UNIVERSITY OF CRETE
PHILOLOGY DEPARTMENT
ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΡΗΤΗΣ
ΤΜΗΜΑ ΦΙΛΟΛΟΓΙΑΣ

Argument Structure across Grammatical Categories: Existential, Possessive, and Copular constructions

Dissertation submitted in fulfillment of the requirements for the degree of Doctor of Philosophy in Linguistics
by

Anna Kampanarou

September 2023

ONASSIS FOUNDATION
Ευρωπαϊκή Ένωση
European Social Fund
Operational Programme
Human Resources Development, Education and Lifelong Learning
Co-financed by Greece and the European Union
ΕΣΠΑ 2014-2020

The implementation of the doctoral thesis was co-financed by Greece and the European Union European Social Fund-ESF through the Operational Programme «Human Resources Development, Education and Lifelong Learning» in the context of the Act "Enhancing Human Resources Research Potential by undertaking a Doctoral Research" Sub-action 2: IKY Scholarship Programme for PhD candidates in the Greek Universities.

Doctoral Advisory Committee

Thesis Supervisor:
Elena Anagnostopoulou, University of Crete

Co-supervisors:
Artemis Alexiadou, Leibniz-Zentrum Allgemeine Sprachwissenschaft (ZAS) & Humboldt University of Berlin
Winfried Lechner, National and Kapodistrian University of Athens

Examining Committee (besides supervisor and co-supervisors)

Ioanna Kappa, University of Crete
Dimitrios Michelioudakis, Aristotle University of Thessaloniki
Despina Oikonomou, University of Crete
Paraskevi (Vina) Tsakali, University of Crete

"L'existence précède l'essence"

Jean-Paul Sartre, 1946, *L'existentialisme est un humanisme*

Acknowledgments

As I sit here, reflecting on the completion of this thesis, it feels like the culmination of an epic journey. It might not be as epic as Odysseus' homecoming from Troy or the Avengers' triumph over Thanos. Still, my thesis writing has been a long series of events (including a pandemic!) that thankfully led to this very moment of acknowledgment and gratitude.

Before diving into the official gratitude-filled section, let me take a moment to acknowledge the epic saga that is thesis writing. It's been a rollercoaster ride of emotions, filled with small victories and rejections, temporary satisfaction and frustration, as well as flashes of inspiration and moments of self-doubt. But here we are at the terminal stop of this ride, safe and sound, delivering a thesis that hopes to keep the interest of anyone who will have the courage to read it from first word to last and constitute a moment of inspiration and spur rather than bewilderment and exasperation. Frankly, I couldn't have completed this thesis without the support and encouragement of an amazing group of people.

First and foremost, I would like to thank my supervisor, Elena Anagnostopoulou, for her invaluable guidance, expertise, and support throughout the entire research process. Her insightful feedback and comments have been instrumental in shaping this thesis. By having me challenge myself and my ideas several times, she trained me for academia and made me build the skills required for this field.

My sincere gratitude also goes to Artemis Alexiadou, who has been guiding me since my MA studies. Artemis is the person who has been steering me in the right direction and helping me navigate through the challenges. Her kindness and willingness to discuss several ideas with me and her uncanny ability to decipher my chaotic research ramblings are the reasons why I am able to deliver this thesis today.

It has been an honor working with Elena and Artemis, two linguists whose work I have admired ever since I became familiar with Syntax and chose it as my field of study.

Winnie Lechner is the third person I would like to thank. Although my competence in semantics was limited when we first met, Winnie has constantly supported my effort to gain knowledge in this area of research. By making me a member of the Semantics Group in Athens, he helped me reach a point where formulas do not seem scary anymore. His unwavering patience and guidance have been vital for this journey.

The research presented in the following pages has benefitted greatly from discussions with many other inspiring linguists. I owe special thanks to Despina

Oikonomou for setting up several meetings with me despite her tight schedule, only to listen to my ideas even at an early stage and provide me with feedback and comments that have been substantial and definitive for my work, to Dimitris Michelioudakis for listening to my thoughts at the beginning of my thesis writing and sharing his insights throughout and after it, to Vina Tsakali for her mentoring and support before, during, and after my defense, to Ioanna Kappa for creating the most supportive and warm environment, to John (Fred) Bailyn and Marcel den Dikken with whom I had the chance to discuss few ideas during VNYI #5, to Rajesh Bhatt for inflaming my interest in Semantics and helping me disentangle few issues addressed in this dissertation, and Caroline Heycock for introducing me to the realm of copulas in a meeting during Creteling 2019.

Furthermore, I would like to thank the staff and my colleagues at the Linguistics Division at the University of Crete for their assistance and for creating a friendly, collaborative, and supportive environment.

A special thank you goes to my teachers during my BA and MA studies for igniting my interest in linguistic research and keeping it on. I wouldn't have reached the threshold of becoming a Doctor in Linguistics had it not been for them. Out of them, two great teachers who have been mentors to me deserve a special mention: Vassilis Spyropoulos, whose lectures made me eager to dive into the field of Syntax and solve its puzzles, and Melita Stavrou-Sifaki whose brilliance and generosity helped me broaden my knowledge and become familiar with the academia.

As I am going toward the end of this monologue of gratitude, I would like to thank all the incredible individuals who have played a part in this thesis saga and still play an important role in my life by supporting me, listening to my concerns, and reassuring me that everything is going to be fine at the end. Their unconditional love and support have been a true blessing. My deepest gratitude goes to my family for being patient with me being unavailable for long hours and frustrated during several periods, as well as to my friends for our conversations, laughter, and well-timed distractions. Eirini Apostolopoulou and Evripidis Tsiakmakis, two brilliant linguists whom I am lucky to be friends with, deserve an honorable mention; despite the geographical distance between us, our group chat has been a safe place for brainstorming ideas, reviewing drafts, and sharing our experiences.

Last but not least, I want to express my heartfelt appreciation to the Onassis Foundation for partially funding my post-graduate studies between 2015 and 2021 and the State Scholarship Foundation for their financial support between 2022 and 2023.

This thesis is dedicated to my mother, Flora, and my late father, Nikos, for everything they have offered me all these years.

Abstract

The present thesis investigates how Argument Structure is realized in different grammatical categories by examining existential and possessive constructions, as well as structures that involve a copular element in general.

Through the study of Greek data and their comparison with data from other languages, it is observed that existential and possessive constructions sentences are semantically related as they express a relationship between a Figure and a Ground. This similarity is attributed to the fact that they share a common structural element, a small preposition (p), as their predicative head that introduces the relationship between the Figure and the Ground. However, the structural representation of the two arguments within the predication layer is not uniform. Moreover, the fact that the constructions under examination involve a verbal copula allows for assuming further differentiation at the level of verbal structure. Specifically, it is argued that existential and possessive structures also vary in terms of licensing external arguments through a Voice Phrase.

It becomes evident from the above that existential and possessive sentences constitute a suitable domain for studying Argument Structure across the grammatical categories of prepositions and verbs, which serves the investigation of the broader question posed by this thesis.

To substantiate the underlying hypotheses, this dissertation provides a detailed description of the distribution of the relevant structures in Greek, thus filling a gap in the existing literature. Its conclusions reconcile the two main lines of research, which assume unified syntax behind existential and possessive constructions on the one hand and the existence of multiple structural schemes for each type of sentence on the other.

Περίληψη

Η παρούσα διατριβή ερευνά το πώς πραγματώνεται η Ορισματική Δομή (Argument Structure) σε διαφορετικές γραμματικές κατηγορίες εξετάζοντας τις δομές ύπαρξης (existential constructions), κτήσης (possessive constructions), και γενικά τις δομές που περιλαμβάνουν συνδετικό στοιχείο (copular constructions).

Μέσω της μελέτης των δεδομένων της Ελληνικής και της σύγκρισής τους με δεδομένα από άλλες γλώσσες, διαπιστώνεται ότι οι προτάσεις ύπαρξης και κτήσης είναι σημασιολογικά συγγενείς καθώς εκφράζουν μία σχέση μεταξύ μίας Φιγούρας (Figure) και ενός Φόντου (Ground). Αυτή η ομοιότητα ανάγεται στο γεγονός ότι οι δομές τους έχουν ως κοινό δομικό στοιχείο μία μικρή πρόθεση (small p) ως κεφαλή κατηγόρησης που εισάγει τη σχέση μεταξύ των δύο. Ωστόσο, η δομική αναπαράσταση των δύο ορισμάτων μέσα στη φράση κατηγόρησης δεν είναι ενιαία. Επιπλέον, το γεγονός ότι οι υπό εξέταση δομές εμπλέκουν ένα ρηματικό συνδετικό στοιχείο (verbal copula) δίνει τη δυνατότητα να εντοπίσουμε περαιτέρω διαφοροποιήσεις σε επίπεδο ρηματικής σύνταξης. Συγκεκριμένα, υποστηρίζεται ότι οι δομές ύπαρξης και κτήσης ποικίλλουν και ως προς τη νομιμοποίηση εξωτερικών ορισμάτων μέσω Φράσης Φωνής (Voice phrase).

Από τα παραπάνω γίνεται σαφές ότι οι δομές ύπαρξης και κτήσης συνιστούν ένα πεδίο κατάλληλο για τη μελέτη της Ορισματικής Δομής στις γραμματικές κατηγορίες των προθέσεων και των ρημάτων, γεγονός που εξυπηρετεί την διερεύνηση του γενικότερου ερωτήματος που θέτει η διατριβή.

Στην προσπάθεια να στοιχειοθετηθούν οι υποθέσεις που την απαρτίζουν, η διατριβή καταθέτει μία λεπτομερή περιγραφή της κατανομής των σχετικών δομών της Ελληνικής, συμπληρώνοντας έτσι ένα κενό στη βιβλιογραφία. Τα συμπεράσματά της συνδυάζουν τις δύο βασικές κατευθύνσεις της έρευνας που μιλούν αφενός για ενιαία σύνταξη πίσω από τις προτάσεις ύπαρξης και κτήσης και αφετέρου για την ύπαρξη πολλαπλών δομικών σχημάτων για κάθε πρόταση.

Contents

Abbreviations

$^{0-9}$: Declension class (Bantu)

1,2,3: First, Second, Third person

ACC: Accusative case

ACT: Active Voice

ADE: Adessive case

APPL: Applicative

AUG: Augment

CL: Clitic

COMP: Complementizer

DAT: Dative case

DEF: Definite determiner

EUPH: Euphonic suffix

EXCL: Exclamation

EXP: Expletive

F: Feminine grammatical gender

FORM: Formal

FUT: Future tense

GEN: Genitive case

IMP: Imperative

IMPULS: Impulsiveness marker

INE: Inessive case

INF: Infinitive

IPFV: Imperfective aspect

LOC: Locative case

M: Masculine grammatical gender

N.ACT.: Non-Active Voice

N: Neuter grammatical gender

NEG: Negation

NOM: Nominative case

OBJ: Object

OCL: Object Clitic

PASS: Passive Voice

PERM: Permanent

PF: Proform

PFV: Perfective aspect

PL: Plural number

POSS: Possessive marker

PREF: Prefix

PRS: Present tense

PRT: Discourse particle

PRTC: Participle

PST: Past tense

SBJ: Subject

SG: Singular number

SUBJ: Subjunctive

TEMP: Temporary

TOP: To1

1. Introduction

In this chapter, I make some introductory remarks that will serve as the basis of our discussion. Section 1.1. associates this study with the bigger questions of linguistic research. Section 1.2. focuses on delineating the domain of this inquiry, while section 1.3. summarizes the contribution of the thesis.

1.1. Overview

Ever since the dawn of linguistic studies, researchers have aimed to provide an answer to one central question: How does the structure of sentences relate to their meanings? As part of this endeavor, researchers have split it into various sub-questions. A number of them have focused on examining the linking between the semantic meanings of predicates and the realization of their arguments. This aspect of the syntax is often subsumed under the term *Argument Structure*.

Although the above question has been addressed in several different ways, there is a consensus in the field that there is a fair amount of regularity in the relationship between semantics and syntax so that the interpretation of arguments, i.e., their thematic roles, are predictably linked to specific syntactic positions. For instance, in the case of transitive verbs where multiple roles are assigned to their arguments, *Agents* are the ones that appear in the most 'prominent' positions, e.g., as subjects. To achieve such generalizations, multiple constructions both within a specific language and across languages have been taken into consideration.

The set of existential and possessive constructions has been explored numerous times under the prism of the syntax-semantics interface. Researchers have been particularly interested in co-examining these constructions because, cross-linguistically, existential and possessive sentences have very similar, if not identical, surface forms. Moreover, from the semantics perspective, existential and possessive expressions share the property that they relate two entities, a location and a locatee or a possessor and a possessee, respectively. Lastly, they have common functions in the discourse, such as introducing new referents.

Provided that any further discussion can only be carried out if the area of this study has been clearly defined, the following section (1.2.) deals with this issue. Once the terminology and the discussion around it have been settled, I present what this thesis has to offer to the investigation of the abovementioned questions (1.3).

1.2. Delineating the domain of inquiry

The terminology surrounding existential and possessive constructions is severely controversial, primarily due to the vast literature on these topics. Identifying the commonalities between structures across languages and labeling them accordingly has proven particularly challenging. Different perspectives endorsed by the researchers have led to various subcategorizations and definitions. In the following section, I present the terminology adopted in this dissertation and briefly explain why I have chosen it. At the same time, I introduce core distinctions fundamental to our discussion. Section 1.2.1. is concerned with existential constructions and all related notions, while Section 1.2.2. addresses the definition of possession, its versions, and its linguistic expressions.

1.2.1. Defining existentials

To begin with, one way of thinking about existentials is to consider that they are sentences that (re-)introduce discourse referents, i.e., sentences that either introduce brand new referents into the discourse or re-introduce old, known referents that were part of the interlocutors' discourse but have provisionally left it. In this sense, old referents are introduced again in the discourse as new. This view is closer to Abbott (1992; 1993) and Ward & Birner (1995).

As such, the term *existential* covers a great number of constructions. Thus, to restrict the number of sentences that fall under this label, I study only the constructions that do so in terms of the Figure-Ground distinction in the spirit of Creissels (2014; 2019; 2023). The latter refers to a primarily cognitive contrast originally coined by Talmy (1975). The researcher defines the Figure as "a moving or conceptually movable point whose path or site is conceived as a variable, the particular value of which is the salient issue". In contrast, the Ground is "a reference point, having a stationary setting within a reference-frame, with respect to which the Figure's path or site receives characterization" (Talmy 1975:419). An example of this distinction is presented in (1), where the movable *cat* is traced with respect to the unmovable, stationary *floor*:

1. [The cat]$_{\text{FIGURE}}$ is on [the couch]$_{\text{GROUND}}$.

Since the Ground is most often recognized as a place in the physical space, existentials constitute locational sentences in the sense that they establish the existence of new referents with respect to a specific location. Ultimately, then, the definition of existentials adopted in this thesis is as follows:

2. *Existential* are the sentences that introduce new discourse referents as Figures with respect to a locational Ground.

Under this definition, examples of English existential sentences are the following:

3. a. Dinosaurs existed (on earth).
   b. There exist at least 50 unsolved cases in the department.
   c. There are apples on the tree.
   d. There is Mary at the door.

Contra McNally (2016), I do not consider 'locating' an entity or 'asserting its existence' an additional step to simply introducing it, as entities do not exist outside locations, a position that goes back to Aristotle's *Physics*. In an attempt to summarize how Ancient Greeks and their cultural descendants captured the notion of existence, Kahn (1966) concluded that "[…] whatever is, is somewhere; whatever is nowhere, is nothing". The importance of the location for existence (and existential sentences in particular) is stated by Partee et al. (2011:142) in the form of the following principle (see also Strawson 1959; Lumsden 1988; Lambrecht 1994; Szekely 2015):

4. […] existence (in the sense relevant to existential sentences) is always relative to a location which may be implicit or not. It [i.e., the location] may be a physical location, "a perceiver's perceptual field", the virtual location of "in x's possession", etc.

Under this conception, existentials are not only defined in terms of physical space. To incorporate the terminology adopted in this dissertation, according to (4), the Ground argument in existentials may be not only an actual location but also a metaphoric one. This idea will be central to our approach, particularly in our attempt to show how existentials and possessives are brought together. Importantly, though, unless stated otherwise, throughout this thesis, the term *existential* will refer to sentences where the Ground is a physical location so that the contrast with possessives is clear.

Under this view, existential sentences are defined in terms of their pragmatic function rather than their syntactic and/or semantic properties. This approach is known to the literature as it dates back at least to Lyons (1967) (see also Croft 2022 and Haspelmath 2022; 2023). It is interesting, though, that despite distinguishing their special pragmatic use, most researchers do not define existentials in terms of this.

Jespersen (1924) was the first to use 'existential' as a linguistic term to label sentences in which "the existence of something is asserted or denied". His emphasis

was on the fact that often, the sentences that do so exhibit irregularity. Succeeding researchers capitalized on this fact and included it in their definitions. For instance, Kuno (1971), Milsark (1974), McNally (1997; 2011), Moro (1996; 2006), and Bentley et al. (2013), among others, claim that 'existentials' are the non-canonical sentences that express a proposition about the (non-) existence of one or more entities. In particular, McNally (2011: 1829) defines existentials as "specialized or non-canonical constructions which express a proposition about the existence or the presence of someone or something". According to this view, what makes the Spanish example in (5) "non-canonical" is the use of the special lexical item *hay.* For the Russian example in (6a), it is the word order that makes the sentence non-canonical (compare 6a to 6b).

5. *Spanish* (Suñer 1982)
   Ha-y una cosa que te quiero decir.
   HAVE.3SG-PF a thing that 2SG.ACC want.1SG say.INF
   'There is something that I want to tell you.'

6. *Russian* (Partee & Borschev 2004)
   a. V gorode byl doktor.
      in town BE.PST.M.SG doctor.NOM.M.SG
      'There was a doctor in town.'
   b. Doktor byl v gorode.
      doctor.NOM.M.SG BE.PST.M.SG in town
      'The doctor was in town.'

Although widely accepted, I will not adopt this definition for two reasons. First, due to an observation made later by McNally herself, in McNally (2016): since 'canonical' is different across languages, 'non-canonical' varies significantly too. Thus, capturing what is deviant at a cross-linguistic level is not easy. This means that it might be hard, although not impossible, to make generalizations and draw conclusions with broad explanatory power.

Second, under McNally's initial view, sentences including *exist*-type verbs, as in (3a, b), must be left outside the scope of research on existentials because they are canonical. Only English *there-be*-sentences and their cross-linguistic equivalents qualify as existentials as they show anomalies. However, even in English, *exist*-type sentences have functions identical to *there-be*-sentences. Greek is indeed a language that uses the former type of sentences productively. Therefore, investigating

canonical and non-canonical sentences in a language such as Greek[1] can reveal a lot about their syntax. By defining existential sentences in pragmatic terms, we are then able to include in the label and the research constructions that are both canonical and non-canonical in terms of their syntax (see also Haspelmath 2022; 2023).

In addition, by adopting a pragmatically based definition, I not only attempt to group together non-canonical existentials and canonical ones but also include in the study *presentationals* and even sentences with a *list-reading* which also introduce discourse referents (see also Abbott 1992; 1993; Belvin & den Dikken 1997; Kayne 2016). The latter term refers to sentences introducing lists of entities as in (8), while the former relates to sentences as in (3d) and (7) that act as presentative utterances. Presentative utterances, as described by Lambrecht (1994), are speech acts in which the speaker "call[s] the attention of an addressee to the hitherto unnoticed presence of some person or thing in the speech setting" (see also Gast & Haas 2011). In our view, these sentences qualify as existential since they introduce referents that are *discourse*-new, even if they are not *encyclopedically* new.

7. a. There is a lady at the door asking for you.
   b. There are many three-year-olds (nowadays, in our times) who know how to interact with touchscreens.

8. There are tomatoes, butter, milk, chicken leftovers, and cheese slices in the refrigerator. That's all.

Finally, it is essential that, thus far, existential sentences are categorized as a type of *locational* sentences, i.e., sentences that relate an entity to a location, that is, either a literal, physical space, or a metaphoric location. Using *locational* instead of *locative* is preferred because, following standard practices, I reserve the label *locative* for sentences that establish the location of a presupposed entity, as in (9). These sentences are empirically identified as adequate answers to the *'Where is the x?'* question.

9. a. *Where are the books?*
      The books are on the table.
   b. *Where is Mary?*

[1] Greek is not unique in exhibiting multiple existential constructions. For instance, Palestinian Arabic (Boneh & Sichel 2010), Belarusian (Tsedryk 2020), and several Romance languages and dialects (Bentley et al. 2013) are also characterized by such richness. However, it is the case that as most researchers adhere to the 'non-canonicality' requirement, they do not consider the complete set of existential constructions available in a language since many of them are canonical.

Mary is in the garden.

Along these lines, locative sentences are a type of locational sentence, and so are existentials, provided that a locative prepositional phrase or adverb follows the nominal (see more in Section 2.2.). The question of whether there is an affinity between all types of locationals, and if so, what is its nature, is the main concern of this dissertation, as it has been for many previous researchers starting from Lyons (1967), Kuno (1971), Clark (1978), Stowell (1978), Huang (1987), Freeze (1992), Kayne (1993), Belvin & den Dikken (1997), Moro (1997; 2006), and Ritter & Rosen (1997), among others.

Although the foundations for a discussion on existentials have been set, this short presentation of the diversity of opinions in the literature has made clear that it is not easy to decide on the definition of existentials and their scope. In the next section, it is shown that this is also the case for possessives.

1.2.2. Defining possessives

Even though the meaning of possession seems relatively easy to be captured intuitively, its definition as a term varies significantly. Heine (1997: 3–10) explains that possession is an elusive term due to its dual nature (see also Haspelmath 2022).

On the one hand, possession is primarily a non-linguistic term. It is a primitive of cognition that exists cross-culturally, and, based on Langacker (1987; 1991; 1993; 2009), it qualifies as a *conceptual archetype* with multiple facets. To delineate this archetype, Taylor (1989: 679) makes a brief list of properties (10) and explains that the more properties a situation meets, the more archetypical/prototypical the possession.

10. a. The possessor is a specific human being.
    b. The possessee is a concrete (or, more rarely, a living) thing.
    c. The possessor has the right to access the possessee.
    d. The possessor's right is invested in him through a transaction and remains with him until he initiates another transaction.
    e. Possession has no conceivable temporal limit.
    f. Possessor and possessee are in spatial proximity.

Within the *possession* archetype, the notion of 'ownership' is quintessential as it gathers most (if not all) of the properties in (10). To use the words of Lyons (1977: 722), "in everyday usage, the term 'possession' is more or less equivalent to 'ownership'". *Ownership* is the situation in which a human or a group of humans have

property rights over another entity, often called a *possessee* (or a *possessum*). Interestingly, what constitutes a rightful possessee differs significantly cross-culturally, and this has implications on which possessor-possessee pairs can fit in the linguistic expressions of a given language. I elaborate on this in Chapter 4.

On the other hand, the literature adopting a cognitive view on possession has been considered limited. Langacker (1987; 1991; 1993; 2009), Taylor (1989: 679), and Brugman (1988) are some well-known examples of this approach. More recently, Croft's proposal on defining concepts aside from their linguistic expressions, which is summarized in Croft (2022), has inspired several authors to approach possession through a cognitive(-like) perspective (see Haspelmath 2022 and references therein). Nonetheless, this type of approach is rarer because, in principle, it is hard, if not impossible, to isolate the cognitive notion from its linguistic expressions. Linguistic data are the only easily accessible data that reveal aspects of our cognitive system. Therefore, it is inevitable for research to explore possession through its expression in the language(s). Thus, early enough, the researchers became interested in the fact that possession is expressed cross-linguistically through several constructions (see Heine 1997), and this made it necessary to describe possession in linguistic terms.

In linguistic research, possession is usually defined based on commonalities between structures or interpretations. Researchers do not seek primitives that may exist in our cognitive system. They focus on specific sets of data and make their claims. This has led to many definitions of possession with considerable variation. In this dissertation, I will not offer an entirely new take on possession but rather show how a combination of the views that already exist in the literature can capture this elusive concept.

Regarding this linguistic aspect of possession, a fundamental distinction has been initially proposed between possession expressed within the level of the DP (11) and possession expressed at the level of a sentence (12). The terms *attributive, (ad)nominal, phrasal,* and *DP-level* possession are used to refer to the former case, while *predicative*, *sentential,* or *TP-level possession* is used for the latter case. Although attributive possessives will be brought into our discussion a few times, we will mainly focus on predicative possessives.

11. a. Mary's car
    b. a car of Mary's
    c. the eyes of Mary

12. a. Mary has/owns a car.
    b. The car belongs to Mary.

c. This car is Mary's.

Besides this relatively standard distinction, the linguistic research on possession has followed two main paths, each resulting in various sub-categorizations. Myler (2016) offers a novel summary of these two paths or puzzles that have concerned the field; he calls them the *too-many-meanings puzzle* and the *too-many-surface-structures puzzle* (see also Gaeta 2013 and Haspelmath 2022; 2023 for a comparison between the two approaches concerning existentials).

Within the first line of approach, the researchers take as their starting point the fact that languages do not reserve a specific construction for expressing possession but instead make use of configurations used elsewhere in the language. Sentences with copulas are the most widespread example of such multi-functionality. Thus, studies of BE- and HAVE[2]-sentences are prevalent in this context. Along these lines, researchers investigate the distinctive interpretations/functions of copular sentences. The result is usually a grouping of these functions into different categories. In this case, possession is treated as one of the functions that BE- or HAVE-sentences can have. An example of a classification derived from this line of thinking is offered by Tham (2004) (13) (see also Brugman 1988; Brunson & Cowper 1992; Déchaine et al. 1994; Belvin 1996; Bjorkman & Cowper 2016; Cowper 2017).

13. a. *Possessive Have*
    Mary has ten pairs of sneakers.
    b. *Focus Have* (Tham 2004: 203, ex. 282)
    i. What can you donate to the drive?
    ii. I have that jacket.
    c. *Control Have* (Tham 2004: 204, ex 283)
    i. Where's my umbrella?
    ii. Mowgli has it.

Myler (2016) named this view the *too-many-meanings* puzzle since the researchers emphasize the multiple meanings that copular sentences (or other specific types of sentences) can have.

The second line of approach is labeled as the *too-many-surface-structures* puzzle because the research takes as its starting point the fact that one particular type of possession is expressed through different surface structures within and/or

[2] 'BE' and 'HAVE' are written in small capitals whenever referring to the copulas in general, without any language-specific characteristic. Lowercase 'be' and 'have' correspond to their instantiations in English, namely the verbal items *be* and *have,* respectively.

across languages. Researchers begin from a semantic view on possession, which is treated as a notion that comes into various types, e.g., temporary possession, ownership, kinship, part-whole relationships, etc. Then, they explore the linguistic expressions of each type. For instance, they observe that the (more or less) possessive relationship between an entity and its age is expressed via a BE-sentence in English (14a) and a HAVE-sentence in French (14b). This is an example of the *too-many-surface-structures* approach to expressions of age from a cross-linguistic perspective.

14. a. Mary is thirty years old.
    b. Marie a trente ans.
    Mary HAVE.3SG thirty years

Within this context, possession is treated as a semantic notion with several types and realizations (see Stassen 2009). A division usually exploited to split possession into two main categories is between *alienable* and *inalienable possession*. Roughly speaking, the term *alienable* refers to possessees that can be separated from their possessor, while the term *inalienable* refers to possessees that are inseparable from their possessor (Bally 1926/1996).[3] The 'inseparable' characterization of inalienable possession may be specified further as *obligatory possession* to denote a situation in which the possessees cannot even exist without their possessor.

To illustrate the distinction, consider that *books*, *cars,* and *vegetables* are considered alienable possessees for humans since they are transferable among them. In contrast, *legs*, *sisters,* and *characters* are (most often) conceived of as inalienable possessees because their attachment to a limbed entity, a sibling, and a sentient entity, respectively, is inescapable. In formal terms, inalienable possession differs from alienable possession in that the two elements entering the former relation are semantically dependent (Vergnaud & Zubizarreta 1992: 596). More details about this distinction are presented in Section 4.3.

Even though this distinction seems semantic, a considerable amount of research concludes that it should be treated as a division in syntax (Nichols 1988; Chappell & McGregor 1989; 1996; Aikhenvald 2013; 2019; den Dikken 2015). This means the (in)alienability distinction should be reserved for structures. Under this view, this distinction refers to the fact that, in a given language, a specific set of nouns are singled out for 'special' treatment, i.e., for a unique syntactic frame. For instance, in Macushi, a North Carib language, the inalienable possessive structure is manifested as a juxtaposition of the possessor and the possessee (15a). In contrast, the alienable

[3] Bally (1996) constitutes the reprinted version of an article published in 1926.

possessive structure requires the presence of an additional possessive suffix on the possessee nominal (15b).

15. *Macushi* (Abbott 1991:86)
    a. u-ye
       1SG-tooth
       'my tooth'
    b. u-wa'ka-ri
       1SG-axe-POSS
       'my axe'

As Dahl & Koptjevskaja-Tamm (2001) explain, the assumption that inalienable possessees are conceptually different from alienable ones cannot be maintained. If this were the case, there should be one single group of nominals describing inalienable possessees cross-linguistically. However, this is contrary to fact. The list in (16), which was originally created by Heine (1997:11-12), but here is adapted from Myler (2016: 79), shows that the types of nominals treated as inalienable possessees vary across languages. This observation goes back at least to Nichols (1988) and has attracted much attention in the literature (Chappell & McGregor 1989; 1996; Aikhenvald 2013; 2019, i.a.).

16. *Cross-Linguistic Variation in Inalienability*
    a. Paamese and Tinrin: kinship, body parts, and spatial relations count as inalienable.
    b. Many Australian languages: body parts are inalienable, kinship relations are not.
    c. Ewe: kinship and spatial relations are inalienable, body parts are not.
    d. Most Athabaskan: kinship and body parts are inalienable, spatial relations are not.
    e. Saker: body parts, part-whole relations, and most kinship relations are inalienable, but 'husband', 'wife', and 'child' are not (Z'graggen 1965: 124).
    f. The word for 'wife' is inalienable in Fijian but alienable in the closely related language Lenakel (Lynch 1973: 15).

This list illustrates that the nominals that fit into inalienable constructions do not constitute a uniform class across languages. For instance, kinship terms are treated as inalienable possessees in Paamese, Tinrin, Ewe, and most Athabaskan languages but as alienable possessees in many Australian languages. At the same time, a sub-division within them appears in Saker, Fijian, and Lenakel. In other words, the choice

between alienable and inalienable possessive constructions is not exclusively predictable from the semantic characteristics of nominals (see also Haspelmath 2008). It is the case then that (in)alienable possession cannot be defined purely in semantic terms without referring to the syntax. For this reason, in this thesis, I reserve the (in)alienable distinction as a term referring to syntax. Any departures from this will be stated clearly.

To conclude, this section has highlighted that possession is a notion that is hard to define. Across the lines of this dissertation, more opportunities will appear to discuss the aspects of possession and elaborate on the diversity of this notion. Thus, the reader should expect an attempt to disentangle the notion of possession as the presentation and the analysis of the relevant data advances.

Although I refrain from arguing for a specific definition of possession at this point, I should clarify that the term *possessive* will be used for the constructions that establish a *close* relationship between two entities without referring to any other aspect of this relation. 'Entities' should be understood as a label for tangible and intangible, animate and non-animate things that qualify as Possessors or Possessees.[4] 'Close' will also be the key to distinguishing possessive from non-possessive constructions. This definition is meant to be used as a label for phrasal (DP-level) and sentential (TP-level) constructions, regardless of the semantic characteristics of the entities involved.

What is important for present purposes is that possessive constructions are also rooted in the Figure-Ground contrast, in the sense that the Possessor functions as the stable Ground, usually an animate Ground, upon which the Figure-Possessee is traced. In the typical English possessive sentences in (17), the phrases *many books* and *two sisters* that appear as Possessees also qualify as Figures defined with respect to the Ground-Possessor *Mary.*

17. a. Mary has many books.
    b. Mary has two sisters.

Moreover, it is true that this Figure-Possessee usually signals a new referent that is introduced into the discourse. In (17) above, *many books* and *two sisters* are phrases introducing new discourse referents. This means that according to the definition in (2) and the extended definition of what constitutes a "location" in (4), possessive sentences can also be seen as existential. This study investigates whether the facts

[4] Whenever the terms Possessor and Possessee appear with a capitalized initial, they refer to the corresponding theta-roles. The same is true for the Figure-Ground terms.

that possessives and existentials describe a Figure-Ground contrast and that they are both felicitous in introducing new discourse referents derive from a unified syntax.

In this dissertation, the study of both existentials and possessives sheds some light on how these terms should be understood. The empirical evidence is drawn from Greek in comparison to its cross-linguistic counterparts. A close inspection of this dataset aims to lead to a better understanding of the commonalities and differences between these constructions and integrate them into the bigger frame of how Argument Structure manifests itself in Syntax.

1.3. The dissertation in a nutshell

In this dissertation, existential and possessive constructions will guide us toward answering how syntactic structures attain specific semantic interpretations and, thus, specific pragmatic functions. In particular, we will focus on how related semantic interpretations derive through manipulation in the argument realization of a particular group of constituents. Even though these constructions have been repeatedly investigated cross-linguistically, this is the first study on their distribution in Greek.

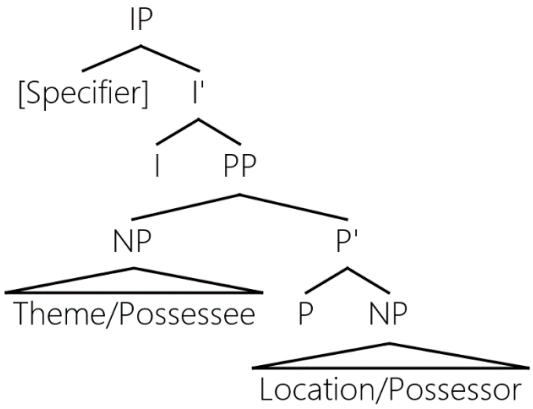
The dissertation synthesizes and modifies insights from the cross-linguistic literature to analyze the Greek data. The approach I adopt addresses what Myler (2016) has named the too-many-surface-structures puzzle since the fundamental question I try to answer is why there are so many different ways to describe the relationship between two entities, i.e., a Figure and a Ground, within and across languages. Crucially, it will be a main concern not only to answer this question but also to determine what creates the variation within the language. In this attempt, I also take a detour by following the too-many-meanings approach, as it will be necessary to consider most meanings of the sentences containing HAVE and BE.

This thesis combines two major lines of approach attested in the relevant cross-linguistic literature. Namely, it synthesizes aspects of the so-called *unification approaches* to existentials and possessives with the necessity for postulating variation in argument realization as stressed by *non-unification* analyses. Specifically, the current study primarily adopts a non-derivational approach to existentials and possessives by assuming that neither construction is derived from the other. In this, it follows the findings of Barwise & Cooper (1981), Williams (1984), McNally (1997), Hazout (2004), and Francez (2007), among others, who capitalize on the uniqueness of existentials, and the findings of Szabolcsi (1981; 1983; 1994), Jensen & Vikner (1996), Bjorkman & Cowper (2016), Myler (2016; 2018), and Cowper (2017), among others, who sever possessives from any other use of copular sentences. This body of work

takes a stand against the influential derivational approach, which has been particularly prevalent until the end of the 90s decade and has been most famously supported by Freeze (1992) and Kayne (1993) (see also Déchaine et al. 1994; Tellier 1994; Kempchinsky 1996; Belvin & den Dikken 1997; Broekhuis & Cornips 1997).

Freeze (1992) proposes to unify the analysis of locative, existential, and possessive sentences in languages like English and Russian by assigning them a single underlying structure (18) in which a preposition (P) is the head of the predicate phrase because these sentences (that belong to the so-called *Locative paradigm*) have a suspiciously indistinguishable morphological realization.

18. *The underlying structure of the Locative Paradigm (Freeze 1992)*



He then derives the surface differences through Movement, which is motivated by two features: (a) the definiteness of the Theme/Possessee (i.e., the Figure) and (b) the animacy of the Location/Possessor (i.e., the Ground). He proposes that a definite Theme or a human Possessor always moves to the subject position, i.e., [Spec, IP]. This creates locative and possessive HAVE-sentences, respectively. Existential sentences derive when the non-definite Theme stays in situ and the definite Location raises to the subject position. HAVE-sentences involve one additional step since they are considered to be derived from BE-sentences whenever the P-head incorporates into the verb (or into *I(nflection)* in Freeze's terms). Kayne (1993) extends this analysis to sentences containing BE and HAVE as auxiliaries.

Against this view, non-derivational approaches towards existentials (a) postulate a non-prepositional predicative head, e.g., $\text{Pred}_{\text{INSTANTIATE}}$ for McNally (1997), or an abstract RELATOR for den Dikken (2006) (b) propose that the role of the Ground is realized by an implicit locative argument which is related to the overt prepositional phrase via modification or quantification (Barwise & Cooper 1981; Keenan 1987; Zucchi 1995; McNally 1997; Francez 2007; McCloskey 2014; Irwin 2018), (c) attribute

further differences in BE-sentences concerning their use as existentials or locatives to the type of predication (Partee 1985; Błaszczak 2007; Boneh & Sichel 2010) and (d) link the availability of the HAVE-copula and the choice between HAVE and BE to transitivity (Hoekstra 1994; Jung 2011; Bjorkman & Cowper 2016; Myler 2016; 2018) or the presence of additional functional projections (Ritter & Rosen 1997) (see Chapter 5).

Turning to possessives and their relation to existentials, non-derivational approaches argue that (a) the Definiteness effect (i.e., the restriction on definite noun phrases) that arises in both cases is not of the same origin and, therefore, it is inadequate to assimilate possessives to existentials (Landman 2004; Hartmann 2013; Le Bruyn et al. 2013; Bassaganyas-Bars 2017; Bassaganyas-Bars & McNally 2019), (b) Possessors are not equal to Locations since they are introduced by the Possessee-NP or a specialized Poss(essive) head (Szabolcsi 1981; 1983; 1994; Nichols 1988; Tellier 1990; Tham 2004; Myler et al. 2014), and (c) the BE vs. HAVE distinction is available only to a limited number of languages, and hence it cannot be considered fundamental to the linguistic expression of possession (Ritter & Rosen 1997; Beavers et al. 2008).

