

A typology of EPP-checking mechanisms*

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SUMMARY

I propose that the EPP is obligatory cross-linguistically, but that the forms it takes vary from language to language, and even sometimes within the same language. Alexiadou and Anagnostopoulou (1998) argue that the EPP can be checked by either a head or by a phrasal element, and Massam and Smallwood (1997) argue that it can be checked by either a verbal or nominal element. Intersecting these two approaches leads to a total of four forms of EPP-checking, as attested, for example, in English, Niuean, Italian, Irish, and Arabic. McCloskey (1996, 2001) argues that Irish does not have an EPP; I propose that, rather, it has an EPP which is checked by movement of the verb into Infl. Alternations within the Italian subjunctive paradigm indicate that it is the agreement morphemes which are crucial for EPP-checking in Italian. Finally, the alternations in word order and subject-verb agreement in Arabic can be explained by assuming an intra-linguistic alternation between the EPP being checked by a D-head or by a DP.

RÉSUMÉ

Je propose que le Principe de Projection Étendue (PPÉ) soit obligatoire pour toutes les langues, bien que son fonctionnement puisse varier d'une langue à l'autre ou même parfois dans une même langue. Alexiadou et Anagnostopoulou (1998) soutiennent que le PPÉ peut être contrôlé par un syntagme syntaxique ou bien la tête de celui-ci, tandis que Massam et Smallwood (1997) suggèrent que le contrôle peut être effectué par un élément aussi bien verbal que nominal. En amalgamant ces deux approches, nous obtenons quatre façons avec lesquelles le PPÉ peut être vérifié, comme il est d'ailleurs attesté en anglais, en niuéen, en italien, en irlandais et en arabe. McCloskey (1996, 2001) propose que le PPÉ ne soit pas actif en irlandais; au contraire, j'avance que la vérification du PPÉ dans la langue est accomplie par le mouvement du verbe à Infl. De même, les alternances à l'intérieur du paradigme subjonctif en italien indiquent que les morphèmes d'accord sont essentiels pour le contrôle du PPÉ. Enfin, les variations dans l'ordre des mots et dans l'accord entre le sujet et le verbe en arabe s'expliquent aussi par la vérification du PPÉ, contrôlée soit par un syntagme DP ou bien uniquement sa tête.

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1 INTRODUCTION

The Extended Projection Principle (EPP) was first introduced to account for the fact that subjects appear to be obligatory in every clause, at least in English (Chomsky 1981, 1982). However, not all languages require a subject in the same way that English does, which raises the question of whether the EPP is a universal requirement of the grammar, and, if it is a universal requirement, why it is less obviously so in some languages, such as in VSO or in *pro*-drop languages. However, a variety of cross-linguistic forms of the EPP have been proposed, which allow for a universal view of the EPP.

One way that it has been proposed that the EPP can vary cross-linguistically is through a distinction between V- and D- prominent languages. For example, Massam and Smallwood (1997) show that, in Niuean, the predicate is always high in the structure, and they thus propose that, in Niuean, the EPP is checked by the predicate, rather than by a DP. Likewise, Davies and Dubinsky (2001) consider several languages and propose a contrast between V- and D- prominent languages. For them, D-prominent languages have an EPP satisfied by a D feature in T, whereas V-prominent languages have an EPP satisfied by a V feature in T.

Another way that the EPP has been proposed to vary cross-linguistically is through a contrast between heads and phrases. Alexiadou and Anagnostopoulou (1998), in considering several Null Subject Languages (NSLs), argue that the EPP is parameterized between move/merge XP and move/merge X^o. The agreement morpheme on the verbs in NSLs includes a D feature in the inflection, and is equivalent to a pronoun in other languages. Verb raising can thus check the EPP.

If we combine these two approaches, the result is a four-way contrast in forms of EPP-checking, as shown in the typology in Table 1.

