnish).

In Niuean, for example, phrasal predicate-raising occurs and checks the EPP (Massam and Smallwood, 1997), although the verbs do not agree with the subject, nor is there always a nominal in the fronted constituent (1-b).[1] Even in the Pseudo Noun Incorporation structure in (1-a), the object nominal is a bare NP and is argued to not contain any [D] features (Massam, 2001). Thus, there is never an overt [D] feature in the fronted constituent.

(1)   a.   [$_{v}$P Takafaga ika] tūmau nī   a   ia.
             hunt   fish always EMP ABS he
          'He is always fishing.'

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[1]The glossing abbreviations used in this paper are as follows: 1,2,3=first, second, third person, 3s=third person subject, ABS=absolutive, ART=article, COMP=complementizer, COND=conditional, DEC=declarative, DET=determiner, DIST.PST=distant past, EMP=emphatic, ERG=ergative, EXPL=expletive, FOC=focus, FUT=future, GEN=genitive, INST=instrumental, INTR=intransitive, LOC=locative, M=masculine, NEG=negation, NFIN=non-finite, NOM=nominitive, PAR=partitive, PART=participial mood, PL=plural, POS=possessive, PRED=predicate, PRES=present, PST=past, PST.PTPL=past participle, SG=singular, SBJ=subjunctive TT=theme topic.

b.   Takafaga tūmau nī   e   ia e   tau ika.
        hunt   always EMP ERG he ABS PL   fish
        'He is always fishing.'   [Niuean; Massam 2001: 157]

Likewise, Biberauer (2010) suggests that verbs in Celtic languages,[2] which raise to T, also likely check the EPP. However, verbs in Irish appear without subject agreement in a variety of contexts, as in (2), which indicates that the EPP cannot be checked by nominal features in these cases.

(2)   Leanann   an t-ainmní an briathar i nGaeilge
          follow.PRES the subject   the verb   in Irish
          'The subject follows the verb in Irish.'   [Irish; Harley and Carnie 1997]

Finally, Johns (2007) proposes a √-EPP for Inuktitut, which is manifested by the verb root appearing initially in the verbal complex, as in (3). Although Inuktitut has rich agreement, the nominal features of the suffix are not part of the constituent that raises, and do not participate in EPP-checking.

(3)   Niri- gaju-   lau-   nngit- tunga.
          eat-   always- DIST.PST- NEG-   DEC.1SG
          'I wasn't always eating.'

                  [Inuktitut (North Baffin); Compton and Pittman 2010: 2172]

Since the constituents that raise in Irish, Inuktitut, and Niuean do not necessarily contain nominal features, the EPP cannot be probing for a nominal feature such as [D] in these languages.

In all three of these languages, it can be shown that these are in fact predicates which raise, rather than verbs, particularly. For example, in the Niuean example in (4), a locative predicate may front to initial position instead of a verbal constituent, while in the Irish example in (5), a nominal predicate fronts. Note that Carnie argues that the *is* particle in Irish is in C, while Massam argues that the Niuean particle *ko* is not a verb, but is instead probably a preposition.

(4)   [Ko e   fale   ke lima aki] e   fale   i   ko.
          PRED ABS house SBJ five   INST   ABS house LOC there
          'That house over there is the fifth house.'   [Niuean; Massam 2005]

(5)   Is [fear mór] Seán
          C man big   John
          'John is a big man.'   [Irish; Carnie 1995: 203]

Likewise, Johns (2007) demonstrates that light verbs are unable to check the EPP in Inuktitut. In clauses with light verbs, a noun root must take the initial position in the verbal

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[2]Except Breton (see Jouitteau 2005).

complex instead, resulting in constructions like the one in (6-a) or even the insertion of the √-expletive *pi* in (6-b). This demonstrates that it is the root material and not the verbal functional material that is crucial for EPP-checking in Inuktitut.

(6)   a.   Saali ilisaiji- u- juq
            Sally teacher- be- INTR.PART.3S
            'Sally is a teacher.'   [Inuktitut (Mittimatalingmiutitut); Johns 2007: 548]

       b.   Pi-   qa-   nngit- tuq
            EXPL- have- NEG-   INTR.PART.3S
            'He has nothing.'   [Inuktitut (South Baffin); Johns 2007: 559]

Davies and Dubinsky (2001) provide evidence for a contrast between D-prominent languages like French and English and V-prominent languages such as Bulgarian and Russian, showing that non-nominal subjects of V-prominent languages do not necessarily have nominal properties, in contrast to French and English, as shown in Table 2. This seems similar to the contrast I propose between nominal- and predicate- sensitive EPP here.

