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Preposition-drop in Greek: EPP-driven pseudo-incorporation

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Abstract: The paper investigates preposition (and determiner) drop in Greek. A close look at the properties of preposition-drop reveals that despite the lack of a definite determiner, the place nominal that participates in preposition-drop is interpreted as familiar. This familiarity presupposition of the place nominal is achieved via movement of NP-to-SpecDP for the satisfaction of a D-feature bundle on D. Further, the lack of strict adjacency between the verb and the NP provides evidence that Greek preposition-drop aligns more closely with pseudo-incorporation. Here, pseudo-incorporation is triggered for the satisfaction of an EPP/LOC feature available on the verb and satisfied via PP-preposing.

Keywords: EPP, incorporation, PP complement, place nominal

1 Introduction

Preposition-drop has been observed in a number of languages (see Cattaneo 2009 for Northern Italian; Collins 2007 and Haddican 2010 for English; Myler 2011 for South West Lancashire; Gehrke and Lekakou 2013; Ioannidou and den Dikken 2009; Kouneli 2014 and Terzi 2010a for Greek).¹

Most instances of preposition-drop occur with a *motion/location verb* + *se* 'to' = (direction/location) + NP, as illustrated with Greek data in (1).

- (1) *pate* (*stin*) *pisina*?
go.2PL (to.the) pool.ACC
'Are you going to the pool?'

1 The term *p(reposition)-drop* is borrowed from Ioannidou and den Dikken (2009).

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Despite the lack of a definite determiner in preposition-drop in (1), the *place nominal* (or *locative noun* in Ncharhe and Terzi's 2014 terms) that participates in preposition-drop receives a familiar and definite interpretation.² The most important observation, which I capitalize on here, is the notion of familiarity that all these place nouns participating in preposition-drop share. This notion of familiarity seems to be a prerequisite for the licensing of preposition-drop; the interlocutors need to be mutually familiar with the designated location in order to be able to identify and interpret the relevant place nominal. This notion of familiarity ties in well with the fact that preposition-drop is employed in more informal spoken settings where the interlocutors know each other well and are familiar with each other's daily habits or scheduled activities (see Heim 1982; Lyons 1999). From a theoretical viewpoint, I propose that this familiarity presupposition is endorsed through the satisfaction of a D-feature bundle available on D. Preposition-drop constructions satisfy this D-feature bundle through movement of NP-to-SpecDP, whereas in their overt counterparts the determiner merges on D, satisfies the D-feature, and pre-empts any further movement.

Apart from variation in D-feature satisfaction between preposition-drop constructions and their overt counterparts, there is another fundamental difference. Section 2 illustrates that preposition-drop manifests a number of properties associated with pseudo-incorporation of a noun (henceforth "pseudo-incorporation") (cf. Dayal 2011; Espinal and McNally 2011; Gehrke and Lekakou 2013; Massam 2001). However, even though the present account aligns more closely with pseudo-incorporation, this analysis moves a step further and identifies the syntactic trigger for these structures (i.e., what feature motivates incorporation in syntax). The pseudo-incorporation analysis advocated here is triggered for the satisfaction of an EPP/LOC feature present on the verb. A LOC feature is borne by the verb and the place nominal. This LOC feature is present in preposition-drop constructions, as well as in their overt counterparts. However, the verb in non-preposition-drop constructions bears only a LOC feature, not an EPP one, hence why there is no movement in these constructions, just a long distance Agree relationship for the satisfaction of this LOC feature. In preposition-drop, the LOC feature of the verb probes the LOC feature of the place nominal and the two establish an Agree relationship followed by movement for the satisfaction of the EPP on the verb. For EPP to be satisfied the whole PP moves to SpecPredP (see Terzi 2010a). This PP-movement satisfies not only the

² The term *place nominal* is attributed to Terzi (2010a).

EPP feature, but also the LOC feature. PP-preposing is preferred over movement of the place nominal only, so we can account for degree modifiers such as *akrivos/katefthian* ‘right/straight’ that may intervene between the verb and the place nominal. The PP pied pipes along with it the remaining structure and yields the surface word order.

Empirically this paper offers a concise overview of the data presented in previous publications (cf. Gehrke and Lekakou 2013; Ioannidou and den Dikken 2009; Kouneli 2014 and Terzi 2010a), but also offers novel interpretative observations and supplementary evidence that help report as accurately as possible this ongoing phenomenon. Relatedly, it is shown that preposition-drop constructions that involve a verb of motion and a common noun differ in interpretation from their overt counterparts. In preposition-drop the place nominals designate places that are familiar (i.e., part of the common ground) to the speakers, as frequent and scheduled activities take place in these locations. This frequentative interpretation is not available in the non-preposition-drop constructions.

Structurally, it is shown that the bond between the verb and the head nominal is even more lax than has been assumed in all previous accounts. To that effect it is illustrated that preposition-drop constructions permit prenominal adjectival modification, and that prepositional modifiers may interrupt the sequence of V + NP. Preposition-drop also permits PP-coordination, a diagnostic used to determine the presence or absence of a PP in the syntactic architecture. Theoretically, this account is unique, in that (a) it makes the notion of familiarity pivotal for the licensing of preposition-drop, and (b) it offers a trigger for the pseudo-incorporation movement manifested via preposition-drop.

This paper is structured as follows: Section 2 presents the Greek data in some detail. In the same section I outline some prototypical properties of pseudo-incorporation and establish whether these properties hold true for Greek preposition-drop constructions. It is further shown that, syntactically, preposition-drop is more liberal than has been argued in previous accounts, and, in fact, aligns more closely with an analysis of pseudo-incorporation. Section 3 offers an analysis of the place nominal and its familiarity presupposition and further analyses the phenomenon as pseudo-incorporation in terms of an EPP/LOC feature satisfaction. The final section brings supplementary evidence from English where we also encounter preposition-drop, a construction more conservative than the corresponding Greek phenomenon. Tentatively, I assume that preposition-drop can be represented on a cline where Greek and English occupy different positions in the continuum.

2 Greek preposition-drop: The data

2.1 An overview of the phenomenon

Greek preposition-drop is optional. It is not subject to any known dialectal variation, as it is attested in both Northern and Southern varieties.³ However, Greek preposition-drop is register-specific as we encounter it predominantly in informal spoken environments. Preposition-drop began with examples such as the one in (2), but it really took off in the early nineties when (3) became the slogan of a popular TV show (cf. Valioui and Psaltou-Joyce 1995):

(2) *pame (sti) Thessaloniki.*
 go.1PL (to.the) Thessaloniki.ACC
 ‘we are going to Thessaloniki’

(3) *pame (stin) platia?*
 go.1PL (to.the) square.ACC
 ‘shall we go to the square?’

Given that preposition-drop has been recorded for at least 30 years, it has started to give rise to meaning differences between the preposition-drop construction and the non-preposition-drop one. What we see emerging is a process of grammaticalization and as with any instance of grammaticalization that is still under way, we cannot be certain whether these meaning differences will take off. It is therefore unsurprising that there is considerable variation in the judgments of native speakers. For this reason, I have endeavored to cross-check with native speakers all data and intuitions, so that the present representation of this ongoing phenomenon is as accurate as possible.

The verbs that participate in preposition-drop are either verbs of motion (*pao* ‘go’, *erhome* ‘come’, *fevgo* ‘leave’, *taxidevo* ‘travel’, etc.) or verbs that denote static location (e.g., *ime* ‘be’, *zo* ‘live’, *meno* ‘stay’, *spudazo* ‘study’, etc., see Kouneli 2014: 6).

3 We also encounter definite determiner drop in DP-arguments:

(i) *den amfivito/agapo (ti) Vaja.*
 not doubt/love.1SG (the) Vaja.ACC
 ‘I do not doubt/love Vaja’

(i) demonstrates that the phenomenon of D-dropping is also widely attested. I will leave aside such examples, as these lean towards a canonical incorporation analysis. Thanks to Ioanna Sitaridou for first raising my attention to these examples.

The preposition that participates in preposition-drop is *se*. As observed by Terzi (2010a, among others) the preposition *se* in Greek may be translated as the directional preposition ‘to’, or the locational preposition ‘at’ or as another spatial/locational preposition ‘in’. *Se* ‘to’ in (4) permits alternation between an overt and a covert preposition + definite determiner.

- (4) *erhome/pao (sto) grafio.*
 come/go.1SG (to.the) office.ACC
 ‘I am coming/going to the office’
 (Terzi 2010a: 174 and Kouneli 2014: 7)

As the preposition *se* and the definite determiner merge to form one lexical unit, (5) is ungrammatical when the definite determiner is overt but the preposition is not.⁴

- (5) **pame tin platia.*
 go.1PL the.ACC square.ACC
 ‘we are going to the square’

A large part of this paper is devoted to the place nominals that participate in preposition-drop. The next section describes in more detail properties of these place nominals followed by some diagnostics which reveal some unreported structural properties of these preposition-drop constructions (i.e., adverbs and adjectives may intervene between the verb and the place nominal, etc.).