Table 1: Cross-Linguistic Varieties of EPP-Checking

	EPP Checked by a Nominal Element	EPP Checked by a Verbal Element
EPP Checked by a Phrasal Element	DP-EPP (i.e. English)	VP-EPP (i.e. Niuean)
EPP Checked by a Head Element	D ^o -EPP (i.e. Italian)	V ^o -EPP (i.e. Irish)

In the following, I will consider each of these languages in turn, as well as Arabic, which alternates between a DP- and a D^o-EPP. This typology allows us to maintain that the EPP is a cross-linguistic aspect of grammar, which must be obligatorily checked in some form in every instance of Infl through some sort of local relationship.

2 DP-EPP: ENGLISH

English was the basis on which the EPP was originally proposed (Chomsky 1981, 1982), and, as such, behaves much like we would expect a language with a requirement for an overt subject to behave. However, Davies and Dubinsky (2001) show that, not only does English require an overt subject, it requires that the subject be a DP, at least covertly. They demonstrate that even when the subject of an English clause appears to be something other than a DP, it behaves like a DP. They

thus propose that all English subjects are contained within a DP shell.

The sentences in (1) demonstrate that non-nominal elements can appear in subject position.

- (1) a. [That I saw a unicorn] was unexpected.
 b. [Down the hill] is a good place for a picnic.
 c. [Very clean] is how he expects his apartment.

In (2), the same non-nominal elements undergo raising from the embedded clauses to the subject position of the matrix clause.

- (2) a. [That I saw a unicorn] seems to be unexpected.
 b. [Down the hill] seems to be a good place for a picnic.
 c. [Very clean] seems to be how he expects his apartment.

Assuming, then, that the EPP triggers raising, it would appear that these non-nominal elements have the ability to check the EPP.

However, these non-nominal subjects do have some properties of DPs. At the very least, they have ϕ -features. Davies and Dubinsky (2001) demonstrate this by the fact that they can trigger agreement under coordination, as shown in (3) for CPs, PPs, and APs.

- (3) a. [That the march should go ahead] and [that it should be cancelled]
 have both been argued by the same people at different times.
(McCloskey, 1991, p. 564)
 b. [Down the hill] and [across the river] are both good places for a picnic.
 c. [Very brawny] and [very studious] are what Cindy aspires to be.
(Davies and Dubinsky, 2001, p.249)

Similarly, they also show that CP and PP subjects can license emphatic reflexives, as shown in the sentences in (4).

- (4) a. That I saw the girl itself was unexpected.
 b. Down those hills is itself a fairly long trip.

The ability of CPs and PPs to license emphatic reflexives is available only when they are in subject position, as demonstrated in (5).

- (5) a. *It was unexpected that I saw the girl itself.
 b. *A good place to hide is under those beds itself.

This seems to indicate that the presence of ϕ -features on non-nominals occurs only when they are in subject position.

Davies and Dubinsky (2001) argue, based on these facts, that all non-nominal subjects in English are contained within a DP shell, and that, therefore, the English EPP can only be checked by a DP subject. They contrast this with languages such as Bulgarian and Malagasy, which they argue are V-prominent, since they do not show these same patterns.

3 VP-EPP: NIUEAN

Massam (2000, 2001) shows that, in Niuean, the predicate raises to the specifier of Infl, checking the EPP and deriving the surface VSO word order, as shown in (6).¹ She also argues that the sentence-initial particles (including *hā ne*, below) are in a fused C and T head.

- (6) Hā ne nonofo a mutolu i hinei.
 PROG stay ABS you at this.place
 ‘Whilst you are staying here.’

(Massam, 2000, p. 99)

According to Massam, the raising of the VP is what checks the EPP. That the whole VP raises, and not just the V head, can be shown by the ability of phrasal material to also move in the course of raising. For example, in a Pseudo Noun Incorporation (PNI) construction, bare nominals move along with the verb to Infl, as shown in (7a). This contrasts with sentences in the regular VSO order, as in (7b). Note that, in both cases, the VP must have raised, since it surfaces prior to adverbials, such as *tūmau* ‘always.’

- (7) a. [_{VP} Takafaga ika] tūmau nī a ia.
 hunt fish always EMPH ABS he
 b. Takafaga tūmau nī e ia e tau ika.
 hunt always EMPH ERG he ABS PL fish
 ‘He is always fishing.’