In this dissertation, I argue that existentials share bits of structure with possessives. However, the latter type of sentence is not derived from the former via a complex mechanism of transformations. This way, I account for the similarities between HAVE- and BE-sentences. This task is immediately captured by derivational approaches, while it remains a desideratum in non-derivational ones. At the same time, I adopt insights from non-derivational approaches by assuming that these parts of the structure, when combined in different ways, lead to different interpretations. These ideas are implemented within the framework of Distributed Morphology (Halle & Marantz 1993; 1994) in combination with de-compositional approaches stemming from Kratzer (1996).

The primary evidence for this comes from Greek, a language with three productive existential constructions, each headed by HAVE, BE, or EXIST. HAVE-existentials are the most widespread in the language, while existential BE-sentences come in two versions, one of which is accepted only by some speakers. Last, EXIST-existentials have a more extensive use than their English or Romance counterparts.

As these constructions are contrasted with each other, critical components of their structure are isolated. Besides, a comparison with their cross-linguistic counterparts, mainly English *there-be*-sentences, reveals key aspects of their syntax. This approach leads to the conclusion that the existence of multiple surface forms that function as existential is the result of the interplay between the predication layer

and the Voice system of the language. This assumption is reinforced once the set of possessive constructions is scrutinized.

Greek uses an array of possessive constructions, one of which involves HAVE, while others are built upon variants of BE. Despite this variation, HAVE-possessives are unequivocally more productive than their counterparts with BE. A close inspection of possessives next to existentials turns out to be remarkably important in understanding the structures of HAVE and BE.

In a nutshell, I argue that to account for the distribution of existentials and possessives within and across languages, we need to focus on (a) the type of predication, (b) the Voice system, and (c) their interaction. The predication layer always[5] involves a prepositional component that introduces two arguments: a Figure and a Ground. The arrangement of these arguments within this prepositional projection leads to distinct interpretations and differences in the morphosyntax. In the spirit of Harley (1995; 2002) and Pesetsky (1995), I propose that there are two possible arrangements of the Figure and Ground arguments: the so-called *standard* (19a) and the *reversed* (19b) *p(repositional) projection*.

19. a. *Standard p-projection* b. *Reversed p-projection*

Following the tradition in the Voice-related literature and particularly the work of Schäfer (2008) and Wood (2015), I specify further that there is a typology of p-heads delineated by two parameters: (a) syntactic transitivity, i.e., the projection (or not) of a specifier position and (b) semantic transitivity, i.e., the assignment of a role to the external argument of the projection. This means that each version of p, namely the standard and the reversed p, comes into four types. Not all of them are used in the constructions under discussion, yet the existence of the full range is justified once additional data are considered (see Chapter 9).

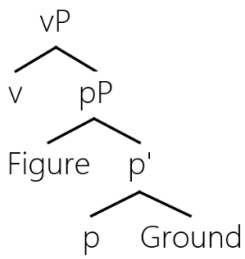
The rest of this section provides an overview of the structures I assume in this thesis. Primarily, the structures are differentiated based on the choice between a syntactically transitive or intransitive Voice in combination with the standard

[5] An exception is drawn for sentential possessives in languages other than Greek where predication is based on a possessive DP (see Chapter 8).

(Figure>>Ground) vs. the reversed (Ground>>Figure) argument arrangement of the p-predication. This will be further refined in Chapters 5-9.

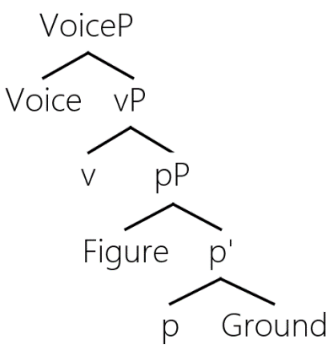
In particular, I argue that English BE-locatives and Greek EXIST-existentials share the same underlying structure, which is the least complex. A predicative prepositional head introduces the Figure nominal as its subject while it leaves the Ground argument in the complement position. As both BE and EXIST are unaccusatives, they do not involve a Voice projection.

20. *The structure of English BE-locatives and Greek EXIST-existentials*



BE-sentences in Greek have a more complicated syntax than (20). The Greek version of BE is an unaccusative deponent since it surfaces with idiosyncratic non-active Voice morphology. Adopting widespread assumptions about Voice in Greek, I maintain that this morphology results from a specifier-less Voice head.

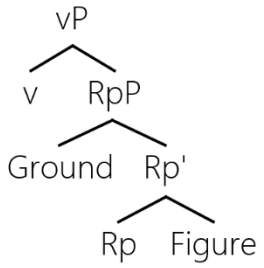
21. *The structure of Greek BE-sentences*



Unlike their Greek counterparts, English *there-be*-sentences are argued to exploit the reversed type of p in addition to lacking Voice altogether (22).[6]

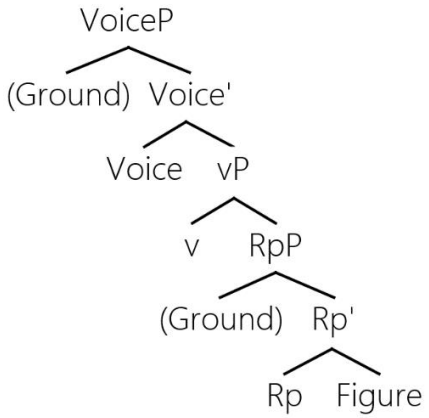
[6] Objections may arise since, in the representation in (22), there is (possibly) no position to host expletive *there*. My take on this issue is presented in Chapter 6.

22. *The structure of English there-be-sentences*



Lastly, I propose that HAVE-sentences in both languages involve the reversed type of predication. Little v selects this predicative structure and is, in turn, projected under a transitive Voice head. A correlation between the projection of [Spec, RpP] and [Spec, VoiceP], as well as the items that can appear in these positions, derive the difference between existential and possessive HAVE-sentences as well as the difference between Greek-type and English-type possessives.

23. *The structure of English and Greek HAVE-sentences*



As several pieces are missing, these structures will be revised in the succeeding chapters. This brief presentation hopefully suffices to orient the reader with respect to the analysis pursued in this dissertation.

To summarize, this thesis contributes a study of Greek existentials and possessives that have not been analyzed in the literature before. In doing this, it redefines the range of constructions that any related inquiry should consider. The dissertation combines two long-standing traditions by assigning the (dis)similarities of the constructions to the individual properties of the predication, the Voice layer, and their interaction. The bigger question addressed in this study is how syntactic realization interacts with interpretation.

The rest of the thesis is organized as follows. In Chapter 2, existential and locative constructions are brought into scrutiny, while in Chapter 3, the focus is turned to possessive constructions. Chapter 4 presents how specific Figure-Ground pairs alternate among the abovementioned constructions. These chapters provide the essential empirical data that support the analysis that follows. Chapter 5 tackles the issue of Voice projection. Chapter 6 examines the existential and locative predicative structure, while Chapter 7 summarizes the assumptions and addresses a few semantic issues. Chapter 8 is concerned with possessive sentences, and Chapter 9 compares existentials, locatives, and possessives. Chapter 10 concludes the discussion.

2. The distribution of Greek existentials

This chapter introduces the three types of Greek sentences that qualify as existentials based on the discussion in Chapter 1, particularly Section 1.2.1., and compares them to locative sentences. The latter is crucial for understanding the syntactic and semantic properties of both types of sentences.

Even though the existing literature lacks a work focusing on Greek existentials, the language is present in the typological work in the field. For Creissels (2014), Greek is one of the languages with a distinct existential predicate. In particular, it falls in the second out of his seven categories since Greek uses its main transitive possessive verb, namely *exo* 'have', as the existential predicate. Indeed, HAVE-based sentences are the most frequent existentials in Standard Modern Greek. The language, however, also exploits a BE-existential and an EXIST-existential.

The rest of this chapter is organized as follows: Section 2.1. discusses HAVE-existentials, while 2.2. presents the distribution of BE-existentials and locatives. Section 2.3. refers to EXIST-existentials and Section 2.4. summarizes their properties.

2.1. HAVE-sentences

The most common existential construction used in Standard Modern Greek exploits an invariable verb form of HAVE, namely *exi*. As presented in (1), the verb surfaces with a third-person singular marking, independently of the number marking on the post-verbal nominal.

1. a. Exi ena vivlio sto trapezi.
   HAVE.3SG a.N.NOM book.N.SG.ACC on.the.N.SG.ACC table.N.SG.ACC
   'There is a book on the table.'
   b. Exi vivlia sto trapezi.
   HAVE.3SG book.N.PL.ACC on.the.N.SG.ACC table.N.SG.ACC[7]
   'There are books on the table.'

Sentences that contain non-agreeing verb forms, usually called *impersonal* constructions, are attested in the language. Even though their instances are limited, they always exploit the third-person singular form of the verb. Examples of them

[7] Throughout this dissertation, I do not gloss gender and case when unnecessary for simplicity. The reader must be aware that Greek exhibits verbal agreement with the subject in number and person. Determiners, quantifiers, and adjectives agree with the nominal that follows them in gender, number, and case.

include weather verbs (2) and sentences headed by the counterparts of 'seem' (3) or fixed expressions (4) with clausal complements.

2. Vrexi.
   rain.3SG
   'It rains.'

3. Fenete oti θa vreksi.
   seem.3SG COMP FUT rain.3SG
   'It seems that it will rain.'

4. Ine siɣuro oti θa vreksi.
   BE.3SG certain COMP FUT rain.3SG
   'It is certain that it will rain.'

The post-verbal nominal in existentials, often called *pivot* due to Francez (2007), is the item that can never be omitted in any language or construction as it denotes the new discourse referent which is introduced as a Figure with respect to a Ground.

The pivot always remains in the post-verbal position[8] and surfaces with accusative case, despite being the only overt argument in the sentence. The latter becomes explicit when the inflectional paradigm of the nominal does not include forms syncretic for case (5).

5. a. Exi kafe/*kafes sto trapezi.
   HAVE.3SG coffee.SG.ACC/coffee.SG.NOM on.the table
   'There is coffee on the table.'
   b. Exi oðo/*oðos me afto to onoma stin Aθina.
   HAVE.3SG street.SG.ACC/street.SG.NOM with this the name in.the[9] Athens
   'There is a street with this name in Athens.'

The lack of agreement is expected because Greek verbs agree only with nominative nominals (Philippaki-Warburton 1970; Catsimali 1990; Spyropoulos 1999; Alexiadou &

---

[8] The pivot may surface in sentence-initial position only as a contrastive topic (see Georgiou 2023):
i. NERO exi sto bukali, oxi laði.
water.SG.ACC HAVE.3SG in.the bottle no oil.SG.ACC
'There is water on the floor, not oil.'

[9] *Se* in Greek is a preposition with a wide range of uses. Theophanopoulou-Kontou (2000), Lechner & Anagnostopoulou (2006), Botwinik-Rotem & Terzi (2008), Terzi (2010), and Ramadanidis (2022) argue that it is one of the two light prepositions that express *location* or *path/goal*. For this reason, *se* is not glossed uniformly across this dissertation.

Anagnostopoulou 2021).[10] The accusative-case marking on the pivot nominal constitutes strong evidence that this type of sentence involves covert material critical for Agreement and Case-assignment (see 5.1.2.1.).

Existentials are cross-linguistically characterized by a second morphological property that has attracted much attention in the literature. This property refers to the fact that there is a restriction regarding the definiteness of the pivot. *Definiteness effect* and *Definiteness Restriction* are often used as labels for this phenomenon. To my knowledge, the terminology goes back at least to Milsark (1974). However, as Bassaganyas-Bars & McNally (2019) summarize a large body of prior work by Abbott (1992; 1993; 1997), Ward & Birner (1995), McNally (1997; 2011; 2016), Beaver et al. (2005), Francez (2007; 2009), and Myler (2016; 2018), among others, they capture the relevant restrictions more comprehensively. Therefore, I follow their line of thought to describe the Greek distribution concerning this phenomenon.

In its original form, the *Definiteness effect* (henceforth, DE) is a strict condition that bans noun phrases including definite determiners from the pivot position under any circumstance. The ungrammaticality of the following examples substantiates this.

6. a. *Exi to vivlio sto trapezi.
HAVE.3SG the.SG.ACC book.SG.ACC on.the table
'*There is the book on the table.'
b. *Exi ton kafe sto trapezi.
HAVE.3SG the.SG.ACC coffee.SG.ACC on.the table
'*There is the coffee on the table.'

For this strong version of the DE, apart from definite determiners, ungrammatical pivots include demonstrative determiners (7), possessives (8), necessarily distributive determiners such as *kaθe* 'each' (9), partitive noun phrases (10), and proper names (11).[11] This means that *strongly quantified noun phrases* in the sense of Milsark (1974) are forbidden. In the forthcoming paragraphs, the term *definite* refers to all the abovementioned noun phrases unless stated otherwise.

7. #Exi afto to ðendro stin avli.
HAVE.3SG this.SG.ACC the.SG.ACC tree.SG.ACC in.the backyard
lit. 'There is this tree in the backyard.'

[10] In Romance languages, as well, HAVE-existentials most commonly include a nominal marked for accusative and a verb non-agreeing with it (see Bentley et al. 2015: 141; Cruschina 2015: 38).

[11] Sentences in (7-11) are an adaptation of English examples provided by Bassaganyas-Bars & McNally (2019: 3, ex.2).

8. #Exi to ðendro mas stin avli.
HAVE.3SG the.SG.ACC tree.SG.ACC our in.the backyard
lit. 'There is our tree in the backyard.'

9. #Exi kaθe ðendro stin avli.
HAVE.3SG each.SG.ACC tree.SG.ACC in.the backyard
lit. 'There is each tree in the backyard.'

10. #Exi kapja/ðio apo ta ðendra stin avli.
HAVE.3SG some/two of the.PL.ACC tree.PL.ACC in.the backyard
lit. 'There are some/two of the trees in the backyard.'

11. *Exi to Niko stin avli.
HAVE.3SG the.SG.ACC Nick.ACC in.the backyard
'There is Nick in the backyard.'

Crucially, apart from the sentence in (11), the rest of the sentences are not starred ungrammatical (*) but marked as infelicitous on certain occasions, hence the '#' sign. This is an important observation that will be discussed shortly.

Unlike definite noun phrases, *weakly quantified* noun phrases (in the sense of Milsark 1974) are accepted. As presented in (12) bare nominals or nominals modified by a cardinal, e.g., *ðjo* 'two', a quantitative adjective like *polis/liɣos* 'many/few', or an indefinite determiner like *enas* 'a' or *kati* 'some' are fully acceptable:[12]

12. a. Exi (ðjo/pola/liɣa/kati) pexniðja sto patoma.
HAVE.3SG two/many/few/some.ACC toy.PL.ACC on.the floor
'There are (two/many/few/some) toys on the floor.'
b. Exi ?(ena) kinito sto trapezi.
HAVE.3SG a.ACC mobile.SG.ACC on.the table
'There is a mobile phone on the table.'

Clearly, it is not the case that there are no distributional differences among weakly quantified noun phrases in these environments. This is indeed confirmed at the cross-linguistic level (see Chierchia 1998; Borer 2005; Heycock & Zamparelli 2005, and, for Greek in particular, Alexiadou 2001; 2011a Alexiadou et al. 2007; Tsoulas 2009; Alexopoulou et al. 2013; Kampanarou 2017; 2019; Alexopoulou & Folli 2019).

[12] The proper status of each item is a matter of debate. See Alexiadou et al. (2007) and Giannakidou (2012) for a detailed presentation of Greek quantifiers and their characteristics.

For instance, regarding bare arguments, it has been observed that the bare singulars of count nouns are less successful than bare plurals, hence the '?' marking in the omission of the determiner in (12b). As this holds for any other environment where bare arguments appear (e.g., unaccusative verbs, verbs of creation and consumption, etc.), it should not be considered a unique property of existentials. The crosslinguistic and the Greek literature conclude that the preference for bare plurals is a matter of the DP-structure (in addition to the references above, see Bouchard 2002; Munn & Schmitt 2002; 2005; 2020; Dobrovie-Sorin & Beyssade 2012, i.a., and Sioupi 2001a; 2001b; Lazaridou-Chatzigoga 2011; Alexandropoulou 2013 for bare arguments in Greek specifically). Although interesting as a research topic, I will not focus on the differences among weakly quantified noun phrases. In this thesis, I will generally assume that they are allowed as pivots in *exi*-sentences.

As pointed out with respect to the examples in (7-10), definite noun phrases are not always prohibited. Even Milsark (1974; 1977) himself notices a similar situation for English existentials (see also Hartmann 2013 and references therein).

Firstly, it is evident that when the pragmatic function of the sentence changes, the restriction is suspended. For instance, witness that the sentence in (8) is acceptable if interpreted as a possessive sentence with a dropped subject. In this case, the sentence means that someone (corresponding to the dropped subject) keeps the tree we gifted them in their backyard.

Even if a possessive reading cannot be coerced, *exi*-sentences allow definite noun phrases as pivots if they do not introduce novel discourse referents but function as presentative utterances. For example, the sentence in (10) draws attention to a couple or a group of trees that exist in the backyard and are part of an already known set of different tree types.

The second set of presentative utterances (13) shows that this use is closer to the locative function because these sentences do not introduce a new discourse referent but establish the location of a presupposed one. Their difference from prototypical locative sentences (discussed in detail in 2.2.) is that these sentences are inadequate answers to the 'Where is the x?' question.

13. a. Exi ton proθipurɣo sti ðeθ simera.
HAVE.3SG the.SG.ACC prime.minister.SG.ACC at.the T.I.F. today
'There is the prime minister at TIF (Thessaloniki International Fair) today.'

b. Exi ti Natasa Bofilju sto θeatro jis apopse.
HAVE.3SG the.SG.ACC Natasa.ACC Bofiliu at.the theater gis(name) tonight
'There is Natasa Bofiliu (Greek singer) at 'Gis' theater tonight.'

c. Exi ton Niko stin tileorasi.
HAVE.3SG the.SG.ACC Nick.ACC on.the TV
'There is Nick on TV.'

Intriguingly, these sentences can be paraphrased by a construction in which the verb shows agreement with a dropped subject (14). The same is reported for English by Lyons (1967). The dropped subject can be roughly conceived of as a possessor, as in (8). In contrast with (8), though, the subject, in this case, is relatively vague. This means that the speakers may not have specific entities in mind but rather their capacities or other properties.

14. a. Exun ton proθipurɣo sti ðeθ simera.
HAVE.3PL the.SG.ACC prime.minister.SG.ACC at.the T.I.F. today
'They have (=host, present) the prime minister at TIF today.'
b. Exun ti Natasa Bofilju sto θeatro jis apopse.
HAVE.3PL the.SG.ACC Natasa.ACC Bofiliu at.the theater gis(name) tonight
'They have (=host, present) Natasa Bofiliu at 'Gis' theater tonight.'
c. Exun ton Niko stin tileorasi.
HAVE.3PL the.SG.ACC Nick.ACC on.the TV
'They have (=host, present) Nick on TV.'

Lastly, there are examples in which the pivot position is filled by the most prominent examples of definite phrases, namely, the ones including demonstrative pronouns. In (15), the pronoun *afto* 'this' picks out a referent physically introduced into the discourse with the utterance.

15. [While the speaker shows off something he is holding.]
Exi afto sto komoðino. Siɣura to θes eki?
HAVE.3SG this.N.SG.ACC on.the nightstand surely CL.N.3SG want.2SG there
'There is this thing on the nightstand. Are you sure you want it there?'

In turn, the same pronoun in (16) has a referent already known from Speaker's A utterance as its antecedent.

16. [Two friends are in a bookshop.]
A: Kseris ti psaxno? Vivlia mistiriu.
know.2SG what look.for.1SG book.PL.ACC mystery.SG.GEN
'Do you know what I am looking for? Mystery novels.

B: Ta exi afta sto kato rafi.[13]
CL.N.3PL HAVE.3SG these.N at.the bottom shelf
'They (i.e., this type of books) are kept at the bottom shelf.'

Therefore, the DE is not as strict as originally assumed. It arises as long as the sentence has a specific pragmatic function, namely, to introduce a new discourse referent. Even in this case, though, the definite determiners and the strong quantifiers that are supposed to be banned can appear.

Conspicuously, the demonstrative in (16) singles out an already-known referent. However, this is not a token-referent but rather a type-referent, as evidenced by the fact that its antecedent surfaces as a bare nominal. Recall also that the sentences in (7) and (9) above were not starred-ungrammatical. These sentences become acceptable once the quantifier is interpreted as quantifying over types, not tokens. In particular, the sentence in (7) is acceptable when interpreted as 'There is a tree of this type in the backyard.'. So is (9) as an exaggerating and enthusiastic assertion, under the reading 'There is every type of tree in the backyard!'.

Jenkins (1975) and Lumsden (1988) were the first to report that "the effect disappears when the descriptive content in pivot noun phrase picks out a (sub)kind or type" (Bassaganyas-Bars & McNally 2019: 4). The evidence that Bassaganyas-Bars & McNally (2019) gather from English to confirm this observation can be replicated in Greek. In (17) below, the quantifiers *tetjos* 'that, such', *opjosðipote* 'every' (17a), and *olos* 'all' (17b) are allowed to precede the nominal only if they quantify over types of entities.

17. a. Exi tetjo/opjoðipote maθiti stin taksi afti.
HAVE.3SG such/every.SG.ACC student.SG.ACC in.the class this
'There is such/every type of student in this class.'
b. Sto maɣazi afto exi oles tis sokolates.
in.the store this HAVE.3SG all.PL.ACC the.PL.ACC chocolate.PL.ACC
'In this store, there are all kinds of chocolate.'

As put forth by Prince (1992), the required type-denotation is also achieved in the presence of certain adjectives like *aparetitos* 'necessary' (18a) or *siniθismenos* 'usual' (18b) or in case there is an adjectival superlative preceding the nominal (19).

[13] It is worth noting that the existential reading of this sentence is not available to all speakers. Several of them accept this sentence only as having a dropped subject possessor, i.e., roughly under the interpretation 'The owner of the bookshop/ The librarian keeps this type of novel at the bottom shelf.'. This reading is available as an alternative to the speakers who accept the same sentence as an existential.

18. a. Exi ta aparetita ilika ja to keik sto spiti.
HAVE.3SG the.PL.ACC necessary.PL.ACC ingredient.PL.ACC for the cake in.the house
'There are the necessary ingredients for (baking) the cake at home.'
b. Sta turistika meri ixe ton siniθismeno kozmo fetos.
in.the touristy places HAVE.PST.3SG the.SG.ACC usual.SG.ACC crowd.SG.ACC this.year.
'In the touristy places, there was the usual crowd this year.'

19. Stin Elaða exi to kalitero klima.
in.the Greece HAVE.3SG the.SG.ACC best.SG.ACC climate.SG.ACC
'There are the best weather conditions in Greece.'

It is the case, then, that there is no restriction on specific determiners or quantifiers. The DE is not a restriction on morphological definiteness but rather on semantic definiteness (in a particular context). This is further supported by (20), which is equivalent to an English example provided by Bassaganyas-Bars & McNally (2019: 5, ex.6). The sentence with a definite nominal in the pivot position is unacceptable (20a). However, adding a complement (an indefinite phrase) that reduces the semantic definiteness of the original phrase makes the whole sentence acceptable (20b).

20. a. #Exi to kapaki ston pago.[14]
HAVE.3SG the.SG.ACC lid.SG.ACC on.the countertop
lit. 'There is the lid on the countertop.'
b. Exi to kapaki enos vazu ston pago.[15]
HAVE.3SG the.SG.ACC lid.SG.ACC a.GEN jar.SG.GEN on.the countertop
'There is the lid to a jar on the countertop.'

The authors claim that the definite article, in this case, indicates a familiar relation between the nominals, i.e., that of *being a lid to something*. It is not the referent, i.e., the lid itself, that is already familiar in the discourse.

Thereby, the above distribution leads to the conclusion that the DE is a semantic restriction that arises only when the sentences are used to introduce new discourse referents. In particular, it appears when the sentences introduce referents

[14] This sentence is acceptable only if we assume a dropped subject having a possessive relationship with the lid, as in (8).

[15] This distribution goes against Alexiadou (2005). There, the author claims that, unlike English, the indefiniteness of a complement in the Greek DP cannot make the whole DP indefinite. (In)definiteness in Greek is dictated by the determiner that precedes the head nominal. However, (20) suggests that Greek behaves like English; the indefiniteness of the complement spreads across the whole DP and makes it acquire an indefinite denotation despite being preceded by a definite determiner.

corresponding to *types*. McNally (1997) and Francez (2007), who present a similar distribution in English, do not use 'types' as opposed to 'tokens'. They suggest that the DE emerges to ensure the denotation of *instances of a kind or a sub-kind*. In formal terms, this denotation corresponds to the so-called *entity-correlates to property* or *nominalized functions* in Chierchia & Turner's (1988) framework.

Overall, the DE is a restriction that appears in *exi*-sentences iff the sentences introduce *novel* discourse referents *as instances of a kind*. It is, therefore, a restriction implied by pragmatics *and* semantics (McNally 1997; Leonetti 2008; Fischer 2013; Bassaganyas-Bars & McNally 2019). This proposal synthesizes the view that takes DE to be an entirely semantic condition (Milsark 1974; 1977; Barwise & Cooper 1981; Keenan 1987) with the pragmatic approach to the DE (Abbott 1992; 1993; Prince 1992; Ward & Birner 1995; Zucchi 1995).[16] In this dissertation, I do not delve into the morphological manifestation of the DE, as this requires focusing on the inner structure of the Greek DP. However, since the DE is a property that characterizes existentials cross-linguistically, it must be at least recognized in Greek.

The last overt item of an *exi*-sentence is the locative constituent, usually called the *coda-phrase.* Crucially, the latter is a label whose content also varies. For example, Milsark (1974; 1977) uses it to refer to any material that follows the copula, whereas Keenan (1987) uses it for anything that follows the pivot. Across this thesis, I will follow McNally (1997) and Francez (2007) and use the term to refer only to constituents to the right of the pivot that are *not* part of it. Much of the debate on the structure of existentials is around the status of this material, i.e., whether it is a constituent separate from the pivot or not. This issue is tackled in Section 6.4.1. Until then, I will treat the overt locative item as the Ground argument, i.e., the given stable point, the anchor upon which the Figure is introduced into the discourse.

The coda usually surfaces as a (simple or complex) prepositional phrase[17] or a locative adverb like *εδο* 'here'. It more naturally appears at the end of the sentence,

---

[16] A part of the literature holds that the DE is an entirely syntactic phenomenon (Safir 1982; 1987; Moro 1997; 2006; Kayne 2016; Kagan 2020), whereas another part treats it as a phenomenon of the interface; Huang (1987) and Hartmann (2008; 2013) attribute the DE to the syntax-semantics interface, while Lambrecht (1994), Mikkelsen (2002), Beaver et al. (2005), Francez (2007; 2009), Gast & Haas (2011), Bentley (2013), and Halevy (2022) advocate that the DE is a property of non-canonical or de-topicalized subjects. Haspelmath (2022; 2023) makes an alternative proposal according to which the DE of the Figure is definitional. He proposes that existentials are clauses "in which an indefinite nominal phrase is said to be in some location" (Haspelmath 2023:2). Based on this, the Figures are indefinite by definition. Thus, the DE is treated as a given property instead of a property that must be derived, explained, or predicted by any analysis.

[17] Lechner & Anagnostopoulou (2006), Terzi (2010; 2017), and Ramadanidis (2022) discuss the syntactic and semantic differences between Greek simple and complex PPs in detail.

while it can be brought in sentence-initial position as in (21b), without the requirement of marked intonation.

21. a. Prosexe jati exi arkuðes (pano)sto vuno /eðo).
pay.attention.2SG.IMP because HAVE.3SG bear.PL.ACC over on.the mountain here
'Be careful because there are bears on the mountain/here.'
b. Sto vuno/ Eðo exi arkuðes.
on.the mountain here HAVE.3SG bear.PL.ACC
'There are bears on the mountain/here.'

This locative constituent can be omitted if it is easily retrieved by the context, as in the answer in (22).

22. A: Pijes sto kenurjo estiatorio?
go.PST.PFV2SG to.the new restaurant
'Did you go to the new restaurant?'
B: Ne ke iða oti ðen exi vigan menu.
yes and see.PST.PFV.1SG COMP NEG HAVE.3SG vegan.ACC menu.SG.ACC
'Yes, and I saw that there is no vegan menu.'

The locative constituent is also retrievable from general knowledge or knowledge shared among the interlocutors. The quality judgment in (23) illustrates this.

23. Exi maθites ke maθites.
HAVE.3SG student.PL.ACC and student.PL.ACC
'There are different types of students (i.e., in general or in a known school/class).'

An alternative name for these cases is *bare existentials*. This term is used only for sentences with no overt locative constituent. Importantly, though, as the latter's omission is allowed only when the context has made it salient, it means that even when the locative is not morphologically realized, it is semantically present. This means that the Figure-nominal is always introduced with respect to a given Ground-location, even if the latter is not rigid.

Intriguingly, omitting the overt locative constituent may not be possible, even if the condition described above is met. At the cross-linguistic level, there are existential constructions that do not allow this omission. McCloskey (2014) uses (24) to illustrate this restriction in Irish.

24. *Irish* (McCloskey 2014: 10–11)
Níl arán ar bith *(ann).
is.not bread any in.it
'There's no bread.'

In Chapter 6, the optionality of the overt coda-phrase will be considered an important piece of evidence for its syntactic status.[18]

Regardless of their morphological realization, the omitted or the overt coda cannot be animate. As initially observed by Freeze (1992), prepositional phrases that include animate nominals are unacceptable in this context. This is evidenced in Greek (25):

25. *Exi stilo/miti/kalosini sto Niko/ston aðerfo mu.
HAVE.3SG pen/nose/kindness.SG.ACC in.the Nick/in.the brother my
lit. 'There is a pen/nose/kindness in Nick/my brother.'

This means that *exi*-sentences cannot introduce Figures with respect to animate Grounds. This conclusion is further supported by the fact that an animate nominal may surface within the prepositional coda only if a locative interpretation is coerced. For instance, the sentence in (26) is acceptable only under the reading 'it is warm in the house/place where Nick leaves or is currently located'. The sentence cannot mean that 'Nick has a fever or feels warm'.

26. Exi zesti ston Niko.
HAVE.3SG warmth.SG.ACC in.the Nick
'It is warm at Nick's.'

Lastly, it should be acknowledged that a coda-phrase does not surface only as a prepositional phrase. Adjectives (27) or clauses headed by *na* (28) can also appear in the coda-position.

27. Exi skilja stiromena (sto katafijio mas).
HAVE.3SG dog.PL.ACC sterilized.PL.ACC in.the shelter our
'There are sterilized dogs in our shelter.'

[18] Francez (2007: 11) makes a typological generalization and claims that at the cross-linguistic level, neither the coda nor the copula is an obligatorily overt item of the existential clauses. Only the pivot-nominal is (in addition to expletives for the languages that use them).

28. Exi ɣonis na perimenun ekso apo to sxolio.
HAVE.3SG parent.PL.ACC to wait.3PL outside from the school
'There are parents waiting outside the school.'

The nature of this type of coda is another matter of debate, mainly because of the observation that this position allows only for s(tage)-level predicates. This fact, often called the *Predicate Restriction,* has been widely discussed in the literature (see McNally 2011 and references therein). However, it will not concern us here since, as claimed in Chapter 1, this thesis considers existentials with locative codas so that there is a basis for comparison with locatives and possessives (see Kampanarou to app. for some discussion on *exo*-sentences with *na*-clausal complements).

Finally, there is a property of this construction as a whole that will become crucial once the rest of the existential sentences are presented. In general, *exi*-sentences are preferred when the association between the Figure and the Ground is temporary or accidental. Albeit they do not preclude Figure-Ground pairs the members of which are standardly associated with each other. This is not only confirmed by the way the following examples can be judged but also by the fact that native speakers can provide such meta-linguistic information when asked.

29. Exi poli kozmo sto ɣrafio.
HAVE.3SG large.SG.ACC crowd.SG.ACC at.the office
i. 'There is a large crowd (currently present) at the office.'
ii. 'There is a large group of employees working at the office.'

As presented in (29), the sentence can be interpreted as an utterance about the current situation at the office (i). This is its most natural interpretation. However, next to this, there is a second reading that refers to the number of employees that work at the office (ii). Although an *exi*-sentence is not the most preferred construction to convey this information, it is, nevertheless, fully acceptable.

Moreover, the sentence in (30) accommodates a Figure-Ground pair, the members of which have a standard relationship with each other. The relationship between *the population* and its hosting planet, *Earth,* is stable, invariable, and constant. However, an *exi*-sentence is not the most natural way to convey this; therefore, (30) is marked with (?).

30. (?)Exi poli kozmo sti ji.
HAVE.3SG large.SG.ACC crowd.SG.ACC on.the earth
'There is a large population on earth.'

The versatility of *exi*-sentences is further supported by (31), where it is shown that these sentences can host either *pada* 'always' or *simera* 'today' without any issue of acceptability. Clearly, each adverb leads to a distinct interpretation.

31. a. Simera exi ena jimnasti sto ksenoðoxio.
today HAVE.3SG a.ACC personal.trainer.SG.ACC in.the hotel
'Today, there is a personal trainer in the hotel.'
b. Pada exi ena jimnasti sto ksenoðoxio.
always HAVE.3SG a.ACC personal.trainer.ACC in.the hotel
'There is always a personal trainer in the hotel.'

To sum up, *exi-sentences* (a) use an invariant form of the copula, (b) exhibit a distinctive case pattern since they have their unique nominal argument marked for accusative, (c) they are subject to the DE only when used to introduce novel discourse referents as instances of a kind, and (d) they are optimal when the association between the Figure and the Ground is temporary, although they can accommodate Figure-Ground pairs describing more standardized relationships. The following section turns our focus to BE-sentences.

2.2. BE-sentences

The second construction that qualifies as existential in Greek includes the copula BE, namely *ime*. As the main copula of the language, *ime* appears in every class of Higgins's (1979) taxonomy (32-35). This includes predicational (32), specificational (33), identificational (34), and equative sentences (35).

32. *Predicational:*
I Maria ine omorfi.
the.SG.NOM Maria.NOM BE.3SG beautiful.SG.NOM
'Mary is beautiful.'

33. *Specificational:*
I proeðros tis Ðimokratias ine i Katerina Sakelaropulu.
the.SG.NOM president.SG.NOM the.GEN Republic.GEN BE.3SG the Katerina Sakellaropulu
'The President of the (Hellenic) Republic is Katerina Sakellaropoulou.'

34. *Identificational*
Afti (i ermineftria) ine i Natasa Bofilju.
this.SG.NOM the.SG.NOM singer.SG.NOM BE.3SG the Natasa Bofiliu
'This (singer) is Natassa Bofiliou.'

35. *Equative*

O Toni Stark ine o Aironman.
the.SG.NOM Tony.NOM Stark.NOM BE.3SG the.SG.NON Ironman.NOM
'Tony Stark is Ironman.'

Out of these four types, only the first falls within the scope of this dissertation. In particular, predicational sentences are characterized by the fact that a property denoted by a post-copular constituent, e.g., an adjective (36a) or a nominal (36b), is predicated of the pre-copular presupposed subject. When the property refers to a location (36c), the sentence qualifies as a locative as it constitutes an adequate answer to the 'Where is the x?' question.

36. a. Ta peðja ine poli eksipna.
the.PL.NOM child.PL.NOM BE.3PL very smart.PL.NOM
'The children are very smart.'

b. (Esis) iste monimi ðaskali.
you.NOM BE.2PL tenured.PL.NOM teacher.PL.NOM
'You are tenured teachers.'

c. (Emis) imaste sto spiti.
1PL.NOM BE.1PL in.the house
'We are home.'

The *ime*-existential construction has a configuration that is very close to an English *there-be*-sentence, the only difference being that there is no expletive *there* in Greek. Unlike the examples above, the verb is sentence-initial, while the Figure-nominal stays in the post-verbal position and is followed by the locative constituent (37).

37. a. Ine kati peðja sto parko.
BE.3PL some.NOM kid.PL.NOM at.the park
'There are some kids at the park.'

b. Ine ena koritsi stin porta.
BE.3SG a.NOM girl.SG.NOM at.the door
'There is a girl at the door.'

c. Ine meɣali aɣora sto Monastiraki.
BE.3SG big.SG.NOM market.SG.NOM at.the Monastiraki
'There is a big marketplace at Monastiraki (area).'

Firstly, as opposed to *exi*-sentences, the post-verbal nominal is marked for nominative case (38a), and *ime* agrees in number and person (38b). As such, *ime*-existentials show the typical verb-agreement pattern in Greek.

38. a. Ine kafes/*kafe sto trapezi.
BE.3SG coffee.SG.NOM/coffee.SG.ACC on.the table
'There is coffee on the table.'
b. Ine kafeðes sto trapezi.
BE.3PL coffee.PL.NOM on.the table
'There are coffees on the table.'

As the form *ine* is syncretic for third-person singular and third-person plural, this becomes clearer in examples containing pronouns of the first or second person (39). Note that under the definition adopted in Chapter 1, these are examples of presentative utterances that qualify as existentials since they (re)introduce the speaker and/or the hearer into the discourse with a second role. In (39a), the speaker is introduced as a Figure-referent with respect to the Ground, *Athens*. In (39b), a group of people that includes the speaker is also introduced as a Figure with respect to the Ground, *spiti* 'house'.[19]

39. a. Ime ke eɣo stin Athina.
BE.1SG and 1SG.NOM in.the Athens
'There I am in Athens too.'
b. Min anisixis. Imaste emis sto spiti.
NEG worry.2SG BE.1PL 1PL.NOM in.the house
'Don't worry. It's us in the house.'

As the sentences above do not introduce new referents as instances of a kind but re-introduce referents into the discourse, personal pronouns are acceptable. However, when the sentence is used to introduce new discourse referents as instances of a kind, the post-verbal (pivot) position is subject to the DE, i.e., it cannot include definite and strongly quantified noun phrases. In this context, deictic pronouns and definite determiners that single out token referents are not felicitous (40).

40. #Ine (aftos) o kafes sto trapezi.
BE.3SG this.NOM the.SG.NOM coffee.SG.NOM on.the table
lit. 'There is this coffee on the table.'

[19] For Abbott (1993), these constitute examples of *contextualized existentials* because they express a proposition about the presence or availability of an entity in a context that is explicit and familiar in the discourse.

The same is true for nominals followed by possessive pronouns (41), nominals preceded by necessarily distributive determiners like *kaθe* 'each' (42), and partitive constructions (43).