2.2 The place nominal(s)

2.2.1 Familiarity presupposition

As shown in (2) and (3), repeated below for convenience, in Greek preposition-drop the preposition is omitted, as is the definite determiner, resulting in a bare noun:

- (6) *pame platia.*
 go.1PL square.ACC
 ‘we are going to the square’

⁴ The preposition + definite determiner forms we encounter in Greek are: *se* + *ton*.MASC.ACC=*ston*, *se* + *tin*.FEM.ACC=*stin*, *se* + *to*.NEUTER.ACC=*sto*.

- (7) *pame Thessaloniki.*
 go.1PL Thessaloniki.ACC
 ‘we are going to Thessaloniki’

The place nominals in (6) and (7), just like other definite DPs, have a familiarity presupposition, that is, there is enough common ground knowledge shared by the speakers that they can uniquely identify the discourse referent referred to by the nominal (Cattaneo 2009; Roberts 2003; Terzi 2010a, among others). Definiteness is a multi-faceted concept that also encompasses the notions of *familiarity*, *uniqueness* and *identifiability* (cf. Lyons 1999). Effectively, the notion of familiarity has mostly been subsumed under the more general notion of definiteness and has been viewed as a prerequisite for the interpretation of a linguistic expression as definite (see Heim 1982; Lyons 1999, among others). I follow the scholarly consensus where definiteness does not necessarily equate with specificity (see Alexiadou et al. 2007; Ihsane and Puskas 2001, among others).

The use of a definite expression means that there is a unique referent in the discourse and this referent is mutually familiar to both interlocutors based on common encyclopedic knowledge and on habitual activities that take place in that location. The notion of familiarity is closely related to the definite determiner. Definite expressions presuppose familiarity and uniqueness (see Roberts 2003); the definite expression means that sufficient information is available in the common knowledge (*common ground*) of the interlocutors to identify the unique entity described by the definite nominal (see Heim 1982). Other researchers dissociate the two notions.⁵ Leaving aside a number of theoretical issues that fall outside the scope of this paper, the assumption entertained here is that in preposition-drop, the place nominal, despite the lack of a definite determiner, encodes both a familiarity and a uniqueness presupposition.⁶

In light of the above considerations, preposition-drop is licensed only in cases where the place nominal that participates is familiar and therefore easily retrievable and identifiable by both interlocutors. For these place nominals to be interpreted as familiar and definite expressions the NP moves to SpecDP to satisfy a D-feature bundle. On the other hand, this familiar interpretation for their overt counterparts does not presuppose any movement, as the definite determiner is

⁵ Kyriakaki (2011) argues that in Greek definite expressions, the definite determiner is underspecified for uniqueness, but it always encodes familiarity.

⁶ See Dayal (2011: 132) who shows that accusative case marking of the argument presupposes familiarity, as the argument is required to be part of a familiar set of entities. The place nominals in Greek preposition-drop are also accusatively marked.

sufficient to satisfy this D-feature bundle on D simply by merging on D (for more details see Section 3.2.1).⁷

Aside from the familiar presupposition that is essential for the interpretation of the place nominal, an interpretative difference sets apart preposition-drop constructions from their overt counterparts. Returning to example (6), the place nominal *platia* lacks a definite determiner, but is still interpreted as definite and familiar, mutually known to the interlocutors, since frequent activities take place there.⁸ Example (6) has a definite interpretation and denotes the familiar activity of going to a specific square (i.e., *platia Exarhion/Kolonakiu*, etc.), as part of the interlocutors' past time and recurrent activities.

In (7) a proper name such as *Thessaloniki* may also participate in preposition-drop. Based on Kripke (1980), the proper name is a *rigid designator* as it identifies a unique and familiar entity, that of the second largest city of Greece.⁹ As a result, a proper name in these constructions is inherently anaphoric, but does not presuppose a reading whereby going to Thessaloniki would be part of the subjects' everyday activities. This frequentative reading is possible for (6) when the place nominal is a common noun, but not obligatory for its overt counterpart in (8).

- (8) *pame stin platia.*
 go.1PL (to.the) square.ACC
 'we are going to the square'

(8) is neutral to this frequentative interpretation, since visiting this familiar square does not necessarily constitute part of the speakers' daily/weekly routine (i.e., we may go to the square every day, but we may not).

⁷ See Kyriakaki (2011) and references therein for a literature review on Greek *monadic* and *polydefinite* DPs.

⁸ Gehrke and Lekakou (2013: 102) mention in passing that *institutionalized* or *prototypical* activities take place in these designated locations. However, they admit that they do not have an explanation as to what constitutes a "good" institutionalized location and they promise to return to this in a future exploration. See also Mithun (1984), among others who discusses that one of the properties of noun incorporation constructions is that they often refer to habitual activities.

⁹ That proper names also encode a familiarity presupposition is further reinforced by (i) whereby the speaker has chosen to mention a random place not easily identifiable or familiar to the hearer and as such, preposition-drop is not felicitous. (i) becomes felicitous only if the preposition and the determiner are overt and if *Temuco* is followed by a possessor:

- (i) ##pame Temuco?
 go.1PL Temuco.ACC
 'Shall we go to Temuco?'
 (ii) pame sto Temuco tis Chilis?
 go.1PL to.the Temuco.ACC of.GEN Chile.GEN
 'Shall we go to Temuco in Chile?'

As illustrated in (7), this frequentative reading is not obtained when the place nominal is a proper name.

- (9) a. *pame Thessaloniki?*
 go.1PL Thessaloniki.ACC
 ‘Shall we go to Thessaloniki?’

It is interesting to note that (9a) has the same interpretation as (9b) and (9c):

- b. *pame sti Thessaloniki?*
 go.1PL to.the Thessaloniki.ACC
 ‘Shall we go to Thessaloniki?’
- c. *pame mia Thessaloniki?*
 go.1PL a.ACC Thessaloniki.ACC
 ‘Shall we go to Thessaloniki?’¹⁰

This frequentative interpretation (i.e., part of our daily/weekly routine) is a characteristic of preposition-drop when the construction comprises a motion verb and a common noun.

- (10) a. *pigame/ pame (stin) platia.*
 go.PST.PFV.1PL/ go.IPFV.1PL to.the square.ACC
 ‘we went/are going to the square’
- b. *pigame/ pame mia platia.*
 go.PST.PFV.1PL/ go.IPFV.1PL a.ACC square.ACC
 ‘we went/are going to a square’

(10a) shows that whether the motion verb is marked with the perfective or the imperfective aspect, this does not affect the frequentative interpretation of preposition-drop constructions. In contrast to the preposition-drop construction, its overt counterpart in (10a) is neutral to this frequentative reading. On the other hand, (10b) designates neither a familiar location (i.e., a square we are all familiar

10 My informants all share the judgment that they would use (9c) only if they have never visited *Thessaloniki* with the hearer (even though they may have visited *Thessaloniki* separately), and (9c) would act as a suggestion for a first time visit. However, there are differences between (9a) and (9c) as if the preposition *se* was present in (9c) (**pame se mia Thessaloniki*) the sentence would be ruled out altogether. This is not only with the proper name of *Thessaloniki*, but with all other proper names. This strongly indicates that constructions such as those in (9c) are not the same as the preposition-drop constructions we investigate here. My intuition is that (9c) may not even instantiate preposition-drop, hence why structures like (9c) will not be explored in here.

with) nor a frequentative interpretation (i.e., part of our everyday routine). In (10b) the use of the indefinite determiner gives rise to a different set of theoretical questions that fall outside the scope of this paper.

If we replace the motion verb in (10a) with a verb that denotes static location, then (11) is neutral to this frequentative interpretation, just like its overt counterpart.

- (11) *emina grafio/platia.*
 stay.PST.1SG office/square.ACC
 ‘I stayed in the office/the square’
 (Terzi 2010a: 173)

The idea that a motion verb and its PP can play a role in the aspectual interpretation of the sentence is not new. Ramchand and Tungseth (2006) argue that a PP selected by the verb can affect the aspect of the whole VP. For instance, they show that motion verbs will pair with bounded PPs and the result is a telic interpretation:

- (12) a. *John walked to the store.* (telic, bounded PP)
 (Ramchand and Tungseth 2006: 167)

On the other hand, pairing of the verb with an unbounded PP will result in an atelic interpretation:

- b. *John walked towards the station.* (atelic, unbounded PP)
 (Ramchand and Tungseth 2006: 167)

They also observe that the same thing does not hold true with stative verbs.

Aspect marking may be designated morphologically (i.e., with affixes), or lexically (i.e., with frequency adverbials), or simply syntactically, see Smith (1997).¹¹ However, when a motion verb combines with a familiar place nominal and undergoes preposition-drop, the resulting construction is coerced into a frequentative aspectual interpretation. Even though I remain agnostic on the exact syntactic mechanism that results in this frequentative interpretation, I propose that the familiarity encoded by the common noun place nominal, alongside the satisfaction of an EPP/LOC feature on the motion verb, results in this frequentative aspectual interpretation.