(Massam, 2001, p. 157)

Sentences such as (7a) cannot be a case of traditional Noun Incorporation, since the nominal can be phrasal, as shown in (8). In fact, in (8b), even functional elements have been pied-piped with the verb to initial position, showing that what moved must be more than some compound head.

- (8) a. Ne [inu kofe kono] a Mele.
 PST drink coffee bitter ABS Mele
 ‘Mary drank bitter coffee.’
 b. Ne [kai sipi mo e ika mitaki] a Sione.
 PST eat chip COM ABS fish good ABS Sione
 ‘Sione ate good fish and chips.’

(Massam, 2001, p. 158)

(Massam, 2001, p. 160)

As such, Massam and Smallwood (1997) and Massam (2000) argue that the EPP is checked by a VP in Niuean. They show that any subject-object asymmetries in Niuean can be explained by their hierarchical position. They also argue that this explains why there are no expletives in Niuean. Under this approach, the English and the Niuean EPP both involve the movement of a

¹ Abbreviations in the glosses are as follows: 1/2/3=first/second/third person; abs=absolutive case; com=comitative case; comp=complementizer; cop=copula; emph=emphatic; erg=ergative case; f=feminine; m=male; neg=negation; nfin=non-finite; nom=nominative case; pl=plural; pres=present tense; prog=progressive aspect; pst=past tense; sbj=subjunctive mood; sg=singular; vn=verbal noun.

maximal projection into the specifier of Infl, and both result in a rigid word order.

4 D°-EPP: ITALIAN

Alexiadou and Anagnostopoulou (1998) argue that, in Null Subject Languages (NSLs), including Italian, the EPP is checked by a D-feature on the verb, through head-movement. In this section, I will present some additional evidence from the subjunctive paradigm of Italian, in which the second person singular pronoun is obligatory (Cardinaletti, 2004), as shown in (9).

- (9) a. Spero che *(tu) vinca.
 hope.1SG.PRES that 2SG win.PRES.SBJ.SG
 ‘I hope that you win.’
 b. Spera che *(tu) vinca.
 hope.3SG.PRES that 2SG win.PRES.SBJ.SG
 ‘S/he hopes that you win.’

(Ippolito, p.c.)

That the pronoun is obligatory is unexpected since Italian is a consistent NSL; this is the only case in which a pronoun is obligatory regardless of discourse conditions in Italian. Even within the subjunctive paradigm, the omission of the first and third singular pronouns are more acceptable than the omission of the second person pronoun, as shown in (10)-(11).² Note also that the form of the verb is syncretic across the entire singular present subjunctive paradigm.

- (10) a. Speri che ??(io) vinca.
 hope.2SG.PRES that 1SG win.PRES.SBJ.SG
 ‘You hope that I win.’
 b. Spera che ??(io) vinca.
 hope.3SG.PRES that 1SG win.PRES.SBJ.SG
 ‘S/he hopes that I win.’

(Ippolito, p.c.)

- (11) a. Spero che (lei) vinca.
 hope.1SG.PRES that 3SG.F win.PRES.SBJ.SG
 ‘I hope that she wins.’
 b. Speri che (lei) vinca.
 hope.2SG.PRES that 3SG.F win.PRES.SBJ.SG
 ‘You hope that she wins.’

(Ippolito, p.c.)

Maiden (1995) shows how the second person singular form of the subjunctive developed to its modern syncretic form by means of analogy. In Classical Latin (CL), the second person singular was marked with *-s* in most verbal paradigms, including the subjunctive. However, a regular sound change caused the stressed front vowel-[s] sequences of CL to become [e] or [i] in most varieties of Italo-Romance. This, alongside the changes in the first singular form, to be

² Speaker judgments vary as to the grammaticality of omitting the first person pronoun; however, they agree that it is more grammatical than the omission of the third person pronoun.

discussed below, led to the homophony of all three singular subjunctive forms in the first conjugation. In turn, the homophony of these three forms in the first conjugation led to the change, by analogy, of the second person in the other conjugations, as well (Maiden, 1995). These changes, then, extended beyond simple sound change. If we assume that the loss of the person marker was accompanied by a reanalysis of the feature specifications of the verb, such that the person specifications and the D feature were lost, then we can explain why the verb takes default third singular agreement and is no longer able to check the EPP. The pronoun thus became obligatory.