Properties of non-NP subjects	D-prominent (English/French)	V-prominent (Bulgarian/Russian)
obligatory raising of non-NP subjects	YES	n/a[3]
agreement with coordinated non-NP subjects	YES	NO
non-NP subjects license emphatic reflexives	YES	NO
non-NP subjects license plural adverbs	YES	n/a
non-NP subjects are extraction islands	YES	NO

Table 2: Properties of D- and V-prominent languages (Davies and Dubinsky 2001: 268)

Likewise, they also show that non-nominal subjects in verb-initial languages such as Malagasy also do not have nominal properties. For example, conjoined non-nominal subjects do not license the plural adverb *samy*, as shown in (7).

(7)   *Samy mahasosotra an'i Soa [CP fa   nihira   mafy i   Bozy ary (fa)
        each annoy   ACC Soa   COMP PST.sing hard DET Bozy and COMP
        nitabataba   i   Be].
        PST.make.noise DET Be
        'Both that Bozy sang loudly and that Be made a lot of noise annoyed Soa.'

                            [Malagasy; Davies and Dubinsky 2001: 270]

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[3]Davies and Dubinsky (2001) note that if their proposed contrast between D- and V-prominent languages is right, then it is not surprising that Bulgarian and Russian lack raising structures. This fits with the generalization I make below based on Irish, Inuktitut, and Niuean that predicate-sensitive EPP languages have defective non-finite clauses in some sense, but more research is needed in this area.

Additionally, subjects in Malagasy are not islands for extraction, as shown in (8), where *oviano* 'when' has scope over either the matrix or the embedded predicate.

(8)   Oviano no nolazain -dRabe   fa   nanasa   lamba Rakoto?
         when   FOC PST.TT.say -GEN.Rabe COMP PST.wash cloth Rakoto
         'When was that Rakoto washed clothes said by Rabe?'

[Malagasy; Davies and Dubinsky 2001: 270]

Malagasy, an Austronesian language very similar to Niuean, also likely has predicate-sensitive EPP. Although further research into the other V-prominent languages discussed by Davies and Dubinsky (2001) is needed, the Malagasy data, at least, provides further corroboration for a fundamental difference between languages with a nominal EPP compared to a predicate EPP.

2.   D-on-V EPP

Alexiadou and Anagnostopoulou (1998) first present the idea of D-on-V EPP languages. According to their proposal, alongside the move-XP variety of EPP-checking found in English, there are languages parametrized as move-X°.[4] Under their analysis, the well-known properties of consistent null subject languages, such as the ability to drop subjects, the lack of expletives, the availability of free inversion, and the presence of rich agreement, are all explained by an alternative EPP-checking strategy, which I will refer to as D-on-V EPP.

In D-on-V EPP languages, the EPP is checked by rich agreement features on the verb, which are specified with a [D] feature.[5] This [D] feature is able to check the EPP since the verb undergoes head movement to T. Rich agreement is correlated with this type of language, since the [D] feature is morphologically realized as rich agreement. Phrasal subjects are not needed to check the EPP, and so they are freely able to remain in a VP-internal or other low position, allowing for the possibility of free inversion structures, and, in fact, the subject can be dropped altogether in certain discourse conditions.

Alexiadou and Anagnostopoulou (1998) argue, furthermore, that all preverbal subjects in D-on-V languages are in an A'-position through Clitic Left Dislocation (CLLD). This is demonstrated below for Greek, and contrasted with French, a DP-EPP language with verb-raising. For one, Alexiadou and Anagnostopoulou (1998) show that adverbs may intervene between the preverbal subject and the verb, as in (9-a), unlike in French (9-b), suggesting that the verb and the subject are not in the same projection.

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[4]Alexiadou and Anagnostopoulou (1998) also note that Svenonius (1996) and Pollock (1996) both also proposed head-movement EPP analyses of two other phenomena.