¹¹ Similarly, telicity in Greek activity verbs is determined synergistically through the aspect of the verb and a specific DP complement (see Moser 1994; Tsimpli and Papadopoulou 2006; Tsimpli and Papadopoulou 2009; among others).

This meaning difference has been left unreported in the literature, presumably because it is a more recent characteristic of this ongoing phenomenon. Whether this frequentative aspectual interpretation will take off and become a standard interpretation for all users of preposition-drop constructions is something only time will determine.

Preposition-drop is also permissible with nouns that denote a geographical location such as *thalasa* ‘sea’, *vuno* ‘mountain’, or sports games (e.g., *basket* ‘basketball’).

- (13) *pame vuno/thalasa/basket.*
 go.1PL mountain/sea/basket.ACC
 ‘we are going to the mountain/sea/basketball game’

The assumption entertained here is that the notion of familiarity also holds for the place nominals *vuno* and *thalasa* even though these may not be part of the speaker’s daily/weekly activities *per se*. Still, speaker and addressee must be familiar with the usual outings of the subjects (i.e., where the subject frequents, which mountain or sea they tend to visit, etc.). Interestingly preposition-drop with place nominals of geographical locations are not encountered as frequently as others such as *grafio* ‘office’ or *platia* ‘square’. It seems that the more familiar (i.e., part of the common knowledge/ground) a place nominal is to the speakers, the more likely it is to be used in preposition-drop. On the other hand, *basketball* in (13) is not a place nominal *sensu stricto*, but it could broadly denote a location where the activity of *basketball* takes place. The verb *pigan* ‘went’ in *pigan basket* ‘went basketball game’ does not have the meaning of motion or direction towards a goal. Instead its interpretation resembles that of the verb *kano* ‘do’ as in V +DP (complement) structures such as *kano baleto/basket/tennis* ‘do ballet/basket/tennis’, etc.¹² If (13) above featured an overt PP, then the meaning of the sentence *pigan sto basket* ‘went to the basketball game’ could vary between they went to watch or to participate in a scheduled basketball game. This, however, does not necessarily mean that *basket* forms part of their recurrent exercise routine; it could be a one-off thing. As these constructions differ from the prototypical examples of preposition-drop investigated here (i.e., the verb is not a verb of motion), they will be scrutinized in future work.

Before moving away from the properties of these place nominals, it is essential to discuss a rather popular parallelism between the place noun *spiti* ‘home/house’ and other place nominals.

¹² Thanks to one of the reviewers for raising my attention to this distinct interpretation of *pao*.

2.2.2 *Spiti* ‘house/home’ versus other place nominals

There have been several attempts in the literature (cf. Ioannidou and den Dikken 2009; Terzi 2010a, among others) to associate preposition-drop with the syntax of *casa/home/spiti* (cf. Longobardi 2001a and Collins 2007, *inter alia*). Even though there are similarities between the two constructions, there are also a number of differences. First of all, *spiti* and *casa* mean both ‘house’ and ‘home’ (cf. Terzi 2010a: 169):

- (14) a. *agorasa kenurio spiti.*
 buy.PST.1SG new house.ACC
 ‘I bought a new house’
 b. *piga spiti noris.*
 go.PST.1SG home.ACC early
 ‘I went home early’

In Greek, *spiti* is the only noun that permits both preposition-drop and a post verbal post nominal pronoun (cf. Terzi 2010a: 177; Kouneli 2014: 7).

- (15) a. *piga spiti tou.*
 go.PST.1SG house.ACC his.GEN
 ‘I went to his house’
 b. **piga grafio tou.*
 go.PST.1SG office.ACC his.GEN
 ‘I went to his office’

As shown in (15b), this is not possible with any other place nouns. It has also been observed by Collins (2007), Terzi (2010a) and Gehrke and Lekakou (2013) that the preposition that is dropped is predominantly part of a PP-complement (see (16b)) rather than a PP-adjunct as in (16a) (cf. Ioannidou and Den Dikken 2009; Gehrke and Lekakou 2013; Terzi 2010a).

- (16) a. *kathe Tetarti horevo *(sto) gimnastirio.*
 every Wednesday dance.1SG in/at.the gym.ACC
 ‘Every Wednesday I am dancing in/at the gym’
 b. *kathe Tetarti pigeno (sto) gimnastirio.*
 every Wednesday go.1SG to.the gym.ACC
 ‘Every *Wednesday* I am going to the gym’

However, Kouneli (2014) observes that the argument-adjunct asymmetry is not as straightforward as all previous accounts have assumed.

- (17) *spudase (stin) Aglia.*
 study.PST.3SG (to.the) England.ACC
 ‘He studied in England’
 (Kouneli 2014: 8)

Kouneli (2014) shows that in (17) *stin Aglia* is not part of the VP, making it a VP-adjunct rather than a VP-argument. The test she uses to establish whether the PP is part of the VP and therefore an argument, or whether the PP remains outside the VP as an adjunct, is the *kano to idio* ‘do the same’ test put forward by Anagnostopoulou (2005). In (18) *stin Galia* (and *stin Aglia*) are PP-adjuncts:

- (18) *i Maria spudase/metakomise (stin) Aglia ke o*
 the.NOM Maria.NOM study/move.PST.3SG (to.the) England and the.NOM
Yianis ekane to idio (sti) Galia.
 John.NOM do.PST.3SG the same (in.the) France
 ‘Mary studied/moved to England and John did the same (studied/moved) to France.’
 (Kouneli 2014: 9)

This means that even though preposition-drop has been traditionally assumed to target PP-arguments, in some cases it is also possible with PP-adjuncts, especially when the place noun is a proper name. However, as Kouneli observes, preposition-drop with VP adjuncts is not permitted when the place noun is a common noun.

- (19) *i Maria efage *(sto) gimnastirio ke o*
 the.NOM Maria.NOM eat.PST.3SG (to.the) gym and the.NOM
*Yianis ekane to idio *(sto) magazi.*
 John.NOM do.PST.3SG the same (to.the) shop
 ‘Mary ate at the gym and John did the same at the shop’

In (19) *sto gimnastirio* and *sto magazi* are VP-adjuncts and as a result cannot participate in preposition-drop. Apart from Kouneli (2014), all other analyses assume that only PP-arguments are legitimate candidates for preposition-drop. This assumption has stemmed from drawing a direct parallel to the *home* constructions where the PP is obligatorily present in PP-adjuncts (cf. Collins 2007 and Terzi 2010a).

- (20) *I did my assignment *(at) home.*

On the other hand, this restriction does not hold true for Greek *home*, as we encounter preposition-drop even when the noun *spiti* is part of a PP-adjunct.

- (21) *troo (sto) spiti aftes tis meres.*
 eat.1SG (in.the) home these the days
 ‘I eat at home these days’

According to Terzi (2010a) the noun *spiti* behaves more like the locative adverbials *here* and *there* (see also Longobardi 2001a; Collins 2007, among others).

- (22) a. *eho fai eki/spiti.*
 have.1SG eat.PST PART there/home
 ‘I have eaten there/at home’
 (Terzi 2010a: 185)
- b. **eho fai gimnastirio.*
 have.1SG eat.PST PART gym
 ‘I have eaten at the gym’

Given the above differences between *home* and other place nouns involved, I agree with Terzi (2010a) that the noun *spiti* displays a unique behavior when compared to the other place nominals that participate in preposition-drop. As shown by Greek, the prediction is that if a language permits preposition-drop with place nominals such as *grafio* ‘office’, then it will also allow preposition-drop with *spiti*. However, the opposite implicational relationship should not necessarily hold true.¹³ A crosslinguistic comparison between *home* and other place nominals in preposition-drop certainly merits some thorough investigation, but this would take us too far afield to pursue in this work.

2.3 Properties of pseudo-incorporation

In this section, I briefly define the notions of noun incorporation and pseudo-incorporation and further outline some of the most common semantic properties associated with pseudo-incorporation. These properties are set against Greek preposition-drop revealing that Greek does not strictly abide by all these semantic properties.

Baker (1988: 229) defines incorporation as: “[...] the syntactic movement of an X^0 category to adjoin to its X^0 governor.” Saddock (1990: 129) adds further to this definition noting that incorporation is the: “[...] movement of a word-level constituent (i.e., X^0) to a position inside another word – i.e., the amalgamation of words in the syntax [...]”

¹³ I am grateful to one of the reviewers for signposting me in the right direction here.

Baker's *canonical* incorporation (a) affects heads and not phrases (b) induces valency changes (i.e., turns the verb from transitive to intransitive), and (c) presupposes strict adjacency between the verb and the nominal.¹⁴ One of the most important differences between canonical noun incorporation and pseudo-incorporation is that in the latter operation the predicate and the nominal do not form a single syntactic unit or one lexical word.