In contrast, the syncretism of the first and third singular subjunctive forms results from simple sound change (Maiden, 1995). In CL, the first singular form was marked by *-m*, and the third singular form was marked by *-t*. However, both word final [t] and [m] were lost in late CL (Maiden, 1995). Since this syncretism arose by means of sound change alone, without analogy, the feature specification of the verb did not necessarily change. As such, the verb remained specified for the features required to check the EPP.

In Italian, the verb alone is not sufficient for checking the EPP. Instead, a D feature, which is usually realized as rich agreement on the verb, is what is crucial for checking the EPP. In the case of the second person singular subjunctive, this D feature is missing, and so a pronoun is obligatory in order to check the EPP.

5 V°-EPP: IRISH

Thus far, we have seen the EPP checked by VPs in Niuean, by DPs in English, and by D°s on the verb in Italian. In order to complete the typology in Table 1, there must be a language in which the EPP is checked by a V°. The structure of Irish is consistent with this analysis.

McCloskey (1996, 2001) argues that Irish has no EPP. However, his arguments only show that Irish doesn't have a DP-EPP. His evidence includes the fact that, in some constructions in Irish, including the salient unaccusative, there is no argument raising at all.

Irish has two unaccusative constructions, the salient unaccusatives (12a), which take a PP complement, and the putative unaccusatives (12b), which take a DP complement.

- (12) a. Neartaigh ar a ghlór.
strengthened on his voice
b. Neartaigh a ghlór.
strengthened his voice
'His voice strengthened.'

(McCloskey, 2001, p. 170)

There are several constructions in which the DP argument in the putative unaccusatives raises in order to get case, but the PP argument in the salient unaccusative does not (McCloskey, 2001). For example, this occurs in the progressive aspect, as shown in (13). In (13b), the object *a ghlór* 'his voice' raises with the verb to initial position. However, in (13a), the PP complement to the verb *ar a ghlór* 'on his voice' remains in final position.

- (13) a. Tá ag neartú ar a ghlór.
is PROG strengthen on his voice
b. Tá a ghlór ag neartú.
is his voice PROG strengthen
'His voice is strengthening.'

(McCloskey, 2001, p. 170)

Furthermore, when the progressive is clefted, the PP complement of the salient unaccusative can raise with the verb, as in (14a), but the DP complement of the putative unaccusative in (14b) cannot, showing that the PP complement remains part of the VP, and also that the DP complement does not.

- (14) a. [Ag éirí ar an leanbh]_i a bhí.
PROG rise on the child COMP be.PST
'It was becoming more agitated that the child was.'
b. *Is [mo shaibhreas ag méadú]_i a tá.
COP.PRES my wealth PROG increase COMP is
'It's increasing that my wealth is.'

(McCloskey, 1996, p. 249)

(McCloskey, 1996, p. 252)

Thus, in the salient unaccusatives, there is no argument raising at all. As such, it is difficult to imagine how the EPP could be checked in Irish, under the assumption that it needs to be checked by an argument. However, we are not making that assumption; rather, I propose that the EPP can also be checked by verbal elements.

So far, what the Niuean, English, and Italian EPP have in common is the mandatory movement of some element to some position within the projection of Infl. Irish doesn't appear to have rich enough inflection to have D⁰-EPP like Italian. As can be seen in Table 2, there are several contexts in which verbal agreement is not fully realized.

Table 2: Irish Verbal Person and Number Inflection (from Ó Siadhail, 1989)

	Past Habitual	Past	Future	Present Habitual
1SG	-nn	-s	-d	-m
2SG	-á	-s	-r	-r
3SG				
1PL	-mís(t)	-mair	-m	-míd
2PL		-bhair		
3PL	-dís(t)	-dar	-d	-d

Moreover, if Irish had VP raising, as in Niuean, we would expect the PP argument of the salient unaccusatives to raise along with the verb all the time. This is not the case.³ In Irish, only the verb moves into Infl, and so I propose that it is the head movement of the verb into Infl which checks

³ There are some cases of complex nominal predicates raising in Irish, but Camie (1995) argues that this is still head movement.

the EPP in Irish.