41. #Ine to ðendro mas stin avli.
BE.3SG the.SG.NOM tree.SG.NOM our in.the backyard
lit. 'There is our tree in the backyard.'

42. #Ine kaθe ðendro stin avli.
BE.3SG each.NOM tree.SG.NOM in.the backyard
lit. 'There is each tree in the backyard.'

43. #Ine kapja/ðio apo ta ðendra stin avli.
BE.3SG some/two of the.PL.NOM tree.PL.NOM in.the backyard
lit. 'There are some/two of the trees in the backyard.'

In contrast, noun phrases preceded by weak quantifiers can freely appear in the post-verbal position when the sentence is used for the abovementioned function:

44. a. Ine ðjo/pola/liɣa/kati pexniðja sto patoma.
BE.3PL two/many/few/some.NOM toy.PL.NOM on.the floor
'There are two/many/few/some toys on the floor.'
b. Ine ena kinito sto trapezi.
BE.3SG a.NOM mobile.SG.NOM on.the table
'There is a mobile phone on the table.'

Definite noun phrases that could surface in the post-verbal position in *exi*-sentences as long as their semantic denotation was appropriate merely escape the DE in *ime*-existentials. Definite determiners or strong quantifiers that quantify over types are acceptable but not as widely as in *exi*-sentences. For instance, demonstratives and distributive determiners (45a) are almost unacceptable in the pivot position, whereas universal quantifiers fare better (45b).

45. a. ???Ine tetjos/kaθe maθitis stin taksi afti.
BE.3SG such/each.NOM student.SG.NOM in.the classroom this
lit. 'There is such/each (type of) student in this classroom.'
b. ?Sto maɣazi afto ine oles i sokolates.
in.the store this BE.3PL all.PL.NOM the.PL.NOM chocolates.PL.NOM
'In this store, there are all kinds of chocolate.'

In contrast with *exi*-sentences, the modifier *aparetitos* 'necessary' in (46a) does not improve the acceptability of the sentence. However, *siniθesmenos* 'usual' (46b) and the superlative (46c) make the definite determiner acceptable. In fact, the superlative does not improve acceptability for all speakers, as signaled by the '?' marking.

46. a. *Ine ta aparetita ilika ja to keik sto spiti.
BE.3PL the.PL.NOM necessary.PL.NOM ingredient.PL.NOM for the cake in.the house
int. 'There are the necessary ingredients for (baking) the cake at home.'
b. Sta turistika meri itan o siniθismenos kozmos fetos.
in.the touristy places BE.PST.3SG the.SG.NOM usual.SG.NOM crowd.SG.NOM this.year.
'In the touristy places, there was the usual crowd this year.'
c. ?Ine to kalitero klima stin Elaða.
BE.3SG the.SG.NOM best.SG.NOM climate.SG.NOM in.the Greece
'There are the best weather conditions in Greece.'

Importantly, definite noun phrases are fully acceptable when the sentences are not used to introduce new discourse referents as instances of a kind. Their use as presentative utterances is a case in point. Besides (39), the sentences in (47) reintroduce an old referent into the discourse and establish their location.

47. a. Ine o proθipurɣos sti ðeθ simera.
BE.3SG the.SG.NOM prime.minister.SG.NOM at.the T.I.F. today
'There is the prime minister at TIF (Thessaloniki International Fair) today.'
b. Ine i Natasa Bofilju sto θeatro jis apopse.
BE.3SG the.SG.NOM Natasa Bofiliu at.the theater gis(name) tonight
'There is Natasa Bofiliu (Greek singer) at theater 'Gis' tonight.'
c. Ine o Nikos stin tileorasi.
BE.3SG the.SG.NOM Nick.NOM on.the TV
'There is Nick on TV.'

As explained in 2.1. about *exi*-presentationals, the above sentences are not exclusively locative because they are not natural answers to the 'Where is the x?' question. However, *ime*-sentences can provide the syntactic frame suitable for the locative function as they offer the option to place the nominal in sentence-initial position.

48. a. I Maria ine sto nisi.
the.SG.NOM Mary.NOM BE.3SG on.the island
'Mary is on the island.'
b. Olos o kozmos ine sti sinavlia.
all.SG.NOM the.SG.NOM crowd.SG.NOM BE.3SG at.the concert
'Everyone is at the concert.'

The licensing of definite noun phrases is, therefore, accomplished once the function of the sentence changes. When the speaker intends to establish the location of a presupposed entity to answer the 'Where is the x?' question, *ime*-sentences with definite noun phrases preceding the copulas are optimal.

Nevertheless, an additional observation concerning the morphological characteristics of the noun phrase in *ime*-sentences applies uniformly to their locative use and partially to their existential use. This observation refers to the licensing of bare arguments.

Based on my informants' judgments, I pinned down the following distinction. On the one hand, there are non-dialectal speakers of Greek (mainly related to the areas of Peloponnese, Crete, and Rhodes), as well as speakers of Heritage Greek (residing in Canada, Australia, and the United States of America) who fully accept in the post-verbal position a bare nominal[20] denoting a countable (49) or an uncountable (50) entity.[21]

49. Ine vivlia sto trapezi.
BE.3PL book.PL.NOM on.the table
'There are books on the table.'

50. Ine nero sto patoma.
BE.3SG water.SG.NOM on.the floor
'There is water on the floor.'

Besides Heritage Greek speakers (for whom it is generally accepted that their grammar differs from the Standard variety of the language; see Wiese et al. 2022), all other informants come from and/or reside in Southern Greece. As it is known from the literature, there is a split between a Southern and a Northern Greek variety (Trudgill 2003; Kontosopoulos 2008), confirmed for various phenomena, e.g., the loss of genitive (Mertyris 2014). It could be the case that there is a possible association between the above observation and the properties of the Southern variety. However, I leave this issue open for future research.

For current purposes, I use the term *non-S(tandard)M(odern)G(reek) speakers* to refer to this small group of speakers that accepts this type of sentence. This label is chosen to highlight that their judgments are not congruent with the judgments of most Greek speakers. It must be clarified that I do not aim to draw the isogloss

[20] In this case, too, bare count singulars are the least accepted. Hence, the generalization refers to bare mass nouns and bare plurals.

[21] I thank Dimitris Michelioudakis for bringing this to my attention by sharing that he has noticed this distribution in parts of the Peloponnese.

regarding the phenomenon by choosing this name. I use the (non)-SMG distinction as a label for the groups to depict their size difference.

On the other hand, a second group of speakers judges the sentences in (50) as ungrammatical. This group contains the vast majority of Modern Greek speakers, including speakers of the Northern variety (henceforth, *SMG speakers*). For them, a bare nominal cannot occupy the post-verbal position of an *ime*-sentence. Instead, the nominals must be accompanied by an overt determiner or a quantifier. To retain their use as existentials, the overt item is most often an indefinite determiner like *ena* 'a' or *kati* 'some' or a weak quantifier like *kambosos* 'plenty' or *liγos* 'few' (51):

51. a. Ine *(ena) kutavi stin avli.
BE.3SG a.NOM puppy.SG.NOM in.the backyard
'There is a puppy in the backyard.'
b. Ine *(kati/kambosa/liγa) vivlia sto trapezi.
BE.3PL some/plenty/few.NOM book.PL.NOM on.the table
'There are some books on the table.'

In the rest of this thesis, I will use the term *Bareness effect* (abbreviated as *BarE)* to refer to the fact that, for SMG speakers, bare nominals are prohibited as arguments in *ime*-sentences. The significance of this effect will be discussed in Chapter 6.

Nevertheless, apart from the properties of the pivot-nominal, there are also interesting facts regarding the locative constituent, i.e., the locative coda-phrase. As with *exi*-sentences, the locative coda can be either a prepositional phrase or a locative adverb that naturally appears after the nominal.

52. Prosexe jati ine poles arkuðes sto vuno/eðo.
pay.attention.2SG.IMP because BE.3PL many.PL.NOM bear.PL.NOM on.the mountain/ here
'Be careful because there are many bears on the mountain/here.'

In this construction, too, the prepositional phrase must not include a nominal denoting an animate entity.

53. *Ine stilo/miti/kalosini sto Niko/ston aðerfo mu.
BE.3SG pen/nose/kindness.SG.NOM in.the Nick/in.the brother my
lit. 'There is a pen/nose/kindness in Nick/my brother.'

Interestingly, the split concerning the BarE manifests itself again with respect to the optionality of an overt locative constituent. This means that the two groups are also differentiated in the acceptability of sentences without an overt locative constituent. Specifically, it is observed that the morphological realization of the locative coda in

ime-existentials is optional for the non-SMG group of speakers, as it is for all speakers in *exi*-sentences.[22]

54. a. Ine maθites ke maθites (stin taksi).
BE.3PL student.PL.NOM and students.PL.NOM in.the class
'There are different types of students (in the class).'
b. Ine polis kozmos (eki). Min pas.
BE.3SG much.SG.NOM crowd.SG.NOM there. NEG go.SUBJ.2SG
'There are many people (there). Don't go.'

For SMG speakers, omitting the parenthesized material in (54) is prohibited in any case.

Crucially, though, even when there is no overt locative constituent (for the speakers that is possible), a location is always implied. This means that no matter its morphological realization, the Ground argument, upon which the Figure, i.e., the new discourse referent, is introduced, is always present semantically, as in *exi*-sentences.

The obligatoriness of an overt prepositional phrase or locative adverb is also a property of locative sentences. In other words, when *ime*-sentences are used to establish the location of a presupposed entity, the locative constituent must be overtly realized (55).

55. Ta vivlia ine *(sto trapezi/eðo).
the.PL.NOM book.PL.NOM BE.3PL on.the table here
'The books are *(on the table/here).'

Summing up, the data show that BE-existentials in Greek invariably contain as pivots noun phrases marked for nominative case that surface in post-verbal position and are subject to the DE. Then, a split emerges: the non-SMG group of speakers accepts bare nominals as pivots as well as the omission of the locative coda. In contrast, the SMG group of speakers accepts neither bare nominals nor the omission of the locative constituent. Critically, the two latter properties also characterize locative sentences for all speakers.

Finally, it is notable that *ime*-existentials are preferred when the association between the Figure and the Ground is temporary or accidental. Unlike *exi*-sentences that can accommodate Figure-Ground pairs that stand in a relatively standard relationship, these sentences can hardly relate a pair like *Earth* and its *population*

[22] Note that to test this, the informants were asked to judge sentences in which overt determiners preceded the nominals since both groups accept this configuration. This eliminated the possibility of judging a sentence as unacceptable due to the characteristics of the noun phrase.

(56b). This is also why the second reading that refers to the number of employees that constantly work in the office is missing from (56a). *Ime*-existentials account for pairs co-existing in physical (or, rarely, metaphorical) space.

56. a. Ine polis kozmos sto ɣrafio.
BE.3SG much.SG.NOM crowd.SG.NOM in.the office
'There is a large crowd (currently present) at the office.'
b. ?? Ine polis kozmos sti ji.
BE.3SG much.SG.NOM crowd.SG.NOM on.the earth
'There is a large population on Earth.'

This is further supported by the fact that the *ime*-sentences that include the adverb *pada* 'always' are relatively odd.

57. a. ?? Ine pada kapjo periptero sti ɣonia.
BE.3SG always some.SG.NOM kiosk.SG.NOM on.the corner
'There is always a kiosk on the corner.'
b. ?? Ine pada enas jimnastis sto ksenoðoxio.
BE.3SG always a.NOM personal.trainer.SG.NOM in.the hotel
'There is always a personal trainer in the hotel.'

In conclusion, BE-existentials in Greek (a) include a copula that typically agrees with the nominative-case-marked nominal, (b) exhibit the DE similarly to *exi*-sentences, although they do not widely allow kind-denoting noun phrases including definite or strong determiners, (c) exclude bare noun phrases, i.e., they are subject to the BarE, for the vast majority of Modern Greek speakers, (d) preclude the omission of the locative coda-phrase, for the same group of speakers, and (e) naturally accommodate Figure-Ground pairs that are not standardized. As our focus turns to EXIST-sentences in the next section, the picture of the distribution of Greek existentials will be completed.

2.3. EXIST-sentences

The third existential construction in Greek exploits *iparxo,* which literally means 'exist'. The verb surfaces before the nominal and fully agrees with it since the nominal is marked for nominative (58).

58. a. Iparxi enas kafes/*kafe sto trapezi.
EXIST.3SG a.NOM coffee.SG.NOM/coffee.SG.ACC on.the table
'There is a coffee on the table.'

b. Iparxun kafeðes sto trapezi.
EXIST.3PL coffee.PL.NOM on.the table
'There are coffees on the table.'

These sentences are subject to the same DE as *exi-* and *ime-*sentences; the post-verbal noun phrase must be non-definite to introduce new discourse referents as instances of a kind. This includes bare nominals, as no BarE arises in these sentences.

59. Iparxun (ðjo/pola/liɣa/kati) pexniðja sto patoma.
EXIST.3PL two/many/few/some.NOM toy.PL.NOM on.the floor
'There are (two/many/few/some) toys on the floor.'

In principle, definite noun phrases are not allowed in the pivot position. This means that to achieve the abovementioned function, the nominal cannot be preceded by the definite determiner *o* 'the' or the strong quantifier *kaθe* 'each' (60).

60. #Iparxi o/kaθe pinakas stin ekθesi.
EXIST.3SG the/each.NOM painting.SG.NOM at.the exhibition
lit. 'There is the/each painting at the exhibition.'

Once again, if the function of the sentence changes, the DE is suspended. For instance, when the sentence is used to confirm the existence of an already known entity (61), definite noun phrases are obligatory. In this case, the noun phrase may even be brought to sentence-initial position (61b).

61. a. Eftixos to mikrotero numero iparxi.
fortunately the.SG.NOM smaller.SG.NOM size.SG.NOM EXIST.3SG
'Fortunately, the smaller size (of the garment) exists.'
b. Ta vivlia pu zitises iparxun.
the.PL.NOM book.PL.NOM that ask.PST.2SG EXIST.3PL
'The books that you asked for exist.'

In this case, too, the allegedly prohibited determiners can appear in the post-verbal noun phrase, while the function of the introduction of new referents is retained, once they quantify over the appropriate semantic type. For instance, the sentence with *kaθe* 'each' in (60) is accepted iff *kaθe* is read as quantifying over types of paintings.

Other determiners that would be expected to be prohibited based on a strong version of the DE, like *tetjos* 'such' (62a) and *olos* 'all' (62b), do appear in *iparxo-*sentences once they contribute to an instances-of-a-kind denotation.

62. a. Iparxi tetjos/kaθe maθitis stin taksi afti.
EXIST.3SG such/each.NOM student.SG.NOM in.the classroom this
'There is such/each type of student in this classroom.'
b. Sto parko iparxun ola ta iði puljon tis Afstralias.
in.the park EXIST.3PL all.PL.NOM the.PL.NOM kind.PL.NOM bird.PL.GEN the.GEN Australia.GEN
'In the park, there are all kinds of Australian birds.'

Selected adjectives like *aparetitos* 'appropriate' (63a), or *siniθismenos* 'usual' (63b), or adjectival formations like the superlative (63c) that have been shown to increase the acceptability of *exi*-sentences have the same impact on *iparxo*-sentences.

63. a. Iparxun ta aparetita ilika ja to keik sto spiti.
EXIST.3PL the.PL.NOM necessary.PL.NOM ingredient.PL.NOM for the cake in.the house
'There are the necessary ingredients for (baking) the cake at home.'
b. Sta turistika meri ipirxe o siniθismenos kozmos fetos.
in.the touristy places EXIST.PST.3SG the.SG.NOM usual.SG.NOM crowd.SG.NOM this.year
'In the touristy places, there was the usual crowd this year, too. '
c. Stin Elaða iparxi to kalitero klima.
in.the Greece EXIST.3SG the.SG.NOM best.SG.NOM climate.SG.NOM
'There are the best weather conditions in Greece.'

Finally, it is the case that, as a whole, *iparxo*-sentences imply a more permanent association between the Figure and the Ground. This is illustrated by the fact that the *Earth-population* pair that was dispreferred in *exi*-sentences and is almost unacceptable in *ime*-sentences is naturally accommodated in an *iparxo*-sentence:

64. Iparxi polis kozmos sti ji.
EXIST.3SG much.SG.NOM crowd.SG.NOM on.the earth
'There is a large population on Earth.'

Moreover, this verb is the preferred option in the presence of *pada* 'always' (65).

65. a. Iparxi pada kapjo periptero sti ɣonia.
EXIST.3SG always some.SG.NOM kiosk.SG.NOM on.the corner
'There is always a kiosk on the corner.'
b. Iparxi pada enas jimnastis sto ksenoðoxio.
EXIST.3SG always a.NOM personal.trainer.SG.NOM in.the hotel
'There is always a personal trainer in the hotel.'

To complete the comparison, recall that the same adverb is unfavorable in *ime*-sentences (see 57), while it is acceptable in *exi*-sentences (66).

66. a. Exi pada kapjo periptero sti ɣonia.
HAVE.3SG always some.SG.ACC kiosk.SG.ACC on.the corner
'There is always a kiosk on the corner.'
b. Exi pada ena jimnasti sto ksenoðoxio.
HAVE.3SG always a.ACC personal.trainer.SG.ACC in.the hotel
'There is always a personal trainer at the hotel.'

To support this idea further, I tested the acceptance of the sentences when *pada* was replaced by *simera* 'today'. Although there are minor differences in the judgments of my informants, it seems that *simera* is least preferred in *iparxo*-sentences. (67) summarizes the relevant distribution.

67. a. Simera exi ena jimnasti sto ksenoðoxio.
today HAVE.3SG a.NOM personal.trainer.SG.NOM in.the hotel
b. Simera ine/??iparxi enas jimnastis sto ksenoðoxio.
today BE.3SG/EXIST.3SG a.NOM personal.trainer.SG.NOM in.the hotel
'Today, there is a personal trainer at the hotel.'

The implication that EXIST-sentences describe more permanent relationships is confirmed cross-linguistically and is somewhat expected because the verbal item is a lexical verb with the meaning of existence at its core. *Iparxo,* in particular, can denote that a kind has the property of being or living. In (68a), the utterance questions the existence of the kind *God*. (68b) refers to the existence of the kinds, *fauna,* and *flora*, while (68c) denies the existence of the kind of *unicorns* in the real world.

68. a. Ðen ksero an iparxi θeos.
NEG know.1SG if EXIST.3SG God.SG.NOM
'I do not know if God exists.'
b. I paniða ðen iparxi xoris ti xloriða.
the.SG.NOM fauna.SG.NOM NEG EXIST.3SG without the.SG.ACC flora.SG.ACC
'Fauna does not exist without flora.'
c. I monokeri iparxun mono sti fadasia mas.
the.PL.NOM unicorn.PL.NOM EXIST.3PL only in.the imagination our
'Unicorns exist only in our imagination.'

These are all sentences in which the existence of a kind is asserted or denied. For this reason, they are usually referred to as *hyparctic clauses* or sentences of *absolute* or *ontological existence*. These sentences differ from the existentials discussed so far since they establish the existence of a kind independent of a specific location.

To make this clear, consider what happens in the presence of sentential negation. If sentential negation applies to a sentence of absolute existence, the

existence of the kind is denied as a whole (69a). In contrast, if sentential negation applies to a typical existential sentence, it is denied that there are no instances of the kind in the relevant location, not that there is no kind at all (69b).

69. a. Ðen iparxun monokeri.
NEG EXIST.3PL unicorn.PL.NOM
'Unicorns do not exist.'
b. Ðen iparxun fuskoti monokeri sto maɣazi.
NEG EXIST.3PL inflatable.PL.NOM unicorn.PL.NOM at.the store
'There are no inflatable unicorns at the store.'

Interestingly, the dichotomy between absolute and relative-to-a-location existence is very active across languages. In German, for example, ontological existence is expressed via an *es-gibt*-construction (70a), whereas for the existence/presence relevant to a location, *sein* 'be' is used instead (70b).

70. *German* (Weinert 2013: 40–41)
a. Es gibt blauäugige Katzen.
EXP give.3SG blue-eyed cats
'There are blue-eyed cats.'
b. Da/Es ist eine Katze (im Garten).
PF/EXP BE.3SG a cat in.the garden
'There is a cat in the garden.'

In Greek, a difference is spotted in intonation. In sentences of ontological existence, high pitch accent (marked with SMALL CAPITALS below) falls on the verb *iparxo* or the negation that precedes it (71).

71. a. IPARXI θeos.
EXIST.3SG God.SG.NOM.
'God exists.'
b. I paniða ÐEN iparxi xoris ti xloriða.
the.SG.NOM fauna.SG.NOM NEG EXIST.3SG without the.SG.ACC flora.SG.ACC
'Fauna does not exist without flora.'

In contrast, the high pitch is on the post-verbal nominal in sentences where existence is relevant to a location (72).

72. a. Iparxi (ena) VIVLIO sto patoma.
EXIST.3SG a.NOM book.SG.NOM. on.the floor
'There is a book on the floor.'

b. Iparxun PEXNIĐJA sto patoma.
EXIST.3PL toy.PL.NOM on.the floor
'There are toys on the floor.'

The second point of distinction is detected in the interpretation of the omitted locative constituent. Firstly, it is true that the locative coda may not be overt in either use of the sentence (71, cf. 73):

73. A: Pijes sta McDonald's?
go.PST.2SG to.the McDonald's
'Did you go to McDonald's?'
B: Ne ke iða oti ðen iparxi vigan berger.
yes and see.PST.1SG COMP NEG EXIST.3SG vegan burger.SG.NOM.
'Yes, and I saw that there is no vegan burger (i.e., on the menu).'

Secondly, as in the other two types of existentials, being omitted morphologically does not mean it is absent semantically. When the existence is relative to a location, the omitted constituent is more well-defined in the sense that it is recognized as more specific due to the context or the speakers' knowledge. For instance, in (73), the location is identified as something related to McDonald's, that being more likely the menu, the franchise, or the restaurant itself. No matter the exact interpretation, though, the omitted constituent is contextually restricted. Conversely, the omitted location in cases of absolute existence is conceived of as a vague spatiotemporal argument, like 'in the universe' or 'on the planet' (see 71).

The sentences that refer to kinds are usually left outside research on existentials as they do not show irregularities. However, under the adopted definition of existentials, sentences of ontological existence are existential as they introduce new discourse referents as Figures with respect to a Ground. Their idiosyncrasy is that they introduce a kind, instead of instances of it, as a new referent.

Further, as already mentioned, the status of *iparxo* as a lexical verb is crucial for its available interpretations. This becomes obvious when contrasted to *exo* and *ime,* two items that are copulas in the sense that they are purely functional elements that can hardly be assigned any semantic content (Bach 1967; Lyons 1967; 1968; Partee 1985; Hoekstra & Mulder 1990; Tellier 1994; Postma 1997; Ritter & Rosen 1997; Adger & Ramchand 2003; Beavers et al. 2008; Cann 2008; Bentley et al. 2013; Bjorkman & Cowper 2016; Bassaganyas-Bars 2017; Bentley 2017; Cowper 2017 cf. Brunson & Cowper 1992; Jensen & Vikner 1996; Maienborn 2005; Dalmi 2021). As opposed to *ime* and *exo, iparxo* enters into derivational processes unaltered; the existence of the nominalization *iparksi* 'existence', the adjectival participle *iparktos*

'existing' and their opposites underscore the distinctiveness of *iparxo* since *ime* and *exo* choose their overtly prefixed variants when nominalized and do not form participles (see more on 6.3.1.).

Thanks to its lexical meaning, *iparxo* is the closest to the *ime*-copula. Due to their affinity, *iparxo* stands in for *ime* whenever the inflective paradigm of the latter exhibits a gap. Even though Greek morphologically shows the (im)perfective distinction in the past tense, *ime* does not reserve a unique set of forms for the perfective past, as most verbs in the language do. *Ime* has a single set of forms for the past (74).

74. a. I Maria itan omorfi/proeðros.
the.SG.NOM Maria.NOM BE.PST.3SG beautiful/chairwoman.SG.NOM
'Maria was beautiful/ a chairwoman.'
b. I Pobiia itan koda sti Napoli.
the.SG.NOM Pompeii.NOM BE.PST.3SG near to.the Napoli
'Pompeii was near Napoli.'

Whenever the specification of the perfective aspect is required, it uses the past perfective forms of *iparxo*.[23] This substitution takes place in predicational uses (75) no matter the post-copular material, i.e., no matter if the verb is followed by a predicative adjective or nominal (75a) or a locative predicate (75b).

75. a. I Maria ipirkse omorfi/proeðros.
the.SG.NOM Maria.NOM EXIST.PFV.PST.3SG beautiful/chairwoman.SG.NOM
'Maria has been beautiful/ a chairwoman.'
b. I Pobiia ipirkse koda sti Napoli.
the.SG.NOM Pompeii.SG.NOM EXIST.PFV.PST.3SG near to.the Napoli
'Pompeii was near Napoli.'

The perfective aspect marking on *iparxo* has specific implications. In particular, the implication brought by its perfective form is an emphasis on the fact that the previous state has ended or that the referent has deceased. For instance, the sentence in (75a) highlights the fact that *Maria* is no longer beautiful or a chairwoman or that *Maria* is no longer alive. Such implication is absent from (74a).

This phenomenon is often called a *cessation inference* or a *temporal inference.* It has been recognized as being brought by the past tense marking on

[23] *Exo* shows a similar gap that can be substituted by several lexical verbs depending on the intended interpretation. Nonetheless, since both *ime* and *exo* exhibit such gaps, the Grammars usually describe them as having a "defective imperfective" form (see Holton et al. 2012).

statives (see Thomas 2012; Altshuler & Schwarzschild 2013; Sudo & Romoli 2017; Mucha et al. 2023). This observation becomes relevant in Section 3.3., where the properties of *vriskome* 'be located, be found', a semi-lexical verb that participates in possessive constructions, are presented.

To sum up, EXIST-existentials in Greek (a) show the typical verbal agreement pattern with the nominal that preferably remains in the post-verbal position, (b) naturally express constant or stable associations between Figures and Grounds, and (c) constitute the only type of existential that, arguably, includes a lexical verb. The following section summarizes the properties of all Greek existentials.

2.4. An overview of Greek existentials

As presented in 2.1-2.3, there is a variety of existential constructions in Greek: a HAVE-existential, (two versions of) a BE-existential, and an EXIST-existential. Apart from the obligatory verbal item, they all necessarily include the pivot, i.e., the nominal that acts as the Figure and denotes the new discourse referent. Moreover, there is a locative coda, i.e., a locative prepositional phrase or adverb that represents the Ground upon which the Figure is traced.

The crucial observations regarding the pivot refer to its case marking, and the respective verb-agreement pattern it supports. The Definiteness effect, that arises when the sentences are used to introduce new discourse referents as instances of a kind, and the Bareness effect are also significant.

As for the locative constituent, there is an across-the-board restriction on animacy, while there is variation in the optionality of its morphological realization. In particular, the locative coda is optionally overt in *exi*-, non-SMG *ime*- and *iparxo*-sentences, while it is necessarily overt in SMG *ime*-existentials and unequivocally in locatives.

Lastly, it has been shown that each construction implies a different association between the Figure and the Ground in terms of permanence/temporariness, such that *iparxo*-sentences denote that the Figure and the Ground stand in a more permanent, constant, or standard relationship. At the same time, *ime*-sentences convey that the association between the two is accidental or at least temporary. *Exi*-sentences stand in the middle of these two extremes as the most neutral construction.

As a matter of fact, this latter difference among Greek existentials has been reported earlier in the literature. Delveroudi (1992) associates *iparxo* with 'absolute existence', *exi* with 'existence', and *ime* with 'location'. The difference between the first two is that 'absolute existence' refers to the existence of a referent outside space

and time,[24] whereas plain 'existence' relates a referent to an event, most commonly the communicative event. 'Location', being only one of the uses of *ime*, refers to locating an entity in space. These meanings create a continuum upon which verbal predicates are placed (see Weinert 2013 for a similar proposal for German). Their places are presented in (76) based on their prototypical uses.

76. *The continuum of existence* (Delveroudi 1992)

Absolute existence	**Existence**	**Location**
iparxo	*exi*	*ime*

By representing it as a continuum, the author captures that verbs can also express adjacent meanings. This means that the illustration above is only ostensible of the distribution. The verbs actually cover an area of this continuum.

The table in (77) summarizes the properties of existentials sentences in Greek and concludes this section. Chapter 3 presents the properties of Greek possessives.

77. *The properties of Greek existentials*

	Nominal			Locative Phrase		Type of association
	Case	DE*	BarE	Morphological Realization	Animacy	
Exi (HAVE)	Accusative	Yes	No	Optional	Non-animate	Neutral
SMG-*ime* (BE)	Nominative	Yes	Yes	Obligatory	Non-animate	Accidental
Non-SMG-*ime* (BE)	Nominative	Yes	No	Optional	Non-animate	Accidental
Iparxo (EXIST)	Nominative	Yes	No	Optional	Non-animate	Permanent

*when the sentences introduce new discourse referents as instances of a kind

[24] This is why, for the author, only *iparxo* is accepted in a quality judgment context.

3. The distribution of Greek possessives

The second large dataset that will be brought into scrutiny includes possessive sentences, and this chapter aims to present their essential characteristics.

As concluded in Section 1.2.2., although it is not easy to pin down what fits under the label 'possessive', the latter is reserved for constructions that establish a *close* relationship between two entities without referring to any other aspect of this relationship. "Entities" refers to all sorts of things that enter or come into relationships with other things, including humans, animals, objects, parts of wholes, body parts, abstract properties, diseases, descriptions of physical/psychological states, etc.

The specification that possessives refer to 'close relationships' is necessary to keep this type of sentence apart from any other type, given that almost all sentences in a language provide information about related entities. 'Close' aims to capture the cases where the relationship between the entities "matters" for both participants, i.e., it is either essential to their existence or so frequent in the real world that it is internalized as standard and expected. In other words, possessive expressions relate two arguments as dependent on each other, i.e., as having the roles of the Possessor and the Possessee.

The last part of the definition is also important as it underscores that possessive expressions are necessarily stative constructions. This means that they refer only to the state where two entities stand without making any reference to the events related to this situation, e.g., how this state was achieved.

Within this approach, the sentences that express ownership are prominent examples of possessive constructions. As suggested by (1), there are several versions of ownership sentences in Greek.

1. a. O Janis exi ena vivlio.
   the.SG.NOM John.SG.NOM HAVE.3SG a.ACC book.SG.ACC
   'John has a book.'
   b. To vivlio aniki ston Jani.
   the.SG.NOM book.SG.NOM belong.3SG to.the.SG.ACC John.ACC
   'The book belongs to John.'
   c. To vivlio ine tu Jani.
   the.SG.NOM book.SG.NOM BE.3SG the.SG.GEN John.GEN
   'The book is John's.'

The sentence in (1a) exemplifies the most common construction expressing this meaning. It uses HAVE *(exo)* and marks the Possessor and the Possessee as nominative subject and accusative object, respectively. (1b) uses the lexical verb *aniko*

'belong'. The Possessee is the nominative subject, and the Possessor is realized as a PP. The sentence in (1c) also establishes an ownership relationship between two entities but uses BE *(ime)*. In this case, the Possessee appears as a preverbal nominative subject while the Possessor surfaces in the post-verbal position marked for genitive. This construct is argued to be the true sentencified version of a phrasal possessive (see Chapter 8).

An essential difference between (1b), (1c), and (1a) is that the former two involve a definite Possessee. However, it is not the case that the sentences with *aniko* and '*ime* + genitive Possessor' are sharply ungrammatical when containing a non-definite Possessee:

2. a. ?? Ena vivlio aniki ston Jani.
   a.NOM book.SG.NOM belong.3SG to.the.SG.ACC John.ACC
   'A book belongs to John.'
   b. ?? Ena vivlio ine tu Jani.
   a.NOM book.SG.NOM BE.3SG the.SG.GEN John.GEN
   'A book is John's.'

The sentences above are odd, as they seem uninformative; they convey that *John* owns an unspecified book without making explicit how this information is relevant in the discourse. These two constructions are not preferable if a new discourse referent, i.e., a possessee, is intended to be introduced in the discourse. This means that they are not particularly felicitous as existentials. In contrast, in this context, HAVE-sentences, such as those in (1a), are unequivocally more acceptable. This makes them comparable to the existentials presented in Chapter 2 and explains why they are central to this study.

The point where possessives seem to diverge from the existentials presented in Chapter 2 is the nature of the Ground argument since, in possessives, the latter is not a physical location but, instead, most often, an animate entity. Though a wide-range definition of location, as the one presented in (4) in 1.2.1., accounts for the fact that locations may be physical or metaphorical, the research has brought the similarities to an even deeper level. Very early, the researchers assumed that possession is syntactically equal to a locational relationship. This gave rise to the so-called 'Possessors as Locations hypothesis'. The analysis proposed in this dissertation adopts parts of this hypothesis and implements them in the framework of Distributive Morphology.

The following sections take a close inspection of the possessive sentences and shed more light on the notion of possession. The constructions that will help us

dissect possession are several, even though the typological work on possessives has considered that Greek is exclusively a HAVE-language.

The rest of this chapter shows that there are three types of possessive sentences in Greek that share properties with existential constructions. The fundamental properties of each type are presented in turn: 3.1. discusses Greek HAVE-possessives, 3.2. BE-WITH-possessives, and 3.3. the so-called BE-FOUND (*mu-vriskete)*- possessives. Section 3.4. summarizes the distribution.

3.1. HAVE-sentences

To begin with, it is true that Greek is a transitive[25] possessive language or a *HAVE-possessive language* along the lines of Stassen's (2009) classification. Transitive *exo*-sentences are the most frequent in the context of possessives. From a morphological perspective, these constructions are typical transitive sentences in Greek, as they include a nominative subject denoting the Possessor and an accusative object representing the Possessee (3). The verb agrees fully, i.e., in person and number, with its subject.

3. I maθites exun pola vivlia.
   the.PL.NOM student.PL.NOM HAVE.3PL many.ACC book.PL.ACC
   'Students have many books.'

For Heine (1997), this suggests that the main predicative possessive construction is based on the *Action event schema* (X takes/holds Y). This means that this type of sentence has been diachronically developed from a transitive construction headed by verbs meaning 'take', 'hold', or 'grab' (Chappell & Lü 2022). Although being a HAVE-language is usual within the Germanic and Romance families, it is not frequent cross-linguistically, as noted by Aikhenvald & Dixon (2013) and Creissels (2014).

From the semantics perspective, it is evident that *exo*-sentences can express multiple facets of possession. The classification used in (4-15), which is taken from Myler (2016) as an extension to Heine (1997), is inspired by non-Indo-European languages where a distinct morphological marking is reserved for each case noted on the right (see Aikhenvald 2013). Greek is nowhere near the morphological complexity exhibited by these languages, as an *exo*-sentence can express all these types of possession.

[25] When 'transitive' does not refer to syntactic structures, as in this case, the term refers to the typical agreement scheme in a nominative-accusative language in which the verb's subject appears in nominative, and the object is marked for accusative.

Firstly, it has already been claimed that ownership is a possible reading of an *exo*-sentence.

4. O Janis exi (ena) amaksi *Ownership*
the.SG.NOM John.NOM HAVE.3SG a.ACC car.SG.ACC
'John has a car.'

Exo-sentences are also used to express kinship relations:

5. O Janis exi (mia) aðerfi. *Kinship*
the.SG.NOM John.NOM HAVE.3SG a.ACC sister.SG.ACC
'John has a sister.'

The same sentence-type is also used to refer to the relationship between body parts and their hosting body (6) or between wholes and their components (7):

6. O Janis exi mavra malja. *Body part*
the.SG.NOM John.NOM HAVE.3SG black.PL.ACC hair.PL.ACC
'John has black hair.'

7. Afto to ktirio exi (meɣala) paraθira. *Part-whole*
this.SG.NOM the.SG.NOM building.SG.NOM HAVE.3SG large.PL.ACC window.PL.ACC
'This building has (large) windows.'

The original list of possession sub-cases includes, in addition, expressions of canonical tools. This situation is once again accommodated by an *exo*-sentence:

8. I mixani exi ruleman. *Canonical tool*
the.SG.NOM engine.SG.NOM HAVE.3SG roller.joint.PL.ACC
'The engine has roller joints.'

However, this specification seems redundant for most languages spoken in the Western world. This is so because canonical tools represent parts that are essential to machinery. In other words, they are simply a version of a part-whole relationship. For this reason, canonical tools are subsumed in the part-whole category across this thesis.

Apart from the above, *exo*-sentences can also be used to express a physical sensation (9) or a psychological state (10):

9. O Janis exi (meɣali) ðipsa/pina. *Physical sensation*
the.SG.NOM John.NOM HAVE.3SG large.SG.ACC thirst/hunger.SG.ACC
lit. 'John has a large thirst/hunger, i.e., John is very thirsty/hungry.'

10. O Janis exi fovo me tis araxnes. *Psychological state*
the.SG.NOM John.NOM HAVE.3SG fear.SG.ACC with the spiders
lit. ' John has a fear with spiders, i.e., John is afraid of spiders.'

Closely related are the interpretations of 'having an abstract property or a characteristic' (11) and 'having a disease' (12):

11. O Janis exi (poli) kalosini. *Abstract property*
the.SG.NOM John.NOM HAVE.3SG much.SG.ACC kindness.SG.ACC
'John has (much) kindness.'

12. O Janis exi ɣripi. *Disease*
the.SG.NOM John.NOM HAVE.3SG flu.SG.ACC
'John has the flu.'

In this case, too, the distinction among physical sensation (9), psychological states (10), abstract properties (11), and diseases (12) seems redundant for Greek (and English) since they all express a relationship between a sentient entity and their psychological or physical status. Therefore, for the sake of simplicity, they are all treated as one unified category in the present study.

Finally, an *exo*-sentence can express physical (13) and temporary (14) possession:

13. O Janis exi (ta) kliðja mazi tu. *Physical p.*
the.SG.NOM John.NOM HAVE.3SG the.PL.ACC key.PL.ACC with him
'John has the keys with him.'

14. O Janis exi ta kliðja (mu) mazi tu. *Temporary p.*
the.SG.NOM John.NOM HAVE.3SG the.PL.ACC key.PL.ACC my with him
'John has the keys to my place (with him).'