If (a)–(c) do not (all) hold true, then what we have is pseudo-incorporation/PS-I. PS-I is an “umbrella” term that covers all the cases of incorporation that are more permissive than the ones Baker discusses. In recent years, the term has become synonymous with semantic incorporation. PS-I, except VP internal arguments, may also target PP internal arguments. This means that in PS-I the element that incorporates may not have a head status, but instead can be phrasal (XPs rather than Xs). For instance, Massam (2001) argues that in Niuean it is VP-fronting (V + NP) to SpecIP that yields the requisite VOS incorporated order. Even if incorporation manifests through VP-fronting in Niuean, Massam still calls these constructions “pseudo-noun incorporation”.¹⁵ Effectively, pseudo-incorporation targets XP constituents rather than heads.

Aside from these (mainly) structural properties that have been observed in languages that display PS-I, Dayal (2011) argues that PS-I languages may also have a number of semantic properties. Semantic incorporation is discussed in, among others, Van Geenhoven (1998) and Farkas and de Swart (2003). Some of these semantic properties in Greek preposition-drop are examined below.¹⁶

Dayal (2011) based on Mithun (1984) observes that there are gaps in the nominals that can incorporate. For instance, inanimate nouns are preferred over animate ones. This is borne out in Greek, as the common nouns always denote an inanimate location (e.g., office, square, pool, etc.) and the proper names that participate in preposition-drop have to be inanimate:

- (23) *piGAME* **(sto/ stou)* *Yiani*.
 go.PST.1PL (to.the.ACC/at.the.GEN) John
 ‘We went to John’s (place/office, etc.)’

¹⁴ The term *canonical* (or *genuine*) incorporation is coined in Dayal (2011) who tries to distinguish between cases of more liberal Hindi incorporation (pseudo-incorporation) and those of morpho-syntactic incorporation that Baker (1988) discusses.

¹⁵ One of the reviewers correctly points out that the term “pseudo noun incorporation” is in fact a misnomer. This is why I have opted for the more general term, that of “pseudo-incorporation”.

¹⁶ Some of these semantic properties (i.e., the lack of pronominal discourse anaphora) are also characteristic of canonical noun incorporation. I am not claiming here that these properties are exclusive to pseudo-incorporation, but they tend to be present in cases of PS-I.

In (23), *Yiani* is not a place nominal, just the name of a person. This lexical restriction ties in well with the proposal developed in Section 3.2.2 according to which the place nominal bears a LOC-feature that matches the LOC-feature of the verb and the two enter an Agree relationship.

According to Gehrke and Lekakou (2013) the place nominal in preposition-drop cannot be referred back to by the pronominal clitic in the next sentence.¹⁷

- (24) *pao paralia. #Tin episkeptome sihna*
 go.1SG beach.ACC Her.CL.ACC visit.1SG often
 ‘I am going to the beach. I visit it often.’¹⁸
 (Gehrke and Lekakou 2013: 96)

Greek preposition-drop provides mixed evidence with respect to pronominal anaphora as it permits co reference only when the place nominal encodes the requisite familiarity presupposition as well as the observed frequentative reading. More specifically, *paralia* in (24) cannot function as the antecedent of the pronominal clitic as it does not presuppose a familiar place noun that the two speakers frequently visit. This lack of familiarity in (24) is reaffirmed by the sentence that follows in which the speaker states for the first time that beach going is part of his scheduled activities.

Contra (24), *platia* in (25) can function as the referent to the clitic *tin*.

- (25) *tha pao platia argotera. Tin ehun kani halia, ala ke*
 will go.1SG square later. It-CL have-3PL made mess but and
ti alo na kanis me afti ti zesti?
 what else to do-2SG with this the heat
 ‘I will go to the square later. They have made a mess of it, but what else is there to do with such heat?’

Clitic use is associated with familiarity/topicality as it can refer to a salient place noun such as *platia*.¹⁹ However, such co reference is odd in examples with place nouns such as *sinema*, which may not have a salient interpretation, or may have a less familiar and frequentative interpretation than *platia*.

¹⁷ For discussions on pronominal anaphora, see Farkas and de Swart (2003) for Hungarian, Espinal and McNally (2011) for Catalan and Dayal (2011) for Hindi.

¹⁸ This example is first discussed by Ioannidou and den Dikken (2009: 394) who find that the incorporated head noun can function as an antecedent/discourse referent of the pronoun *tin*. Like Gehrke and Lekakou (2013), I find this co reference odd.

¹⁹ Thanks to the reviewer for the relevant example in (25).

- (26) *tha pao sinema. ##To ehun anakenisi.*
 will go.1SG cinema.ACC. It.CL.ACC have.3PL renovated
 'I will go to the cinema. They have renovated it.'

The evidence on pronominal anaphora show that if the place nominal encodes familiarity and has already appeared in previous discourse, then it also has a frequentative implicature, and can then function as the antecedent to a clitic. If not, such co reference renders the sentence infelicitous.

Another characteristic of pseudo-incorporation is that the nominal is number neutral (cf. Farkas and de Swart 2003; Dayal 2011; Van Geenhoven 1998, among others). Gehrke and Lekakou (2013) give the following example where the place nominal does not indicate only one beach visited, but two different ones.

- (27) *to proi pigame paralia: i misi sto*
 the morning go.PST.1PL beach.ACC the half to.the
Mavrovuni ke i ali misi sta Trinisa.
 Mavrovuni.ACC and The other half to.the Trinisa.ACC
 'In the morning we went to the beach: half of us to Mavrovuni and the other half to Trinisa'
 (Gehrke and Lekakou 2013: 100)

Gehrke and Lekakou (2013) use (27) as evidence that the number neutral bare noun above points against a null D in the structure of the place nominal. (27) does not undermine the pivotal argument put forward here, that the place nominal is definite and familiar, as the two groups went to familiar and specific beaches in Mavrovuni and Trinisa.²⁰

Furthermore, the place nominal in Greek cannot be pluralized. This again, stems from the fact that the place nominals that participate in preposition-drop possess a familiarity property.

- (28) *pame *(stis) paralies pu mas protinun i*
 go.1PL (to.the) beaches.ACC that us.ACC recommend.3PL the
odigi kathe kalokeri.
 guides every summer
 'Every summer we go to the beaches that the guides recommend'

Paralies in (28) has an indefinite interpretation and does not refer to specific beaches that have been introduced in previous discourse, as different beaches will

²⁰ See Dayal (2011: 144) on how number neutrality in Hindi pseudo-incorporation emerges only under atelicity.

be recommended by different guides. As a result, this bare plural place nominal cannot participate in preposition-drop.

Greek preposition-drop provides mixed evidence in relation to the semantic properties that are characteristic of pseudo-incorporation given that the place nominal behaves more like a definite nominal (i.e., familiar and referential, as it has been introduced previously in the discourse) rather than like an indefinite noun (see Mithun 1984 and Massam 2001).²¹ On the other hand, the structural properties of Greek preposition-drop (i.e., lack of adjacency between V + NP) resonate more closely with pseudo-incorporation.²² In the next section I present some structural properties of preposition-drop that manifest the more permissive nature of these constructions (i.e., lack of adjacency between V + NP).

2.3.1 Lack of adjacency between V+ NP

The structural properties of preposition-drop presented in this section align with a pseudo-incorporation analysis. As first observed by Gehrke and Lekakou (2013), (29) illustrates that preposition-drop is also attested inside a PP complement that is not adjacent to the verb.

- (29) *pame me to Dimitri (sti) Thessaloniki?*
 go.1PL with the Dimitri (to.the) Thessaloniki.ACC
 ‘Shall we go to Thessaloniki with Dimitris?’

In (30) preposition-drop occurs inside a prepositional complement that again is not adjacent to the verb:

- (30) *tha pas ta pedia (stin) pisina?*
 will take.2SG the children.ACC (to.the) pool.ACC
 ‘Will you take the children to the pool?’

The pool in (30) is a familiar pool where children are taken to every time they go swimming. The bare noun in (30) emphasizes that pool going is a daily/weekly activity, a pool to which we have subscribed. When the preposition and determiner are overt then the reading is neutral with respect to this; the children may not visit a pool on a daily/weekly basis.

²¹ Gehrke and Lekakou (2013) argue that the place nominals behave neither as regular definite nominals (hence the lack of a DP in their architecture) nor as indefinites, but the authors do not really take a firm stand on the debate. On the other hand, Dayal (2011) shows that the incorporated nominals in Hindi when marked with the accusative behave like definites.

²² For instances of canonical incorporation in Greek deverbal compounds, cf. Michelioudakis and Angelopoulos (2013).

Unlike previous assumptions in the literature, there is further structural evidence that the verb and the place nominal do not form a strong bond, as the nominal may be modified by an attributive adjective.

- (31) *pame (stin) palia pisina i (stin) kenuria?*
 go.1PL (to.the) old pool.ACC or (to.the) new
 ‘Are we going to the old swimming pool or to the new one?’