[5]They propose that the agreement morphemes are specified with a [D] feature to parallel Chomsky (1995)'s characterization of the EPP as a strong [D] feature on T. There is, as far as I am aware, no direct evidence of a [D] feature. Thus, the agreement morphemes could just as easily be analyzed as having φ-features that are able to check the EPP, which might be appropriate under different characterizations of the EPP.

(9)   a.   O Petros xtes   meta apo poles prospathies sinandise ti Maria.
                Peter   yesterday after from many efforts   met   Mary
                'After many efforts, Peter met Mary yesterday.'

                                [Greek; Alexiadou and Anagnostopoulou 1998: 502]

        b. *Jean probablement/ hier   a   rencontré Marie.
            John probably   yesterday has met   Mary
            'John (probably) met Mary (yesterday).'

                                  [French; Alexiadou and Anagnostopoulou 1998: 503]

In fact, subjects can even precede entire *if*-clauses.

(10)   Epidi   o Petros [an erthi i Maria] tha figi.
           because Peter   if comes Mary   FUT leave
           'Because if Mary comes, Peter will leave.'

                              [Greek; Alexiadou and Anagnostopoulou 1998: 503]

Besides the distributional facts presented above, Alexiadou and Anagnostopoulou (1998) also demonstrate that preverbal subjects have unambiguous wide scope, as expected if they had raised as a result of A'-movement.

      Alexiadou and Anagnostopoulou (1998) also argue that *pro*-drop Romance languages share the same EPP type as Greek, using data from Spanish as their main source of evidence. However, there have been objections raised with regards to their analysis of the properties of preverbal subjects in Spanish (e.g., Goodall 2001).Their arguments regarding Greek, on the other hand, seem much stronger, and as far as I am aware, have not been contested.

3.   Pied-Piping

Richards and Biberauer (2005) and Biberauer and Richards (2006) argue that pied-piping the entire *v*P to check the EPP should be equally as economical as raising either the *v*°-head or the specifier of *v*P, and they demonstrate that many Germanic languages employ this option. Allowing for pied-piping creates two more EPP-types: DP-EPP with pied-piping, which occurs in Dutch and Afrikaans, and D-on-V EPP with pied-piping, which occurs in German and Icelandic. I summarize their findings below.

      First, let us consider DP-EPP with pied-piping. Just as with languages such as English and French, these languages require a phrasal subject, resulting in the insertion of an expletive, if necessary. However, the phrasal subject must be in the specifier of *v*P instead of TP, and the entire *v*P, in turn, is in the specifier of TP, as illustrated by the trees in (12). Consider the Afrikaans example in (11). The expletive *daar* must be inserted when the subject *'n skip* 'a ship' has not raised, as in (11-a), and, in fact, *cannot* be inserted when subject-raising has occurred, as in (11-b), parallel to the distribution of expletives and subjects in existential constructions in English.

(11)   a.   ... dat *(daar) gister   [DP ’n skip] gesink het.
              that EXPL   yesterday   a ship sunk has

       b.   ... dat (*daar) [DP ’n skip] gister   gesink het.
              that EXPL   a ship yesterday sunk has
             ‘...that a ship sank yesterday.’ [Afrikaans; Richards and Biberauer 2005: 142]

This is shown in the trees below.