Even though the distinction between the two in Greek (and English) is obscure, this contrast is meant to capture two different situations. As explained in Miller & Johnson-Laird (1976: 565) and adopted by Heine (1997: 34–35), in physical possession, "[…] the possessor and the possessee are physically associated with each other at reference time, as in *do you have a pen (on you)?".* This means that the Possessee necessarily accompanies the Possessor physically. In contrast, in temporary possession, "the possessor can dispose of the possessee for a limited time, but he/she cannot claim ownership to it". This means an accompaniment requirement is absent in the second case. Although an explanation of how the accompaniment requirement

that characterizes physical possession sentences derives is provided in Section 8.5., cases of temporary possession will concern us more, given that, as explained below, they are associated with a Definiteness effect.

Nevertheless, even if these two terms are disentangled, it still needs to be determined how they can be distinguished from the locative HAVE-sentences in (15).[26] To distinguish between them, I assume that in locative HAVE-sentences, there is an overt prepositional phrase containing a pronoun obligatorily coindexed with the subject possessor. The same phrase appears in physical possession but is optionally overt in *temporary possession*. Further, unlike physical and temporary possession, locative-HAVE sentences do not license a definite post-verbal ("possessee") nominal.

15. a. O Janis exi mia araxni *(pano tu). *Locative*
the.SG.NOM John.NOM HAVE.3SG a.ACC spider.SG.ACC on him
'John has a spider *(on him).'
b. O kanapes exi kabosa vivlia *(pano tu).
the.SG.NOM couch.SG.NOM HAVE.3SG some book.PL.ACC on him
'The couch has some books *(on it).'

In summary, the discussion above suggests that there is no need for such a fine-grained classification of possession in a study of Greek possessives since the morphology of the language is not affected by it. In this dissertation, I focus on ownership, temporary and locative possession, and traditional aspects of (semantically defined) inalienable possession (see 1.2.2), such as kinship terms, part-wholes or body parts, and physical/psychological states, as described above.

What is interesting is that, with the apparent exception of physical and temporary possession sentences in (13) and (14), all other cases of possessives include non-definite Possessees. This means that in this case, too, a Definiteness effect is triggered.

As illustrated in the examples above, the post-verbal nominal must be bare (e.g., in 6,8,10,12) or weakly quantified (e.g., in 4,5,11,15). As with *exi*-sentences, all sorts of definite noun phrases or strongly quantified noun phases in the sense of Milsark (1974) that single out specific, presupposed referents are not allowed if the sentence is intended to capture a possessive relationship between the subject and

[26] In the context of possessives, *locative* is always used in the complex *locative-HAVE sentences* or *locative possessives* to distinguish the HAVE-sentences that mandate the presence of a prepositional phrase that includes a pronoun coindexed with the subject possessor. This use of the term is adopted from Myler (2016), and it should not be conflated with its use in the context of existentials.

the object of *exo*. For instance, on this occasion, *ena* 'a' and *kapjo 'some'* are acceptable in (16), unlike *to* 'the' and *to kaθe* 'each'.

16. O Janis exi (#to/#to kaθe/ena/kapjo) vivlio.
the.SG.NOM John.NOM HAVE.3SG the/the each/a/some.SG.ACC book.SG.ACC
'John has (#the/#each/a/some) book.'

However, definite determiners and strong quantifiers are not entirely precluded, as evidenced by the fact that *to* 'the' and *to kaθe* 'each' are not starred ungrammatical in the example above. The definite determiner *to* 'the' in (16) is allowed in a temporary possession reading. *To kaθe* 'each', in the same example, can survive when the sentence establishes a possession relationship between the subject and the object iff the complex quantifier quantifies over types instead of tokens. Similarly, in (17a), *kaθe* 'each' is acceptable because it quantifies over the type of *Tolkien's books*, not individual books of Tolkien's. The same holds with *olus* 'all' in (17b), which quantifies over types of students.

17. a. O Janis exi kaθe vivlio tu Tolkin
the.SG.NOM John.NOM HAVE.3SG each.SG.ACC book.SG.ACC the.SG.GEN Tolkien.GEN
'John has every book of Tolkien's.'
b. I taksi afti exi olus tus maθites.
the.SG.NOM class.SG.NOM this HAVE.3SG all.PL.ACC the.PL.ACC student.PL.ACC
'This class has every type of student.'

The licensing of the definite determiners thanks to quantification over types is also achieved via the use of certain adjectives like *aparetitos* 'necessary' (18a) and *siniθismenos* 'usual' (18b) or with the superlative in (18c).

18. a. O Janis exi ta aparetita ilika
the.SG.NOM John.NOM HAVE.3SG the.PL.ACC necessary.PL.ACC ingredient.PL.ACC
ja to keik.
for the cake
'John has the necessary ingredients for (baking) the cake.'
b. I Milos ixe ton siniθismeno kozmo fetos.
the.SG.NOM Milos.NOM HAVE.PST.3SG the.SG.ACC usual.SG.ACC crowd.SG.ACC this.year
'Milos (Greek island) had the usual crowd this year.'
c. I Elaða exi to kalitero klima.
the.SG.NOM Greece.NOM HAVE.3SG the.SG.ACC best.SG.ACC climate.SG.ACC
'Greece has the best weather conditions.'

This distribution is remarkably parallel to the one of *exi*-sentences. In both cases, the DE is not a prohibition on determiners but on semantic denotations when a particular function is intended. This striking similarity between them has not gone unnoticed in the literature (see Bassaganyas-Bars & McNally 2019 for a review of how the similarities between the two DEs have been treated in the literature).

Nonetheless, the consensus in the literature holds that the DE in existentials and the DE in possessives is not a unitary phenomenon. Although there are various proposals regarding the DE in existentials (see 2.1.), most authors agree that the DE in HAVE-possessives is entirely semantic; it is a condition that licenses HAVE to be or become relational, i.e., able to establish a close relationship between its subject and its object, and to acquire semantic content (if it does not have one, to begin with) (Szabolcsi 1981; 1983; Iatridou 1996; Jensen & Vikner 1996; Ritter & Rosen 1997; Borthen 2003; Landman 2004; Beavers et al. 2008; Espinal & McNally 2009; Sæbø 2009; Lazaridou-Chatzigoga 2011; Le Bruyn et al. 2013; Bjorkman & Cowper 2016; Bassaganyas-Bars 2017; Bassaganyas-Bars & McNally 2019 cf. Brunson & Cowper 1992; Cowper 2017). Although the proposals differ in technicalities, the authors identify this function of HAVE as central. Therefore, they usually refer to this type of sentences as *relational-HAVE sentences*.

Crucially, when the Figure/Possessee is definite, the relational/possessive meaning is lost. The presence of a definite determiner most often leads to a temporary possession interpretation, which is not a type of close relationship but a type of accidental or arbitrary association. For instance, consider that if the DE does not arise in all *exo*-sentences in (4-12), the possessive interpretation marked on the right of each example cannot be achieved. In the most striking case, marking the kinship term *aðerfi* 'sister' for definiteness eliminates the reading that the referent is a sister of the subject, *John*. The sentence in (19) means that *John* has in his custody someone else's *sister*.

19. O Janis exi tin aðerfi.
the.SG.NOM John.NOM HAVE.3SG the.SG.ACC sister.SG.ACC
'John has a sister.'

Moreover, although the sentence with the bare nominal in (20a) is interpreted as referring to a trait of *John*, (20b) that includes the same nominal preceded by a definite determiner refers to an object that *John* holds.

20. a. O Janis exi meɣali karðja.
the.SG.NOM John.NOM HAVE.3SG big.SG.ACC heart.SG.ACC
'John has a big heart.'

b. O Janis exi ti meɣali karδja.
the.SG.NOM John.NOM HAVE.3SG the.SG.ACC big.SG.ACC heart.SG.ACC
'John has a heart-shaped object, e.g., balloon, cake.'

Therefore, the largest part of the literature proposes that the DE in possessives is a restriction implied by semantics: the post-verbal nominal must have a semantic denotation that allows it to function as a relation that takes the subject Possessor as its argument. This requirement is derived from the fact that HAVE-possessives "[...] express the proposition that two token-level entities stand in an unspecified (stative) relation to each other" (Bassaganyas-Bars & McNally 2019: 16) and from the fact that this relation is brought in the context by the Possessee.

However, it is interesting that HAVE-sentences in their relational use are also existential in the sense that they introduce a new discourse referent (the Possessee) as a Figure with respect to a Ground (the Possessor). Therefore, even if the DE that HAVE-sentences exhibit does not have the same origin as the DE in existentials, it allows them to function as existentials. This is so since the requirements for the relational function overlap with those for the existential function. In other words, the fact that relational HAVE-sentences are also existential is epiphenomenal, i.e., it is a by-product of the conditions regulating their relational interpretation.

Section 4.3. sheds more light on how nominals can denote relations and how this property of theirs is transferred to the sentence level. Furthermore, in Sections 7.3.1. and 9.3., I deliberate how the DE becomes necessary for achieving the existential function and the relational/possessive reading.

In summary, I have shown that Greek *exo*-sentences (a) exhibit the typical transitive syntax in the language, (b) express a variety of relationships between two entities, on the condition that this relationship is close, i.e., it is required by the Figure as a prerequisite for its existence or expected, and (c) to do so, they trigger a DE distinct from the DE identified for existentials. Among the interpretations presented in this section, temporary and locative possessive readings could be said to contradict the claim in (b) as these readings are not close, by definition. Indeed, their behavior and syntax are not congruent with other types of possessives (see 8.5.).

The following section turns our focus to a second type of possessive sentence in Greek, namely BE-WITH sentences.

3.2. BE-WITH-sentences

The second type of possessive sentence attested in Greek is a version of a (BE-)WITH-possessive, which has a significantly more restricted distribution than *exo*-sentences. In Stassen's (2009) typology, a *WITH-possessive* is delineated by three conditions:

21. *Definition of the WITH-Possessive (Stassen 2009: 55):*
    a. The construction contains a locative/existential predicate in the form of a verb with the rough meaning of 'to be'.
    b. The possessor noun phrase is constructed as the grammatical subject of the predicate.
    c. The possessee noun phrase is constructed in some oblique, adverbial case form.

The author adds (ibid) that in most cases, "the case marker of the possessee noun phrase in WITH-possessives has an associative or comitative meaning and can be translated as 'with' though this is not mandatory".

The Greek representative of the WITH-possessive, namely *ime-me*-sentences, meets the above requirements. These sentences include a pre-verbal subject-Possessor, marked with nominative, a fully-agreeing form of the *ime*-copula, and a post-verbal prepositional phrase headed by *me* 'with' that introduces the Possessee.

22. a. I Đanai ine me sanđalja.
    the.SG.NOM Danai.NOM BE.3SG with sandal.PL.ACC`
    'Danai is with sandals.'
    b. I bluza ine me makria manikja.
    the.SG.NOM blouse.SG.NOM BE.3SG with long.PL.ACC sleeve.PL.ACC
    'The blouse is with long sleeves.'

Apparently, these sentences constitute examples of simple predicative sentences with a prepositional phrase as the predicate.

This construction can receive various interpretations, as shown by the following set of examples adopted from Koufaki (2012: 50). First, an *ime-me*-sentence is used as an expression for diseases (23) and body parts (24):

23. O Janis ine me pireto/ɣripi. *Diseases*
    the.SG.NOM John.NOM BE.3SG with fever/flu.SG.ACC
    'John is with fever/the flu.'

24. I kukla tis ine me prasina matja. *Body part*
the.SG.NOM doll.SG.NOM her BE.3SG with green.PL.ACC eye.PL.ACC
'Her doll is with green eyes.'

Second, it is used for clothes being worn (25) or part-whole relationships (26):

25. I Đanai ine me dzin/jalja simera. *Clothes*
the.SG.NOM Danai.SG.NOM BE.3SG with jeans/glasses.ACC today
'Danai is with (=wears) jeans/glasses today.'

26. To amaksi tis ine me teseris portes. *Part whole*
the.SG.NOM car.SG.NOM her BE.3SG with four.ACC door.PL.ACC
'Her car is with four doors.'

Third, this type of sentence constitutes an expression of temporary possession:

27. I Đanai ine me to amaksi simera. *Temporary p.*
the.SG.NOM Danai.SG.NOM BE.3SG with the car.SG.ACC today
'Danai is with the car today.' (=Danai took the car today.)

Fourth, the *me*-prepositional phrase can describe a property of the preverbal subject. The latter can be either animate (28) or non-animate, including foods (29) and objects (30).

28. I Đanai ine me aðia simera.
the.SG.NOM Danai.SG.NOM BE.3SG with leave.SG.ACC today
'Danai is on leave today.'

29. To kotopulo ine me kokini saltsa.
the.SG.NOM chicken.SG.NOM BE.3PL with red.SG.ACC sauce.SG.ACC
'The chicken is (cooked) with red sauce.'

30. Afto to padeloni ine me kubja.
this.SG.NOM the.SG.NOM trousers.SG.NOM BE.3SG with button.PL.ACC
'These trousers are with buttons.'

In addition to the above, the property described by the post-verbal constituent can also refer to physical locations.

31. Ta ðomatia tu ksenoðoxiu ine me ðio krevatia.
the.PL.NOM room.PL.NOM the.SG.GEN hotel.SG.GEN BE.3PL with two bed.PL.ACC

'The hotel rooms are with two beds.'

32. I paralies sti Milo ðen ine mono me amo.
the.PL.NOM beach.PL.NOM on.the Milos NEG BE.3SG only with sand.SG.ACC
'The beaches on Milos are not only with sand.'

Finally, *ime-me*-sentences can marginally have a locative reading provided there is an overt prepositional phrase, including a pronoun coindexed to the subject.

33. O Janis ine me mia araxni *(pano tu). *Locative*
the.SG.NOM John.SG.NOM BE.3SG with a.ACC spider.SG.ACC on him
lit. 'John is with a spider *(on him).'

An essential property of the above constructions is that the noun following *me* must not be definite to achieve the intended interpretations. The only types of sentences allowing for definite *me*-PPs are those expressing temporary possession (e.g., in 27).

More interestingly, most of the above examples can be paraphrased by a copular sentence where the copula BE is followed by an adjective or a participle having the same meaning as the *me*-prepositional phrase. That is, they are paraphrasable by another type of predicational sentence with an adjectival predicate. To illustrate this, witness how the sentences in (23) and (24) alternate with the sentences in (23') and (24'), where the post-verbal position is occupied by an adjectival form cognate to the nominal that appears in the *me*-prepositional phrase:

23'. O Janis ine em-biret-os/ɣripjas-menos.
the.SG.NOM John.SG.NOM BE.3SG in-fever-ed/flu-ed.SG.NOM
John is with fever/the flu.'

24'. I kukla tis ine prasino-mata.
the.SG.NOM doll.SG.NOM her BE.3SG green-eyed.SG.NOM
'Her doll is green-eyed.'

The same is true for sentences expressing a part-whole relationship, as evidenced by the alternation between (26) and (26'):

26'. To amaksi tis ine tetra-θiro/tetra-porto.
the.SG.NOM car.SG.NOM her BE.3SG four-doored/ four-doored.SG.NOM
'Her car is four-doored.'

Unlike the previous examples, an adjectival form cannot paraphrase the *me*-prepositional phrase of (25). However, this seems to be an arbitrary fact caused by a lexical gap. There is no adjective meaning 'trousers-wearing' or 'glasses-wearing' in Greek, probably due to morpho(phono)logical constraints on word-formation processes. If the sentence included *mavra ruxa* 'black clothes' or *elafra ruxa* 'thin (in terms of fabric quality) clothes' as complements of *me*, the sentences would be paraphrasable:

34. I Ðanai ine mavro-foremeni/elafro-dimeni.
the.SG.NOM Danai.SG.NOM BE.3SG black-clothes.wearing/thin-clothes.wearing.SG.NOM
'Danai wears black/thin clothes.'

The following examples suggest that it is indeed possible to substitute *me*-constituents that assign a property to the subject with an adjectival form:

28'. I Ðanai ine aði-uxa simera.
the.SG.NOM Danai.SG.NOM BE.3SG leave-ed.SG.NOM today
'Danai is on leave today.'

29'. To kotopulo ine kokinis-to.
the.SG.NOM chicken.SG.NOM BE.3SG red.sauce-ed.SG.NOM
'The chicken is cooked in a red sauce.' (like a stew)

30'. Afto to pandeloni ine kuboto.
this.SG.NOM the.SG.NOM trousers.SG.NOM BE.3SG buttoned
'These trousers are buttoned.'

The alternation is even possible in case the subject is a nominal denoting a physical location:

31'. Ta ðomatia tu ksenoðoxiu ine ðiklina.
the.PL.NOM room.PL.NOM the.SG.GEN hotel.SG.GEN BE.3PL twin-bedded.PL.NOM
'The hotel rooms are twin-bedded.'

32'. I perisoteres paralies sti Milo ine amoðis.
the.PL.NOM most.PL.NOM beach.PL.NOM on.the Milos are sandy.PL.NOM
'Most beaches on Milos are sandy.'

In contrast with (25), the fact that the sentence expressing temporary possession in (27) is not paraphrasable by a copular construction with an adjectival predicate does not seem to be a coincidence. This is so because the sentence cannot be substituted by a copular sentence regardless of the nominal following *me*. This must be the only case in which the nominal complement of *me* is definite. Unlike all other possession relations, temporary possession expresses an accidental and time-bound relationship. This interpretation is unavailable to copular sentences with adjectival complements. This means there is a second environment where temporary possession constructions diverge from all other types of possessives.

The locative sentence in (33) is also unavailable for paraphrasing. This case is distinguished by the obligatorily overt prepositional phrase. It could be said that the lack of paraphrasability is attributed to this property; the prepositional phrase "adds a step" in the predication between the participants. The relationship between the Possessor and the Possessee is no longer built directly since the prepositional phrase mediates between them. This phrase does not introduce a new participant, as the pronoun within the phrase is coindexed with the subject. As a matter of fact, both types of locative-possessive sentences, namely *exo*- and *ime-me*-sentences, include such a coindexed prepositional phrase.

However, the most important observation is that, despite the paraphrasability, the copular sentences with adjectival or participial predicates do not derive from *ime-me*-constructions or any other possessive sentence. Appendix 1 explains the reasons why this is so.

Moreover, it is interesting that the Greek BE-WITH-distribution, as described above, is strikingly parallel to the Icelandic *vera-með*-construction. Although similar, the data from both languages do not show the whole range of interpretations a BE-WITH possessive can have cross-linguistically. To illustrate this, some examples of Bantu *na*-constructions are discussed shortly after comparing Greek to Icelandic.

Icelandic *vera-með*- and Greek *ime-me*-sentences share a limited set of interpretations. Similar to the Greek examples in (23-27), *vera-með* is used for temporary possession (35a) and diseases (35b).

35. *Icelandic* (Levinson 2011: 360, ex. 14a,b)

a. Hún er með bækurnar fimm.
she.NOM BE.3SG with books.the.ACC five
'She has five books.'

b. Jón er með kvef.
John.NOM BE.3SG with cold.ACC
'John has a cold.'

The same type of Icelandic sentence is used for body parts (36) and clothes (37), as well as abstract attributes (38).[27]

36. *Icelandic* (Levinson 2011: 360, ex. 14d)
Jón er með blá augu.
John.NOM BE.3SG with blue eyes.ACC
'John has blue eyes.'

37. *Icelandic* (Levinson 2011: 360, ex. 14c)
Jón er með gleraugu.
John.NOM BE.3SG with glasses.ACC
'John is wearing glasses / John has glasses.'

38. *Icelandic* (Myler 2016:393, ex.12)
a. Strákurinn var með oþekkt.
boy.the.NOM was with disobedience.ACC
'The boy was (acting) disobedient.'
b. Uppistandarinn var með skemmtilegheit.
stand.up.comedian.the.NOM was with amusement.ACC
'The stand-up comedian was amusing.'

Crucially, *vera-með*-sentences cannot be used under an ownership reading (39). As illustrated in (40), this is also true for Greek *ime-me*-sentences.

39. *Icelandic* (Myler 2016:393, ex.13)
Jafnvel þótt bókin mín sé týnd einhvers staðar í útlöndum…
even though book.the my is lost somewhere in foreign.countries
'even though my book is lost somewhere abroad….'
* þá er ég með hana!
then am I with it
int. 'it's still mine!'

40. Parolo pu to vivlio mu ine xameno kapu sto eksoteriko…
even.though COMP the book my is lost somewhere in.the abroad…'
'even though my book is lost somewhere abroad….'
* ime akoma me afto!
am still with it

[27] The examples (38-41) constitute adaptations from Myler et al. (2014: 11–12).

int. 'It's still mine!'

Moreover, neither an Icelandic *vera-með*-sentence nor a Greek *ime-me*-sentence can account for kinship terms:

41. *Icelandic* (Myler 2016:393, ex.13)
    * þeir eru með systur.
    they.NOM are with sister.ACC
    int. 'They have a sister.'

42. *Afti ine me aðerfi.
    they.NOM are with sister.ACC
    int. 'They have a sister.'

As Myler (2016: 393) puts it, "*vera-með* (as *ime-me*, I add) is compatible with possession relations in which the possessee *accompanies* (emphasis mine) the possessor". This means that this construction is used when the Possessor and the Possessee are physically attached, i.e., in the case of physical possession.

In Greek, this becomes noticeable if the implications of the sentences are considered. For instance, the sentence in (25), *I Đanai ine me dzin/jalja simera* 'Danai is with jeans/glasses today' is infelicitous if Danai is not currently wearing trousers or glasses. In addition, the sentence in (29) *To kotopulo ine me kokini saltsa* 'The chicken is with red sauce', is odd when the cooked chicken is served with a red sauce dip on the side instead of being cooked in the red sauce. This accompaniment requirement does not exist in Bantu *na*-sentences, which do have ownership (43) and kinship (44) interpretations (see Creissels 2014; Halpert & Diercks 2018):

43. *Swahili* (Halpert & Diercks 2018: 292)
    Ni-li-kuwa na nyumba.
    1SG.NOM-PST-BE with house
    'I had a house.'

44. *Xhosa* (Myler 2016: 397 provided by William Bennet p.c.)
    u-John u-funa uku-ba na-bantwana.
    AUG-[1]John [1]SG-want INF-BE with-children
    'John wants to have children.'

Thereby, I consider that *ime-me*-sentences are expressions of physical possession or accompaniment. This particular type of construction will become crucial when analyzing the predication layer of possessives in Chapter 8.

3.3. BE-FOUND-sentences

The last type of possessives that constitutes an integral part of this research is a relatively marginal construction considered almost obsolete in modern-day Greek. This type of sentence is named the *mu-vriskete*-construction. It includes a genitive clitic denoting the Possessor followed by the verb *vriskome* 'be found' and a post-verbal noun phrase denoting the Possessee. The Possessee is marked with nominative case, and it controls the agreement.

45. a. Mu vriskete poli ipomoni akoma!
1SG.GEN find.NACT.3SG much.SG.NOM patience.SG.NOM still
'I still have much patience!'
b. Ðen mu vriskete (kaθolu) kafes.
NEG 1SG.GEN find.NACT.3SG any coffee.SG.NOM
'I do not have any coffee.'

The verb *vriskome* is morphologically the non-active form of *vrisko* 'find'[28] and is mainly used as a locative copula along with *ime*. That is, it is the preferred verbal item when the speaker establishes the location of a presupposed entity, i.e., in the case of a locative construction.

46. To Sarakiniko vriskete sti Milo.
the.SG.NOM Sarakiniko.NOM find.NACT.3SG on.the Milos
'Sarakiniko is located on Milos.'

Interestingly, as shown in (47), its imperfective form substitutes for *ime's* inflectional gap in the non-perfective past, as does *iparxo*.

47. a. Ime sti θesi na apolojiθo
BE.1SG in.the position to apologize.1SG

[28] Although the morphological affinity between *vrisko* and *vriskome* is undeniable, their semantic relationship is, arguably, obscure synchronically, at least for some speakers. This is evidenced by the fact that most Modern Greek dictionaries list *vrisko* and *vriskome* in different entries (see DMGL 2012; FDMGL 2023 cf. DSMG 1998).

'I am in a position to apologize.'

b. Vre-θi-ka/ Exo vre-θ-i sti θesi na apolojiθo.
find.PFV-PST.NACT-1SG/HAVE.1SG find.PFV-PST.NACT-INF in.the position to apologize.1SG
'I found/ have found myself in a position to apologize.'

However, even though it substitutes for *ime*, perfective *vriskome* receives an inchoative (i.e., change of state) interpretation. The sentence in (47b) is most naturally interpreted as 'I was in a state where I did not have to apologize, yet something happened, and now I have to apologize'. This is another aspect of the temporal inference identified in case *iparxo* substitutes for *ime.*

Crucially, to receive a locative interpretation, *vriskome*, as well as *ime*, must appear only in their imperfective forms (48):

48. a. To Sarakiniko vriskete /*vreθike
the.SG.NOM Sarakiniko.NOM find.IPFV.PRS.NACT.3SG / find.PFV.PST.NACT.3SG
/vriskotan sti Milo.
find.IPFV.PST.NACT.3SG on.the Milos
'Sarakiniko is/ (intended) was /was located on Milos.'

b. To Sarakiniko ine /itan sti Milo.
the.SG.NOM Sarakiniko.SG.NOM BE.IPFV.PRS.3SG/BE.IPFV.PST.3SG on.the Milos
'Sarakiniko is/ was on Milos.'

This aspect issue will be part of the argumentation regarding the stativity of the constructions under discussion, and thus, it is further explored in Chapter 6. The distribution of the verb *vriskome* itself is interesting as it brings locatives and possessives together.

As already said, the possessive *mu-vriskete*-construction introduces the possessor as a genitive clitic. The antecedent of the clitic may co-exist with the clitic (49), but either way, it must be necessarily [+human] (compare 49 to 50).[29]

49. (Tu Jani) tu vriskode pola kuzinika jati majirevi sixna.
the John.GEN 3SG.GEN find.NACT.3PL many.PL kitchenware.PL because cook.3SG often
'John happens to have much kitchenware because he cooks often.'

[29] The animacy restriction on clitics has also been identified regarding other phenomena. A prominent example of this restriction is in double-object verbs that exhibit the so-called *Person-Case constraint effects* if both objects surface as clitics (see Ormazabal & Romero 2007). More on the animacy restriction is discussed in 4.2.

50. a. * Tu skilu tu vriskete ble luri.
the.SG.GEN dog.SG.GEN 3SG.GEN find.NACT.3SG blue.SG.NOM leash.SG.NOM
int. 'The dog happens to have a blue leash.'

b. *Tu trapezju tu vriskode tesera poðja.
the.SG.GEN table.SG.GEN 3SG.GEN find.NACT.3PL four.NOM leg.PL.NOM
int. 'The table happens to have four legs.'

Lastly, it is noticeable that the interpretation of this construction as a whole is closer to temporary or accidental possession as it has roughly the meaning 'y happens to have x' or 'x is at y' s disposal', where y is the Possessor denoted by the clitic and x is the Figure/Possessee. This is why a sentence like the one in (45a) would not be felicitous as a description of the speaker's character but rather as a description of their current emotional situation. Also, (45b) would not be felicitous as an answer to a question about what the speaker's store offers but rather as an answer to a question asking whether the speaker currently has some coffee at his disposal.

Therefore, since the adopted definition of *possessive* refers to the expression of *close* relationships, *mu-vriskete*-constructions do not constitute a prototypical type of possessive sentence. The same is true for all expressions of temporary possession, which, assuming the above definition, seems almost contradictory as a label. However, I still include all of them in this study, as they are essential for understanding how true relational readings are achieved.

Finally, it must be said that, although marginal in Modern Greek, this construction is the closest to Ancient Greek possessive structures. As Benvenuto & Pompeo (2015) explain, possessive sentences in Ancient Greek were constructed based on the BE copula. The Possessee appeared as the nominative subject, while the Possessor surfaced in an oblique (dative or genitive) case either as a DP (51a) or as a clitic/pronoun (51b). [30]

51. a. *Ancient Greek* (Herodotus, *Historiae* 1.34.2)
ἦσαν δὲ τῷ Κροίσῳ δύο παῖδες
ɛ:san de tɔ:i Kroisɔ:i dyo paides
BE.PST.IPFV.3PL PRT the.DAT Croesus.DAT two.NOM son.PL.NOM
'Croesus had two sons.'

[30] The two following sets of examples are from Benvenuto & Pompeo (2015: 4-5, ex.1-2).

b. *Ancient Greek* (Homer, *Iliad* 2.21.92)

νῦν δὲ δὴ ἐνθάδ' ἐμοὶ κακὸν ἔσσεται
nyn de dɛ: enthad emoi kakon essetai
now PRT even here 1SG.DAT evil.SG.NOM BE.FUT.3SG
'and now even here shall evil come upon me.'

Bentein (2016: 118) claims that Ancient Greek inherited the 'BE + dative' construction from the Proto-Indo-European language. Ancient Greek, though, developed an alternative in which the Possessor was marked for genitive (52). This change happened very early, as evidenced by the fact that there are attested examples even in Homer (8th century B.C.) (Benvenuto & Pompeo 2015).

52. a. *Ancient Greek* (Herodotus, *Historiae* 3.117.1)

τοῦτο τὸ πεδίον ἦν μέν κοτε Χορασμίων
to:to to pedion ɛ:n mén kote Khorasmiɔ:n
this.NOM the.NOM plain.NOM BE.PST.IPFV.3SG PRT once Chorasmians.GEN
'this plain belonged once to the Chorasmians'

b. *Ancient Greek* (Herodotus, *Historiae* 1.14.2)

οὐ Κορινθίων τοῦ δημοσίου ἐστὶ ὁ
ou Korinthiɔ:n to: dɛ:mosıo: esti ho
NEG Corinthians.GEN the.SG.GEN city.SG.GEN BE.PRS.3SG the.SG.NOM
θησαυρός, ἀλλὰ Κυψέλου τοῦ Ἠετίωνος
thɛ:sauros, alla Kupselo: to: ɛ:etiɔ:nos
treasure.SG.NOM but Kypselos.GEN the.SG.GEN Eetion.GEN
'The treasure does not belong to the city of Corinth but to Kypselos, the son of Eetion.'

Bentein (2016) reports that *exo*-sentences, the construction that gradually replaced the 'BE + dative', had already been developed in the earliest stages of Ancient Greek. It took considerable time to prevail in their use as possessives because, initially, *exo* had to replace the auxiliary *ime*. The same author argues that, although there are ambitious claims according to which *exo* was a fully-fledged auxiliary even from the 5th century B.C. (Drinka 2003; 2007), there is evidence that both *exo* and *ime* were still in use in this era.

In any way, as noted by Kulneff-Eriksson (1999: 5), "the introduction of 'have' into a 'be' language causes considerable structural changes". Even in a synchronic view of the language, the co-existence of HAVE and BE suggests variation in the

available structures. The present study of existentials and possessives reinforces this conclusion.

The following section summarizes the properties of possessives.

3.4. An overview of Greek possessives

Unlike the presentation of existentials in Chapter 2, Chapter 3 has not emphasized the morphological properties of possessive sentences. This is because the constructions discussed here are less deviant from the typical syntactic frames of Greek. Their semantic properties are particularly interesting because each construction can express several types of possession.

Section 3.1. focused on *exo*-sentences and showed that they are instances of a typical transitive sentence. As such, they can accommodate multiple types of possession, including ownership, kinships, physical and emotional sensations, and part-whole relations, provided that a specific condition is met; the Possessee does not denote a definite presupposed entity. If this condition is overruled, the sentence leads to a temporary possession interpretation. Finally, this construction has an idiosyncratic use that is very close to locatives once a prepositional phrase, including a pronoun coindexed with the subject, is added.

Ime-me-sentences were discussed next. In Section 3.2., it was shown that these constructions constitute an instantiation of a predicative sentence with a prepositional complement. This configuration leads to a plethora of interpretations identical to the set of readings that the Icelandic *vera-með*-construction has. Both constructions constitute examples of a BE-WITH-possessive, a type of possessive sentence that is relatively popular across languages.

Finally, the so-called *mu-vriskete*-constructions were introduced in Section 3.4. Unlike the previous cases, this type of sentence was shown to have only a 'having at my disposal' interpretation, a version of physical/temporary possession. The following table offers a synopsis of all the available possessive relationships and their distribution in the constructions under discussion.

53. The interpretations of Greek possessives

		Types of sentences		
		Exo	*Ime-me*	*Mu-vriskete*
Possessive relations	Ownership	✓	✗	✗
	Kinship	✓	✗	✗
	Part-wholes	✓	✓	✗
	Physical/Psychological states & attributes	✓	✓	✗
	Temporary/Physical possession	✓	✓	✓
	Locative	✓	✓	✗

The aim of this chapter has been to illustrate that, although Greek is a HAVE-language, a HAVE-based construction, namely an *exo*-sentence, is not the only way to express possession. The language has two other versions of possessive sentences, each headed by *ime* or *vriskome.* As two of the three verbal items, i.e., *exo* and *ime*, that head these constructions are identical to those that appear in existentials, there is a solid basis for comparison. This basis becomes even stronger since the third item in each category, namely *iparxo* and *vriskome*, can be considered an alternative version of *ime.* A second goal has been to introduce the basic characteristics of these constructions and show their variation in the possessive interpretations. This has highlighted that possession is indeed a notion with multiple facets.

Overall, Chapters 2 and 3 have shown that Greek has several constructions to establish relationships between two entities. Thus, they outlined in more detail the leading question of this research and sketched an answer for it: Why are there multiple ways to describe two-part relationships between entities? The discussion in these chapters has shown that such variation exists because, in general, entities appear in various relationships or various degrees of closeness with each other, and each construction can accommodate only a subset of them. Further, each sentence or each type of sentence might not involve all types of participants. For example, animate entities take part only in possessives since existentials do not allow them. The succeeding chapter capitalizes on these observations and adds that sentences also differ in the perspective from which they describe the relationship. Therefore, it demonstrates that the variation in the expressions of a two-place relationship between entities derives from the interplay of several factors.

4. Factors distinguishing existentials and/from possessives

Thus far, it has been observed that the sentences under consideration have neither equal distributions nor interpretations. This is true not only for all the constructions within each category but also if we compare existentials to possessives.

This section presents some factors that condition which entity pairs can appear in existentials and/or possessives. Section 4.1 shows that existentials and possessives differ in terms of the *Perspectival Center* or *Empathy*. In 4.2., our focus is turned to the effect of animacy. Section 4.3. discusses the decisiveness of the distinction between relational and sortal nouns and entity networks. Finally, Section 4.4 summarizes the factors determining the distribution.

4.1. Perspectival Centers and Empathy Loci

The term *Perspectival Center* was introduced by Borschev & Partee (1998; 2002), Partee (1997), and Partee & Borschev (2002; 2004; 2006; 2008) and had a prominent position in their work on existentials. The authors started from the common belief that a locative (1a) and an existential sentence (1b) are truth-conditionally the same as they express the same proposition summarized as BE (THING, LOC), where THING corresponds to the Figure, and LOC, that stands for 'location', to the Ground.

1. a. The books are on the table.
   b. There are books on the table.

The difference between the two is in their Perspectival Center, i.e., "the participant chosen as the point of departure for structuring the situation" (Partee & Borschev 2004: 217). In (1a) and the Greek locative in (2a), the proposition, i.e., the Figure-Ground relationship in our terms, is expressed through the perspective of THING, i.e., the Figure. In contrast, the same proposition is expressed through the perspective of LOC, i.e., the Ground in (1b) and (2b).

2. a. Ta vivlia ine sto trapezi.
   the.PL.NOM books.PL.NOM BE.3PL on.the table
   'The books are on the table.'
   b. Exi/Ine/Iparxun vivlia sto trapezi.
   HAVE.3SG/BE.3PL/EXIST.3PL book.PL.ACC/NOM on.the table
   'There are books on the table.'

If their reasoning is extended to possessives, these sentences can also be differentiated in terms of the Perspectival Center. Witness that the HAVE-sentence and the *ime-me*-one in (3a) are uttered from the perspective of the Ground/Possessor that surfaces as the subject. In contrast, the sentences in (3b, c) adopt the Figure/Possessee's perspective. This means the Perspectival Center of HAVE-sentences differs from that of BELONG-constructions or copular predicational possessives.

3. a. O Janis [exi]/ [ine me] kokina jalja.
the.SG.NOM John.NOM HAVE.3SG/BE.3SG with red.PL.ACC glass.PL.ACC
'John has red glasses.'
b. Ta kokina jalja anikun ston Jani.
the.PL.NOM red.PL.NOM glass.PL.NOM belong.3PL to.the.SG.ACC John.ACC
'The red glasses belong to John.'
c. Ta kokina jalja ine tu Jani.
the.PL.NOM red.PL.NOM glass.PL.NOM BE.3PL the.SG.GEN John.GEN
'The red glasses are John's.'

Although the notion of the *Perspectival Center* is satisfactory at the descriptive level, it has been proven not easy to be formalized, at least in the context of locational constructions (see Cann 2008; Chen 2011; Cruschina 2012 for some attempts). However, research on several other phenomena (e.g., epithets, evaluative adjectives, predicates of personal taste, etc.) has revealed several key characteristics of the mechanisms encoding perspective or viewpoints in language (see Vogels et al. 2023 and Harris 2021 and references therein). For present purposes, I will focus on the research on Person-Case Constraint (PCC) effects, which has managed to establish the Perspectival Center as a syntactic (or semantic-syntactic) term subsumed under the notion of *Empathy Locus* (Charnavel & Mateu 2015).

In general, the notion of *empathy* (Kuno & Kaburaki 1977: 628) refers to "the speaker's identification, with varying degrees [...] with a person who participates in the event that he describes in a sentence". The most well-known aspect of empathy is the "camera angle", which refers to the fact that "the speaker can overtly show from whose angle he is describing the event". This facet of empathy is equivalent to the Perspectival Center.[31]

As explained by the same authors, the syntactic frame of the sentence determines which constituent is the Empathy Locus. Most naturally, the participant

[31] Other aspects of empathy include animacy and involvement in the situation. Kuno (1987) shows that speakers empathize more with human entities involved in the event's culmination.

that surfaces as the subject or is sentence-initial constitutes the Empathy Locus for the speaker.

Possessive sentences support the correlation between empathy and subjecthood since they project their subject as their Perspectival Center. HAVE- and BE-WITH-possessives have the Ground/Possessor as the subject, meaning they adopt their perspective.[32] In contrast, BELONG-type sentences and predicational copular possessives endorse the perspective of the subject-Figure. This distribution also supports a correlation between Perspectival Centers and word order since all subjects surface sentence-initial.