Gehrke and Lekakou (2013) argue that modifying adjectives are only permissible in these constructions if they simply denote a type/sub-kind of the noun:

- (32) *ihame pai arheologiko musio/ kendriko*
 have.PST.1PL go. PST PART archaeological museum.ACC/ central
tahidromio.
 post.office.ACC
 ‘We had gone to the archaeological museum/central post office.’
 (Gehrke and Lekakou 2013: 96)

In (32) *arheologiko musio* is a type of museum, but *palia* or *kenuria pisina* is not a type/kind of pool. Rather *palia* or *kenuria pisina* refer to pools that we distinguish through the addition of the attributive adjectives (the old vs. the new pool, etc.). The attributive adjective above in the case of preposition-drop presupposes an old vs. a newly built swimming pool that we alternate in visiting and these are both familiar to the interlocutors.²³

It has also been observed by Gehrke and Lekakou (2013: 97) that noun extraposition is permitted, whereby the postverbal nominal is dislocated to the front of the clause.

- (33) *platia, pigame (ohi cafeteria).*
 square.ACC go.PST.1PL (not cafe.ACC)
 ‘We went to the square (not to the coffee shop)’

2.3.2 Evidence for a null PP

Preposition-drop also exhibits the following structural properties that have gone unnoticed in the literature. Degree modifiers such as *akrivos/katefthian* ‘right/straight’ are taken to be correlative with the presence of PPs (cf. Collins 2007;

²³ One of the reviewers interprets *palia* and *kenuria* in (31) as the swimming pool I used to go to vs. the swimming pool I am now going to. Since then I have asked other native speakers for their interpretations of (31) and they have all confirmed that they do not take *palia* and *kenuria* to refer to a type/kind of pool, but instead interpret the adjectives attributively.

Koopman 2000; Svenonius 2010; Myler 2011; Terzi 2010b, among others).²⁴ An adverb may intervene between the verb and the nominal. Example (34) provides evidence that there is no strict adjacency between the verb and the place nominal and that there is a null PP projected in the syntax of preposition-drop (contra Gehrke and Lekakou 2013).

- (34) *tha pame katefthian/*akrivos (sti) filaki, an kaneis kamia*
 will go.1PL straight/*right (to.the) prison.ACC if do.2SG anything
vlakia.
 Stupid
 ‘We are going straight to prison, if you do anything stupid’

Coordination is another diagnostic used to determine the structural presence or absence of a PP in the Greek structures and has also been overlooked in the literature:

- (35) a. *to proi pame stin platia ke to vradi*
 in.the morning go.1PL to.the square.ACC and in.the evening
sto bar.
 to.the bar.ACC
 ‘In the morning we are going to the square and in the evening to the bar’
 b. *to proi pame platia ke to vradi*
 in.the morning go.1PL square.ACC and in.the evening
bar.
 bar.ACC

24 Terzi (2010b) and Kouneli (2014) discuss only the degree PP modifier *akrivos* ‘right’. However, Ioanna Sitaridou and George Tsoulas (p.c.) agree with the judgment here that *katefthian* ‘straight’ can also be taken as a degree modifier, indicative of a PP. It is interesting to note, however, that *akrivos* and *katefthian* cannot alternate in most cases, as shown by (34) and the examples below:

- (i) *to Grafio ine akrivos/*katefthian (stin) Omonia me Panepistimiu.*
 the Office is.3SG right/*straight (to.the) Omonia.ACC with Panepistimiu
 ‘the office is right in Omonia and Panepistimiu square’
 (ii) *pame katefthian/*akrivos Omonia.*
 go.1PL straight/*right Omonia.ACC
 ‘we are going straight to Omonia square’

It seems that *akrivos* is preferred with verbs of location whereas *katefthian* is preferred with verbs of motion, as shown by (i) and (ii) respectively.

- c. *to* *proi* *pame* *platia* *ke* *to* *vradi*
 in.the morning go.1PL square.ACC and in.the evening
sto *bar.*
 to.the bar.ACC

'In the morning we are going to the square and in the evening to the bar'

In (35c) the overt preposition and determiner in the second coordinated nominal indicates that there is also a (covert) PP in the preposition-drop construction in the first part of the coordinated nominal. I take the degree modifiers and the coordinated PPs as adequate evidence that preposition-drop constructions project a null PP in the syntactic tree.

To summarize, Greek preposition-drop constructions exhibit the following syntactic and semantic properties associated with pseudo-incorporation:

- a. the place nominals that participate in these constructions are indexical of familiar locations where frequent activities happen and these frequent activities are known to both interlocutors. The more salient/familiar the interpretation of these place nouns, the more likely is that they can support pronominal anaphora as in (25).
- b. the nouns that incorporate in Greek are usually part of PP complements and not NP complements as with canonical incorporation.
- c. the place nominal in Greek preposition-drop is not marked with plural in accord with the familiarity presupposition that these nouns impose.
- d. there is a null PP projected in the syntax of these constructions (see Section 2.3.2).
- e. the strict adjacency between the verb and the place nominal is not always observed in Greek preposition-drop, as (i) the direct object may interrupt the sequence between the verb and the indirect prepositionless object, as in (29) (ii) adjectival modifiers, as in (31), and prepositional modifiers, as in (34), can also intervene between the verb and the noun, and (iii) noun extraposition is permitted, as in (33).

Evidently, preposition-drop in Greek enjoys much more syntactic freedom than canonical incorporation, thus ruling out an analysis of syntactic head adjunction, as in Baker (1988). The syntactic properties of Greek preposition-drop resonate more closely with pseudo-incorporation, even though the place nominal in Greek preposition-drop behaves more like a definite nominal rather than an indefinite one.

For the remainder of this paper, I will leave aside a semantic analysis of these Greek constructions and will focus on how this pseudo-incorporation of preposition-drop is represented in syntax.

3 Towards an analysis of pseudo-incorporation

In this section I outline Terzi's (2010a) account and then develop my own analysis. With the exception of Terzi (2010a), all other accounts argue for an analysis of incorporation with some accounts capitalizing on the concept more than others.²⁵ Compared to all previous analyses, the uniqueness of the account developed here is that it: (a) argues that the notion of familiarity is pivotal in place nominals that participate in preposition-drop (b) provides a featural motivation for incorporation which has been overlooked in the literature and (c) aims to accommodate the more permissive cases of preposition-drop where the verb and the place nominal are interrupted by modifiers.

3.1 Terzi (2010a)

Terzi's (2010a) account and her PP-structure will be adopted and modified for the purposes of the analysis presented in the next section. Following Kayne (2005) and Collins (2007), she argues that the place nominals that participate in these preposition-drop constructions resemble locative adverbials such as *here* and *there*. In Kayne's (2005) theory the locative adverbs *here* and *there* modify a category PLACE that is silent and has a null D position.²⁶ In preposition-drop, the category PLACE is occupied overtly by a place nominal (e.g., the NP), that is, the NP instantiates rather than modifies the category of PLACE. This PLACE category in the case of a locative interpretation moves to the SpecPPLoc and then further up to SpecPredP. Faithful to the Minimalist Framework (Chomsky 1995 and subsequent work), this movement takes place to satisfy a more general feature (i.e., an EPP feature). As with Collins (2007), Terzi utilizes some version of the *Doubly Filled Comp Filter* (i.e., *Edge X*) which applies to the PP. According to this more general version of the Doubly Filled Filter if the specifier of the PP is occupied then the head has to remain empty and vice versa. Terzi argues that the specifier of the PP has to be overt by some moved material such as the place nominal that moves to SpecPPLoc and allows PLoc to remain without phonetic content. PPLoc subsequently moves to SpecPredP. When the preposition and the article are overt then PLoc is filled with *se* and as a result the nominal does not have to move to

²⁵ Ioannidou and den Dikken (2009) talk about P incorporating to V, Gehrke and Lekakou (2013) advocate N-to-V incorporation, and Kouneli (2014) incorporates the null PP to V.

²⁶ Kayne (2005) does not offer an explanation why the D of PLACE is null, Collins (2007) attributes this to the light noun status of *home*, and Terzi (2010a) leaves this (significant) matter to future research.

SpecPPLoc, as this would violate the Doubly Filled Filter requirement. The structure of (36a) proceeds as in (36b).

- (36) a. *emina (sto) grafio mexri arga.*
 stay.PST.1SG in.the office.ACC until late
 ‘I stayed in the office until late.’
 b. Pred [_{VP} V [PPLoc [_{PLoc} 0 [_{DP/NP} grafio]]]]
 (Terzi 2010a: 183)

In (36b), the nominal moves from its position to SpecPPLoc and then PPLoc further rises to SpecPredP to incorporate to the verb. In this way, the place nominal lexicalizes its features and satisfies EPP phenomena by occupying the Edge of PPLoc. If *se* was present, this would occupy the head of PPLoc and then there would be no need for movement. On the other hand, a structure like (37a) involves a directional PP.