(12)   a.
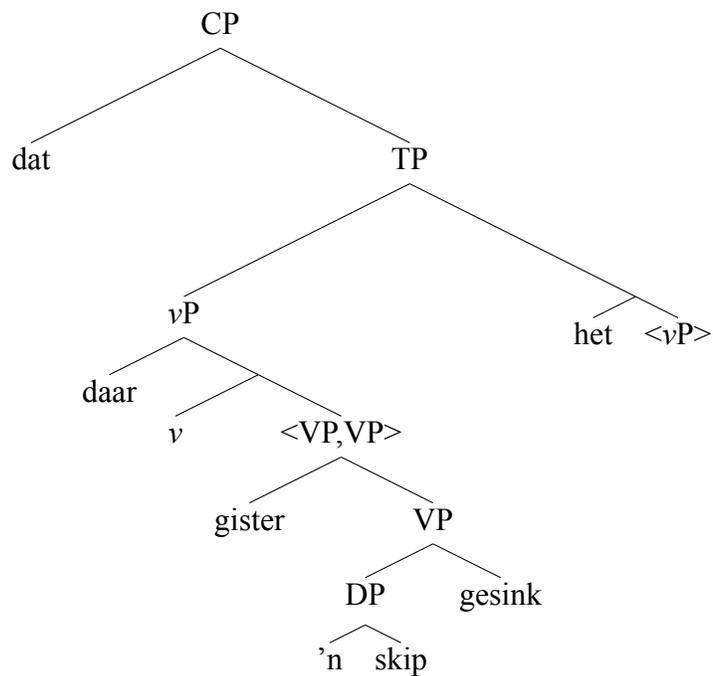
    b.
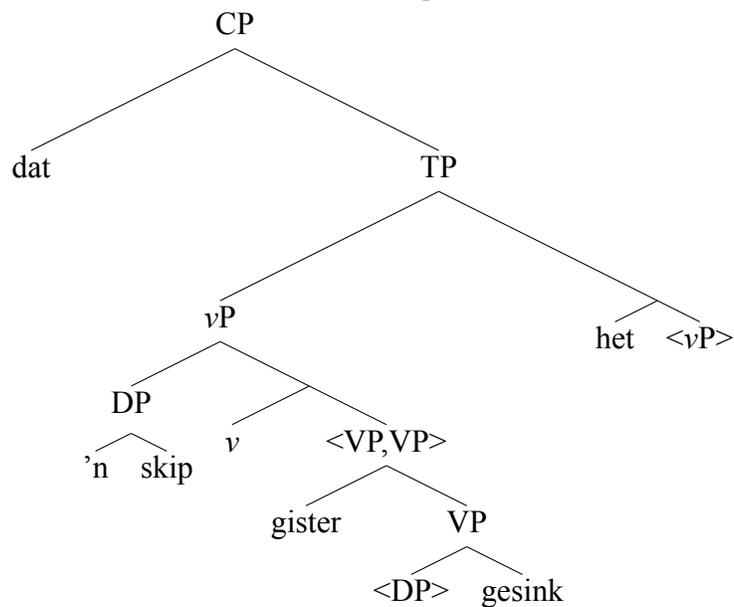
On the other hand, D-on-V EPP languages with pied-piping are also characterized by raising the entire *v*P to the specifier of TP. However, in these languages, there must not necessarily be a subject, but rather, rich verbal inflection is required, much like it is required in Greek, as described in section 2. Richards and Biberauer (2005) argue that this type of EPP satisfaction occurs in both German and Icelandic.[6] Both German and Icelandic in fact seem to bar expletive insertion in spec,TP and spec,*v*P, allowing expletives only in spec,CP, as shown in (13)-(14). In the (b) examples, the word for 'yesterday' is topicalized in spec,CP, which precludes the insertion of an expletive.

(13) a. Es   wurde getanzt.
          EXPL became danced
          'There was dancing.'

      b. Gestern   wurde (*es) getanzt.
          yesterday became EXPL danced
          'Yesterday there was dancing.' [German; Richards and Biberauer 2005: 126]

(14) a. Það hefur komið strákur.
          EXPL has   come boy
          'There came a boy.'

      b. Í gær   hefur (*það) komið strákur.
          yesterday has   EXPL come boy
          'Yesterday there came a boy.' [Icelandic; Richards and Biberauer 2005: 126]

Richards and Biberauer (2005) demonstrate that the loss of rich inflection coincides with the start of systematic use of the expletive in a variety of Germanic languages, including Dutch and Afrikaans, providing further evidence that rich inflection was necessary for checking the EPP, and was replaced with a requirement for overt phrasal subjects.

4. When Verb-Raising does not Check the EPP

We have now seen three varieties of EPP which are satisfied by the raising of a verbal constituent: (a) the movement of a predicate, as discussed in section 1, (b) the head movement of a verb which bears nominal features, discussed in section 2, and (c) the pied-piping of a *v*P that contains nominal features in either its specifier or its head, in section 3. However, there are languages such as French and Finnish, which require a DP subject, much like English, although they also exhibit verb-raising. In this section, I discuss why verb-raising

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[6]There have been a variety of EPP types proposed for Icelandic over the years, in Davies and Dubinsky (2001), in Alexiadou and Anagnostopoulou (1998), in Holmberg (2000), and more. Rosengren (2002) shows that there are quite a few differences between Icelandic and German and attributes these differences to differing EPP properties. Her analysis of German seems to corroborate Richards and Biberauer (2005)'s, but her analysis of Icelandic is contrary to it (although the data she presents may be compatible with a pied-piping analysis).

might be insufficient for checking the EPP in these languages.