There is V-to-Infl movement in Italian, French, and Irish. However, in French, the EPP is checked by a DP (Davies and Dubinsky, 2001), and thus the EPP in French must be independent of V-to-Infl movement. In Italian, the EPP is normally checked by the D^o-head on the verb, so, although V-to-Infl movement is related to the EPP, it is not sufficient to check it—the correct features must also be present. In Irish, however, I am arguing that it is V-to-Infl movement itself which checks the EPP. Thus, V-to-Infl movement in these three languages must be independently triggered. Assuming that the EPP needs to be checked in all instances of Infl, even in non-finite clauses, but that V-to-Infl movement triggered for tense reasons does not occur in non-finite clauses, we could use non-finite clauses to distinguish these three different motivations for V-to-Infl movement.

Such an approach predicts that V-to-Infl movement in Italian should occur in non-finite clauses, since it is related to the EPP. This is the case, as shown by the fact that the main verb precedes the adverb *più* ‘no more’ in both the finite clause in (15a) and the non-finite clause in (15b).

- (15) a. Gianni non mangia più.
 John NEG eat.3SG.PRES no more
 ‘John no longer eats.’
 b. per non mangiare più...
 for NEG eat.NFIN no more
 ‘in order to no longer eat...’

(Pollock, 1989, p. 412)

However, V-to-Infl movement is not predicted to occur in second person singular subjunctive clauses, since the EPP is checked by the pronoun in such clauses, and not by verb raising. This is, again, the case, as shown by the fact that the lexical verb *esca* ‘exit’ follows the adverb *solitamente* ‘usually’ in (16), below.

- (16) Crede che tu solitamente esca alle due.
 (he) think.3SG.PRES that 2SG usually exit.PRES.SG.SBJ at two
 ‘He thinks that you usually exit at two.’

(Cardinaletti, 2004, p. 127)

On the other hand, in French, where verb raising movement is independent of the EPP, there is no V-to-Infl movement in non-finite clauses.

- (17) Ne pas posséder de voiture...
 NEG not own.NFIN a car
 ‘Not owning a car...’

(Pollock, 1989, p. 374)

Thus, V-to-Infl movement appears related to the EPP in Italian, but not in French.

In Irish, V-to-Infl movement is also predicted in non-finite clauses, since it is EPP-related. However, unfortunately, non-finite clauses in Irish take the form of predicative verbal nouns (PVNs) (Ó Siadhail, 1989; Carnie, 2011), which Carnie (2011) argues do not have the full

functional structure of a clause. Crucially, they are missing tense projections. Some PVNs are shown in (18).

- (18) a. Ba mhaith liom Seán an scéal a scríobh.
 COP good with.1SG Sean the story 3SG.M write.VN
 ‘I want Sean to write the story.’
 b. Tá mé ábalta an scéal a scríobh.
 be.PRES I able the story 3SG.M write.VN
 ‘I am able to write the story.’

(Carnie, 2011, p. 1212)

The verb does not raise in non-finite clauses in Irish because there is no Infl projection. In Irish, then, the verb raises to Infl in every clause that has an Infl projection. The fact that there are no non-finite clauses with fully specified structure could be the result of some conflict between the requirements of a non-finite verb and the requirements of the EPP. A non-finite Infl head would not have the tense features compatible with verb raising, and so verb raising would not be triggered, but then the EPP could not get checked.

These facts suggest, then, that V-to-Infl movement occurs with different triggers cross-linguistically. For example, it occurs with full agreement when checking a D^o-EPP, as in Italian. In languages such as French, the movement is triggered to check tense features, and so occurs with specified tense features. Finally, it does not necessarily occur with any inflection when checking a V^o-EPP, in languages such as Irish.