- (37) a. *piga grafio.*
 go.PST.1SG office.ACC
 ‘I went to the office’

(37a) is represented as involving an extra layer of embedding. *Grafio* moves to the SpecPPLoc and PPLoc subsequently raises to SpecPPGoal (e.g., the directional projection), so that the SpecPPGoal gets phonetic content and lexicalizes its features. Again, PPGoal (including PPLoc) rises further to SpecPredP to incorporate with the verb, as illustrated in (37b).

- b. Pred [_{VP} V [_{PPGoal} [_{PPGoal} 0 [_{PPLoc} [_{PLoc} 0 [_{DP/NP} grafio]]]]]]
 (Terzi 2010a: 183)

If *se* were overt, then there would be no need for noun movement to lexicalize its features, as PLoc would be filled.

Terzi’s account is faced with the following shortcomings: (a) she claims that in English “null Ps are only possible with home” (Terzi 2010a: 171, fn. 4), for evidence against such a claim see Section 4, and (b) the nominals involved in these preposition-drop constructions in Greek cannot be preceded by a modifier (see Section 2.3.2). Conceptually, the alternation between overt and covert *se*, is merely

attributed to the lexicalization of features, without any further elaboration on the actual features involved in the movement analysis she puts forward.²⁷

The following section will try to address these oversights and offer an analysis of preposition-drop in terms of pseudo-incorporation.

3.2 Featural trigger(s) for preposition-drop

Section 2.3 showed that the properties of Greek preposition-drop constructions align more closely with a pseudo-incorporation analysis. Effectively, alongside Gehrke and Lekakou (2013), I will also pursue an analysis in terms of pseudo-incorporation. However, there are significant differences between their pseudo-incorporation account and the one given here. The present pseudo-incorporation analysis takes place in Syntax and not at the LF level, contrary to Gehrke and Lekakou (2013). Based on the degree modifiers and the coordination diagnostics, as seen in Section 2.3.2, I postulate that there is a projected PP in the clausal architecture of preposition-drop, whereas Gehrke and Lekakou do not postulate a null PP. Unlike Gehrke and Lekakou, I also argue that there is a null DP in the structure of the place nominal, to account for the familiar and definite interpretation of these nouns. In the next section, I look at the structural effects that an overt DP and an overt PP have in preposition-drop.

3.2.1 The place nominal; D-feature bundle satisfaction

We have observed in the data in Section 2 that in both preposition-drop constructions and non-preposition-drop ones the nominals are interpreted as familiar and definite. The place nominals used in preposition-drop designate definite and familiar places where frequent activities take place. However, the question that arises is how the place nominal that lacks a definite determiner, receives a definite/familiar interpretation.

According to Heim (1982), familiarity is what distinguishes a definite from an indefinite linguistic expression. Preposition-drop necessitates the presence of a nominal that is familiar to both interlocutors, that is, they can both identify the

²⁷ In Terzi (2010a) movement of the place nominal seems to be motivated for the satisfaction of the Doubly Filled Filter (i.e., Edge X) as well as an EPP-feature. As Nchare and Terzi (2014: 696) observe the two requirements (i.e., the EPP and the Doubly Filled Filter) seem to target different phenomena and it is hard to see how the two combine. According to the authors one way to reconcile the two would be to assume that the Doubly Filled Filter amounts to some phonological requirement that works in tandem with the EPP (see Holmberg 2000 and Landau 2007). The issue awaits further investigation.

entity the place nominal refers to. The more familiar the place nominal that participates in preposition-drop the more likely the speaker is to employ the construction. This familiar presupposition is normally part of the definite determiner, but given the lack of a determiner in preposition-drop, the argument entertained here is that these place nominals instantiate a DP category, which in preposition-drop constructions remains null, as it is not really occupied by an overt determiner.

Longobardi (1994) has argued extensively that when a definite determiner is missing the DP dominating an NP is still projected. He has further put forward that in these cases (i.e., proper names in Romance) there is N-to-D movement which helps lexicalize the D position to allow for an interpretation of the noun as definite, familiar, etc. More recently, Longobardi (2001b) argues in a Minimalist spirit that movement of N-to-D is driven for the satisfaction of a strong (referential) D-feature. As attributive adjectives appear to the left of the noun in Greek, Alexiadou et al. (2007) have been forced to argue that N-to-D movement does not happen in Greek. The truth is that if we put forward N-to-D movement it would be hard to account for any prenominal modifiers such as the attributive adjectives that we saw in Section 2.3.1. As a result, the analysis proposed below is a synthesis of Longobardi's account, which argues that the D-feature of DP needs to be satisfied, and that of Nchare (2012) and Cinque (2005) who propose that word order alternations in the DP are the result of XP movement and not of head movement.²⁸ The proposal here is that in preposition-drop NP-to-SpecDP movement is enough to satisfy the uninterpretable D-feature bundle of the DP.²⁹ On the other hand, in the overt cases, the definite determiner occupies D and the D-feature bundle is satisfied by the definite determiner, rendering further movement of NP-to-SpecDP redundant. One question that emerges is what kind of features this D-feature bundle represents. Aside from a definiteness feature (Def), D also bears an incomplete set of phi-features such as gender. Strictly speaking, D should be underspecified for number

28 According to Longobardi (2001a: 289, fn. 21), there is further supporting evidence for N-to-D movement given that Ancient Greek prepositions (*eis*, *en*) with locative and directional meanings had a tendency of “disappearing” not only before the word *home*, but also before city names and “small islands”. I have identified Ancient Greek examples that drop the definite determiner (e.g., *ta en (to) iko mi en (to) dimo* ‘home affairs are not for the public’), but I have not found any examples that drop the preposition + definite determiner such as *pempousin (es thn) Kerkyran* ‘they sent to Corfu’.

29 Ioannidou and den Dikken (2009) also advocate NP-to-SpecDP movement so that the noun gets its Case feature checked and simultaneously the EPP-feature gets satisfied. To account for the fully fledged counterparts of these preposition-drop structures, they argue that in these cases there is no movement of the NP to SpecDP, as the definite determiner is present and it would move from Dx-to-D, so the EPP would essentially be satisfied via head movement of the overt determiner. For a critique, see Kouneli (2014).

given that preposition-drop does not permit any plural place nominals.³⁰ Case should also be part of this feature bundle. The featural composition of D may be even more complex than that, including an additional lexical feature that of [-human]. This [-human] feature helps to explain the animacy restriction that holds in preposition-drop constructions (see Section 2.3). This [-human] feature is not present in the non-preposition-drop constructions. The place nominal receives its familiar and definite interpretation through the satisfaction of this D-feature bundle.³¹

The current analysis treats place nominals of common nouns and place nominals of proper names the same way; that is they both satisfy the D-feature bundle in the same manner, via raising of the NP-to-SpecDP.³² However, there are certain fundamental differences between proper names and common nouns. Proper names are rigid designators, that is, they are inherently definite, unique, and familiar (see Kripke 1980). This is why proper names in English are not preceded by definite determiners. On the other hand, Greek (and Italian) proper names are preceded by a definite determiner. This definite determiner is semantically empty functioning as an expletive (see Alexiadou et al. 2007; Longobardi 1994 for discussion therein). I assume that when the definite determiner is overt and the place nominal is a proper name, then the definite determiner is what satisfies the D-feature bundle of D. This variation in the satisfaction of the D-feature bundle on DP (i.e., movement of NP vs. Merge of the determiner) sounds reminiscent of EPP satisfaction on T. I would not dismiss the possibility that this D-feature bundle also includes an obligatory EPP feature that necessitates the presence of a lexical element (merged or moved) with matching interpretable features (see Chomsky 2000).³³

There is an important caveat that I am still obliged to address here. NP-to-SpecDP movement would predict that nothing intervenes between the DP and the NP, even though several accounts have postulated a number of functional layers projected between DP and NP (see Alexiadou et al. 2007). It is true that a place nominal in preposition-drop permits very little modification. One such modifier is the attributive adjectives that can appear preminally as shown in (39a).

30 For a state of the art literature review and the distinct categories such features may occupy inside the DP, see Alexiadou et al. (2007) and Mavrogiorgos (2010), among others.

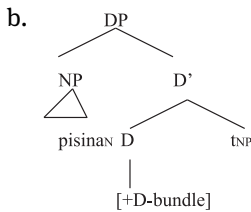
31 To keep things simple I do not get embroiled with differentiating between familiarity, referentiality and definiteness. For more details on these notions see Mavrogiorgos (2010) and his analysis of clitic pronouns in Greek.