In the French and Finnish examples below, we see that the verb raises to a position above adverbs such as *souvent* 'often,' or *ehkä* 'perhaps' in the (a) examples, and in the (b) examples, we see that the insertion of an expletive is obligatory, indicating a requirement for a DP subject.[7] Furthermore, Davies and Dubinsky (2001) demonstrate that, in French, non-nominal subjects have many properties of DPs, indicating that, in French, the EPP is checked by a DP.

(15) a. Jean embrasse   souvent Marie.
          John kiss.3SG.PRES often   Mary
          'John often kisses Mary.'   [French; Pollock 1989: 367]

      b. Il   est arrivé trois filles.
          EXPL is   arrived three girls
          'There have arrived three girls.'   [French; Burzio 1986: 85]

(16) a. Jussi (?ehkä) osta-a (ehkä) sen   kirja-n.
          Jussi   buy-3SG perhaps 3SG.GEN book-GEN
          'Jussi will perhaps buy that book.'   [Finnish; Holmberg et al. 1993: 194]

      b. Sitä meni   nyt hullusti.
          EXPL go.PST.3SG now crazily
          'Now things went wrong.'   [Finnish; Holmberg 2005: 541]

Thus, either these languages require two separate EPP-triggered movements, for some reason, or verb-raising is insufficient for checking the EPP. I argue for the latter.

Unlike Irish, Inuktitut, and Niuean, the French and Finnish requirement for verb raising is truly a requirement for verbs, rather than predicates. In both these languages, non-verbal predicates do not raise, but functional verbal elements like light verbs, auxiliaries, and modals do. For example, in the Finnish examples in (17), BE (17-a), the negative auxiliary *ei* (17-b), and the light verb *alkaa* 'to begin' (17-c) can raise. In all three examples, that the functional verb raises is apparent because it appears before the adverbs *kyllä* 'indeed' in (17-a) or *ehkä* 'perhaps' in (17-b&c).

(17) a. Nyt on   kyllä mennyt   hullusti.
          now be.3SG indeed go.PST.PTPL.SG crazily
          'Things have indeed gone wrong.'   [Finnish]

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[7]Not all dialects of Finnish have DP expletives; however, there is evidence even in those varieties that DP-raising is required. See Doner (2015) for more details.

b.   Jussi ei   ehkä   osta sitä   kirjaa.
    Jussi NEG.3SG perhaps buy 3SG.PAR book.PAR
    'Jussi won't maybe buy that book.'   [Finnish]

c.   Nyt alkoi   ehkä   mennä huonosti.
    now begin.PST.3SG perhaps be.NFIN wrongly
    'Maybe things began to go wrong now.'   [Finnish]

Likewise, the auxiliary HAVE raises in the French example in (18-a), while the light verb *lancer* 'to throw' raises in (18-b).

(18)   a.   Il a   souvent mangé des   pommes.
           he has often   eaten   of.the apples
           'He has often eaten apples.'

     b.   Les   États-Unis lanceront   toujours des   attaques contre les
           the.PL US   throw.FUT.3PL always of.the attack.PL against the.PL
           pays   soupçonnés   de soutenir   le   terrorisme.
           country.PL suspect.PAST.PTPL.PL of support.NFIN the.M terrorism
           'The United States will always start attacks against the countries suspected of
           supporting terrorism.'   [French; J. Carrier, p.c.]

In contrast, non-verbal predicates do not raise in French, as shown below. The (b) examples in (19)-(20), show that raising the entire *v*P is ungrammatical, while the (c) examples show that raising the predicative noun or adjective alone is also ungrammatical.

(19)   a.   Jean est   un professeur.
           John is.3SG a.M teacher
           'John is a teacher.'

     b.   *Est   un professeur Jean.
           is.3SG a.M teacher   John

     c.   ?Un professeur est   Jean.
           a.M teacher   is.3SG John   [French; J. Carrier, p.c.]

(20)   a.   Jean est   drôle.
           John is.3SG funny
           'John is funny.'

     b.   *Est   drôle Jean.
           is.3SG funny John

   c. *Drôle est   Jean.
       funny is.3sg John   [French; J. Carrier, p.c.]