The distribution of existentials validates that the latter assumption is the one on the right track, even though this is not clear at first sight. Suppose Partee and Borschev are correct in that existentials use the perspective of LOC, i.e., the Ground. If the Perspectival Center is equated to the subject, their hypothesis would mean that the locative PP is the subject. However, as extensively argued in 6.3. even if the locative PP is a subject in some languages (e.g., in Russian or Brazilian Portuguese), this hypothesis is not supported for Greek.

Further, the locative constituent is neither sentence-initial. Thus, it cannot be assumed that the Perspectival Center is defined through word order. In all types of existentials, the verbal copula surfaces in this position. For Huumo (2003), this indicates that existentials do not endorse the perspective of any participant.

However, in 6.4.4., it is argued that existentials have a second covert argument that occupies an argumental (not necessarily the subject) position which is modified by the overt locative. In 7.2., it is proposed that this covert argument moves to a sentence-initial position for reasons related to the Information Structure. Specifically, it moves to the left periphery since it constitutes the Topic of the sentence. This covert argument can provide the Empathy Locus/Perspectival Center of the utterance by appearing in this position. Therefore, in this case, empathy is indeed determined by word order instead of subjecthood.

Nevertheless, no matter how the Perspectival Center is determined, it differentiates the constructions and is partially responsible for the attested variation (Cruschina 2012). Importantly, it is the reason why each type of construction becomes more or less felicitous in specific contexts.

To break this down, consider the contrast between the locative and the existential function. The former describes the situation in which the speaker

[32] The assumption that the Ground/Possessor constitutes the Perspectival Center can also be made for the *mu-vriskete*-constructions. Although the Ground/Possessor is not the subject of the sentence (8.5.3.), it is sentence-initial and thus prominent due to word order.

establishes the location of a presupposed entity/Figure. Thus, it prototypically requires the perspective of the Figure.

In this situation, an *ime*-sentence where the presupposed entity surfaces as a sentence-initial subject is natural (4a). In contrast, the syntactic frame offered by an *exi*-sentence is not as felicitous as the *ime*-frame because it does not adopt the perspective of the presupposed Figure. Instead, it describes the situation that is about the presupposed entity through the perspective of the Ground. This leads to a conflict between the sentence's expected and actual empathy locus. Thus, this type of sentence is less felicitous for this function (4b).

4. a. O Nikos ine stin tileorasi.
the.SG.NOM Nick.NOM BE.3SG on.the.SG.ACC TV.SG.ACC
'Nick is on TV.'
b. Exi ton Niko stin tileorasi.
HAVE.3SG the.SG.ACC Nick.ACC on.the.SG.ACC TV.SG.ACC
'There is Nick on TV.'

The frame offered by *exi*-sentences and *ime*- and *iparxo*-sentences in which the Figure surfaces in a post-verbal position is suitable for the existential function since the latter requires a non-presupposed type of referent that is introduced into the discourse. As non-presupposed, the Figure is not expected to constitute the utterance's Perspectival Center/Empathy locus. This condition is satisfied as this constituent is left in the post-verbal position, and the sentence is uttered without endorsing its perspective.

According to Kuno (1987), animacy is another factor determining the Empathy Locus of the utterance. Although I do not focus on how animacy and empathy are correlated, the following section discusses how animacy determines the distribution across existentials and/or possessives.

4.2. Animacy hierarchies

Animacy is a factor that draws on extra-linguistic knowledge, and as such, it is part of our Conceptual-Intentional (CI) system and our Encyclopedia. Its pervasiveness in Grammar has attracted much attention in the literature (see de Swart & de Hoop 2018 for a recent review on how animacy is considered to interact with Grammar).

Animacy is not a binary notion. It is most often described as a three-stage scale due to Comrie (1989) (see also Aissen 1999; Snider & Zaenen 2006)

5. Human > Animate > Inanimate

Some languages (or constructions) exploit a less fine distinction, i.e., the binary opposition between human and non-human or animate and inanimate. Others benefit from much finer distinctions. For instance, Rosenbach (2008: 153) claims that a particularly fine-grained distinction (6) determines the variation in English *'s*-genitive (cf. Taylor 1989; Bernstein & Tortora 2005).

6. *Animacy hierarchy and English nominal genitive* (Rosenbach 2008)

Animate			**Inanimate**		
Human >	Animal >	Collective >	Temporal >	Spatial >	Inanimate
the boy's bike	*the dog's collar*	*the company's director*	*Monday's mail*	*London's suburbs*	*the building's door*

An interesting aspect of the interaction between animacy and Grammar is detected at the level of Information Structure. Crosslinguistic studies performed by Silverstein (1976), Comrie (1989), Aissen (1999; 2003), and Bresnan et al. (2001), among others, have shown that animacy affects the selection of syntactic function and/or word order to the effect that entities higher in the animacy scale tend to occur in higher syntactic positions or at the beginning of the clause. Psycholinguistic research by Branigan & Feleki (1999), Prat-Sala & Branigan (2000), Prat-Sala et al. (2000), and Verhoeven (2014) has confirmed that the higher an entity on the animacy scale, the more prominent the position in which it appears.[33]

In our discussion so far, it has been shown that animacy is crucial for the *mu-vriskete*-construction, where non-animate entities are not allowed as antecedents of the genitive clitic. Nonetheless, this construction respects the animate-first condition as it has the clitic in sentence-initial position. In possessive HAVE- and *ime-me*-sentences, the animate Ground is not only in sentence-initial position but also in the highest and most prominent one since it merges as the subject.

Animacy does not significantly influence the distribution within existentials and locatives because these sentences often include pairs of non-animate entities. However, it has been noted in Chapter 2 that all types of existentials exclude animate PP-codas.

Freeze (1992: 583) was the first to observe that "there is a preference for [+human] locations (Grounds in our terms) for the HAVE-subject and [-human]

[33] Specifically, the researchers above investigate the correlation between animacy and thematic hierarchies. Those who argue in favor of a mapping between the two claim that higher thematic roles, like *Agents,* are associated with entities higher in the animacy scale.

locations for the existential subject", i.e., the coda position in existentials. Clearly, this applies to languages where such an option is available. Greek is one of the languages substantiating this claim. The following sentences show that animate Grounds are acceptable only as subjects of an *exo*-sentence.

7. a. *Exi/Ine/Iparxi stilo/miti/kalosini sto Jani/ston aðerfo mu.
HAVE/BE/EXIST.3SG pen/nose/kindness.SG.ACC/NOM in.the John in.the brother my
lit. 'There is a pen/nose/kindness in John/my brother.'
b. O Janis/ O aðerfos mu exi stilo/miti/kalosini.
the.SG.NOM John.NOM/ the brother.SG.NOM my HAVE.3SG pen/nose/kindness.SG.ACC
'John/My brother has a pen/a nose/kindness.'

Based on the discussion above, this can be attributed to the fact that the coda position is demoted, i.e., it is neither the highest structurally nor sentence-initial; thus, it is not a position for prominent arguments. As human "Grounds" are high in the animacy hierarchy, they are preferably introduced in prominent positions, and since the language offers the option to merge them in such positions, they need not appear in existentials.

However, the variation in the structural inventory in a given language is not the only reason behind Freeze's generalization. In Chapter 5, it will be shown that the subject of HAVE must be either animate or a whole that has its part being realized as the object of HAVE. This restriction will be attributed to the fact that the subject of HAVE is an external argument introduced by Voice; hence, it must compile properties that make it intentional and actively engaged in the situation described in the clause.

In brief, the correlation between animacy and argument realization, which has been reported in the cross-linguistic literature about several phenomena, is also critical for the distribution of Greek existentials and possessives. The following section argues that the type of relationship between the entities involved in the situation is also decisive.

4.3. (Non) relational nominals and entity networks

In Section 1.2.2. I introduced the (in)alienable distinction and claimed that it would be reserved as a term referring to syntax, although it has been extensively used as a semantic concept. For traditions that date back to Bally (1926/1996), inalienable possession accounts for the cases where the possessee is inseparable from its possessor and cannot be transferred to anyone else. In other words, inalienable possession refers to cases where the notion described by the possessee is internalized as requiring a specific inseparable possessor or anchor in control of its

existence. This means that the presence of an inalienable possessor is necessary and necessarily determined by the possessee.

To avoid confusion in terminology and capture this characteristic of specific notions in formal semantic terms, Strawson (1959) and Löbner (1985; 1998) proposed the distinction between *relational* and *non-relational/sortal* nominals. This contrast refers to descriptions of entities and classifies nominals, or roots, in DM terms.

The label *relational* is assigned to descriptions of entities for which ''we must infer that there exists another individual to which the entity is connected in a certain way'' (Bassaganyas-Bars 2017: 7). Entities described by the nominals *sister, doorknob,* and *arm* are prototypically relational, as Barker (1995) argues, since they cannot be conceived of without a second specific entity: a sibling, a door, or a limbed entity. Even further, they must be in a specific relationship with this second entity. In Bassaganyas-Bars's (2017) spirit, the nominal *sister* implies a *sisterhood* relationship*, doorknobs* a *being-a-doorknob-of* relationship, and *arm* a *being-an-arm-of* relationship. In contrast, entities described by *non-relational* or *sortal* nominals like *car* and *book* are more independent since they can be identified without a specific anchor entity and a particular relationship with this entity (see also Partee & Borschev 2012).

This distinction that depicts a variation at the cognitive level is real as it determines syntactic processes. For instance, it is considered responsible for the distribution of English genitive (along with animacy). In English, relational nominals allow their anchor to be introduced in a post-nominal *of-phrase* (8a) but not as a post-copular genitive (8b).

8. a. The sister of John.
   b. *The sister is John's.

Non-relational nominals show the opposite behavior:

9. a. *The book of John.
   b. The book is John's.

It is the case, then, that languages may reserve distinct structures (i.e., inalienable possessive structures) for relational nominals if they have at least a couple of them available. Nevertheless, what counts as relational and, thus, fits into an inalienable construction varies from language to language. Arguably, this illustrates that the speakers of different languages, and by extension, different societies and cultures, do

not internalize entities in the same way (Aikhenvald 2019). An example of this variation has already been presented in (16) in 1.2.2.

In other languages, where a specific structure is not reserved for relational nominals, the constructions may be ambiguous as they must accommodate relational and sortal nominals. This happens with English *have*- and Greek *exo*-sentences.

In terms of formal semantics, relational nominals have been mainly analyzed as argument-taking categories that theta-mark their possessor (see Tellier 1988; 1994; Vergnaud & Zubizarreta 1992; Barker 1995). The distinction between the two types of nominals has been traditionally captured as a difference in semantic type: sortal nouns are one-place predicates of the type <et>, whereas relational nouns correspond to two-place predicates, i.e., transitive predicates of the type <e, et> (Partee 1986; 1997; Barker 1995). (10) and (11) illustrate a simplified version of their semantic type:[34]

10. *Sortal nouns*:
    a. [[car]]: λx:car(x)
    b. [[book]]: λx:book(x)

11. *Relational nouns*:
    a. [[sister]]: λxλy:sister-of(x)(y)
    b. [[arm]]: λxλy:arm-of(x)(y)

Relational nominals can be felicitous in introducing discourse referents when their anchor and their relationship with it are salient. Witness, for instance, that in (12), the entity corresponding to *θia* 'aunt' is inserted into the discourse by making explicit the person with whom it has the aunthood relationship (i.e., *John*). Even if the DP denoting this anchor entity is omitted, the acceptance of the sentence implies that the anchor entity is already salient in the discourse. This means that the anchor of *θia* (i.e., the nephew/niece) is known to the interlocutors.

12. I θia (tu Jani) ine sto ðiplano ðomatio.
    the.SG.NOM aunt.SG.NOM the.SG.GEN John.GEN BE.3SG in.the next.door room
    'The aunt (of John) is in the next-door room.'

Suppose the speaker intends only to name the anchor of a relational nominal without providing additional information, as happens in (12). In that case, the speaker must

[34] See Bassaganyas-Bars (2017) for an alternative approach adopting meaning postulates.

opt for a construction that can account for kinships. The inalienable possession structures are the most suitable.

Since Greek lacks such a specified structure and accommodates relational nominals in HAVE-sentences, the speaker would have to use this type of sentence. Indeed, *exo*-sentences account naturally for relational nominals like *aðerfja* 'siblings' (13a), *poði* 'leg' (13b, c), and *pomolo* 'handle' (13d).

13. a. O Janis exi ðio aðerfja.
the.SG.NOM John.NOM HAVE.3SG two.ACC sibling.PL.ACC
'John has two siblings.'
b. O Janis exi ena poði.
the.SG.NOM John.NOM HAVE.3SG one leg.SG.ACC
'John has one leg.'
c. To trapezi exi tesera poðja.
the.SG.NOM table.SG.NOM HAVE.3SG four.ACC leg.PL.ACC
'The table has four legs.'
d. I porta exi jalino pomolo.
the.SG.NOM door.SG.NOM HAVE.3SG glass.SG.ACC handle.SG.ACC
'The door has a glass handle.'

The above examples show that HAVE-sentences are used to "sentencify" relations determined by relational nominals. In other words, HAVE is a copula used only to upscale a relationship between entities to the sentence level. The copula does not add or remove anything to/from the relationship they have with each other (see also Guéron 1985; Kayne 1993; Barker 1995; Jensen & Vikner 1996; Beavers et al. 2008; Bassaganyas-Bars 2017). However, it is not the case that only *exo*-sentences can accommodate relational nominals and their anchors.

Ime-me-sentences can also account for this type of nominals once the relationship they imply is compatible with the accompaniment requirement characterizing this type of construction.

14. a. O Janis ine me ena poði.
the.SG.NOM John.NOM BE.3SG with one leg.SG.ACC
'John has one leg.'
b. To trapezi ine me tesera poðja.
the.SG.NOM table.SG.NOM BE.3SG with four leg.PL.ACC
'The table has four legs.'
c. I porta ine me jalino pomolo.
the.SG.NOM door.SG.NOM BE.3SG with glass.SG.ACC handle.SG.ACC

'The door has a glass handle.'

Mu-vriskete-constructions exclude this type of nominals since they only account for cases of accidental associations or temporary possession.

In principle, existential sentences are not widely used to establish the anchor for a relational nominal. However, plural marking on the pivot-nominal and the location-denoting-nominal in the locative PP makes them acceptable. In the presence of plural marking, the frame of existentials coerces the reading that there are several instances of the pivot in multiple instances of the Ground location:

15. (Siniθos) iparxun/(?)exi tesera poðja sto trapezi.
usually EXIST.3PL/HAVE.3SG four leg.PL.NOM/ACC on.the table
'Usually, there are four legs on a table.'

Since *iparxo* implies more permanent associations and *exi* is relatively neutral, they are preferred in this case. *Ime* is not preferable due to its implication of accidental associations between entities.

It is essential that although sortal nominals do not require an inalienable/inseparable possessor/anchor lexically, they become relational to other entities. That is, they, too, form relationships with other entities and are interpreted as Possessors and Possessees. However, since they do not do so lexically, i.e., they do not have this information encoded in their root, they are not related to specific inalienable possessors. They are "freer" to form relationships with various entities in different degrees of closeness. The question is then how sortal nominals become relational.

Bassaganyas-Bars (2017), among others, argues that sortal nouns become relational due to our pragmatic knowledge (Ortmann 2018, and see also Partee 1986; Partee & Borschev 1998; 2005; 2012 on how this is captured as a semantic type-shifting process). In brief, he puts forth the hypothesis that the speakers do not internalize entities as entirely independent of each other, even if they do not require a specific anchor by definition. Speakers conceptualize entities as being related to other entities more or less closely. This means they internalize an entity network depicting the degrees of closeness between entities. To extend his view, I propose that these entity networks are built through frequencies (in the spirit of Haspelmath 2008).

For example, consider that an average human sees that *books,* for instance, are usually related to *libraries*, *readers,* and *authors,* and *drivers* are more often associated with *trucks* and *delivery companies*. It is relatively uncommon to find

books associated with *trucks*, *spiders,* or *frames*, as it is unusual to find *drivers* related to *couches*, *coasters,* or *mice*. Therefore, in an average situation,[35] *books* are internalized as closely associated with *libraries*, *readers,* and *authors* and distantly related to *trucks, spiders,* and *frames.* Likewise, *drivers* are internalized as having a close relationship with *trucks* and *delivery companies.* As expected, humans create more extensive networks than non-humans, given that, by nature, they are versatile and subject to change.

The network of *books* will, then, include notions like *authors*, *libraries,* and *trucks* as being more or less close to them. An attempt to represent this part of the network built around the notion of *book* is presented in (16).

16. Relational notions to *books*

	Separable		
	Close		Distant
	authors/libraries	*trucks*	*spiders*

Note that the scheme becomes richer if we add to this the notions that lexically require *books* as their inalienable possessors, like *pages* and *words*. This representation depicts the fact that the relationship between the whole *book* and its parts *pages* and *words* is stronger than all other relationships (since the *whole* appears as being in control of its parts and their existence) by severing it as an *inseparable* relationship:

17. Relational notions to *books*

Inseparable	**Separable**		
	Close		Distant
pages/words	*authors/libraries*	*trucks*	*spiders*

The scheme for *drivers* will also include *vehicles* as inescapably dependent on them, as well as other notions conceived of as separable from them.

[35] To stress the significance of the sociocultural environment, consider that the degrees of closeness may differ among speakers if the frequencies are different. For instance, although *drivers* are not typically internalized as having a close relationship with *couches* since most humans do not encounter this association often, drivers working as carriers in a furniture-selling company may internalize them as closely related.

18. Relational notions to *drivers*

Inseparable	**Separable**		
	Close		Distant
vehicles	*trucks*	*delivery companies*	*coasters*

It is the case, then, that each notion has its own *relationality* continuum. This representation makes it possible to capture the various degrees of closeness between entities. The less frequent the association between two entities in the real world, the more distant their conceptualization as notions.

It could be said, then, that a language uses an array of constructions to account for and depict this relationality spectrum. The language "draws a/some line(s)" on the continuum and delineates sets of closeness degrees that will be accommodated in each construction. The decision on which degrees will be accommodated in each sentence-type depends on its underlying syntax, i.e., the syntactic status of the entities in each structure.

We have already seen that different types of sentences account for different types of relationships between entities. *Mu-vriskete*-sentences host in the post-verbal positions only sortal nominals that are accidentally associated with the possessor entity denoted by the clitic. Similarly, *ime-me*-sentences account only for entities that accompany the possessor.

Exo-sentences, on the other hand, provide the only frame where close relationships between entities can be hosted. Since *living rooms* are usually related to *couches*, they are internalized as closely related entities. Therefore, they fit into a relational HAVE-sentence. However, the pair 'living room-laptop' is not. Hence it is unacceptable in this frame.

19. a. To saloni exi kanape.
the.SG.NOM living.room.SG.NOM HAVE.3SG couch.SG.ACC
'The living room has a couch.'
b. ???To saloni exi ena laptop.
the.SG.NOM living.room.SG.NOM HAVE.3SG a.ACC laptop.SG.ACC
lit. 'The living room has a laptop.'

The same is observed for the pairs 'streets-cars' and 'streets-pencils'.

20. a. O ðromos exi pola amaksja.
the.SG.NOM street.SG.NOM HAVE.3SG many.ACC car.PL.ACC

'The street has many cars.'

b. ???O ðromos exi kati molivja.
the.SG.NOM street.SG.NOM HAVE.3SG some pencil.PL.ACC
lit. 'The street has some pencils.'

An existential sentence is optimal for the associations between 'living rooms-laptops' and 'streets-pencils'. As extensively argued in Chapter 6, the reason is that the constituents' status in the predication layer differs between HAVE-possessives and HAVE-existentials (or any other type of existential).

21. a. Exi ena laptop sto saloni.
HAVE.3SG a.ACC laptop.ACC in.the living.room
'There is a laptop in the living room.'

b. Exi kati molivia sto ðromo.
HAVE.3SG some pencil.PL.ACC on.the street
'There are some pencils on the street.'

The conclusion that HAVE-sentences describe close relationships between entities is further supported by the sentence in (22), which, for most speakers, naturally means that there are flowers painted, embossed, or engraved on the table (or on the tablecloth) rather than that there is a bouquet or a vase with flowers on the table.[36]

22. To trapezi exi luluðja.
the.SG.NOM table.SG.NOM HAVE.3SG flower.PL.ACC
'The table has flowers.'

Critically, when a relationship between two entities is not close and a plain *exo*-sentence is unsuitable (23a), a locative possessive *exo*-sentence can be used instead (23b). This type of sentence adds an obligatorily overt prepositional constituent that includes a pronoun coindexed with the subject Possessor.

23. a. ??? To trapezi exi ena vivlio/stilo.
the.SG.NOM table.SG.NOM HAVE.3SG a.ACC book/pen.SG.ACC
'The table has a book/pen.'

[36] Importantly, speakers' acceptance of specific pairs in an *exo*-sentence varies. This highlights, again, that what qualifies as a closely related pair differs among speakers because the frequencies or cultural environments based on which entity networks are formulated are different.

b. To trapezi$_i$ exi ena vivlio/stilo pano tu$_i$.
the.SG.NOM table.SG.NOM HAVE.3SG a.ACC book/pen.SG.ACC on it
'The table has a book/pen on it.'

This means that the language complicates the syntax to fit a distant pair of entities into a HAVE-sentence. Specifically, it adds a step in the predication that builds the relationship between the entities.

At this point, the question is, why does the language need to do this since it already has existential sentences as an alternative? In other words, why does it complicate the syntax of a HAVE-sentence to accommodate distantly related entities, given that it has three types of existentials that do so?

The answer is that locative HAVE-sentences are not simply an alternative to existentials (see also Cowper 2017). The constructions differ with respect to several factors discussed so far. Locative HAVE-sentences appear to account for the cases that existential sentences cannot. They are required when the distant Figure-Ground relationship must be uttered from the perspective of the Ground and when the Ground is animate and, as such, it cannot surface in a PP-coda in existentials.

It is the case, then, that the intricate properties of the nominals involved and our pragmatic knowledge about them determine the felicity of a specific entity pair in each construction. The variety of the available constructions is also crucial. The following section summarizes the factors determining alternations within or between existentials and possessives.

4.4. An overview of the chapter

The discussion in this chapter has shown that existentials, locatives, and possessives account for specific groups of entity pairs. The groups that each category accommodates may overlap with each other. The same is true for the representatives of each category; each existential or possessive sentence can host a set of entity pairs, members of which may also be hosted by another existential or possessive sentence.

The factors that create this variation are partially drawn on our Conceptual Intentional (CI) system, i.e., our Encyclopedia, which contains our pragmatic knowledge.

First, the specification of entities for animacy determines the choice between an existential/locative and a possessive sentence. Animate entities can function as Grounds/Possessors only in possessives.

Second, there is our internalized network of entities. Entities internalized as inescapably or frequently associated with other entities are grouped as close

relationships and can fit mainly in relational HAVE-sentences. Existentials, *ime-me-* and *mu-vriskete*-sentences accommodate distant relationships prototypically. *Iparxo*-existentials prefer separable relationships that are relatively standardized, while *ime*-sentences account for temporary associations. *Exi*-sentences mainly account for separable relationships regardless of their status. However, once plural marking appears on the nominals, existential sentences headed by *exi* and *iparxo* (preferably) can host relational nominals and their anchor.

Likewise, if the relationship implied by a relational nominal can be captured as an accompaniment, it may also appear in an *ime-me*-sentence. Lastly, *mu-vriskete*-sentences typically accommodate cases of accidental associations. Hence, they are restricted to account for a specific subset of separable relationships.

Finally, it was shown that the status of the constituents and the word order of each sentence determines the Perspectival Center/Empathy Locus of the utterance. Locative sentences are shown to project the Figure as their Perspectival Center, while existentials project the Ground instead. HAVE-, *ime-me-* and *mu-vriskete*-possessives are also uttered from the Ground/Possessor's angle. At the same time, if a possessive reading through the perspective of the Figure/Possessee is required, speakers may opt for a BELONG-type sentence or a predicational one.

To conclude, this chapter has provided an answer to the first part of our research question: Why are there several types of sentences to describe a relationship between two entities? In brief, this chapter has highlighted that such variation exists because each type of sentence constitutes a unique combination of factors important for describing relationships between entities. The table in (24) summarizes their characteristics, which also determine the felicity of each sentence type in specific contexts. The following chapters investigate how each sentence acquire these characteristics and, more specifically, how they derive from the underlying structure.

24. *The characteristics of existentials, locatives, and possessives*

Structures		**Decisive factors**		
		Perspectival center	**Animate Ground**	**Type of relationship**
Existentials	*Iparxo*	Ground	Not allowed	Preferably Standard
	Exi	Ground	Not allowed	No preference
	Ime	Ground	Not allowed	Only Accidental
Locative	*Ime*	Figure	Not allowed	Only Accidental
Possessives	*Exo*	Ground	Allowed	Only Standard
	Ime-me	Ground	Allowed	Only Accompanying
	Mu-vriskete	Ground	Allowed	Only Accidental
Locative possessive	*Exo*	Ground	owed	Only Accidental

5. Copulas and transitivity

This chapter initiates the theoretical discussion of the properties presented thus far as it capitalizes on the syntax of HAVE and BE. It offers evidence supporting that HAVE is transitive in all its guises in the sense that it always has an external argument. Adopting Kratzer's (1996) view, according to which transitivity is attributed to the presence of Active Voice, I assume that HAVE involves a transitive Voice head. Moreover, I argue that BE qualifies as the intransitive variant of HAVE as it constitutes an unaccusative deponent. Along these lines, I propose that there is no need to assume multiple HAVEs and BEs in the language. Instead, I postulate that HAVE and BE are meaningless items acquiring their semantic content through their (small-clause) complement. In other words, they are copulas. This view is closer to Hoekstra (1994), Ritter & Rosen (1997), and, particularly, Myler (2016, 2018), who claims that HAVE and BE are exponents of a meaningless little v conditioned downward by Voice.

Initially, any approach to the syntax of HAVE and BE has several issues to address due to the idiosyncrasies that characterize these items. Arche et al. (2019) offer a review of the main aspects the studies on HAVE and BE have dealt with. In the context of this dissertation, the comparison between HAVE and BE inevitably brings us against the long-standing debate on whether the two reduce to one single underlying structure. The main question that has concerned research is whether HAVE derives from BE, and if it does, what process needs to take place to do so. This section summarizes the two leading approaches found in the literature.

On the one hand, one line of approach that stems from transformational assumptions postulates a derivational relationship between the two. In this view, HAVE is the inverted form of BE (Benveniste 1966) or derives from BE when a preposition incorporates into it (Bach 1967; Lyons 1967; Freeze 1992; Kayne 1993; Tellier 1994; Kempchinsky 1996; Belvin & den Dikken 1997; Broekhuis & Cornips 1997; Español-Echevarría 1997; Ouhalla 2000; Avelar 2009a; 2009b; Levinson 2011, i.a.). This influential approach has extensively appealed to existential and possessive expressions across languages to corroborate its central claim. In particular, the distribution in languages where the possessive verb meaning 'have' is the morphological amalgam of the copula BE and an adposition has supported the derivational relationship between HAVE and BE. Duala (Niger-Kordofanian, Benue-Congo, North-West Bantu) (1) and Lezgian (Dagestanian) (2) are two cases in point.

1. *Duala* (Stassen 2009:423 citing Ittmann 1939: 100)
   A bé-ne bolo
   he BE-WITH boat
   'He had a boat.'

2. *Lezgian* (Stassen 2009:51 citing Haspelmath 1993: 313)
   Dusman-ri-w tup-ar gwa-c
   enemy-PL-ADE cannon-PL BE.at-NEG
   'The enemy does not have cannons.'

The same 'have' meaning also arises in BE-WITH-possessives where the prepositional element is not fully fused to the copula. Hixkarayana (Macro-Carib, Carib) (3) and Mamvu (Nilo-Saharan, Central Sudanic) (4) offer examples of this construction.

3. *Hixkaryana* (Stassen 2009:56 citing Derbyshire 1979: 110)
   Apaytara hyawo naha biryekomo
   chicken with 3SG.BE.PRS boy
   'The boy has chickens.'

4. *Mamvu* (Stassen 2009:57 citing Vorbichler 1971: 308)
   Uyá-nání la'
   house-with 3PL.PRS.BE
   'They have a house.'

Languages like Russian (5) or Modern Irish (6) also support the same idea since they employ the copula BE as the main possessive verb and introduce the possessor argument through a prepositional phrase. Stassen (2009) calls this type of construction the *Locational Possessive frame*.

5. *Russian* (Freeze 1992: 554)
   U menja byla sestra.
   at me.GEN was.FEM sister.NOM.FEM
   'I had a sister.'

6. *Modern Irish* (Stassen 2009:51 citing Lewis & Pedersen 1961: 197)
   Ta airgead aig-e
   BE.3SG.PRS money at-3SG
   'He has money.'

Based on the assumption that oblique cases in some languages are prepositional, the genitive (7), dative (8), or adessive (9) case marking on the possessors also lends support to the assumption that HAVE equals BE+P.

7. *Ancient Greek* (Benvenuto & Pompeo 2015: 4 citing Herodotus, Historiae 3.117.1)

τοῦτο τὸ πεδίον ἦν μὲν κοτὲ Χορασμίων
touto to pedion ε:n men kote Khorasmiɔ:n
this.NOM the.NOM plain.NOM BE.IPFV.3SG PRT once Chorasmians.GEN
'This plain belonged once to the Chorasmians.'

8. *Classical Latin* (Benveniste 1966: 190)

Est mihi liber
BE.3SG.PRS 1SG.DAT book.NOM.SG
'I have a book.'

9. *Finnish* (Mahieu 2013: 3)

Peka-lla on auto.
Pekka-ADE BE.3SG car.NOM
'Pekka has a car.'

For completeness, it must also be said that there have been alternatives to the BE+P assumptions. For instance, Szabolcsi (1981; 1983) and Postma (1997) endorse the idea that HAVE equals BE+D. Déchaine et al. (1994) propose that HAVE derives from BE by incorporating a *se*-reflexive. What unifies these approaches with the BE+P hypothesis is that they assume that BE and HAVE share a common structure.

On the other hand, another line of approach in the literature claims that BE and HAVE do not reduce to one single underlying structure (Jensen & Vikner 1996; Heine 1997; Boneh & Sichel 2010; Cruschina 2012; Gaeta 2013, i.a.). Although they are both copulas, because they are vacuous of any semantic content and sentencify non-verbal predicates, each merges in a different syntactic frame (Partee 1985; Hoekstra & Mulder 1990; den Dikken 1997; 2006; Moro 1997; 2000; Adger & Ramchand 2003; Pustet 2003; Mikkelsen 2005, i.a.). Hoekstra (1994), Belvin (1996), and Ritter & Rosen (1997) argue that a HAVE-sentence is structurally more complex than a BE-sentence in the sense that it involves more functional projections, including Agreement and Tense. Hoekstra (1994) is the first to contend that HAVE equals BE plus transitivity.

This dissertation presents data from Greek combined with theoretical arguments to argue that BE and HAVE are copulas related via transitivity. This does not mean that HAVE derives from BE when the structure is transitive. It entails that HAVE is the exponent of a meaningless little v when the latter is merged under a transitive Voice head, i.e., a Voice head with a projected specifier position for the

external argument.[37] BE constitutes the exponent of the same head under a non-transitive Voice head (see also Jung 2011). Even though this thesis has been most famously defended by the authors mentioned in the paragraph above, the current analysis draws specifically on Myler (2016; 2018), who implements this idea within the framework of Distributed Morphology.

Myler (ibid) argues that both BE and HAVE yield *light verb constructions* in the sense that, as copulas, they introduce a little v without a lexical root. This assumption has two critical implications. First, the claim that HAVE is a light verb synchronically suggests a change in the diachrony of the item since the Latin verb *habere,* from which English *have* and multiple HAVE-copulas in Romance languages descend, is an entirely contentful verb, meaning 'to have in someone's possession'. Indeed, Hopper & Traugott (1993) show that this item underwent a grammaticalization process that resulted in obtaining the status of a light verb. The semi-lexical/semi-functional status it received is characterized by reduced semantic content (Brugman 2001) and increased grammatical function (Butt 2003).

Second, the assumption that BE and HAVE are exponents of a functional head entails in the DM framework that they are non-lexical and are inserted late in the derivation (Halle & Marantz 1993; 1994). According to this approach, the copulas do not have a phonological matrix in the syntactic derivation. Their phonological matrix is inserted during Vocabulary Insertion at PF. Notably, it is inserted in a configurational way, i.e., as PF reads off the syntactic configuration that has been fed to it (see Embick & Noyer 2001).

Within this framework, Myler (2016; 2018) proposes that BE and HAVE are suppletive allomorphs of v_{BE}. The latter is the meaningless 'flavor' of little v that appears when v does not bring eventive/stative semantics but links non-verbal predicates to clausal projections. Specifically, this type of little v introduces a type-neutral identity function (10) and does not add any argument to the structure (see Wood 2015). This also means it does not add anything to the semantics built underneath it. It simply passes up the tree everything that has been constructed so far in the derivation (Myler 2016: 42). Under this assumption, v_{BE} is the emptiest (in terms of semantic content) 'flavor' of little v.[38]

---

[37] Across this thesis, I follow Schäfer's (2008) typology of Voice, according to which two characteristics delineate Voice: syntactic and semantic (in)transitivity. A Voice head is *syntactically transitive* when it projects a specifier position, while it is *syntactically intransitive* when it does not. In the same vein, a Voice head is *semantically transitive* or *thematic* when it introduces a thematic role for the argument it licenses. In contrast, it is *semantically intransitive, athematic*, or *expletive* when it does not (see also 9.2.1.)

[38] See Hale & Keyser (2002) and Folli & Harley (2005) on how other flavors of little v are determined.

10. $[\![v_{BE}]\!] \Leftrightarrow \lambda x.x$

Even though the author does not recognize a derivational relationship between BE and HAVE, he holds that HAVE is the transitive version of BE, in the sense that it is the v_{BE} allomorph appearing when transitive Voice projects on top of it (11a). The transitive Voice is distinguished from other types of Voice as it has a projected specifier position, marked as '{D}' below following Schäfer (2008), and acts as a φ-probe (i.e., it selects a φ-featured DP or DP-containing complement). BE is the elsewhere realization, i.e., the v_{BE} allomorph that appears in any environment other than the marked one described above (11b).[39]

11. a. $v_{BE} \Leftrightarrow$ HAVE / $\text{Voice}_{\{D\},\ \varphi}$ _____
    b. $v_{BE} \Leftrightarrow$ BE / elsewhere

Myler (2016) proposes that the predication layer actively interacts with the Voice layer. In particular, he suggests that a thematic role introduced in the predication layer may not be satisfied by a DP merged in this layer. This "stray" theta-role is subject to what he calls *delayed gratification:* a head projected later in the derivation provides a syntactic position for the argument-DP that will satisfy this role. This is what Kastner (2017) terms *late saturation* (see also 5.2.).

The following section presents the author's evidence in favor of (11a). It also provides novel arguments from Greek HAVE-sentences (5.1.) supporting this hypothesis. Section 5.2. shows that BE in Greek employs a Voice head that is not syntactically transitive. Hence, it partially supports Myler's assumption that BE is the elsewhere case (11b). Section 5.3. briefly refers to *iparxo* and *vriskome* as cases of more "contentful copulas", while 5.4. summarizes the discussion.

5.1. HAVE as the transitive copula

Myler (2016:336) claims that HAVE-sentences are not unaccusative but transitive. He argues for this based on evidence from (a) passivizability, (b) *-able* affixation availability, (c) contrasts with raising verbs, and (d) assignment of Genitive of Negation in Polish.

In short, he demonstrates that although the literature has accepted an across-the-board prohibition of English passive *have*-sentences, there are attested examples

[39] Under this view, Voice appears as a factor conditioning suppletion downward. The suppletion of copulas may also be determined upward, e.g., by the status of v's complement. For instance, Myler (2018) shows that the complement of v determines the *ser/estar* distinction in Spanish.

of the alleged prohibited constructions. He observes that once the complement of *have* is an event-denoting DP, passivization is licit. The examples he cites are the following (Myler 2016: 338):

12. a. A terrible fight was had at that street corner.
    b. A thorough discussion needs to be had before we proceed.
    c. A debate was had to resolve the issue.
    d. He's unlikely to leave while there's still fun to be had.

He then adds that the non-passivizability of relational *have*-sentences (13) results from a semantic mismatch between the requirements of the Passive Voice head and the denotation of the Voice head in this type of sentence. Building on Bruening (2013), he proposes that Passive Voice in English combines with a Voice head that denotes a function from a set of individuals to a function from a set of eventualities to truth values. The Voice head projected in relational *have*-sentences is not of this type. VoiceP in relational-HAVE sentences denotes a function from a set of individuals to a function from a second set of individuals to a function from eventualities to truth values; hence it cannot combine with Passive Voice.

13. * {a sister/a Playstation 3/red hair} was had by John.

The passivization of HAVE is, in general, a rare phenomenon cross-linguistically. However, Piotrowska (2021) recently offered Swedish, Danish, and Norwegian examples showing that HAVE is passivizable even in its relational use. The example in (14) demonstrates a passive HAVE-sentence in Swedish interpreted as an impersonal possessive construction with a non-referential subject.

14. *Swedish* (Teleman & Hellberg & Andersson 2010: 366)
    a. Ha-s det barn?
       have-PASS FORM.SBJ children
       'Does one have children?'
    b. Det bör hava-s i åtanke […]
       FORM.SBJ should have-PASS in mind
       'One should have in mind […]'

Interestingly, although the relevant constructions are marginal, HAVE-sentences in Danish (15) and Norwegian (16) are passivized even in their existential use.

15. *Danish* (Herslund & Baron 2001: 6)
    Røget fisk hav-es.
    smoked fish have-PASS

'Smoked fish for sale'

16. *Norwegian* (Faarlund & Lie & Vannebo 1997: 514)
Fersk fisk ha-s på lager
fresh fish have-PASS in stock
'Fresh fish in stock'

These examples suggest that the prediction yielded under any assumption that takes HAVE to be transitive is borne out, as cross-linguistically passivization becomes available for most uses of HAVE.

Second, Myler (ibid) argues that if *have* was not transitive, it could not form -*able* adjectives, at least in the absence of the reversive *un*- (Oltra-Massuet 2013; Wood & Sigurðsson 2014; Alexiadou 2018). In other words, if *have* was unaccusative, *haveable* should be *unhaveable*. However, he finds attested examples of the formation *haveable*. He cites the following:

17. ...the thesis can be defended that the addiction to the *haveable*, which characterizes the affluence variety of externalization, is reinforced not only by...