6 MIXED SYSTEMS: ARABIC

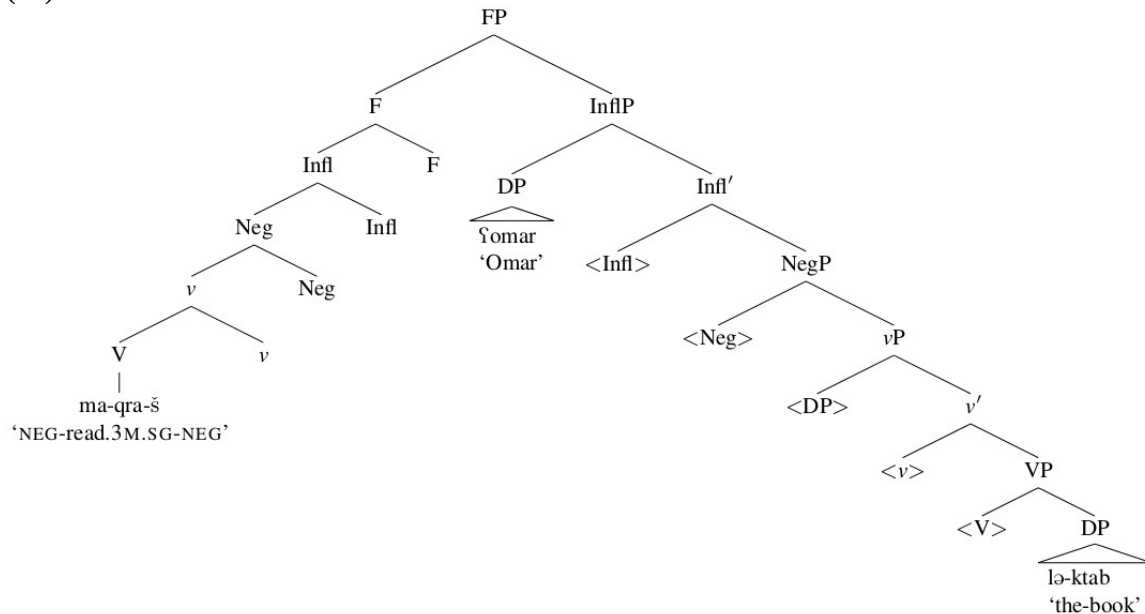
As is well known, Arabic exhibits different possible word orders, which are associated with different agreement patterns. These different word orders and agreement patterns correlate with different modes of EPP-checking. In the primary word order in Arabic, VSO, which generally has only partial subject-verb agreement, the EPP is checked by means of a DP. In both the SVO order and in null-subject constructions, which have full subject-verb agreement, the EPP is checked by means of a D feature on V, through V-to-Infl movement, much like in Italian.

Aoun, Benmamoun, and Choueiri (2010) show that Arabic VSO sentences are derived by means of verb movement to F, a position higher than Infl but lower than C, and movement of the subject to the specifier of Infl. Thus, the sentence in (19) would be structured as in (20).

- (19) ma-*qra-š* ūomar lə-*ktab*
 NEG-read.3M.SG-NEG Omar the-book
 ‘Omar did not read the book.’

(Aoun et al., 2010, p. 68)

(20)



Arabic also has an existential construction, which can surface with an overt auxiliary as illustrated in (21).

- (21) kaana hunaaka Taalib-un fii l-ḥadiiqati
 was.3M.SG there student-NOM in the-garden
 ‘There was a student in the garden.’

(Aoun et al., 2010, p. 70)

If we assume, as is generally assumed for English, that the expletive is inserted into the specifier of Infl in order to satisfy the EPP, then the auxiliary verb must be in some position higher than Infl—such as in F.

In Standard Arabic, as well as in some other dialects, there is only partial subject-verb agreement when the verb precedes the subject, whereas there is full agreement for pre-verbal subjects (Aoun et al., 2010). For example, for human subjects denoted by a full DP, the verb will surface in the singular form regardless of the subject’s number features, as shown in (22).⁴

- (22) a. ʔakala l-muʔallim-uun
 ate.3M.SG the-teacher-M.PL.NOM
 b. *ʔakal-uu l-muʔallim-uun
 ate-3M.PL the-teacher-M.PL.NOM
 ‘The teachers ate.’