Likewise, as shown in (21), non-verbal predicates do not raise in Finnish.

(21)   a.   Olen   onnellinen.
                be.1sg happy.nom
                'I am happy.'

        b.   Olen   lääkäri.
                be.1sg doctor.nom
                'I am a/the doctor.'   [Finnish; R. Craioveanu][8]

We can see from examples (19)-(21) that predicates do not raise in French and Finnish, but rather, as shown in (17)-(18), a verbal element raises. This contrasts with languages like Irish, Inuktitut, and Niuean, where predicates, including non-verbal predicates raise, but functional verbal elements do not.

      A crucial distinction between languages like Irish and Niuean, on the one hand, and Finnish and French, on the other, is whether finiteness is marked on the verb. Verbs in Niuean have no finiteness, agreement, or tense, but instead function more like a participial or a nominal (Massam, 2005). In fact, Massam (2005) argues that verbs in Niuean are really an underspecified syntactic category, showing that verbal constituents occur freely in argument position, as shown in (22).

(22)   a.   ke   he tāmate e   Tofua e   kulī
                goal loc kill   erg Tofua abs dog
                '(about) Tofua's killing the dog'

        b.   e   tele haaku i   a   ia
                abs kick 1sg.gen loc art him
                'my kicking him'   [Niuean; Massam 2005]

Even though finiteness and aspectual distinctions are marked in Niuean, these are usually in the pre-verbal particles, not part of the predicate that raises.[9]

      Verbs in Irish are richer than Niuean verbs, appearing with tense, aspect, and agreement, but they also lack a finiteness distinction. In Irish non-finite clauses, verbs must be nominalized, and appear with verbal noun morphology (Carnie 1995: 87) in a construc-

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[9]There are a few cases where such particles are part of the constituent that raises; I assume that these are pied-piped.

tion which Carnie (2011) refers to as a predicative verbal noun (PVN)[10] (Ó Siadhail 1989, Carnie 2011). Carnie (2011) argues that PVNs are nominalized clauses that do not have the full functional structure of a clause, lacking tense projections. His arguments centre mostly on the case marking of the arguments, as he demonstrates that some arguments in PVNs receive genitive case as a last resort operation due to the lack of functional structure in these constructions.

Inuktitut does not clearly have a non-finite construction, either, although it is somewhat controversial (cf. Johns and Smallwood (1999) for a paper arguing that the morpheme -*llu* is not a non-finite marker). However, in any case, the EPP movement process seems to target a constituent that does not include any verbal functional material. Thus, even if a finiteness distinction occurs in Inuktitut, it occurs higher in the structure than the EPP, and is therefore irrelevant, just as the finiteness distinction in the C domain of Niuean is irrelevant.

In contrast, both French and Finnish have productive non-finite clauses that are fully integrated into the clausal spine. This is shown by the presence of ECM constructions in Finnish,[11] as shown in (23), where *minun* gets case from the main clause, and clitic climbing constructions in French, as in (24), where *les* gets case from and is phonologically dependent on the main clause verb. In both cases, an argument of the embedded clause is dependent on the main clause.

(23)   Kerttu käsk-i   [$_{TP}$ minun löytä-ä   avaime-ni].
       Kerttu order-PST.3SG   1SG.GEN find-NFIN key-POS.1SG
       'Kerttu told me to find my keys.'   [Finnish; Koskinen 1998: 267]

(24)   Je te les laisse voir.
       I you them let   see.NFIN
       'I let you see them.'   [French; Martins 2000: 178]

Likewise, raising constructions are also possible in both French and Finnish. In the Finnish

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[10]In this section, I am discussing what, in traditional descriptive Irish linguistics, is termed a verbal noun (cf. Ó Siadhail 1989). Carnie (2011), in turn, terms these constructions predicative verbal nouns (PVNs) to contrast them with argument verbal nouns, illustrated in (i).

(i)   Chuala mé an tseinm.
       heard I the play.VN
       'I heard the playing.'   [Irish; Carnie 2011: 1209]

Irish PVN constructions function as participles when preceded by auxiliaries or aspectual markers, and as infinitives when in non-finite clauses.

[11]Objects in Finnish normally receive morphological genitive case, as shown in (i).