Third, the author holds that if HAVE-sentences involved Raising, as the 'BE + P' analysis predicted, the idiomatic readings available in a possessed DP would be retained in the sentence since HAVE-sentences are built on top of possessed DPs. However, this prediction is not borne out, as shown in (18) (Myler 2016: 339):[40]

18. a. the cat's pyjamas = 'the feline's sleepwear'/'something outstanding'
b. the pyjamas that the cat has = 'the feline's sleepwear'/'*something outstanding'
c. The cat has pyjamas. = 'the feline has sleepwear'/'*this is outstanding'

In his argumentation against the hypothesis that HAVE-sentences involve Raising, the author brings as additional evidence the fact that the case marking on Imbabura Quechuan nominalized clauses dependent on a SEEM-verb is not the same as the case marking on clauses embedded under HAVE. Specifically, although a SEEM-verb does not assign accusative case to its nominalized clause complement (19), the HAVE-verb does (20) (Myler 2016: 341).

[40] The same is observed for Greek in 8.3. However, my explanation for this phenomenon does not follow Myler's reasoning.

19. *Imbabura Quechua* (Hermon 2001: 160)
kan$_i$-ka [t$_i$ puñu-naya-y] *-*ta* yari-ø-ngi
you-TOP t$_{you}$ sleep-IMPULS-INF-ACC seem-PRS-2SBJ
'You seem to want to sleep.'

20. *Imbabura Quechua* (Cole 1982: 94)
Juzi iskay kaballu-*ta* chari-ø-n.
Jose two horse-ACC HAVE-PRS-3SBJ
'Jose has two horses.'

Finally, Myler (ibid) cites examples from Polish provided by Błaszczak (2007) that further support the transitivity of HAVE (21). Specifically, he points out that the Genitive of Negation in Polish is assigned only to direct objects of transitive verbs. This contrasts with Russian, where the same type of Genitive also appears on deep subjects. Then, he argues that since the post-verbal (possessee) nominal is marked for Genitive under negation in Polish, it is the object of a transitive verb.

21. *Polish* (Błaszczak 2007: 325, ex. 4.23).
a. Samochód ma silnik.
car.NOM has engine.ACC
'The car has an engine.'
b. Samochód nie ma silnik-*(a).
car.NOM NEG has engine-GEN
'The car does not have an engine.'

In this work, I will argue that Greek offers some additional arguments supporting the claim that HAVE-sentences are syntactically transitive in the sense that their structure includes a Voice head with an argument in its specifier position. Section 5.1.1. gathers the arguments provided by *exo*-sentences, while 5.1.2. turns the focus to *exi*-existentials.

5.1.1. *Exo*-sentences

This section summarizes how Greek *exo*-sentences provide evidence for the transitivity of HAVE. Specifically, I argue that whenever *exo* appears with an overt nominative subject, it merges under a syntactically *and* semantically transitive Voice head, i.e., a Voice head that introduces a thematic argument of the verb and a position for it, namely its specifier.

The first piece of evidence that HAVE, and *exo* specifically, is syntactically transitive comes from the fact that there are "clear transitive" uses of it. This means that the copula appears in the 'nominative subject-accusative object' frame that signals transitive syntax in the language. Besides possessives, which are discussed next, Greek uses the so-called *experiencer HAVE*-sentences (22). In this type of sentence, the nominative subject bears the role of the experiencer of the situation described in the dependent clause (see Belvin 1996, Belvin & den Dikken 1997, and Harley 1997; 1998). The same kind of sentence is used in English, among other languages (Myler 2016: 285) (see the interpretation in 22). Crucially, the clausal complement is necessary for this reading.

22. O Janis ixe to sinoðiɣo na tu milai sti ðiaðromi.
the John.NOM HAVE.PST.3SG the co-driver.ACC to him talk.3SG at.the trip
'John had the co-driver talking to him during the trip.'

Even though the status of experiencers is controversial, the subject-experiencer in the above case is in direct parallel with the subject-experiencers of Belletti & Rizzi's 1988) Class I psych verbs for which there is a consensus in the literature. Class I verbs are unambiguously stative and behave like transitive predicates (Hale & Keyser 2002). Implementing the work of Belletti & Rizzi (1988), Pesetsky (1995), and Anagnostopoulou (1999) within a de-compositional model stemming from Kratzer (1996), this type of experiencer is a version of a state holder, introduced by a (stative) Voice head and assigned to the DP that occupies its specifier position in the configuration presented in (23).[41] This implies that this Voice head is syntactically and semantically transitive because it introduces a specifier position and assigns a thematic role to it accordingly (Schäfer 2008; Wood 2015).

23. $[_{TP}$ T $[_{VoiceP}$ DP Voice [vP]]]

Crucially, the experiencer subject is compatible with modification by the adverb *skopima/epitiðes* 'deliberately' and controls a purpose clause (24a). This suggests for Alexiadou et al. (2015) that it collects agentive properties, which are typically associated with an argument introduced by Voice.

24. a. O Janis$_i$ ixe skopima to sinoðiɣo$_k$ na tu$_i$ milai$_k$
the John.NOM HAVE.PST.3SG deliberately the co-driver.ACC to him talk.3SG

[41] See Verhoeven (2010), Alexiadou & Iordăchioaia (2014), and Alexiadou (2018), among others, for an excursus on how Voice introduces experiencers in psych verbs.

(ja na ton$_i$ kratai$_k$ ksipnjo sti ðiaðromi).
in.order to him keep awake at.the trip
'John had deliberately the co-driver talking to him (to keep him awake during the trip).'

b. O Janis$_i$ ixe skopima to skilo$_k$ tu$_i$ na trexi$_k$
the John.NOM HAVE.PST.3SG deliberately the dog.ACC his to run.3SG
(ja na ton$_k$ kurasi$_i$).
in.order to him tire.ACT.3SG
'John deliberately had his dog running (to tire him up).'

This also means that a raising (ECM) analysis according to which the experiencer would be introduced inside the purpose clause or the complement clause and then raised to the subject position of the matrix clause cannot be maintained. The subject *O Janis* 'John' can only be an intentional experiencer/holder of the state. He is neither the subject of *milai* 'talks' or *kratai* 'keep' in (24a) nor *trexi* 'runs' (24b).

Anagnostopoulou & Sevdali (2021) provide a supplementary argument for the same hypothesis. This argument is based on the case pattern in sentences like (22,24). The authors explain that, generally, Greek experiencers are not introduced only by Voice. They are most often introduced by a High Applicative (v_{APPL}). When this happens, they get assigned either dative (morphological genitive) or nominative case. However, introduced-by-v_{APPL} experiencers receive nominative case only if they do *not* have a theme object. Thus, based on their assumptions, it can be argued that the nominative in (22,24) is not the case of an experiencer introduced by v_{APPL} because the verb has the DP *to sinoðiyo* (22,24a) or *to skilo* (24b) as a theme object. We must assume, then, that Voice is present and introduces this type of experiencer.

Apart from the interpretation of the experiencer, the nominative subject of *exo* can be interpreted as a possessor. Numerous examples of this have been presented in Chapter 3. One of them is repeated below.

25. O Janis exi amaksi.
the John.NOM HAVE.3SG car.SG.ACC
'John has a car.'

Interestingly, although described solely as 'the possessor', the nominative subject has great flexibility in its interpretations. The possessor may be more or less agentive, intentional, or in control of the state. These are all characteristics associated with the external argument introduced by Voice, as per Kratzer (1996). The licensing of the adverb *skopima/epitiðes* 'deliberately' and the ability to control a purpose clause,

which are available when the possessor is [+human], (26) are indicative of these characteristics.

26. O Janis exi skopima/epitiðes amaksi (ja na pijeni sti ðulja).
the John.NOM HAVE.3SG deliberately car.ACC in.order to go.3SG to.the work
'John deliberately has a car (to go to work).'

Although the above criteria confirm the projection of Voice, *exo*-sentences do not constitute the most prototypical examples of transitive sentences.

Very early in linguistic research, it was proposed that transitivity is a scalar notion that can be decomposed into several parameters. The more parameters a situation meets, the more transitive it is (see Hopper & Thompson 1980; Tsunoda 1985; Tenny 1987; Torrego 2002). The table in (27) summarizes the parameters Hopper & Thompson (1980) put forth.

27. The parameters delineating transitivity by Hopper & Thompson (1980)

	Transitivity ← High	→ Low
A. Participants	2 *or more participants, A and O**	1 participant
B. Kinesis	Action	Non-action
C. Aspect	Telic	Atelic
D. Punctuality	Punctual	Non-punctual
E. Volitionality	Volitional	Non-volitional
F. Affirmation	Affirmative	Negative
G. Mode	Realis	Irrealis
H. Agency	A high in potency	A low in potency
I. Affectedness of O	O totally affected	O not affected
J. Individuation of O	O highly individuated	O non-individuated

**A=agent, O=object*

Cruschina (2015) considers that possessive HAVE-sentences are generally close to the low-transitivity end as the situation they describe gathers more properties appearing in the right column of the table above. However, when animate entities become involved in the situation, transitivity increases as, at least, volitionality and agency emerge as part of their nature. Besides, the literature agrees that "volitional involvement corresponds to control in a situation, and this is a prerequisite for agenthood" (Verhoeven 2010: 223) (see also Dowty 1991; Primus 2002).

Interestingly, the view of transitivity as a scalar notion illuminates why plain HAVE-sentences with non-animate entities can accommodate Figure-Ground pairs that are only in a part-whole relationship. As mentioned in Chapter 4, the wholes are conceived of as controlling their parts. This means they exhibit agentive properties only when involved in a situation along with their parts. A plain HAVE-sentence (28a) captures this situation. In the same chapter, it was presented that if a non-animate entity comes related to a second non-animate entity that does not constitute an integral part, a locative-HAVE sentence must be used instead (28b).

28. a. To trapezi exi tesera poðja.
the table.SG.NOM HAVE.3SG four leg.PL.ACC
'The table has four legs.'
b. To trapezi$_i$ exi ena vivlio/stilo *(pano tu$_i$).
the table.SG.NOM HAVE.3SG a book/pen.SG.ACC on it
'The table has a book/pen on it.'

This distribution confirms that the subject of HAVE must gather some "agentive properties" (e.g., intentionality, control) either by nature or via its relationship with the object. When this restriction is combined with the fact that the experiencer role is an alternative interpretation of *exo*'s subject, we face a set of interpretations that are prototypically related to external arguments introduced by Voice.[42] Three more arguments support the claim that Voice introduces the subject of HAVE-sentences.

---

[42] Causative *have*-sentences in English (i) add to the possible readings of the subject of HAVE the role of the intentional causer, a role also related to Voice (see Copley & Harley 2009; Alexiadou et al. 2015, cf. Brunson & Cowper 1992 for a topic-related analysis of these sentences):

i. a. The article had me angry at the government/weeping in fury.
b. Superman has the bad guy pinned to the floor/begging for mercy. (Myler 2016: 281)

As the same type of sentence is also attested in Greek (ii), the range of roles available to *exo's* subject gets even closer to those assigned to external arguments introduced by Voice (see Kampanarou to app. for more details):

The first is the behavior of HAVE-sentences under modals. Hackl (1998) notes that verbal passives, which arguably have an external argument that stays implicit, are acceptable under an ability modal, while stative or adjectival passives, which lack such an argument, are not. Alexiadou (2018) extends this criterion to object-experiencer verbs. This criterion predicts that predicates with external arguments should be acceptable under an ability modal. This prediction is indeed borne out in HAVE-sentences as presented below.

To illustrate this, consider first that according to Giannakidou & Staraki (2013), Greek distinguishes lexically between two types of modals. The language uses the impersonal *bori* as an epistemic possibility modal, i.e., similar to English *might,* and personal *boro,* which is never epistemic, as an expression of ability or deontic modality. Therefore, the criterion tailored for Greek predicts that a verb has an external argument once it is acceptable under personal *boro* in its reading as an ability modal. The behavior of Greek *exo*-sentences in (29) indicates that they do have an external argument:

29. a. O Janis ke i Maria borun na exun ðio amaksja. I misθi tus ine kali.
the John and the Mary can.3PL to HAVE.3PL two car.PL.ACC the wages their are high
'John and Mary can possess two cars because their wages are high.'

b. O Janis bori na exi poles ðieθnis ɣnorimies.
the John.NOM can.3SG to HAVE.3SG many international acquaintance.PL.ACC
Duleve sto eksoteriko ðekapede xronja.
work.PST.3SG at.the abroad fifteen years
'John can have an international network because he had a job abroad for 15 years.'

Furthermore, the fact that a *by*-phase introduces the possessor in the nominalization of the verb also suggests that it is an external argument. For reasons explained in 6.3.1., the copula is nominalized by the prefixed form *kat-oxi* rather than plain **oxi* 'lit. *hav-ion'. As presented in (30a), the possessor cannot appear in genitive, i.e., as the internal argument of the nominalization. Only the possessee can. The possessor can only be introduced by an *apo*-phrase, the Greek equivalent of a *by*-phrase (30b). This implies that the possessor is introduced by Voice as *by*-phrases capture

---

(ii) I Maria ixe skopima to Jani na skupizi
the.SG .NOM Mary.NOM HAVE.PST.3SG deliberately the.SG.ACC John.ACC to sweep.3SG
tin avli ja na sfugarisi ekini meta.
the.SG.ACC backyard.SG.ACC in.order to mop.3SG she.NOM later
'Mary deliberately had John sweeping the backyard, so she mops it up later.'

(Bruening 2013; Alexiadou et al. 2015) or introduce (Collins 2005; Angelopoulos et al. 2020) such arguments.

30. a. i kat-ox-i katikias /* ton neon
the.SG.NOM PREF-HAVE -SG.NOM residence.SG.GEN the.PL.GEN youngster.PL.GEN
lit. 'the possession of a residence/*of the youngsters'
b. i kat-ox-i katikias apo tus neus
the.SG.NOM PREF-HAVE -SG.NOM residence.SG.GEN by the.PL.ACC youngster.PL.ACC
lit. 'the possession of a residence by the youngsters'

Finally, the fact that the verb surfaces with Active Voice morphology indicates not only that the subject appears in [Spec, VoiceP] but also that it is externally merged in this position.

To give some background, it is widely accepted in the literature that morphological Active Voice (henceforth *Act*) in Greek is assigned either in the absence of the syntactic projection of Voice (i.e., in unaccusative verbs) or in the presence of a φ-featured item in [Spec, VoiceP]. Building on Embick (1998) and much subsequent work, Alexiadou et al. (2015) hold specifically that Act in Greek appears either as default in the absence of a syntactic projection of Voice (31a) or when a regular (i.e., thematic and non-expletive) Active Voice appears (31b). In contrast, non-Active Voice morphology (henceforth *NAct*) appears when a Voice head with no specifier (marked as '{-D}') is projected (31c).

31.

Syntactic structure	*Voice morphology*
a. [vP [ResultP √__]]	*active*
b. [VoiceP DP [vP [ResultP √__]]]	*active*
c. [MiddleVoiceP {-D} NAct [vP [ResultP √__]]]	*non-active*

The condition that determines NAct is captured by the rule in (32), proposed by the same authors. This rule outlines that the syntactic head of Voice is instantiated by NAct whenever it lacks a specifier. As extensively argued in the literature, Greek is a language in which NAct is highly syncretic as it is used for reflexives, reciprocals, anticausatives, middles, deponents, and passives (Philippaki-Warburton 1970; 1975; Tsimpli 1989; 2006; Manney 2000; Zombolou 2004; Alexiadou & Doron 2012; Oikonomou & Alexiadou 2022, i.a.). In this system, the non-Active version of the Voice head is most appropriately described as *Middle Voice* (see more in 5.2.).

32. Voice → NAct/____ (no specifier).

Turning our focus back to Active Voice, Oikonomou (2011) is more specific on (31b) and claims that if Voice is projected, only external merge to its specifier position can lead to Act. Since (a) as concluded above, HAVE-sentences do project Voice and (b) at least in Greek, they have Act marking, we must postulate external merge of the nominative subject to [Spec, VoiceP]. Notably, it is the Voice system of Greek that implies the obligation for external merge. Other languages may fill the same position via internal merge (see, for instance, Szabolcsi's 1981; 1983 seminal hypothesis on the 'possessor that ran away from home' (see also 8.1.). The fact that *exi*-sentences also surface with Act supports this analysis further (5.1.2.2.).

In summary, this section accumulated empirical evidence from Greek supporting the hypothesis that HAVE-sentences have a transitive Voice head in their syntax. Specifically, it has been argued that they involve a semantically and syntactically transitive Voice head that introduces the experiencer/possessor subject. Arguments for this claim were drawn from (a) the nominative-accusative case pattern, particularly in experiencer HAVE-sentences in Greek, (b) the availability of modification by the adverb *skopima/epitiðes* 'deliberately', and (c) the ability of the subject to control a purpose clause, in combination with (d) the existence of agentive-related restrictions on the subject; animates or wholes iff their parts are the possessees, (e) the compatibility of the sentences with ability modals, (f) the fact that the possessor appears in a *by*-phrase in the nominalization of the sentence, and (g) Active Voice morphology on the copula.

The following section presents additional arguments favoring this analysis based on the case pattern and the morphology of existential HAVE-sentences in Greek.

5.1.2. *Exi*-sentences

This section focuses on existential *exi-sentences*. It shows that the invariable form of *exi* and the accusative case marking on the pivot nominal presents evidence for the postulation of an expletive *pro* (5.1.2.1.). Moreover, it is argued that this null pronoun must be inserted in [Spec, VoiceP] to explain why the copula surfaces with Active Voice morphology (5.1.2.2.). This corroborates the claim that HAVE is transitive, even in *exi*-sentences.

5.1.2.1. Case Assignment and Agreement

The first property identified in Chapter 2 was a case asymmetry between *exi*-sentences and *ime*- and *ɟparxo*-sentences. The nominal is marked for accusative case

only in the former sentence type, while it bears nominative in the latter group of constructions. In addition, the verb *exi* appears invariant, marked only for third person singular, non-agreeing with the pivot nominal, unlike the other verbal items.

Initially, it is essential to clarify that Greek is not unique in exhibiting an existential construction with a non-agreeing HAVE copula, as this pattern is recurrent within the Romance family. Bentley et al. (2013) and Cruschina (2015) point out that whenever a Romance language uses the HAVE-copula in existentials, the nominal is marked for accusative, and the verb appears in an invariant form, non-agreeing with this nominal. French and Spanish offer examples of this distribution in Romance (see also Appendix 2 for Brazilian Portuguese); in (33), the verbal item retains a third-person singular marking even though the unique nominal argument of the sentence is plural.

33. a. *French*

Il y a des livres sur la table.
EXP PF HAVE.3SG some book.PL on the table
'There are some books on the table.'

b. *Spanish* (Cruschina 2015: 35)

Ha-y unos libros sobre la mesa.
HAVE.3SG-PF some book.PL on the table
'There are some books on the table.'

The overt expletive *il* in French (33a) is considered responsible for the verb's subject-agreement marking. In languages where no such expletive is overt, a covert one is assumed to explain why the verb appears invariable and non-agreeing with the post-verbal nominal. Arguably, such a covert expletive must also be postulated for Greek to account for the invariable form of *exi* (Philippaki-Warburton 1970; Iatridou & Embick 1997; Alexiadou & Anagnostopoulou 1998).

Note that accusative-case marking on the unique nominal argument of a sentence is also attested outside the context of existentials in Icelandic. The so-called 'stray accusative' or 'fate' constructions, as named by Haider (2001) and Sigurdsson (2006), respectively, are part of a transitivity alternation. In this language, there are verbs that, in their transitive use, mark their objects with accusative (34a). However, when the same verbs appear in what looks like an intransitive (anticausative) use, the unique argument of the construction still surfaces with accusative giving rise to a 'stray accusative' construction (34b).

34. *Icelandic* (Sigurdsson 2006: 23, ex. 28)

a. Stormurinn rak batinn a land.
the.storm.NOM drove the.boat.ACC on land
'The storm drove the boat onto land.'

b. Batinn rak a land.
the.boat.ACC drove on land
'The boat drifted onto land.'

Schäfer (2008), who discusses the examples above, analyzes them as the covert version of German *es*-constructions like the ones in (35).

35. *German* (Schäfer 2008: 283, ex.45)

als es den Mann ins Lokal trieb.
when EXP.NOM the.ACC man.ACC in.the bar drove
'When (it happened and) a man drove into the bar.'

For Schäfer (ibid), *es* in German is a "defective" expletive, i.e., an expletive with reduced φ-features that cannot be questioned or focused but can be merged as an external argument. The covert version of this expletive, i.e., what Haider (2001; 2019) labels a *quasi-argument*, occupies the same position as *es* in Icelandic. Likewise, Wood (2017) argues that a covert clitic-like element, also used in weather-verbs, constitutes the external argument in Icelandic 'stray-accusative'-constructions. For the researchers, the presence of *es* in German and the quasi-argument/clitic in Icelandic is obligatory for case reasons (among other reasons). To see whether such a hypothesis can be maintained for Greek, we should start by considering how Case is assigned in this language.

Anagnostopoulou & Sevdali (2020) argue that accusative in Greek qualifies as a dependent case following Marantz (1991) and Baker (2015).[43] Specifically, it is assigned under the rule in (36) (Anagnostopoulou & Sevdali 2020: 1026, ex.80):

---

[43] Given that the framework of Dependent Case deviates from more traditional assumptions that consider Case-assigning heads and agreement processes (Chomsky 2000), I present it in brief here. According to Marantz (1991), the Case assignment mechanism is based on a disjunctive hierarchy, distinct from traditional Case hierarchies that sort cases in a functional sequence depending on syncretism (see Caha 2009) or adjacency patterns (see Bobaljik 2008; McFadden 2018). He argues that cases are determined based on the hierarchy in (i) which suggests that the more specific the case, the higher its position. More specific cases overpower the less specific ones in the sense that when two types of cases compete, the case on top is ultimately assigned to the item in question.

i. a. Lexically governed case (determined by lexical properties of particular items, Vs or Ps)
b. Dependent case (accusative and ergative)

36. If DP_1 c-commands DP_2 in TP, then assign U (accusative) to DP_2.

In addition to the above, Alexiadou & Anagnostopoulou (2021) contend that nominative behaves like the unmarked case in the TP domain and is not assigned under agreement with T. However, agreement always goes with nominative when both nominative and accusative are present, as reported at least as early as Philippaki-Warburton (1970).

Subsequently, the fact that the post-verbal nominal in *exi*-sentences is marked for accusative (37) presupposes that there is a higher constituent that acts as a case competitor. More specifically, as the rule in (36) suggests, the latter must appear within the TP domain in a c-commanding position.

37. a. Exi ena vivlio sto trapezi.
HAVE.3SG a book.ACC on.the table
'There is a book on the table.'
b. Exi pexniðja sto patoma.
HAVE.3SG toy.PL.ACC on.the floor
'There are toys on the floor.'

Out of all the overt items, the only potential case competitor would be the locative prepositional phrase since it is the sole constituent that includes a case-marked item, i.e., a determiner phrase (DP) like *to trapezi* 'the table' in (37a) or *to patoma* 'the

---

c. Unmarked/Environment-sensitive case (nominative or absolutive in the clause; genitive in the noun phrase)
d. Default case (assigned to noun phrases not otherwise marked for case)

Two cases of the above hierarchy are relevant to our discussion: dependent and unmarked. On the one side, the dependent case is determined by syntactic configuration. Marantz (1991) proposes that a dependent case is assigned to an argument within a specific domain in opposition to a second argument higher or lower within the same domain that does not bear a lexical case. Accusative, in particular, is assigned in the clausal domain in opposition to another argument in a higher position. Conversely, the unmarked case cares only for the syntactic environment in which the argument appears, i.e., whether it appears within a TP or a DP domain. Nominative is considered the unmarked case in the clausal (TP) domain and genitive in the nominal (DP) domain.

Baker (2015) goes deeper into the language-specific implementation of Marantz's scheme. Specifically, he explores how this hierarchy is parametrized across languages and proposes a set of rules under which cases are assigned by putting together these language-specific characteristics. His rules are phrased similarly to the one presented in (36).

floor' in (37b). However, as mentioned in Chapter 2, an adverb could easily replace the prepositional phrase (38).

38. Exi ena vivlio eki pera.
HAVE.3SG a book.SG.NOM there over
'There is a book over there.'

In the presence of the adverb, the pivot nominal is still marked for accusative case. Hence it is not the locative constituent that provides the competitor for the dependent accusative (see Anagnostopoulou & Sevdali 2020 for ample evidence that PPs do not count as case competitors in Greek, similarly to many languages). In fact, Baker (2015: 185) extensively argues that PPs do not generally qualify as competitors for the dependent case algorithm. The author attributes this to the preposition delineating a phase that makes the DP that follows it inaccessible to case assignment processes.

This means there is no overt case competitor for the accusative pivot in *exi*-sentences. Thus, a covert (phonetically null) item of a (pro)nominal status that acts as a case competitor must be assumed instead. The (pro)nominal status is mandatory so the item can be case marked.

The data from Icelandic and German above hint that this item is an expletive. Additional cross-linguistic evidence regarding locational constructions corroborates this assumption. In particular, Francez (2007) argues that expletives are not universally available, i.e., they are not available cross-linguistically. However, when a language has them, they are mandatory in the context of existentials (see also Chapter 2, ft.18). This means that they are obligatorily used to mark the different functions among locational sentences, e.g., between existentials and locatives. As illustrated in the examples below, expletives are used in both BE- (39a) and HAVE- (39b) sentences (see also 33).

39. a. There is a man at the door.
b. *Catalan* (Leonetti 2008)
Hi ha la policia al pati.
$\text{there}_{\text{EXP}}$ HAVE.3SG the police in.the courtyard
'There are the police in the courtyard.'

Greek is a language with no overt expletives but has an expletive *pro* in its inventory (see Iatridou & Embick 1997). In the seminal work of Rizzi (1986), expletive *pro* is the

emptiest null pronoun as it bears no theta-role and no features that need to be checked (see also Haider 2019).[44]

Though Rizzi assumes that such a null pronoun exists in all VS(O) orders, Alexiadou & Anagnostopoulou (1998) convincingly argue that this does not hold for VS(O) orders in Null-Subject languages, including Greek. In this paper, the authors put forward a parametric difference in the EPP-feature checking between English-type languages and Greek-type languages: English must have a DP moved to [Spec, TP] to check this feature, while Greek need not; EPP in the latter case is checked through the V-to-T-movement, and this suffices because the verb bears morphological marking for person and number. Thus, an expletive *pro* cannot be postulated for unaccusative verbs in Greek. In the same paper, the authors introduce a second parameter that creates a sub-division within English-type and Greek-type languages. This parameter refers to licensing [Spec, TP] as an A- or an A'-position. That is, languages are further differentiated depending on whether their [Spec, TP] position is a place for derived subjects (see also Biberauer 2009).

An argument used by the authors to corroborate the first parameter is a difference in the Definiteness effects: English unaccusatives exhibit such an effect, while Greek unaccusatives do not. The case of existentials, though, differs as both languages exhibit the same DE. This suggests that the DE in existentials (a) is different from the DE in unaccusatives and probably semantic, as they say, and (b) the semantic DE found in existentials when combined with the fact that the pivot nominal is marked for accusative case *is* indicative of an expletive *pro* (Fischer 2013 provides evidence from Romance languages supporting the same conclusion).

Crucially for Alexiadou & Anagnostopoulou (1998), the DE in existentials alone is not sufficient evidence for the existence of *pro*. The case of the nominal must also be taken into account. This part of their analysis entails that the presence of DE effects is an argument for the existence of *pro* only in *exi*-sentences; since the pivot nominal in *ime*- and *iparxo*-existentials is marked for nominative, no expletive *pro* needs to be assumed.

Subsequently, based on the discussion above, an expletive *pro* must be assumed (a) to account for the invariable form *exi,* (b) to account for the Definiteness effect in existentials, according to Alexiadou & Anagnostopoulou (1998), and (c) to act as a case competitor for the accusative. The structure of an *exi*-sentence should be as in (40).

[44] See Levin & Krejci (2019) for the view that as this empty pronoun does not have any thematic relation to the verb, it differs from the *pro* found in weather verbs.

40. $_{TP}$[*pro*$_{DP1}$ exi [vivlia$_{DP2}$ [sto trapezi]]]

Note that if *pro* is the highest argument in the TP domain, and since there are no overt arguments in the sentence, it is assigned the unmarked nominative case. Then, as Alexiadou & Anagnostopoulou (2021) argue, it controls agreement. As expletive *pro* yields default agreement, which is always manifested as third person singular marking (Iatridou & Embick 1997), the verb *exo* always appears as *exi,* i.e., third person singular.[45]

Given the hypothesis that [Spec, TP] cannot host subjects in Greek, I will assume that *pro* is inserted in the VoiceP domain and remains there. Under the assumption that (a) there are not multiple HAVEs, and (b) in all its other guises, HAVE includes a transitive Voice head, I will postulate Voice in *exi*-existentials too.

Along these lines, the accusative case on the pivot and the agreement pattern provide indirect evidence for the transitivity of HAVE, even in its use in *exi*-sentences. In Appendix 2, I consider Brazilian Portuguese as an instance of a language where the pivot nominal in HAVE-existentials surfaces in the nominative. I argue that this distribution does not contradict the hypothesis that HAVE is always transitive.

---

[45] An alternative to the postulation of expletive *pro* is the assumption that the φ-features on the verb suffice as a case competitor for the accusative case as they can also determine the person and number marking on the verb. This remark is confirmed by examples like (i), which show that even when a referential subject is dropped, the verb and the object in Greek retain their morphological marking.

i. (I Maria) pini kafe.
the Mary.NOM drink.3SG coffee.SG.ACC
'Mary drinks coffee.'

However, the situation in *exi*-existentials differs as the verb exhibits invariant agreement, i.e., it surfaces only with a third-person singular marking. At the same time, a verb agreeing with a dropped subject can also bear first- and second-person marking:

ii. (Ego/Esi) pino/pinis kafe.
1SG/2SG.NOM drink.1SG/2SG coffee.SG.ACC
'I/You drink coffee.'

Furthermore, if φ-features were to replace *pro* in this proposal, they should acquire the status of an A'-constituent to explain the active Voice morphology on *exi* (see 5.1.2.2); under this consideration, φ-features should appear specifically in [Spec, VoiceP]. Following Déchaine & Wiltschko's (2002) typology, this would make the external argument of *exi*-sentences a *pro-φP* (see also Wood 2014 on the deficient pronoun marked as 'φP' in Icelandic, and Alexiadou & Carvalho 2017 on 'uφ' in languages like Finnish). Therefore, provided that even if φ-features were involved in these constructions, they would appear as a deficient pronoun, the notation of 'pro' in *exi*-sentences is retained throughout this dissertation.

The following section further supports HAVE's transitivity by focusing on the fact that although *exi*-sentences are impersonal, they surface with Active Voice morphology.

5.1.2.2. Active Voice morphology

Recall that based on the rules proposed by Alexiadou et al. (2015) and their specification by Oikonomou (2011), Active Voice morphology (Act) in Greek appears either in the absence of Voice or if Voice is projected and an item externally merges to its specifier position. The fact that the copula in *exi*-sentences bears Act while the pivot nominal surfaces with accusative-case marking indicates that Voice is present and [Spec, VoiceP] hosts *pro*.

To argue for the presence of Voice in *exi*-existentials, consider that *pro,* which is independently required for case and agreement reasons, needs an insertion position.

On the one hand, the TP cannot be the domain in which *pro* is introduced. Recall that Alexiadou & Anagnostopoulou (1998) propose that [Spec, TP] in Greek is an A'-position, i.e., a place for derived, not first-merged subjects (see also Kotzoglou 2013).

Moreover, similar subject expletives like German *es* and the expletive *quasi argument* in Icelandic, as well as French *il*, that are *not* of a locative nature (like English *there,* French *y,* Italian *ci,* etc.*)* are not argued to be inserted in [Spec, TP]. Haider (2001; 2019), Czinglar (2002), Sigurdsson (2006), Schäfer (2008), and Wood (2017) for Germanic, as well as Longa et al. (1998) and Bentley (2013) for Romance agree that these expletives constitute external arguments of the verbs. In a Kratzerian view of the verbal structure, they are inserted in [Spec, VoiceP] (see more in Section 6.4.4.).

Last, assuming phase theories derived from Chomsky (2000), *pro* must be merged before the spell-out as it determines the case and, arguably, the Voice morphology of the verb. As Voice constitutes a phase sent to spell-out (Alexiadou et al. 2015: 111-112, ft 19, 21), *pro* must be merged in this position and not late inserted (see Embick 2010; Bobaljik 2012).

On the other hand, we can neither assume that *pro* is merged in the vP-domain because assuming a de-compositional analysis of the verbal phrase means that v is separate from Voice and unrelated to argument structure. Alexiadou et al. (2015) and Panagiotidis et al. (2017) argue extensively for this, particularly for Greek.

Furthermore, Alexiadou & Anagnostopoulou (1998) show that, based on the distribution of adverbials, the verb's external argument (including *pro*) is introduced in a position higher than the lexical projection of the verb, i.e., VP or vP. Thus, [Spec, VoiceP] needs to be assumed to host the expletive *pro*.

The presence of Voice in HAVE-based existentials is also supported by cross-linguistic evidence. The Danish and Norwegian examples presented in (15) and (16), repeated below in (41) and (42), show that HAVE-existentials are passivizable as typical transitive verbs. This suggests they include Voice and are subject to a Voice alternation process.

41. *Danish* (Herslund & Baron 2001: 6)
Røget fisk hav-es.
smoked fish HAVE-PASS
'Smoked fish for sale'

42. *Norwegian* (Faarlund et al. 1997: 514)
Fersk fisk ha-s på lager
fresh fish HAVE-PASS in stock
'Fresh fish in stock'

Bringing our focus back to the Greek sentences, it is worth noticing, however, that there is no sign of a Voice head with semantic import as the criteria that diagnose the presence of a thematic Voice head in the sense of Schäfer (2008) fail. For instance, the adverbial material that identifies the semantic import of Voice is unacceptable (43). This means that expletive *pro* does not receive a thematic role, i.e., it is not thematically integrated and is merged as a true expletive.

43. *Exi skopima peđja sto parko.
HAVE.3SG deliberately kid.PL.ACC at.the park
int. 'There are deliberately kids at the park.'

Therefore, a Voice head must be assumed for *exi*-sentences to provide a specifier position for expletive *pro*. Given the rules proposed by Alexiadou et al. (2015) and their specification by Oikonomou (2011), it is not the case that *pro might* be introduced in [Spec, VoiceP] but that it *must* be inserted there to lead to Active Voice morphology (Act). This item is suitable for this position as it bears the appropriate φ-features that transitive Voice requires.

Another way of understanding the merge of expletive *pro* is to view it as a strategy for making the construction impersonal.[46] This comes as an alternative to passivization. That is, the language opts for using the expletive null pronoun instead

[46] See Carnie & Harley (2000) and Afonso (2008) on how the use of existentials *per se* is a strategy for impersonalization.

of marking the structure as passive.[47] Recall that passive in Greek requires NAct. However, *exo* has a gap in its inflectional paradigm; it does not have a non-active form as **exome.* It, therefore, mandates the merge of a thematically inert null pronoun to take part in an impersonal construction while making use of its unique active forms.

Interestingly, though *exome* is not used in Modern Greek, it is attested in Ancient Greek. The verb was most frequently used as having a middle interpretation for geographical locations and landforms, as 'be close, border' (44).

44. *Ancient Greek* (Herodotus, *Histories* 2.158.2)

ἔχεται	δὲ	κατύπερθε	τοῦ	πεδίου	τὸ	κατὰ	Μέμφιν
ekhetai	de	katyperthe	to:	pedio:	to	kata	Memphin
HAVE.N.ACT.3SG PRT		from.above	the.GEN	plain.GEN	the.NOM	toward	Memphis.ACC
τεῖνον		ὄρος					
te:non		oros					
ascending.NEUT.NOM		mountain.NOM					

'and the mountain ascending towards Memphis extends its borders over the plain'

A genuine passive use of *exome* is presented below. In (45a), the verb surfaces with a nominative "possessee" (*αμφί λαοί, amfi laoi* 'both peoples') and a dative "possessor" (κωκυτῷ καί οἰμωγῇ, kɔ:ky:tɔ:i kai oimɔ:gɛ:i, 'by cry and weeping'). In (45b), the feminine participle of the same verb is preceded by a typical Ancient Greek *by*-phrase, which appears as an '*ὑπό, hypo* (by) + genitive' construct.

45. a. *Ancient Greek* (Homer, *Iliad* 22.408-409)

ἀμφὶ	δὲ	λαοὶ/	κωκυτῷ	τ'	εἴχοντο		καὶ
amfi	de	laoi/	kɔ:ky:t ɔ:i	t	eikhonto		kai
both	PRT	people.PL.NOM	cry.SG.DAT	and	HAVE.PST.IPFV.N.ACT.3PL		and
οἰμωγῇ		κατὰ	ἄστυ				
oimɔ:gɛ:i		kata	asty				
weeping.SG.DAT		in	city				

'...both peoples (nations) were seized by a cry and weeping in the city....'

[47] For Greek, it can be assumed that the non-passivizability of *exo* is part of a general restriction on passive Voice in this language. Alexiadou et al. (2015: 120–124) extensively argue that passive in this language is distinct from passive in English since it does not project as an individual head above Voice and is, therefore, sensitive to idiosyncratic restrictions on which verbs can be passivized. Passive in Greek is only one of the interpretations of the highly syncretic Middle Voice head (see also Philippaki-Warburton 1970; 1975; Tsimpli 1989; 2006; Manney 2000; Zombolou 2004; Alexiadou & Doron 2012; Oikonomou & Alexiadou 2022, i.a.).

b. *Ancient Greek* (Thucydides, *Historia* 7.57.8.1-2)

ἐκ Ναυπάκτου καὶ ἐκ Πύλου τότε ὑπ' Ἀθηναίων ἐχομένης
ek Naupakto: kai ek Pylo: tote hyp Athɛ:naiɔ:n ekhomenɛ:s
from Nafpaktos.GEN and from Pylos.GEN then by Athenians.GEN HAVE.PRTC.N.ACT
'...from Nafpaktos and Pylos, which was then wielded by the Athenians....'