32 See also Cattaneo (2009) and the analysis he proposes for the noun *home*.

33 This is similar to EPP satisfaction on TP by expletive-like-elements (cf. Holmberg 2000).

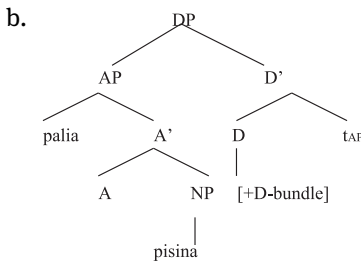
Nchare (2012) in an attempt to derive the rather permissive DP order in Shupamem, a Bantu language, follows Cinque (2005) and proposes that: (a) there is a universal DP order whereby among other modifiers the adjective always precedes the noun. Every other word order possibility (e.g., the adjective following the noun) is the result of (leftward and upward) movement and, (b) there is no head movement. The XP constituent that moves to derive the desired word order obligatorily pied-pipes with it the head noun. Based on these assumptions, in (38a) the whole NP moves to SpecDP for the satisfaction of the D-feature bundle of the DP. (38a) corresponds to the DP-structure in (38b).

(38) a. *pame pisina*



On the other hand the DP structure of (39a) is derived as in (39b).

(39) a. *pame palia pisina*



In (39b) the intermediate projection, AP, hosts the adjective that is merged in SpecAP.³⁴ Subsequently the whole AP moves to SpecDP pied-piping along with it the NP and satisfying the D-feature bundle of D.³⁵

34 For a decomposition of the DP to different projections that correspond to distinct types of semantic phrases, cf. Zamparelli (2000) and Borer (2005).

35 Nchare (2012) proposes that the DP dominates an AgrP which hosts the definite determiner as well as other agreement features such as phi-features. In an NP-AP order, Nchare (2012) advocates NP movement to SpecAgrP, and deems this movement necessary for the satisfaction of uninterpretable phi-features (alternatively, for the satisfaction of an obligatory EPP feature). There are a number of benefits for an AgrP; however, for the purposes of this work, I will keep the DP-structure simple.

Apart from the D-feature bundle satisfaction there is another fundamental difference between preposition-drop constructions and their overt counterparts. This difference essentially accounts for the incorporation analysis of preposition-drop advocated in the present work. It is time to return to the second important issue of preposition-drop – the motivation of pseudo-incorporation in the syntax of these constructions.

3.2.2 Pseudo-incorporation; EPP/LOC-feature satisfaction

The notion of incorporation in Minimalism raises a number of theoretical questions, the most pressing one being the featural trigger of incorporation. In Baker's theory, the main trigger for canonical incorporation has been case assignment. In Minimalism, case assignment no longer instigates obligatory movement, as a nominal may receive case *in-situ* via Agree. I will assume this the case in the Greek preposition-drop constructions, namely that case is assigned *in-situ* (for a different view see Ioannidou and den Dikken 2009).

Longobardi (2001a) argues that the noun *home* semantically incorporates a covert locative preposition, as if it were a PP or a locative adverb (on a par with *here* and *there*, as argued by Kayne 2005, among others).³⁶ Building on Longobardi's intuition, we will translate this covert locative preposition of the place nominal into a LOC feature. This LOC feature is borne by the verb and requires satisfaction via Agree.³⁷ The place nominal also has a LOC feature. The LOC feature of the verb, combined with the EPP requirement, probes the LOC feature of the place nominal (Goal) and the two establish an Agree relationship. When the preposition and determiner are overt the predicate and the place nominal also bear the same LOC feature and the two also establish an *in-situ* Agree relationship. However, in non-preposition-drop constructions there is no movement involved as the LOC feature of the predicate is not coupled with an EPP feature and as such there is no movement trigger. Recent Minimalist assumptions render an EPP feature as the only possible trigger for movement.³⁸ Based on such assumptions, it is the presence of an obligatory EPP feature that triggers movement and pseudo-incorporation in preposition-drop constructions. Effectively, the proposal put

³⁶ For a more elaborate account, mainly with evidence from a Northern Italian dialect and prepositionless constructions see Cattaneo (2009).

³⁷ Espinal and McNally (2011) postulate a similar formal LOC feature that is borne by the verb, so they can account for bare nouns that participate in existentials. Consider also Kouneli (2014).

³⁸ In recent Minimalist developments (Chomsky 2002, Chomsky 2004, Chomsky 2007, Chomsky 2008, etc.) every syntactic position in the clausal architecture has been associated with the presence of an EPP feature making it more of a movement feature than a categorial one.

forward here is that in the case of preposition-drop the LOC feature of the verb is combined with an obligatory EPP feature.^{39,40}

In preposition-drop the LOC feature of the predicate probes the LOC feature of the place nominal and the two enter into an Agree relationship followed by movement of the place nominal to satisfy the EPP. The verb then moves higher up to T to satisfy the EPP of TP. In languages like Greek, V-to-T- raising, alongside satisfying agreement features, can also satisfy the D-feature of the EPP on T (see Alexiadou and Anagnostopoulou 1998).

3.3 Towards a representation of pseudo-incorporation

This section focuses on the derivation of the preposition-drop constructions below.

(40) *pame pisina*

(41) *pame katefthian pisina*

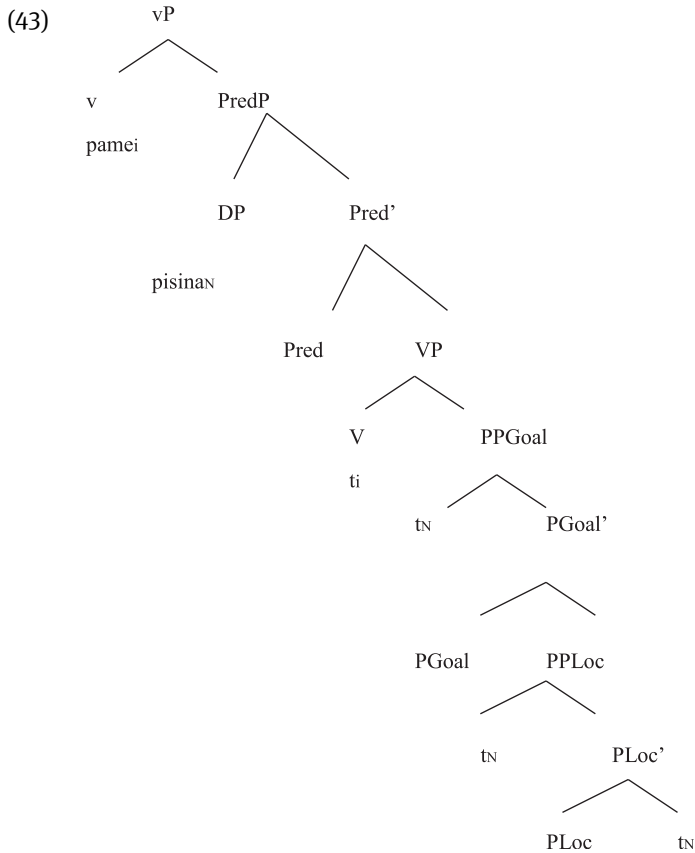
(42) *pisina, pigame (ohi cafeteria)*

In the case of a directional PP, as in (40)–(42) in addition to PPLoc there is an extra layer of embedding. In this case, the place nominal moves to SpecPPLoc and subsequently to SpecPPGoal (e.g., the directional projection), so that the SpecPPGoal gets phonetic content and simultaneously satisfies an EPP feature.⁴¹ Again, the nominal raises further to SpecPredP to incorporate with the verb, as illustrated in (43).

39 The satisfaction of EPP on TP by a locotemporal XP (LOC) is not a novel idea (cf. Pinto 1997; Sheehan 2006, inter alia, for XP-V constructions in various languages).

40 Based on a wide range of phenomena, Landau (2007) convincingly shows that the EPP always works in conjunction with another feature (i.e., D on T, wh on C, etc.). Whenever EPP is satisfied so is the other feature it is anchored with. I retain Landau's main idea that the EPP always combines with another feature, as his evidence is pretty compelling. However, contra Landau (2007), (a) I maintain the syntactic/derivational nature of the EPP as advocated in Chomsky (2000), and (b) following Espinal and McNally (2011) I too take the LOC feature to be some formal feature, rather than just a lexical one.

41 In Terzi (2010a), it is unclear why the place nominal is enough to move to SpecPPLoc, but subsequently the whole PPLoc rises to SpecPPGoal, rather than the same place nominal alone. I will assume that the place nominal alone rises to SpecPPLoc and from there to SpecPPGoal.