(i)   (Minä) saa-n   pankista lainan/*laina.
       1SG.NOM get-1SG bank-INE loan-GEN/*NOM
       'I get a loan from a bank.'   [Finnish; Koskinen 1992: 44-45]

example in (25), the the first person singular subject *minä* raises from the embedded clause to the main clause, while in the French *tough*-construction in (26), *la vérité* 'the truth' raises from embedded object position to the matrix subject position.

(25)   Minä voisin   [$_{TP}$ <minä> löytää   avaime-ni   ].
        1SG   can.COND.1SG   find.NFIN key-1SG.POS
        'I could find my keys.'   [Finnish; Koskinen 1998: 265]

(26)   La vérité est toujours difficile à dire   <la vérité>.
        the truth is always   hard   to say.NFIN
        'The truth is always hard to say.'   [French; Legendre 1986: 137]

Finally, both Finnish and French have control constructions as shown in (27)-(28).

(27)   Sofia$_i$ halua-a   [$_{TP}$ PRO$_i$ syö-dä   usein jäätelö-ä   ].
        Sofia want-3SG   eat-NFIN often ice.cream-PAR
        'Sofia wants to eat ice cream often.'   [Finnish; Koskinen 1998: 240]

(28)   Je$_i$ veux [$_{TP}$ PRO$_i$ manger une pomme].
        I   want   eat.NFIN a   apple
        'I want to eat an apple.'   [French; J. Carrier, p.c.]

The above constructions all illustrate that non-finite clauses are verbal in nature in French and Finnish. Besides having a productive morphological non-finite marker on the verb, the arguments of a non-finite verb are assigned structural case from verbal functional elements, not from nominal structural elements, and raising constructions show that the non-finite clause is not an island, as might be expected for a nominalized clause.

That finiteness appears to be the crucial feature here is of particular note since the EPP is associated with T, which is where finiteness features are traditionally theorized to be found.

The finiteness distinction can perhaps explain the contrast between predicate- and nominal-sensitive EPP; however, it cannot explain the distinction between DP-EPP and the nominal-sensitive EPP types that target verbal constituents. Traditionally, contrasts between consistent null subject languages and non-*pro*-drop languages have been correlated with the presence of rich agreement, and such analyses can also be extended, to a degree, to the contrast between DP-EPP and D-on-V EPP. However, it is not quite possible to nail down exactly what constitutes 'rich' agreement, leading, for example, Alexiadou and Anagnostopoulou (1998) to claim that the agreement morphemes which are able to check the EPP have an underlying lexical [D] specification that is only imperfectly reflected in the morphology.

In French, most of the agreement distinctions have been lost due to apocope, although still represented orthographically, leading many researchers to conclude that French lacks sufficient agreement features for a D-on-V type of EPP.

The more difficult contrast to account for is why the agreement features in Finnish are too defective. In Finnish, however, null subjects are licensed only in restricted contexts (Holmberg, 2005), suggesting that the nominal features on the verb are defective, although every person and number combination is consistently marked.

Yet there does seem to be at least a one-way condition here. Rich agreement is a *necessary but not sufficient* condition for a D-on-V EPP type. This is reflected by how Arabic seems to alternates between two EPP types with different agreement properties (Doner 2012, 2014). The question that remains, then, is that if rich agreement is a necessary but not sufficient condition for a D-on-V EPP type, what are the remaining conditions?

5.   Conclusion

In this paper, I demonstrated that there is a contrast between languages such as Inuktitut, Irish, and Niuean, on the one hand, and French and Finnish, on the other hand, and suggested that this difference can be attributed to a type of EPP-checking which I call Predicate EPP. I also showed that all EPP-types which are checked by the raising of verbal constituents are sensitive to the presence of either a predicate or a nominal, but not to verbs themselves.

An interesting contrast here is that languages seem to require the EPP to be checked by either a predicate or an argument. The vast majority of attested nominal-sensitive EPP constructions are checked by the external argument, and Bruno (2016) points out that only argument PPs can undergo locative inversion to the specifier of TP. This follows Massam and Smallwood (1997), who suggest that the EPP is a requirement for clausal bifurcation, or, in other words, a need for asymmetry. In this case, I may be able to refine my definition of the EPP as the obligatory move of *either the predicate or an argument* into the inflectional domain.

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