Interestingly, the examples above come from two different stages of Greek; (45a) represents Homeric Greek (8th century BC), and (45b) represents Classical Greek (5th century BC). The passive use of the same verb in its possessive reading is also detected in a more recent stage of Greek in an anthology of ten formal discussions by Theodoret of Cyrus (or Cyrrhus) (5th century AD):

46. *Ancient Greek* (Theodoret of Cyr(r)hus, *De providentia orationes decem,* A, 823)

προκινδυνεύειν γὰρ, οὐ μόνον τῶν δεσποτῶν, ἀλλὰ καὶ τῶν
prokindynewe:n gar o: monon tɔ:n despotɔ:n alla kai tɔ:n
imperil.themselves.INF PART not only the.GEN.PL owners.GEN but and THE.GEN.PL

προβάτων ἀν ἔχονται, καὶ τῶν ποιμένων ὑπερμαχοῦσι
probatɔ:n an ekhontai kai tɔ:n poimenɔ:n hypermakho:si
sheep.GEN if HAVE.N.ACT.3PL and the.GEN.PL shepherds.GEN defend.3PL

'(the dogs) imperil themselves to defend not only their owners but also their sheep, if they have any (to guard), and the shepherds.'

Although the above[48] do not constitute examples of existential sentences, they provide diachronic evidence for the hypothesis that *exo* in Greek is transitive. In

[48] Note that non-Active Voice morphology in Ancient Greek present tense is generally ambiguous between a passive and a middle reading. Therefore, one could say that the Ancient Greek examples presented in this section are not necessarily passive. Although the presence of dative or '*ὑπό* (by) + genitive' external arguments constitute compelling pieces of evidence that these uses of *exome* are passive, I consider as further support the fact that the verb morphologically distinguishes the passive from the middle in future and perfective past, as is the case with any passivizable verb in Ancient Greek. *Exome* uses *σχεθήσομαι, skhethɛ:somai* for passive future and *ἐσχέθην eskhethɛ:n* for passive perfective past. Two forms of them are presented in the examples below. I thank Vassilis Spyropoulos (p.c.) for discussing Ancient Greek examples with me.

i. Neophytus inclusus, *Decem homiliae* 8.15.3

ποῦ δὲ καὶ ἡ μεγάλη ἄβυσσος τοῦ ἐλέους σχεθήσεται
po: de kai hɛ: megalɛ: abyssos to: eleo:s skhethɛ:setai
how PRT and the.NOM big.NOM abyss.NOM the.GEN mercy.GEN HAVE.PASS.FUT.3SG

earlier stages of the language, the verb was part of a Voice alternation, at least in its use as the possessive predicate. Lavidas (2009) shows that the loss of an alternating NAct form is not unique in the case of *exo*, as the Voice system of Greek underwent a more general diachronic change. In earlier stages of Greek, NAct was associated with changes in the meaning, while in present-day Greek, NAct is most commonly associated with blocking the accusative, although the existence of deponents in Greek suggest otherwise (see more in 5.2.).

Now, consider that Section 5.1.1. concluded that "clearly transitive" *exo*-sentences in Modern Greek have the overt nominative subject being externally merged in [Spec, VoiceP]. In this case, Voice is thematic because the subject is interpreted as an experiencer or a possessor. The diachronic evidence presented above also suggests that the passivization availability of *exo* got lost in the diachrony of the language. For this reason, Modern-day Greek opted for merging an expletive *pro* to construe an impersonal construction.

Therefore, it is shown that all (at least stative) uses of HAVE in Greek involve a Voice head that is syntactically transitive, i.e., it projects a specifier, while it may also be semantically transitive, i.e., thematic. This conclusion makes it possible to claim that there is no need to assume multiple HAVEs in the language and adopt the analysis proposed by Myler (2016; 2018): HAVE is root-less and realizes a meaningless variant of v, v_{BE}. It is a copula with no meaning on its own that acquires semantic content through its complement. The projection of a syntactically transitive Voice head is the only condition that causes HAVE to be the exponent of this head. Crucially, this view holds that the realization of v_{BE} is determined only by syntax and is indifferent to the semantics of Voice.

This claim provides partial support for Myler (ibid). To fully support his view, it must also be argued that BE qualifies as the suppletive allomorph (the elsewhere allomorph, in particular) of the same v_{BE} head. The following section tackles this issue and makes a narrower claim as it shows that Greek BE is the intransitive realization of this meaningless little v.

'… and how will the big abyss of mercy be gained/obtained….'

ii. Lucianus, *Lexiphanes* 11.10

μᾶλλον	δὲ	θεοσεχθρίᾳ	σχεθείς
ma:llon	de	theosekhthriai	skheth-eis
rather	PRT	god-irreverence.SG.DAT	HAVE.PASS.PRF.PST-PRTC.SG.M.NOM

'…rather possessed by hatred and irreverence towards Gods….'

5.2. BE as the intransitive copula

Although the presence of a transitive Voice in the case of *exo* is supported by various tests, the same criteria indicate that no such phrase is projected in the case of BE in Greek, namely in *ime*-sentences. In particular, the behavior of the sentences with respect to specific diagnostics suggests that there is no semantically and syntactically transitive Voice head.[49] However, the fact that *ime* in Greek surfaces only with NAct morphology implies that Voice is not absent altogether (as this would yield Act) but that there is no [Spec, VoiceP].[50]

To begin with, notice that the variation in the interpretations of *ime's* subject is nowhere near the possibilities exhibited in an *exo*-sentence. The subject of *ime*-sentences denotes the Figure in a Figure-Ground relationship.

47. I Maria/ to vivlio ine sto saloni.
the Mary.NOM the book.NOM BE.3SG in.the living.room
'Mary/The book is in the living room.'

A complication arises in view of the sentences in (48) since the fact that the subject merely allows modification by *skopima* 'deliberately' and control of a purpose clause might suggest that Voice is present and introduces an external argument.

48. a. ??I Maria ine skopima sto spiti (ja na paralavi ta paketa).
the Mary.NOM BE.3SG deliberately at.the house in.order to receive.3SG the packages
'Mary is deliberately at home to receive the packages.'
b.??To vivlio ine skopima kato apo ton kanape$_i$ (ja na ton$_i$ stirizi).
the book.NOM BE.3SG deliberately under from the sofa$_i$ in.order to him$_i$ support
'The book is deliberately under the sofa$_i$ (to support it$_i$).'

However, notice that the verb *ime* in (48a) does not necessarily retain its pure locational reading in the presence of *skopima.* The verb is most naturally interpreted as 'stay, remain'. Even if such an interpretation is not coerced, it can be assumed that the licensing of the adverb and the purpose clause in (48a) derives from the human nature of the subject. In other words, the intentionality these criteria reveal is not necessarily attributed to the fact that Voice introduces subjects as external

[49] Dalmi (2021) argues that English *be* is also an unaccusative that lacks a Voice projection. However, she does not treat it as a copula but as a dyadic unaccusative in the context of Russian and Hungarian possessives.

[50] Recall that according to Oikonomou (2011), NAct Voice morphology also appears when a specifier is projected, but it is filled via the movement of a DP. However, as argued in this section, there is no sign of Voice in *ime*-sentences either semantically or syntactically, so this analysis cannot be maintained.

arguments. It may be attributed to the fact that these entities are more agentive and intentional by default.

This claim, though, cannot be maintained for (48b), where a non-animate entity is involved. For this case, I assume that a third entity, other than 'the book' and 'the sofa', a human has intentionally placed the book under the sofa. Therefore, the adverb is licensed due to the pragmatics of the sentence rather than the syntactic status of the overt constituents.

This example is, in fact, reminiscent of purpose clauses of the type shown in (49). Williams (1985) discussed these sentences and argued that they show that control is possible by entities that are not linguistically present but are pragmatically implied. For the same example, *God* or *evolution* qualifies as the most plausible controlling entity of PRO.

49. Grass is green [PRO to promote photosynthesis].

Based on the above considerations, we may conclude that it is hard to pin down any semantic import of Voice in the case of *ime*-sentences. Unlike the subject of *exo,* the subject of this copula cannot receive multiple roles that are typically associated with Voice. Further, the agentive-like properties that could be argued to reveal its presence are more naturally attributed to the intrinsic properties of the participants, even when they are not overt (cf. Błaszczak 2007; see my answer in 7.1.).

Crucially, however, this reasoning cannot be replicated for HAVE-sentences and, hence, question the validity of the modification by *deliberately* and the control of a purpose clause as a diagnostic for external arguments. Unlike *ime*-sentences, the subject in *exo*-sentences receives most (if not all) of the interpretations available to external arguments, and, most importantly, surfaces as a *by*-phrase in the nominalization of the sentence (cf. ex. 30 in 5.1.1.). The latter contrasts with the nominalization of *ime,* where the subject appears as a genitive-case marked internal argument (50).

50. a. i parusia [tis Marias /*apo ti Maria] stin ekðilosi /sto ðikastirio
the presence the.GEN Mary.GEN by the.ACC Mary.ACC at.the reception at.the court
'the presence of Mary at the reception/in court'

b. i parusia [tu vivliu /* apo to vivlio] sti vivlioθiki/sto trolei
the presence the.GEN book.GEN by the.ACC book.ACC at.the library on.the trolley
'the presence of the book at the library/on the trolley'

The distribution of *ime*-sentences in the context of the ability modal *boro* 'can' points towards the same direction. Witness in (51b) that *ime*-sentences, including non-

animate entities, are unacceptable. Sentences with animate subjects may be acceptable under the scope of *boro* (51a), yet only under a deontic reading of the modal (see ft. 51).

51. a. # O Janis ke i Maria borun na ine sti ðulja.[51]
the John.NOM and the Mary.NOM can.3PL to BE.3PL at.the work
'John and Mary can be at work.'
b. * Ta vivlia borun na ine kato apo ton kanape.
the book.PL.NOM can.3PL to BE.3PL under from the sofa
'The books can be under the sofa.'

This behavior indicates that the subject of *ime* is not an external argument, i.e., it does not occupy the [Spec, VoiceP]. Specifically, it shows that the subject is neither externally nor internally merged in this position. Therefore, the specifier of Voice is an inactive position.

Ime is a deponent (Mackridge 1985; Embick 1998), meaning it is a member of an idiosyncratic group of verbs in Greek that surfaces only with NAct and does not have an Act-marked alternate. For this reason, it must be assumed that the Voice head *per se* is projected for the morphology. The claim that this Voice head is specifier-less is compatible with NAct, as the latter is controlled by the rule in (32), repeated below in (53).

The category of deponents has attracted much attention in the literature (see Baerman et al. 2007; Kallulli 2009; 2013; Papangeli & Lavidas 2009; Oikonomou 2011; Grestenberger 2014; 2018; Zombolou & Alexiadou 2014; Alexiadou 2019, i.a.). Even though the research is yet to reach a consensus, every attempt to explain their idiosyncrasies refers to some special syntactic treatment of this class in Grammar. First, as discussed in Zombolou & Alexiadou (2014), deponents fall into four major classes summarized in (52), which is taken from Alexiadou (2019: 109–110).

52. a. Psych verbs (mental stative verbs): *estθanome* (feel), *xerome* (I am happy), *erotevome* (fall in love), *sevome* (respect), *sixenome* (loath), *fovame* (fear), etc.

[51] Generally, this sentence's acceptability is increased when *borun* is stressed. Either stressed or not, *boro* is most naturally interpreted as a deontic modal, meaning 'be allowed' rather than as an ability one. Its ability modal interpretation is viable, yet *ime,* in this case, is not interpreted as a stative locative 'be', but rather a change-of-state verb meaning 'appear'.

b. Mental dynamic verbs: *ðiamartirome / paraponjeme* (complain), *astievome* (kid), *ironevome* (quip), *isxirizome* (claim), *katarjeme* (curse), *ðexome* (accept), *arnume* (deny), *ipopsiazome / ipoptevome* (suspect), *ebistevome* (trust), etc.
c. Benefactives: *epofelume* (benefit from), *ðanizome* (borrow), *ekmetalevome* (exploit), *ekðikume* (take revenge), etc.
d. Unaccusatives: *erxome* (come), *prosjionome* (land), *apojionome* (take off), etc.

The top three categories (52a-c) have received the most attention in the literature as they exhibit an interesting mismatch: although marked with NAct, they behave like transitive verbs. The fourth type of unaccusative deponents has not been thoroughly discussed, as the presence of NAct seems canonical.

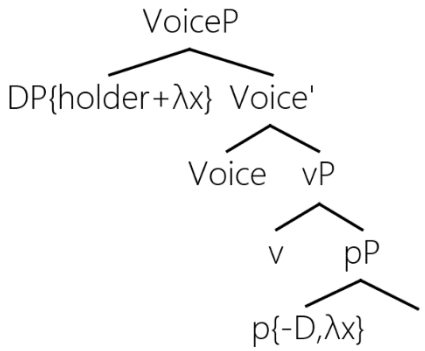
As presented in 5.1.2, the rule in (53) summarizes the distribution of canonical NAct in Greek:

53. Voice → NAct/____ (no specifier).

The above rule indicates that NAct appears when the verbal structure involves a Voice projection with no specifier position. Oikonomou (2011) further specifies that NAct in Greek is assigned under the condition described in (53) or if a specifier position is projected and filled via internal merge. Alexiadou (2019) adds a third option, particularly for deponents. She argues that [Spec, VoiceP] may be projected in the structure of deponents in need of late saturation (in the sense of Kastner 2017) of a role introduced earlier in the derivation. In other words, she proposes that a role introduced earlier in the structure is not instantly saturated in the extended projection of the head that licenses it. It is late saturated by a constituent merged in a higher position.

Specifically, Alexiadou (2019), following Wood (2014), proposes that deponents involve a special type of Voice that is triggered by a specifier-less prepositional head (54).

54. The structure of deponents in Greek (Alexiadou 2019)



In particular, the structure of deponents includes a prepositional head that does not project a specifier (marked as '{-D}' for Alexiadou et al. 2015) even though it introduces a thematic role for its external argument (marked as '{λx}'). Due to this {-D} feature, the role must be saturated by a DP merged later in the derivation. Thus, Voice is forced to be projected to provide a specifier position for the DP that will saturate this role. The DP receives two thematic roles in its insertion place, one introduced by p and another by Voice.

Therefore, it is reasonable to propose that *ime* is an unaccusative deponent in Greek because (a) it is attested only with NAct, and (b) its sole nominal argument in its existential use surfaces with nominative case marking. Nonetheless, the distribution presented at the beginning of this chapter suggests that the proposal made by Alexiadou (2019) cannot be extended to *ime*. We cannot accept a late-saturation analysis of a specifier-less p projection in [Spec, VoiceP] since there is no sign of Voice semantically or syntactically.

Specifically, it is hard to detect any semantic implications brought by Voice as the subject of *ime* neither has properties exclusively associated with external arguments nor obtain the variation of external thematic roles as illustrated for *exo.* In other words, the subject is interpreted only as the Figure and does not bear a second theta role. Moreover, even if the subject of *ime* was syntactically introduced in this position while Voice was semantically expletive, it should appear under the ability modal *boro* freely and surface as a *by*-phrase in the nominalization. However, these predictions are not borne out, as exemplified in (50) and (51).

If the NAct on the verb were to be attributed to the lack of the specifier of a p-projection, which is argued to exist independently (see 6.3.), *ime* would be assimilated to other unaccusative deponents. This analysis, though, would run into two significant problems. First, since the same copula is used in equative, specificational, identificational, and other predicational clauses, a p-projection should be postulated for them too. However, the fact that these constructions do not involve locational relations makes it hard to make such an assumption. The fact that *parusia,* the nominalization of *ime* that reveals the prepositional argument introducing head in the form of the prefix *par-* (see more in 6.3.1.), is not a licit nominalization in these cases also corroborates the non-adoption of Alexiadou's (2019) analysis. Second, suppose [Spec, VoiceP] was present in the structure. In that case, we could not explain why the sole nominal argument of *ime* appears as an internal argument marked for genitive in the nominalization while the same argument of *exo* surfaces as a *by*-phrase.

This leads us to adopt a different solution for *ime* and consider that the NAct results from a Voice projection that lacks a specifier altogether, i.e., an expletive Voice

in terms of Schäfer (2008). Its subject is an argument introduced both semantically and syntactically lower in the structure. This view has the advantage that it easily captures the fact that the subject of the nominalization *parusia* surfaces as an internal argument and not as an argument realized in a *by*-phrase. In addition, it makes it possible to consider that *ime* in all its guises (i.e., in its use in existential/locative, equative, specificational, identificational, and other predicational sentences) has its Voice morphology regulated by the rule in (32/53).

It is the case, then, that the structure of BE in Greek includes a Voice projection that lacks a specifier position. On the other hand, HAVE has a structure with a syntactically transitive Voice head. In this sense, BE is the intransitive variant of HAVE. This concurs with Myler's (2016) analysis of BE and HAVE as suppletive allomorphs conditioned by Voice. In his system, both copulas are PF-exponents of a root-less v_{BE}. Depending on the configuration in which v_{BE} is found, the PF realizes it either as BE or HAVE. The presence of a syntactically transitive Voice qualifies as a marked environment that triggers the realization of v_{BE} as HAVE. Any other environment is considered unmarked and leads to the elsewhere realization, i.e., BE. Importantly, this suppletion algorithm is strictly configurational. PF reads off structures, i.e., it does not consider the semantic information of each head or node.

Though elegant, this analysis still needs to explain how the projection of Voice is regulated. As pointed out by Despina Oikonomou (p.c.), since both *exo* and *ime* lack a lexical root, they cannot bear the specification of Voice from the lexicon as analyses *a la* Grestenberger (2014), Oikonomou & Alexiadou (2022), and Tsiakmakis et al. (2023) propose.

For Myler (2016), there is no need for such specification. Using HAVE as a copula is a matter of parametric difference. To be a HAVE-language, according to the author, is (a) to allow transitive Voice to select v_{BE} in the first place (BE-languages forbid this), and (b) to disallow saturation of a given role any lower than [Spec, VoiceP]. The second condition (presented in detail in 8.6.1) is necessary to motivate the projection of Voice and, hence, the insertion of HAVE.

In this section, it has been argued that a late saturation analysis is untenable for Greek BE. In the same vein, this analysis cannot be supported for Greek HAVE either for similar reasons; if the p-predicate it selects (as extensively argued in 6.3. and 8.4.) was subjected to late saturation, HAVE would surface with NAct, according to Alexiadou (2019). As this is contrary to fact, the second condition proposed by Myler needs to be reconsidered in view of the Greek data.

To capture how the projection of Voice is motivated in the current framework, we need to stipulate that v_{BE} itself provides the instruction for its projection. *Exo* and *ime*, unlike lexical verbs, do not have a root to specify the type of Voice that must be

projected. In their case, v_{BE} is merged in the structure root-less and triggers the projection of Voice. Provided that its complement is stative, it triggers the projection of the stative version of Kratzer's (1996) Voice, i.e., $Voice_{HOLDER}$. In principle, unless other conditions prevent it from doing so, it triggers all the available configurations of $Voice_{HOLDER}$ and the semantically expletive versions of Voice. There are two options for each type of Voice in Greek, as $Voice_{HOLDER}$ and the athematic Voice come in two versions: one with a specifier and one without it. This means that there is a total of four Voice types available. However, the realization of v_{BE} is not affected by the semantic import brought by Voice. The *exo-ime* alternation is determined in strictly syntactic terms, i.e., the syntactic transitivity of Voice. The head of v_{BE} is realized as *exo* in the presence of a syntactically transitive Voice head, i.e., a Voice head with a projected specifier position. In contrast, *ime* constitutes the PF-exponent of the same head when the latter merges under a Voice head that lacks a specifier position.

To sum up, it is clear that the syntax of HAVE and BE is highly idiosyncratic compared to the syntax of lexical verbs. Also, the fact that they participate in highly versatile constructions further complicates things. However, it is possible to capture their distribution by adopting the view that they are copulas, i.e., meaningless items that acquire semantic content through their complement and realize the same head under different conditions. As the next section focuses on the lexical verbs used in the same contexts, it sheds more light on the syntax of the constructions under discussion.

5.3. *Iparxo*, *Vriskome* and Voice

To complete the picture, *iparxo,* and *vriskome* must also be examined. Admittedly, the status of the rest of the verbal predicates appearing in the context of existentials and possessives is less obscure.

Iparxo is undeniably a typical unaccusative verb of the language; hence a total absence of Voice must be postulated. Licensing a bare nominal argument is a safe diagnostic of its unaccusative status. As confirmed in various works discussing Greek (Alexiadou & Anagnostopoulou 1998; Alexiadou & Schäfer 2011; Lazaridou-Chatzigoga 2011; Alexandropoulou 2013), bare post-verbal nominatives (not arguments in general) are allowed only in unaccusatives (55a), not in unergatives (55b). As illustrated so far, *iparxo*-sentences pattern with (55a).

55. a. Erxodan peðja.
come.PST.IPFV.3PL kid.PL.NOM
'Kids were coming.'

b. ???Etrexan peðja.
run.PST.IPFV.3PL kid.PL.NOM
'Kids were running.'

Vriskome, on the other hand, is comparably more complex since dictionaries do not treat it uniformly as the non-active variant of *vrisko* (see ft. 28 in 3.3). If we accept that the two are unrelated, we must consider *vriskome* a deponent. However, since (a) the framework adopted in this thesis takes morphology primarily into account, and (b) it is unambiguous that *vriskome* is the non-active form of *vrisko* morphologically, I consider it an alternating verb. This means that *vriskome* bears the typical NAct, i.e., the morphology assigned to a verb whose structure has a Voice projection that lacks a specifier position.

5.4. Summary of the chapter

To conclude, this chapter has argued that *exo* is a transitive copula, *ime* is an unaccusative deponent, *iparxo* is a typical unaccusative, and *vriskome* is the non-active variant of an alternating pair.

Specifically, it has been argued that *exo* is transitive as evidenced by (a) the nominative-accusative case pattern, particularly in experiencer HAVE-sentences in Greek, (b) the availability of modification by the adverb *skopima/epitiðes* 'deliberately' in possessive sentences, and (c) the ability of the nominative subject to control a purpose clause, in combination with (d) the existence of agentive-related restrictions on the possessor-subject; animate or wholes iff their parts are the possessees, (e) the compatibility of the same sentences with ability modals, (f) the fact that the possessor appears in a *by*-phrase in the nominalization of the sentence, and (g) the Act marking on it. Additional arguments were drawn from the case pattern and the Voice morphology of existential *exi*-sentences. This conclusion supports Myler (2016), who considers that the merge of HAVE only occurs when the root-less v_{BE} appears under a syntactically, at least, transitive Voice.

Unlike English *be,* Greek *ime* is shown to qualify as a deponent, meaning it does not lack Voice altogether but includes an expletive Non-Active Voice head. Under this assumption, BE constitutes the intransitive variant of HAVE. Although this is not tantamount to the hypothesis that BE is the elsewhere exponent, it is compatible with Myler's proposal.

Ime's deponency has been attributed to the lack of a [Spec, VoiceP] as (a) the mere inability to modify the subject of locative sentences with *skopima/*epitiðes, (b) the reduced compatibility of the same sentences with ability modals, and (c) the fact

that the subject appears as a genitive-marked internal argument in the nominalization of the sentence, suggest that there is neither semantic import by Voice (a) nor a syntactic position for an external argument (b, c). The projection of the Voice head *per se* is necessary to explain the NAct morphology of *ime.*

Iparxo has been treated as a typical unaccusative verb due to the licensing of bare post-verbal nominative subjects. *Vriskome* has been considered the non-active part of an alternating pair whose NAct should also be attributed to the lack of a [Spec, VoiceP].

Unlike *exo* and *ime, iparxo* and *vriskome* are lexical verbs, meaning they have a lexical root and hence a specification for Voice. Therefore, if they were to be added to Myler's system, they should be presented as exponents of the [v_{BE} + √] combination. The root itself is responsible for the non-projection of Voice in the case of *iparxo* and the projection of a specifier-less Voice for *vriskome.*

To be more specific, consider that the roots of these verbs are related to 'existence' and 'location', respectively. As such, they introduce stative constructions. However, v_{BE} is not stative to combine with them. It is meaningless and has a type-neutral identity function, formally represented as in (56).

56. $[\![v_{BE}]\!] \Leftrightarrow \lambda x.x$

Therefore, it could be assumed that *iparxo* and *vriskome* include either the stative flavor of v or the same $v_{BE,}$ which "becomes" stative due to its root-complement. The latter hypothesis makes our proposal more cohesive since both verbs substitute *ime's* gap in several copular constructions (see 2.3. and 3.3., respectively).

Nonetheless, even though this chapter has shed some light on the structures underneath locational and possessive constructions, we still need to identify how the overt items of the sentences, namely the Figure and the Ground, are merged in the structure. Although it is clear that the post-verbal nominal in existentials and the pre-verbal subject in locatives represent the Figure, our assumption that the overt locative prepositional phrase (or adverb) represents the Ground will be revisited. The need to refine this claim emerges as its status across locationals is not uniform. Variation is also detected in possessives as the configuration of the Figure/Possessee and the Ground/Possessor fluctuates. Thus, the next step is to investigate how the predication of the sentences under consideration is built.

6. Building the existential predication

As a conclusion regarding the upper part of the existential structure has been reached, this chapter investigates how the lower part, i.e., the predication layer, is built. The term *predicate* describes the property/state/event that is applied to an entity that constitutes the subject of predication.[52]

To begin with, Chapter 6 summarizes some earlier proposals that constitute the foundation for this thesis (6.1.) Then, I argue that the existential predication is based upon a headed small clause that relates the nominal constituent (i.e., the pivot/theme) to a locative one (6.2.) In this, I follow earlier work from Bowers (1993), Adger & Ramchand (2003), Baker (2003), den Dikken (2006), Citko (2008), and Roy (2013), which takes predication to be reflected on headed small clauses. However, contra the above researchers, I argue, in 6.3., that a preposition functions as the head of the small clause in the spirit of Freeze (1992). In 6.4. I demonstrate that the structure is not unified in all existentials and/or locatives, as the status of the constituents differs. In the spirit of Harley (1995; 2002) and Pesetsky (1995), I postulate two possible argument configurations within a p-head: a *standard* configuration in which the Figure c-commands the Ground and a *reversed* one where the Ground c-commands the Figure.

6.1. Previous proposals

This section briefly presents two proposals for a unified structure behind existentials, locatives, and possessives that are fundamental to the one advocated in this dissertation. In general, unification approaches flourished in the early years of linguistic research, when the most economical analysis was a desideratum. During that period, it was an essential task to identify and name the commonalities between sentences both intra- and cross-linguistically. A common practice shared among the researchers was to trace these commonalities to a unified syntax and derive surface forms via a more or less complex system of movements. The comparative study of existential, locative, and possessive sentences gave rise to such unification approaches.[53]

---

[52] Note that whenever the term 'subject' is used as part of the predication, it refers to the item of which the property/state/event is predicated. Structurally, it corresponds to the specifier position of the main predicate. In this context, 'subject' is not the item that controls verbal agreement or the item that qualifies as the subject of the sentence.

[53] A recent contribution by Chappell & Lü (2022) that considers samples from 116 Mainland East and Southeast Asian languages confirms that possessives, locatives, and existentials are related

Clark (1970/1978)[54] was the first to develop a typology of *locational* constructions, i.e., of the structures that convey locative information, even though their similarities had already been discussed in Lyons (1967) and Verhaar (1967-1972), among others. For her typology, she studied 30 languages from various locations across Europe, Africa, Asia, and North America.

As shown in (1), her database was sorted into four types of sentences: *existential* (1a), *locative* (1b), *possessive*$_1$ (1c), and *possessive*$_2$ (1d). English representatives of each kind were provided as an example.

1. a. *Existential:* There is a book on the table.
   b. *Locative:* The book is on the table.
   c. *Possessive*$_1$*:* Tom has a book.
   d. *Possessive*$_2$*:* The book is Tom's.

Initially, she observed that all four gather locative characteristics. They all involve a non-locative nominal (like *book* above), which serves as the pivot in (1a) and (1b) and as the possessee in (1c) and (1d), and a locative nominal, which is either a non-animate location (like *the table*) in (1a) and (1b) or an animate one (like *Tom*), presented as the possessor in (1c) and (1d).

She identified four decisive factors to account for the distribution and grouping of these constructions within the same language. Word order, definiteness, animacy, and the choice of the verbal element are the factors that define the typology and create the following patterns:

2. a: existential & locative vs b: possessive$_1$ & possessive$_2$
3. a: existential & possessive$_1$ vs b: locative & possessive$_2$

The above patterns suggest that languages either use the same structure for an existential and a locative construction and keep possessives apart (2), or they reserve the same structure for existentials and possessives$_1$ while using a second structure for locatives and possessives$_2$ (3).

These two patterns emerge as a different factor (animacy or word order) becomes the most decisive in each case. In a language following the pattern in (2), the sentence types are grouped with respect to animacy. These languages separate

---

diachronically. The authors show that four specific grammaticalization paths lead to synchronic patterns. (see Heine 1997, who performed similar research on possessives).

[54] Clark's paper in 1978 is a slightly revised version of the original published in 1970.

the constructions including non-animate locations (2a), from the constructions that share an animate (if not human specifically) location (2b).

In contrast, the distinction in (3) is determined by word order. In this case, the language groups together the constructions that have the location (may it be animate or not) necessarily preceding the nominal (3a) and separates them from the constructions that exhibit the reverse order (3b). Crucially, Clark's work suggests that there is no other possible grouping. That is, existential constructions never pattern with possessives$_2$ nor locatives with possessives$_1$.[55]

Then, the author proposes how the interaction among animacy, word order, and definiteness also determines the surface forms. Although she does not provide the details of the syntactic derivations, she suggests that two discourse rules control the surface structure. These are independent rules of languages that exist outside this specific context. Crucially, it is up to each language to decide which rule takes precedence and whether other rules override them.

On the one hand, there is the discourse rule in (4), according to which the word order between nominals is dictated by definiteness.

4. *Discourse rule I:* [+Definite] nominals precede [-Definite] nominals.

Given that the locational constructions she considers include a locative and a non-locative nominal, the above rule is specified further. If the locative nominal is [+ definite], it precedes the [- definite] non-locative nominal. This leads to an existential or a possessive$_1$ construction. When the locative nominal is [- definite], it follows the [+ definite] non-locative nominal, creating a locative or a possessive$_2$ construction. When this rule takes precedence, the grouping in (3) is entailed.

On the other hand, there is a second discourse rule that refers to animacy (5):

5. *Discourse rule II:* [+Animate] nominals precede [-Animate] nominals.

The rule in (5) introduces the typology in (2). In the former group of sentences, namely in existentials and locatives, animacy is hardly relevant, as both nominals

[55] Clark (1978) confirms that the groupings in (2) and (3) are the only possible ones by taking into consideration the distribution of copulas. She uses as evidence the fact that if a language has at least two copulas in its inventory, it uses one of them only for existentials and locatives and leaves possessives for the second copula (2). Alternatively, it uses one copula for existentials and possessives$_1$, leaving locatives and possessives$_2$ for the second copula (3).

participating in them are mainly non-animate. In the second group (2b), though, one of the two nominals is necessarily animate. Hence the possession reading is derived.

Clark specifies that these discourse rules are neither universally hierarchical nor exceptionless. That is, each language tends to give precedence to (4) or (5) and group structures accordingly. In addition, languages may have constructions violating these rules. *Belong*-type sentences are such an example as they defy the rule in (5) since the non-animate nominal precedes the animate one. Clearly, the typology they delineate is not exhaustive.

In summary, Clark's (1978) work is fundamental as it establishes and promotes the similarities among all three types of sentences in a systematic way. Clark also captures the different tendencies across and within languages in her Discourse Rules, which depict the correlation between word order, animacy, and definiteness. Her work constitutes the first comparative study of existentials, locatives, and possessives, i.e., of *locational* constructions. As such, it forms the basis upon which, a few years later, Freeze (1992) and Kayne (1993) built their syntactic analyses. Apart from Clark's conclusions, Freeze and Kayne adopted several insights from Bach (1967), Lyons (1967), Fillmore (1968), Kuno (1971), and Hoekstra & Mulder (1990). Tellier (1994), Kempchinsky (1996), Baron & Herslund (1997), Belvin & den Dikken (1997), Broekhuis & Cornips (1997), Español-Echevarría (1997), Ouhalla (2000), Abdoulaye (2006), Peeters et al. (2006), Avelar (2009a; b), and Levinson (2011), among others belong to the family of unification approaches that succeeded Freeze (ibid) and Kayne (ibid).

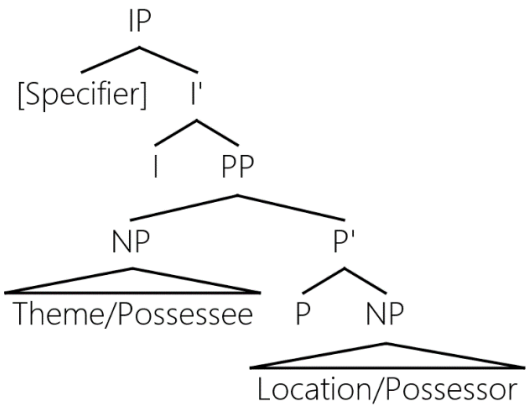
For the purposes of this dissertation, I focus on the work of Freeze (1992) as the hallmark of this line of approach. The author also studies the same set of sentence types as this dissertation. Kayne's impactful work focuses on how auxiliaries fit into the same paradigm. Although the two studies differ in their details, they are fundamentally similar: existential, locative, and possessive constructions are traced back to a single deep structure. The too-many-surface forms result from motivated (covert or overt) movements of different items.

Freeze (1992) takes into consideration three types of sentences. Leaving Clark's *possessive*$_2$ sentences out of his research, he studies the sentences in (6) for which he proposes slightly different labels. Clark's *locatives* are specified as *predicate locatives*, while the label *existential* is preserved unaltered. *Possessives*$_1$ are now named after the main verb they exploit and are referred to as *HAVE-sentences*.

6.	a. *Predicate locative:*	The book is on the table.
	b. *Existential:*	There is a book on the table.
	c. *HAVE-sentences:*	John has a book.

Chapters 1 and 5 have already given away some details of his proposal. To present his complete view, the author argues that all sentences derive from ''a single underlying structure in which a preposition is the head of the predicate phrase (7)'' (Freeze 1992:553).

7. *The locative structure by Freeze (1992).*



All the constructions in (6) have a prepositional predicate (P) at their core. Locations (in existentials and locatives) and Possessors (in possessives) are inserted as the complement of P, while the Theme and the Possessee appear in the Specifier position. The I(nflection) node is realized by the copula. In particular, I is spelled out as HAVE when P incorporates into it. In any other case, it is spelled out as BE.

In his excursus on how different surface forms derive, Freeze starts from the fact that existentials differ from locatives either in the presence of a proform like English *there* or in word order, as exhibited in the Russian examples below. The Russian predicate locative in (8a) has the Theme-nominal *kniga* preceding the locative expression *na stole*, whereas the existential in (8b) has the reversed order as *na stole* precedes *kniga.*

8. *Russian* (Freeze 1992:553-4).

a. Kniga byla na stole. *Predicate locative*
book.NOM.FEM was on table.LOC
'The book was on the table.'

b. Na stole byla kniga. *Existential*
on table.LOC was book.NOM.FEM
'There was a book on the table.'

For Freeze, possession sentences are in line with existentials because (a) they share the 'Location>>Theme' order, and (b) in many languages, existentials and

possessives use the same copula. These constructions are kept apart from each other only due to the [±human] feature of the Location. The [+human] feature makes the Location receive the interpretation of a Possessor and, subsequently, the Theme that of the Possessee (9a). In contrast, when the Location feature is negatively valued as [-human], the sentence is interpreted as an existential (9b).

9. *Russian* (Freeze 1992:554).

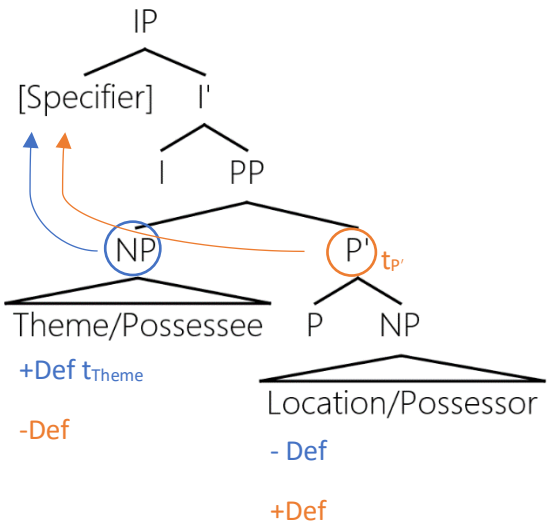
a. U menja byla sestra. *HAVE-sentence*
at me.GEN was.FEM sister.NOM.FEM
'I had a sister.'

b. V gorode byl doktor. *Existential*
in town was.M.SG doctor.NOM.M. SG
'There was a doctor in town.'

In (9a), the [+human] location *menja* leads to a possessive interpretation, while the [-human] location in (9b) *gorode* leads to an existential one. Specifically in Russian, this feature also determines the morphological exponent of the adposition: in (9a), the positive value of the feature triggers the presence of *u.* In contrast, the negative value of the feature in (9b) makes the adposition surface as *v.*

Structurally, the word order is determined by the argument that moves to the [Spec, IP] position, i.e., the subject position. In predicate locatives, the Theme argument moves to the subject position (blue marking in 10), while in existentials and HAVE-sentences, it is the P' node (orange marking). This movement is motivated by definiteness: if the Theme is definite, it moves to [Spec, IP]. If it is indefinite, then the P' node that contains the definite Location moves to the subject position.

10. *Derivation of surface structures based on Freeze's locative paradigm*



What is crucial in Freeze's proposal is that HAVE appears in the construction (and in the language in general) only when P-incorporation takes place. The BE-copula is used across the board if the latter does not occur.

The assumption that HAVE is derived from BE when a preposition incorporates into it is further argued for by Kayne (1993), who studies the HAVE/BE alternation in Romance auxiliary systems. Kayne adopts the idea first introduced by Benveniste (1966), according to which the evolution of the auxiliary systems goes in parallel with changes in possessives. He then shows that HAVE-based constructions systematically replaced BE-based ones in the auxiliary system of Indo-European languages at (almost) the same time as HAVE gained ground over BE in possessive sentences. In this sense, his work provides further evidence that a common structure lies underneath locational constructions and extends to auxiliaries.