In Section 2.3.2, it was shown that degree modifiers such as *katefthian* and *akrivos* may precede the place nominal:

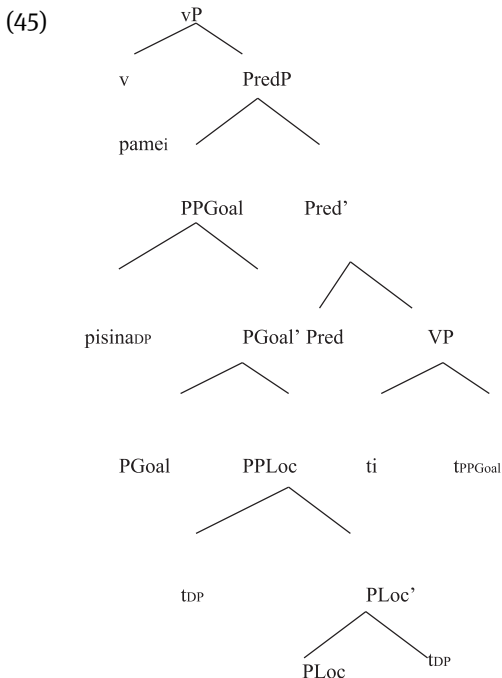
- (44) a. *pame katefthian pisina*
 go.1PL straight pool.ACC
 ‘we are going straight to the pool’

Such constructions whereby an adverb interrupts the sequence between the verb and the place nominal are not discussed or represented in any other previous analyses of Greek preposition-drop. Terzi (2010b) proposes that *akrivos* modifies PPLoc and, as a result, it may occupy SpecPPLoc. If *katefthian/akrivos* appears in SpecPPLoc and *se* occupies the head of the same projection in a non preposition-drop construction, then the Doubly Filled Filter would be violated. Moreover, on

the basis of the account presented here, if *katefthian/akrivos* appears in SpecP-PLoc, then, the desired order will not be obtained, as *pisina* will move higher than *katefthian* (i.e., SpecPPGoal). To derive (44a) I first postulate that there is an extra PP layer situated above PPGoal where the modifier *katefthian* merges directly.⁴²

(44) b. Pred [VP V [PP [P *katefthian* [PPGoal [PGoal 0 [PPLoc [PLoc 0 [DP *pisina*]]]]]]]]]

The place nominal in (44b) moves from SpecPPLoc to SpecPPGoal as required by the Doubly Filled Filter and remains there, as there is no reason to move to the SpecPP headed by *katefthian*. The question that arises is how the EPP/LOC feature of the verb is satisfied if movement is blocked by the presence of the modifier. I will assume that what we get here is PP-preposing where the whole PP moves to SpecPredP to satisfy this EPP/LOC-feature pied-piping along with it everything else it dominates. The same PP-movement can also account for the structure in (40). The assumption entertained here, then, is that Greek preposition-drop is derived invariably via PP-preposing for the satisfaction of the EPP/LOC feature available on PredP. PP-preposing applies consistently in cases of preposition-drop, effectively substituting (43) with the derivation in (45).



⁴² Koopman (2000) argues that Dutch adverbial modifiers such as *pal* 'right' and *vlak* 'just' head their own Degree Projection. Collins (2007) proposes the same for the English modifier *right*.

We have also seen instances where the place nominal is dislocated to a preverbal position:

- (46) *pisina, pigame (ohi kaféteria).*
 pool.ACC go.PST.1PL (not café.ACC)
 ‘we went to the pool (not to the coffee shop)’

(46) has a contrastive focus reading whereby the speaker is asserting that it is to *the pool* they went and not to *the café*. In this case, after PP-preposing to SpecPredP where the place nominal satisfies the EPP/LOC feature of the verb, the place nominal is extracted and moves higher up in the syntactic structure to satisfy other discourse related features such as contrastive focus.⁴³

This section has demonstrated that the lax bond that holds between the predicate and the place nominal (i.e., a number of elements may intervene) is explained through pseudo-incorporation, an incorporation which is triggered for the satisfaction of an EPP/LOC feature available on the verb. Furthermore, the interpretation of the place nominal as familiar/definite is also triggered for the satisfaction of a D-feature bundle available on D. This EPP-feature is not available in non-preposition-drop constructions and in the same non-preposition-drop constructions, the D-feature bundle of D is satisfied by the definite determiner.

However, the question I would like to examine (albeit briefly) is what happens in a language with the same phenomenon and a demonstrably tighter bond between the predicate and the place nominal. The next section brings evidence from a similar construction in English where the bond between the predicate and the place nominal is tighter and incorporation in this language leans more towards canonical incorporation.

4 Supplementary evidence: English preposition-drop

The phenomenon of preposition-drop in British English is subject to dialectal variation (cf. Myler 2011 for Southwest Lancashire)⁴⁴ and as with Greek, it is a

⁴³ The account here does not preclude a cartographic approach of the syntactic architecture (à la Rizzi 1997).

⁴⁴ It is worth mentioning here that in the variety of English that Myler (2011) discusses, preposition-drop is not contingent on determiner drop, since the determiner is always present in these constructions (e.g., Come the pub with me). As shown in (47)–(52) the situation is different in the London instances of the same phenomenon.

feature of colloquial spoken English. Focusing on data from London, preposition-drop in English is attested predominantly with the verb *go*.⁴⁵

(47) *Last week, we went Scotland.*

The place nominal that incorporates in English preposition-drop cannot be pluralized:

(48) **We are going cinemas.*

We have seen in Greek that the incorporated element can act as a referent to a pronominal element that follows provided it presupposes a familiar location and a frequentative reading. This also seems to be true for English:

(49) *Are you going gym tonight? It has a new Pilates instructor.*

(50) *Are you coming cinema? # It gets really crowded.*

On a par with Greek, the place nominal in English encodes a familiarity presupposition as the speakers can identify a uniquely referred gym, otherwise pronominal anaphora would not be permissible in (49). If the place nominal is not familiar or does not presuppose some frequentative interpretation then pronominal anaphora is not permissible, as is evident in (50).

In English preposition-drop there is no evidence for a PP in the clausal architecture. Coordination strategies do not produce grammatical examples indicating that a PP may not be present in the syntactic architecture of these constructions:

(51) **I am going cinema and (to the) bar.*

In addition, there is no evidence for a null PP given that the preposition modifier *right* or *straight* are not permissible in (52):

(52) **I'm going straight cinema.*

(51) and (52) demonstrate that a null PP is not present in the architecture of these constructions. As the English phenomenon is more recent, it is also a lot less permissive than the Greek one, presupposing a much stronger bond between the predicate and the place nominal.⁴⁶

English preposition-drop can also be analyzed in terms of incorporation. As with Greek, the place nominal first raises to DP to satisfy the D-feature bundle

⁴⁵ Instances of preposition-drop with the verb *come* are also possible, but not as frequent as those with the verb *go*.

⁴⁶ A thorough comparison between the two languages is the topic of future investigation.

available on DP.⁴⁷ The place nominal in English bears a LOC feature and raises to a position next to the verb to satisfy the EPP/LOC feature of the verb. Crucially, in English we do not encounter PP-preposing, as there is no PP present in the clausal architecture and there are no modifiers that intervene between V+ NP.

What the two languages demonstrate is a cline of preposition-drop; on one end of the continuum we expect to find languages that display a tighter bond between the verb and the place nominal and on the other end, we expect to find languages with a more lax bond between the place nominal and the predicate. According to Figure 1, the cline of preposition-drop may also correlate with the type of incorporation we encounter, canonical vs. pseudo-incorporation. The stronger the bond between the predicate and the nominal, the closer to canonical incorporation this language paradigm will be, whereas when the bond is lax, then the type of incorporation we encounter will be closer to pseudo-incorporation. Given that the place nominal and the verb do not form one lexical unit in English, as is the case with lexical compounding, preposition-drop in this language does not fall under canonical incorporation. As the bond between the two is tighter, the type of incorporation instantiated is closer to canonical, but crucially it is not canonical:

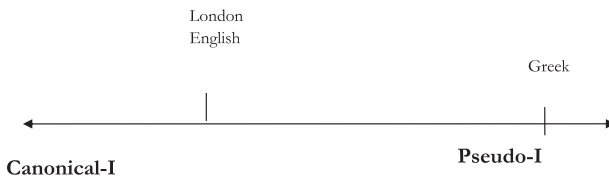


Figure 1: Preposition-drop cline; Greek and English.

5 Concluding remarks

Based on the properties of Greek preposition-drop I have pursued an analysis of pseudo-incorporation that, contrary to Gehrke and Lekakou (2013), does not take place at LF, but in syntax. The place nominals that participate in preposition-drop (common nouns and proper names) all share one important property, that of designating familiar locations, mutually known, or frequented by the interlocutors. Structurally, the position advocated here is that this familiar interpretation is the result of the satisfaction of a D-feature bundle available on D; NP-to-SpecDP movement satisfies this D-feature in preposition-drop

⁴⁷ The D-feature bundle in English is even more underspecified than the Greek one, as it also lacks a gender feature.

constructions. On the other hand, in the overt counterparts this D-feature is satisfied by the overt determiner that merges directly on D. It was shown that preposition-drop constructions are rather permissive since there is not always strict adjacency between the verb and the place nominal and an attributive adjective or a preposition modifier may interrupt the V+ NP sequence. These preposition modifiers point towards the presence of a null PP in the clausal architecture. None of the previous analyses incorporates these modifiers in the syntactic architecture. In order to do so here, I have put forward an account where the place nominal and the verb share a LOC feature. The LOC feature of the verb is also combined with an EPP feature. In order to satisfy this EPP/LOC feature of the verb, the whole PP raises to incorporate to SpecPredP.

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