(Aoun et al. 2010, p. 76)

⁴ The facts of Arabic agreement are complicated by some independently motivated processes of agreement neutralization and some other alternations that are sensitive to animacy, and to whether the subject is a pronoun or a full DP. What is important to note is that there is always full agreement for humans in the SVO word order, but agreement may be impoverished in the VSO order. For more details, see Aoun et al. (2010).

These agreement patterns contrast with the patterns in the SVO word order, in which there is always full agreement for human subjects, as shown in (23).

- (23) a. l-muʔallim-uun ʔakal-uu
 the-teacher-M.PL.NOM ate-3M.PL
 b. *l-muʔallim-uun ʔakala
 the-teacher-M.PL-NOM ate.3M.SG
 ‘The teachers ate.’

(Aoun et al., 2010, p. 76)

Thus, in the VSO word order, default singular number agreement occurs, and there is an overt subject in the specifier of Infl. When expletives occur, they surface in the VSO order. Therefore, we can conclude that the EPP in these clauses is satisfied by phrasal DPs, just as in English. In this word order, full agreement is not necessary since the EPP is satisfied by the phrasal DP in the specifier of Infl. On the other hand, gender agreement is not affected by word order since it is not EPP-related.

Arabic SVO clauses, on the other hand, pattern with null-subject clauses in requiring full agreement. A null subject clause is shown in (24).

- (24) ʔiʃtaraytu l-kitaaba llaʔii katabta
 bought.1sg the-book that wrote.2m.sg
 ‘I bought the book that you wrote.’

(Aoun et al., 2010, p. 79)

As such, the SVO word order of Arabic behaves much like a consistent NSL, such as Italian. Just as with consistent NSLs, the SVO order is often described as having a topic-like meaning attributed to pre-verbal subjects (Aoun et al., 2010), and has rich inflection, optional overt subjects, and a lack of expletives. Thus, I propose that, for the SVO sentences in Arabic, the EPP is checked in the same way as for the other *pro*-drop languages, by a D element in the agreement morpheme.

7 FURTHER ISSUES

Thus, we see that the EPP is checked by a DP in the specifier of Infl in English, by a D feature on the V head in Italian, by a VP in the specifier of Infl in Niuean, and by a V head in Irish. In Arabic, the EPP can either be checked by a DP in the specifier of Infl, or by a D feature on the V head, which results in alternations in the word order and in the agreement paradigms. In all of these cases, there must be, for every instance of Infl, some verbal or nominal element in a local, overt, relationship with it in order to check the EPP. Under this characterization of the EPP, it can be maintained that it is a universal property of grammar.

One question that remains is whether it is the D and V elements themselves which check the EPP, or some feature dependent on them. In Italian, it appears to be the person feature which is crucial for the EPP, but, on the other hand, in Arabic, it is number agreement that does not surface when the EPP is checked by a phrasal DP. Finally, for English, all of Davies and Dubinsky’s (2001) diagnostics were sensitive to ϕ -features. As such, it could be that the EPP is sensitive to ϕ -features, rather than to D itself. If this is the case, we might expect there to be an analogous

dependent feature on verbal elements, perhaps some tense feature, that is able to check the EPP in languages such as Niuean and Irish.

Another avenue for further research is to determine what all of these elements have in common, such that they are able to check the EPP. One possible analysis is that they all encode notions of deixis. Verbal elements encode temporal deixis, while nominal elements encode person deixis. This fits in well with Ritter and Wiltschko's (2009) Parametric Substantiation Hypothesis, under which Infl is a locus for deixis; the EPP could be another case of a deictic requirement triggered by the same head. Although clearly independent, the EPP as described here and Ritter and Wiltschko's criteria for Infl elements show some remarkable similarities. This idea is also supported by languages such as Finnish, where, alongside nominal elements, locative adverbs — which encode locative deixis — are able to check the EPP (Holmberg, 2005).

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