In sum, Freeze and Kayne extend and develop Clark's work by exploring the structure behind the constructions that fall into the locational paradigm. The researchers make an elegant proposal and support the view that all locational sentences are rooted in one common structure. In this structure, definiteness and animacy are the key factors that determine the movement of the constituents and, consequently, the surface forms. In this sense, Locations and Possessors are treated as two sides of the same coin. For this reason, this family of approaches is usually referred to as the *Possessors as Locations (PAL) hypothesis*.

In the following years, Freeze's and Kayne's proposals received major criticism (see 9.1. for a review). As a result, the PAL hypothesis was abandoned, and new proposals assuming multiple structures were developed instead. These are the proposals subsumed under the 'non-unification approaches' label. Several of them are presented in the course of the following chapters.

As mentioned in the Introduction, this thesis partially revives the unification approaches as it advocates that, in Greek, a p(repositional)-predicate heads the lower part of the structure in existentials, locatives, and possessives. The following chapters substantiate this revival step by step, starting from investigating the relationship between the overt constituents in existentials and locatives.

6.2. Arguing for a small-clause-based predication

Across the cross-linguistic literature, there are three traditional analyses of existential predication that are schematically summarized as follows:

11. a. There is [$_{NP}$ a book on the table].
    b. There is [$_{NP}$ a book] [$_{PP}$ on the table].
    c. There is [$_{SC}$ a book on the table].

In the first analysis (11a), which is advocated by Jenkins (1975), Williams (1984), and Higginbotham (1987), among others, the copula constitutes the existential predicate that selects a complex NP. The complex NP consists of the nominal and any material that follows it, including the locative PP. Milsark (1974), Keenan (1987), and Sag & Pollard (1994), who propose, among others, the second analysis (11b), argue that the copula selects both arguments in a ternary structure. In other words, the existential copula behaves as a ditransitive (see also Dalmi 2021). Finally, the third analysis (11c) (Stowell 1978; Chomsky 1981; Safir 1982; i.a.) suggests that the copula selects a small clause in which the PP serves as the main predicate and the NP as the subject of predication. Variations of these traditional assumptions have also been proposed in more recent years.

In the rest of this chapter, I show that neither (11a) nor (11b) is an analysis suitable for Greek existentials, but the small-clause analysis fares significantly better. However, the inner structure of the small clause is not necessarily as presented in (11c). An alternative structure for the small clause is motivated in Sections 6.3 and 6.4.

To begin with, it is worth noticing that the assumption that the copula selects a complex NP, including the locative PP, is prevalent in the earliest era of linguistic research. For instance, Jenkins (1975: 16) puts forth that at least in some English *there-be*-sentences, the material that follows the nominal (which is either a PP or an AP) is part of a complex noun phrase (12) because the same linear order can appear in a typical argumental (subject) position (13):

12. a. There are [some people who don't like beer].
    b. There are [a lot of people willing to help].
    c. There was [a man with a hat on].

13. a. [Some people who don't like beer] are waiting for you.
    b. [A lot of people willing to help] are waiting for you.
    c. [A man with a hat on] is waiting for you.

The same researcher clarifies that this is not the only possible analysis, as the possibility of being merged in an argumental position is a matter of the lexical items contained in the linear order.

Nonetheless, this type of analysis is challenged by criteria that show that the NP and the PP do not form a single constituent (see Hartmann 2008: 170–179 for a summary of the arguments against these analyses). For instance, McNally (1997), who focuses primarily on AP-codas, claims that the latter should be treated as external to the NP because extraction or comparative deletion can target the NP without the AP. She illustrates this based on the following examples (McNally 1997: 53, ex.81):

14. a. *Who* is there *performing* at the Academy this week?
    b. The new mall ruined *the few businesses* there were still *functioning* downtown.

This contrasts with the ungrammatical examples in (15), where comparative deletion targets the head DP and leaves the NP-internal modifier in its initial position (McNally 1997: 63, ex.54).

15. a. **Who* do the musicians admire *performing* at the Academy this week?
    b. **The businesses* to which the city has given a tax break still *functioning* downtown are in greater danger than ever.

Safir (1987) uses sub-extraction as an argument against a complex-NP analysis. Accepting that sub-extraction out of complex noun phrases is ungrammatical, as shown in (16b), he considers the availability of sub-extraction in (16a) evidence that the NP and the post-nominal material do not form a complex NP (see also Hartmann 2008: 55).

16. a.?To what sorts of colleges are there many students applying t?
    b.*To what sorts of colleges did John meet many students applying t?

McNally (1997) reaches the same conclusion by observing the interaction of *every* and Negative Polarity Items (NPIs) such as *any*. According to Ladusaw (1980), *every* licenses NPIs only in the DP it heads. Therefore, since *every* in the pivot position does not license NPIs in the coda, it provides evidence for the assumption that the latter is external to the NP-pivot. Her example is cited in (17) (McNally 1997: 54, ex 85a).

17. *There is *every* breed of dog with any chance of winning competing in any competition.

The rest of this section focuses on PP-codas only and gathers arguments provided by Greek. Specifically, when specific diagnostics are applied to the Greek data, their behavior shows that the hypothesis according to which the locative PP is NP-internal cannot hold.

First, it must be clarified that, in general, there is PP-material in the post-nominal position that is NP-internal and material that is NP-external. An instance of the former is the PP *me bataries* in (18).

18. Aɣorasa pexniðja me bataries.
buy.PST.1SG toy.PL.ACC with batteries
'I bought toys with batteries.'

In the context of existentials, the NP-internal status of a PP is indicated by the fact that it can co-exist with the locative PP (19). Also, in the latter's absence, the NP-internal PP does not replace the locative argument. Instead, it still modifies the NP while a location is implied as salient in the discourse.[56]

19. Exi pexniðja me bataries (sto maɣazi).
HAVE.3SG toy.PL.ACC with batteries in.the store
'There are toys with batteries in the store.'

Second, the NP-internal material can only be questioned by a *wh*-word that refers to the whole NP (20a) or a *wh*-word that pied-pipes the NP (20b).

20. a. Ti exi sto maɣazi? Pexniðja me bataries.
what HAVE.3SG in.the store toy.PL.ACC with batteries
'What is there (= what do they sell) in the store? Toys with batteries.'
b. Ti pexniðja exi sto maɣazi? Me bataries.
what toy.PL.ACC HAVE.3SG in.the store with batteries
'What (kind of) toys are there in the store? With batteries'

In contrast, as the PP-coda is most often locative, it can only be questioned by a *pu* 'where'-question.

[56] As explained in 2.1., depending on the definition of *codas*, these non-locative PPs would be labeled as such by some authors. However, under the definition adopted in this dissertation, only the material that follows the nominal but is *not* NP-internal qualifies as a coda-phrase.

21. Pu exi pexniðja me bataries?
where HAVE.3SG toy.PL.ACC with batteries
lit. 'Where are there toys with batteries?'

Third, witness that the most common PP in an existential is a (simple or complex) *se*-PP. Interestingly, the latter can hardly appear as NP-internal. The fact that (22b) is not an exact paraphrasis of (22a) suggests that the *se*-PP is not NP-internal. In other words, if the *se*-PP were an NP-internal modifier, it would be expected to convey the same interpretation as the cognate prefixed modifier.

22. a. Exi pulja sti θalasa.
HAVE.3SG bird.PL.ACC over.the sea
'There are birds over the sea.'
b. Exi θalaso-pulja.
HAVE.3SG sea-bird.PL.ACC
'There are seabirds (somewhere salient).'

This conclusion is supported by the fact that the prefixed modifier can co-exist with the cognate *se*-PP (23).

23. Exi θalasopulja sti θalasa.
HAVE.3SG sea-bird.PL.ACC over.the sea
'There are seabirds over the sea.'

Fourth, following Lumsden (1988), I hold that if the NP and the PP were a single constituent in a sentence like (24a), it should be possible to extract both of them together. Yet, this prediction is not borne out (24b). The only grammatical options are the extraction of the NP alone (24c) or the PP alone (see 21).

24. a. Exi/Iparxun/ Ine[57] pola vivlia sto trapezi.
HAVE.3SG/EXIST.3PL/BE.3PL many book.PL.ACC/NOM on.the table
'There are many books on the table.'
b.*Posa vivlia sto trapezi exi/iparxun/ine?
how.many book.PL.ACC/NOM on.the table HAVE.3SG/EXIST.3PL/BE.3PL
lit. 'How many books on the table are there?'

[57] Note that if there is not an 'SMG' or 'non-SMG' subscription, the judgments of the sentences are the same for all speakers.

c. Posa vivlia exi/iparxun/ine sto trapezi?
how.many book.PL.ACC/NOM HAVE.3SG/EXIST.3PL/BE.3PL on.the table
'How many books are there on the table?'

Fifth, I use Keenan's (1987) observation, according to which NP-internal modifiers relativize with the pivot. The researcher claims that head nouns can be relativized together with their modifiers (25b) and cannot be relativized without them (25c). (Keenan 1987: 302, ex. 29):

25. a. John painted [the shelves in my living room] purple.
b. The shelves in my living room that John painted purple…
c. *The shelves that John painted […] in my living room purple.

His generalization is supported by Greek, as presented in (26). In this example, the NP-internal modifier *tu salonju* (26a) is relativized with the nominal *ta rafja,* and thus, it follows the latter in a fronted position (26b).[58]

26. a. O Janis evapse ta rafja tu salonju mu mavra.
the John paint.PST.PFV.3SG the shelf.PL.ACC the.GEN living.room.GEN my black
'John painted the shelves of my living room black.'
b. Ta rafja tu salonju mu pu o Janis evapse
the shelf.PL.NOM the.GEN living.room.GEN my that the John.NOM paint.PST.PFV.3SG
mavra steɣnosan.
black dry.PST.PFV.3PL.
'The shelves of my living room that John painted black dried.'

By contrast, the locative PP *sto saloni mu* in (27a) is not relativized with the nominal *rafja* (27b), suggesting that the former is not NP-internal. The locative must stay in the sentence-final position (27c). Crucially, this is true regardless of the existential copula.

27. a. Exi/Iparxun/Ine (kati) mavra rafja sto saloni mu.
HAVE.3SG/EXIST.3PL/BE.3PL some black.PL shelf.PL in.the living.room my
'There are some black shelves in my living room.'
b. *Ta/Kati mavra rafja sto saloni mu pu ixe
the/ some black.PL shelf.PL in.the living.room my that HAVE.PST.IPFV.3SG

[58] The examples are the Greek equivalents of English sentences provided by Francez (2007: 24).

ipirxan/itan katastrafikan.
EXIST/BE.PST.IPFV.3PL destroy.PST.PFV.NACT.3PL
lit. 'The/Some black shelves in my living room that there were, were destroyed.'

c. Ta/Kati mavra rafja pu ixe/ipirxan/itan
the/some black.PL shelf.PL that HAVE BE.PST.IPFV.3SG/EXIST./BE.PST.IPFV.3PL
sto saloni mu katastrafikan.
in.the living.room my destroy.PST.PFV.NACT.3PL
lit. 'The/Some black shelves that there were in my living room were destroyed.'

Last, the fact that adverbial material may intervene between the nominal and the PP suggests that the two are distinct constituents:

28. Ixe/ Ipirxan/ Itan pola peðja xtes sto parko.
HAVE.PST.3SG/EXIST.PST.3PL./BE.PST.3PL many kid.PL.ACC/NOM yesterday at.the park
'There were many kids at the park yesterday.'

Subsequently, there is robust evidence that the locative constituent is separate from the pivot nominal in existentials, i.e., they do not form a complex NP. This means that the analysis in (11a) cannot be maintained for any existential construction in Greek.[59]

The analysis presented in (11b) suggests that the copula behaves as a ditransitive as it selects two arguments: the NP-pivot and the PP-coda. Besides the fact that the original proposal by Milsark (1974) employs a ternary structure, which is currently highly dispreferred, the analysis runs into one major problem: it assumes that the copula is necessary for the existential predication as it is the item selecting and relating the NP and the PP.

However, Clark (1978) provides typological evidence showing that the copulas are cross-linguistically optional for the existential predication. Some languages do not use any copula in this context (see also Francez 2007; Creissels 2014). Even in the languages that use them, they are not necessary for the existential function. Greek is a case in point. The examples in (29) show that the existential function (namely, the introduction of a new discourse referent) can be achieved only in the presence of a nominal and few additional ''cues'' like the use of an adverbial like *simera* 'today', a tag question and marked intonation. The locative constituent (29a) and the temporal

[59] Note that relating the NP and the PP constituent in a complex NP is, in principle, available to languages. For instance, Chung (1987) proposes such an analysis for Chamorro, while Sabbagh (2009) does the same for Tagalog.

adverbial (29b) may even stay implicit if salient in the discourse. Further, the tag question marker *'e'* at the end of the sentence is also optional. However, not all of these "cues" can be omitted at the same time.

29. a. Pola peðja (sto sxolio) (e?)
many kid.PL.NOM at.the school tag.question.marker
lit. 'There are many kids at school, aren't there?'
b. Kapjo krio (simera) (e?)
some cold.SG.NOM today tag.question.marker
lit. 'There is cold today, isn't there?'

It is the case, then, that the small clause analysis is the only one that can be postulated for Greek existentials since the existential function can be achieved only in the presence of a pivot nominal and a location that does not have to be overt. However, the status of these items in the small clause needs to be motivated as there are various hypotheses in the literature. For instance, Milsark (1974), Stowell (1978), Chomsky (1981), Safir (1982), Hoekstra & Mulder (1990), and Sag & Pollard (1994) propose that the NPs are the subjects of predication and locative PPs bring the main predication, whereas Jenkins (1975), Barwise & Cooper (1981), Williams (1984), Huang (1987), McNally (1997), and Hazout (2004) argue that NPs are the main predicates (see 6.4.1. and 6.4.3. on why neither assumption can be maintained for Greek).

In fact, the small clause analysis is prevalent in the literature on existentials. In recent years, the literature adopts Bowers (1993) and considers that small clauses are constituents headed by a functional projection often called a Pred(ication) head (see also Svenonius 1994; Adger & Ramchand 2003; Citko 2008; i.a.). This head is equal to what den Dikken (2006) calls a RELATOR, as it relates a predicate to its subject.

In this dissertation, I accept that the predication in existential and locative sentences is construed as a headed small clause, albeit I argue that a preposition plays the role of the RELATOR. The following section considers the nature of this head in detail.

6.3. The predicational head

Focusing on existentials, Stowell (1978), Chomsky (1981), Safir (1982), Hoekstra & Mulder (1990), Moro (1997), McCloskey (2014), Myler (2016), and Irwin (2018), among others, argue that English *there-be*-sentences involve a small clause structure in which there are two arguments, the nominal pivot and a locative argument which in most cases is not equated with the overt PP or adverb (see more in 6.4.4.). Although

the researchers above take Pred(ication) as the small-clause head, I argue that a p(repositional) head must be assumed instead.

This is the part of my thesis that echoes Freezian-style analyses. However, unlike Freeze (1992), I do not assume that the behavior of this preposition is responsible for the distinction between BE- and HAVE-sentences. This prepositional predicative head accounts for the commonalities between BE- and HAVE-sentences. As extensively argued in Chapter 5, transitivity distinguishes between the two. Further variation appears in the configuration of the arguments within this prepositional head (see 6.4.).

Above all, assuming a prepositional predication for locative and existential sentences seems intuitive, as these constructions are locational in nature. This section gathers the evidence provided by Greek that supports this intuition. However, as there is ample cross-linguistic evidence in favor of this claim, I review some relevant facts before focusing on what Greek has to offer.

For instance, as extensively presented in Appendix 2, Brazilian Portuguese (BP) exhibits a distribution that strongly supports Freeze's analysis. Though the main existential construction of the language uses the invariant form of a HAVE copula, namely *tem,* the language also uses the structure in (30). Here, the existential predication is headed by the preposition *com* while v is realized as *estar*, a version of a BE copula.

30. *Brazilian Portuguese* (Avelar 2009b: 169, ex. 18)
No centro da cidade tava com um engarrafamento enorme
in.the center of.the city was with a traffic.jam big
'There was a big traffic jam downtown.'

This distribution suggests that a preposition can head the existential predication. Further evidence is provided by Irish, where the main existential predicate *ann* is the descendant of a locative preposition and literally means 'in it' (31) (see more in 6.4.4).

31. *Irish* (McCloskey 2014: 19, ex. 47)
Tá easpa salainn ann.
BE lack salt.GEN in-it
'There's a shortage of salt.'

The postulation of a p-based predication also extends to locative sentences. Chinese locatives illustrate this vigorously. Besides the preposition that heads the locative PP, they include a second preposition independent of it. In (32), *zài* 'at' builds the

predication between *shū* 'the book' and the locative constituent zhuōzǐ-shàng 'on the table'.

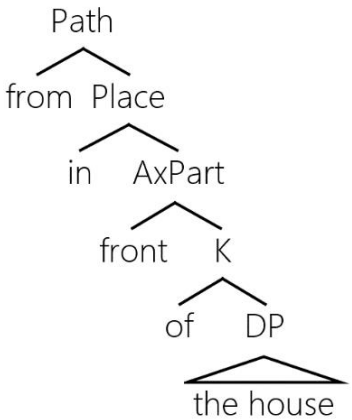
32. *Chinese* (Wang & Xu 2013: 1, ex. 2)
Shū zài zhuōzǐ-shàng.
book at table-on
'The book is on the table.'

Typological work on existentials and locatives (Clark 1978; Freeze 1992; Aikhenvald & Dixon 2013; Bentley et al. 2013; Wang & Xu 2013; Creissels 2014; Cruschina 2015; Bentley 2017; Chappell & Lü 2022) provides further evidence that a preposition heads the predication in several existential constructions across multiple unrelated languages.

In this dissertation, I argue for the presence of a prepositional predicative head based on Greek, even though the latter is not a language that uses such a head overtly (like Brazilian Portuguese, Irish, and Chinese). Crucially, I will not equate the prepositional head assumed for existentials and locatives with Freeze's preposition because I adopt an extended version of the functional structure of prepositional phrases.

To be more specific, independent work on the syntax of prepositions converges that PPs have at least one functional head in their extended projection (van Riemsdijk 1990; Rooryck 1996; Koopman 1997; Yadroff 1999; den Dikken 2003; 2011; Svenonius 2004; 2008; 2010; Gehrke 2008; Franco et al. 2021). For instance, Svenonius (2008) proposes that an (almost) fully-fledged prepositional phrase has the structure in (33):

33. An elaborate structure of a PP (Svenonius 2008:1)



Later, Svenonius (2010) specifies further that there is an additional projection intervening between Path (which is licit only in directional PPs) and Place named *p*. This p-projection is the category that makes PPs relational as it introduces an external argument of Place, namely a Figure, similar to the contribution of Kratzer's Voice to the verbal phrase. In his words, "this p is the natural locus of relational notions of containment, attachment, and support which are commonly expressed by prepositions such as *in* and *on* and their counterparts cross-linguistically." (Svenonius 2010: 8). Along these lines, the p-projection is a version of a small clause where the complement constituent contributes to the main predication. At the same time, the higher argument merged in the specifier takes up the role of the subject. Within this line of thinking, p is an instantiation of a RELATOR in the sense of den Dikken (2006).

By adopting this view, I propose that the predication in existentials and locatives is such a functional p-projection. HAVE, BE, and (partially) EXIST are not a core part of the existential or locative predication. In each case, the verbal item selects the predicative structure, i.e., a constituent that contains both arguments. It does not select either item on its own or introduce any argument in the structure.

The first argument supporting the hypothesis that a functional p-projection constitutes the predicative head of existentials and locatives derives from the fact that a prepositional element is overt as the prefix *ip-* in *iparxo*. Ralli (2004; 2005) and Efthymiou (2015) show that these prefixes are fully fused with the verb. For Alexiadou (2020), these items are responsible for introducing the verb's arguments. In other words, the constituents that appear as arguments of a prefixed verb are structurally introduced by the prefix. The latter originates as the head of a p-projection which incorporates into the verb. The derivation takes two steps, as presented in (34).

34. a. [vP [v [**√*arx*** v] [pP [DP Figure] [p **p** ***ip*** [PP Ground]]]]]
    b. [vP [v [**p** ***ip*** + **√*arx*** v] [pP [DP Figure] [p ~~**p** ***ip***~~ [PP Ground]]]]]

Even though this derivation is morphologically transparent in the case of *iparxo*, it needs to be motivated for *exo* and *ime* because the copulas are not overtly prefixed. The hypothesis explored in the following sections is that such a p-head exists in their structure, yet it remains silent. Indications for its existence are provided primarily by their nominalizations. As this is a non-trivial derivation, the following section goes through the details of the argument.

6.3.1. Nominalizations of BE and HAVE in Greek

Initially, it is worth noticing that *exo* and *ime* do not have nominalizations derived directly from them. This happens cross-linguistically with any version of HAVE and BE.

35. a. *ox'i, *lit.* 'hav-ion'
    b. *usia, *lit.* 'be-ion'[60]

The gap is substituted under specific readings as follows. On the one hand, *exo* gets nominalized by the noun *katoxi* only under an ownership interpretation. That is, although the *exi*-existential cannot be nominalized, a possessive/ownership *exo*-sentence can, as shown in (36).

36. a. I oðiji prepi na exun/[???]kat-exun ðiploma oðijisis.
    the driver.PL.NOM must to HAVE./PREF-HAVE.3PL license.SG.ACC driving.SG.GEN
    'Drivers must have a driver's license.'
    b. I kat-ox-i ðiplomatos apo tus oðiɣus ine ipoxreotiki.
    the PREF-HAVE.PFV.-SG.F driving.license.GEN by the drivers is obligatory
    'Having/The ownership of a driving license by the drivers is obligatory.'

In the nominalization *katoxi*, the prefix *kat-*, which is absent from the verb, is present. Crucially, *katoxi* is a true nominalization of *exo* even though there is a prefixed verb *kat-exo* in Greek which also means 'possess'. This is evidenced by the fact that the sentence in (36b) is a paraphrasis of the sentence in (36a) that can contain only the verb *exo*. *Katexo* is highly unacceptable in this case.[61] A second example robustly illustrating this distribution is presented in (37).

37. a. I erɣazomeni exun /*kat-exun ðikeoma aðias ðeka imeron.
    the employee.PL.NOM HAVE.3PL/PREF-HAVE.3PL right.SG.ACC leave.GEN ten days.GEN

---

[60] In Modern Greek, a homonymous abstract nominal is attested. However, its interpretation is not that of BE's nominalization but that of 'essence, substance'.

[61] As Dimitris Michelioudakis (p.c.) pointed out, although the verbs *exo* and *katexo* are very close semantically, their interpretations in the context of possession do not overlap. *Exo* is more appropriately described as an individual-level predicate, while *katexo* as a stage-level one. In an attempt to clarify their nuanced difference, it could be said that *exo* is closer to English *own,* while *katexo* is closer to *possess.* Although some speakers converge with this view, others do not. Either way, the key observation for our reasoning is that regardless of their verbal form differences, both become nominalized by the prefixed form *katoxi.*

'The employees are entitled to a ten-day leave.'

b. I kat-ox-i ðikeomatos aðias ðeka imeron
the PREF-HAVE.PFV.-SG.F right.SG.GEN leave.GEN ten days.GEN
apo tus eryazomenus
by the.ACC employee.PL.ACC
'the entitlement of a ten-day leave by the employees'

On the other hand, *ime* gets nominalized when it takes part in a locative sentence (38). In this case, too, the nominalization of the verb contains the prepositional prefix *par-* and surfaces as *parusia*. Crucially, there is no **par-ime* verb in Modern Greek. This nominalization is inherited from Ancient Greek, where the verb *par-ei-mi* (πάρειμι) 'be close/present' was attested. However, synchronically *parusia* is a true nominalization of *ime*.

38. a. Ta vivlia ine sto trapezi.
the book.PL.NOM BE.3PL on.the table
'The books are on the table.'

b. I par-usi-a ton vivlion sto trapezi
the PREF-BE-SG.F the.GEN book.PL.GEN on.the table
'The presence of books on the table'

In fact, *parusia* is a form whose derivational affinity to *ime* is not synchronically obvious to speakers unaware of the language's diachrony. This is so since it is not clear that the stem *-us-* is indeed derived from the same root as *i-* in *ime* in Modern Greek*, or ei-mi* (ειμί) in Ancient Greek. The situation is like English *presence* whose relationship to the copula BE is not apparent to modern-day English speakers. I suppose that two facts account for this lack of transparency in English. First, speakers unfamiliar with Latin or Romance languages do not recognize ESSE as a cognate of the copula BE. Second, those that they do hardly acknowledge ESSE in *presence*.

Going back to Greek, most speakers would more easily associate *parusia* with the verb *parusiazo*. The verb means 'present, demonstrate, perform, launch, show, exhibit' and has a NAct form. The latter is *parusiazome* and receives a change-of-state interpretation as 'appear, turn up, or be presented'.

Parusia itself is ambiguous as it is not always used as a nominalization. For example, in (39), the noun is used as a common noun meaning 'bearing, manner' This is also the case with English *presence*.

39. O Janis ine atomo me efxaristi parusia.
the John.NOM BE.3SG person.NOM with pleasant.F.SG bearing.SG

'John is a person of pleasant bearing.'

Crucially though, *parusia* as a derived nominal is never related to *parusiazo.* The nominalization of the latter is *parusiasi* 'presentation'. As shown in (40), *parusia* is not felicitous under a change-of-state interpretation, i.e., as a synonym to *emfanisi* 'appearance'.

40. a. O Janis parusiastike brosta sti Maria me ena ðoro.
the John.NOM appear.PST.PFV.NACT.3SG in.front of.the Mary with a gift
'John appeared in front of Mary with a gift.'
b. I (*parusia) / emfanisi tu Jani brosta sti Maria
the presence/appearance the John.GEN in.front of.the Mary
'The appearance of John in front of Mary'

As shown in (38), *parusia* constitutes the nominalized version of *ime* in locative sentences. The example in (41) below shows that *parusia* is the nominalization of *ime* in its existential use as well.

41. a. Ine kapja peðja sto parko.
BE.3PL some kid.PL.NOM at.the park
'There are some kids at the park.'
b. I parusia kapjon peðjon sto parko
the presence.NOM some.GEN kid.PL.GEN at.the park
'The presence of some kids at the park'

Alternatively, *ime* can get nominalized by *iparksi,* which is morphologically derived from *iparxo.*[62] So, next to (41b), there is also (41c):

41. c. I iparksi kapjon peðjon sto parko
the presence.NOM some.GEN kid.PL.GEN at.the park
'The presence of some kids at the park'

Notice that although the verbs *exo* and *ime* are not overtly prefixed, their nominalizations are. As mentioned for *iparxo,* these prefixes play a significant role in Greek.

To elaborate on my original remark, Asyllogistou (2018) shows that prepositional particles underwent a change in their status in the diachrony of Greek.

[62] Recall from 2.3. that *iparxo* substitutes for *ime*'s gap in perfective forms.

As illustrated in (42), Ancient Greek particles were independent morphemes, encoding the manner component.

42. *Ancient Greek* (Homer, *Odyssey* 14.61) (Asyllogistou 2018: 97)
Του γε θεοί *κατά* νόστον *έδεσαν*
To: ge theoi *kata* noston *edesan*
3.SG.GEN PRT god.PL.NOM down return.ACC tie.PST.PFV.3PL
'And so the gods completely prevented his return home.'

As such, they were argument-introducing heads. Alexiadou (2020) assigns the structure in (43) to the Ancient Greek particle-verb complex. In this derivation, the verbal item initiates as a root merged with a verbalizer v while the particle merges as an independent head with its argument structure:

43. [vP [v [**√** v] [pP [DP Figure] [**p** ***p*** [PP Ground]]]]

Particles in Modern Greek are not free-standing morphemes anymore.[63] Ralli (2004; 2005) and Efthymiou (2015) show that they are fully fused to the verb and behave like internal prefixes, i.e., as one unit with the verbal stem.[64]

---

[63] This might imply that Ancient Greek was a satellite-framed language, whereas Modern Greek became a verb-framed one (see also Lavidas 2009).

[64] A complication for the hypothesis that prefixes are fully fused with the verb arises because the augment prefix -*e*- that constitutes an exponent of (past) tense /inflection surfaces closer to the stem than the prepositional prefix (see 44). If the prepositional prefix is fully fused with the verbal stem, the inflection is not expected to be internal to the prefix.

However, this should not necessarily be considered an argument against the fusion hypothesis since diachronic evidence suggests that this linearization is not as strict as initially assumed. Horrocks (2010: 319) claims that "From late antiquity onwards, the practice of using an 'internal' augment with compound verbs (e.g., *pros-e-valon* 'they attacked') was steadily abandoned in favor of a regular 'external' augment (e.g., *e-proz-valan*), or no augment at all if the initial element began with a vowel." Asyllogistou (2018) discusses that the lack of steadiness concerning the augment's position appears at least as early as the Hellenistic period. She also shows that the instability in the presence of augment within a prefixed verb coincides with a fluctuation in the level of fusion observed in the same period. Further, as we reach the Modern Greek era, the examples of 'external' augments (e.g., *is-praksan* instead of *is-e-praksan* 'they collected the money' or *ap-o-vale* instead of *ap-e-vale* '(s)he expelled someone', (Asyllogistou 2018: 318) are increasing. This suggests that the 'prefix + verbal stem' complex tends to be treated as monomorphemic instead of bimorphemic in Modern Greek.

Furthermore, Spyropoulos & Revithiadou (2008) argue that *e*- is not synchronically a tense/inflection morpheme but a phonological segment inserted to ensure antepenultimate stress.

44. Ton *kat*-efaje i zilja.
him PREF-eat.PST.PFV.3SG the jealousy.NOM
'Jealousy ate him away.'

The Modern Greek status of particles is similar to that of Slavic particles. Building on literature for the latter, Alexiadou (2011b; 2020) assumes that in Greek, this change was the outcome of p-incorporation into the root. The whole derivation is as follows:

45. a. [vP [v [**√** v] [pP [DP Figure] [**p** ***p*** [PP Ground]]]]
b. [vP [v [**√+p** v] [pP [DP Figure] [**p** ~~***p***~~ [PP Ground]]]]

Crucially, apart from the change in their status, particles are still argument-introducing heads. For Modern Greek, this means that the item that seems to be the internal argument of the verb is introduced as an argument of p:

46. a. O Janis katexi poli simadika *egrafa*.
the John.NOM possess.3SG very important.PL.ACC document.PL.ACC
'John possesses very important documents.'
b. Iparxun pola *aftokinita* stus ðromus simera.
EXIST.3PL many car.PL.NOM in.the streets today
'There are many cars in the streets today.'

To turn our focus back to HAVE and BE, if we follow the above assumptions, we must assume that the arguments of the nominalizations *katoxi, parusia,* and *iparksi* are arguments of the p-head. As this p-head incorporates into the root, its arguments appear as arguments of the nominalization.

Since this type of head is responsible for introducing the arguments in their nominalizations, we can extend this hypothesis to the corresponding verbs and assume that the verbs *exo*, *ime,* and *iparxo* are prefixed verbs, i.e., they too have a p-head introducing their arguments which gets incorporated into v, in *exo* and *ime,* or the √ *arx*, in *iparxo*.

In *iparxo,* the derivation is transparent: the particle *ip*- incorporates into the root -*arx*-. The situation with *exo* and *ime* is opaque as we must assume that p is silent. I propose that to get nominalized, p must become overt so that the derivation does not collapse as a violation of Myers' (1984) generalization (47):

47. Myers' Generalization: *Zero-derived words do not permit the affixation of further derivational morphemes.*

The above generalization suggests that affixation as a process is not allowed to take place on stems that are themselves affixed with phonologically null (zero) morphemes (see Pesetsky 1995: 73–95 on how Myers' 1984 generalization can be read as a claim about the tendency of affixes to attach to non-zero-derived-stems instead of a claim about the process of affixation). Since the nominalization is an affixation process, it cannot proceed according to (47) if the affixation of zero-p has already taken place. In other words, *exo* and *ime* cannot be nominalized, i.e., have a nominalization suffix attach to them because they are already affixed with a zero (prepositional) morpheme. To avoid lacking a nominalization altogether, the Greek Grammar opts for a different strategy for *exo* and *ime*. The copulas choose a variant with an overt preposition since one is available.

Therefore, I argue that since a prefix is responsible for introducing the arguments in the nominalizations of *iparxo*, *exo,* and *ime*, the same prefix is responsible for the argument structure in their verbal forms. This prefix is overt in all nominalizations, namely in *iparksi, katoxi,* and *parusia.* However, regarding their verbal forms, it is overt only in *iparxo* but not in *exo* and *ime*. Arguably, it would stay covert in the latter cases if nominalization could occur once a zero-affixation process has already occurred. Thus, the fact that a prefix corresponding to a p-head appears in the nominalizations of *exo* and *ime* constitutes an argument for postulating that a p-head also exists when *exo* and *ime* are used in their verbal forms.[65]

---

[65] A possible counterargument to this analysis could be brought by the fact that *katoxi* does not nominalize *exi*-existentials. Based on the analysis pursued in this section, *katoxi* should nominalize *exo* whenever the latter selects a p-predicate. This applies to existential *exi*-sentences, too. However, some possible explanations for this fact suggest that the original hypothesis does not have to be abandoned.

First, it could be said that *kat-* has its own semantic content. Thus, it allows only for specific interpretations, the existential not being one of them. Alternatively, we could assume that since *katoxi* has its external argument being realized as an apo '*by*'-phrase, and *by*-phrases are known to include *affectors*, i.e., entities that are affected by the event denoted by the nominalization, according to Fox and Grodzinsky (1998), locations are excluded because they cannot be conceived of as affectors. Finally, it could also be maintained that as the inner p-structure of *exi*-existentials is unique, it blocks the nominalization process. Specifically, since the predicative structure of *exi*-existentials is shown to involve a locative argument realized as an adjunct PP (see 6.4.1.), the nominalizing head would have to select a structure lacking the second member of the Figure-Ground relationship, i.e., the locative argument. In this case, the location would be realized as a modifier of the nominalization, thus not establishing a two-place relationship.

6.3.2. Stativity

A second argument for postulating a p-head comes from the fact that both locatives and existentials are stative, and according to Hale & Keyser (2002), stativity results from the inclusion of a p(repositional) relation.[66] The stativity of the sentences under discussion is evidenced by several diagnostics proposed by Dowty (1979). The paragraphs below describe only those that apply to Greek.

First, as statives, existential sentences do not accept typical eventive modifiers such as manner adverbials (48) and 'it takes x-time' modification (49).

48. a. *Exi/Ine/Iparxun ɣriɣora pola vivlia sto trapezi.
HAVE.3SG/BE.3PL/EXIST.3PL quickly many book.PL.ACC/NOM on.the table
'*There are quickly many books on the table.'
b. * Ta vivlia ine ɣriɣora sto trapezi.
the book.PL.NOM BE.3PL quickly on.the table
'*The books are quickly on the table.'

49. a. *Xriazode ðeka lepta ja na exi /ine/iparxun kati vivlia
it.takes ten minutes in.order to HAVE.3SG/BE.3PL/EXIST.3PL some book.PL.ACC/NOM
sto trapezi.
on.the table
'*It takes ten minutes to be books on the table.'
b. *Xriazode ðeka lepta ja na ine ta vivlia sto trapezi.
it.takes ten minutes in.order to BE.3PL the book.PL.NOM on.the table
'*It takes ten minutes to be books on the table.'

As shown in (50), they can neither form imperatives.

50. ?Exe/*Iste/*Iparkste vivlia sto trapezi.[67]
HAVE.2SG/BE.2PL/EXIST.2PL book.PL.ACC/NOM on.the table
'*Be books on the table.'

Moreover, they hardly appear as complements of *piezo/anagazo* 'force'. Specifically, although *exi* is entirely unacceptable, the other two copulas are tolerable; *iparxo* is better than *ime.*

---

[66] Recall that I am referring to cases where the nominal is referential. Throughout this dissertation, I refrain from discussing eventive complements as they delineate a construction with a distinct derivation, at least semantically (see Myler 2016).

[67] *Exe vivlia sto trapezi* is acceptable by some speakers, yet the sentence coerces to the meaning 'Keep books on the table.'.

51. Me piezi/anagazi na *exi/[???]ine/[?]iparxun pola vivlia sto trapezi.
1SG.ACC force.3SG to HAVE.3SG/BE.3PL/EXIST.3PL many book.PL.ACC/NOM on.the table
'*It forces me to there be books on the table.'

A final diagnostic for stativity is provided by Roy (2013). Under her classification, typical statives qualify as *maxima*/predicates, i.e., predicates describing an eventuality without perceptible subparts. This means that the internal structure of the eventuality is conceptually inaccessible. Hence, temporal modifiers cannot restrict the predicate to smaller intervals. This makes the following utterance ungrammatical:

52. *French* (Roy 2013: 47)
Paul est un traducteur (*a ses heures libres).
Paul BE.3SG a translator at his hours free
'Paul is a translator in his spare time.'

Another property of maximal predicates, and, hence, statives, is that the so-called *lifetime effects* arise when they get marked for past tense. This means that, on this condition, the sentence implies that the subject is necessarily deceased (53).

53. *French* (Roy 2013: 65)
Paul était français/ généreux/ chauve.
Paul BE.PST.IPFV French generous bald
'Paul was French/generous/bald.'

Relative to this is the so-called *cessation inference,* which is also recognized as a property of statives. This term describes that past tense marking on statives leads to the implicature that the state expressed by the verb ceased to exist, i.e., it no longer holds at the time of the utterance. Interestingly, although the two above are not equivalent, they are brought about when locatives and existentials are marked for past tense.[68] This constitutes one additional argument for their stativity.

54. a. Kapote ixe polus katikus sto xorjo.
once HAVE.PST.3SG many resident.PL.ACC in.the village
'Once there were many residents in the village (and now most of them have passed away or the situation in which the residents of the village were numerous is over, and, now, the residents are very few).'

[68] For independent reasons related to the structure and interpretation of Aspect, these effects are more prominent when the verb surfaces with perfective past tense marking (Tsoulouchа 2017).

b. Kapote i ikojenia afti itan sto xorjo.
once the family.SG.NOM this BE.PST.3SG in.the village
'Once in the past, this family used to live in the village (and now all its members have passed away or are healthy and living outside the village).'

c. Ipirksan kali pextes stin omaða.
EXIST.PST.PFV.3PL good player.PL.NOM in.the team
'There were good players in the team (and now either they are deceased or the situation is that there are new players that are not good).'

Hale & Keyser (2002) adopt the idea that stativity arises through a prepositional relation from Pustejovsky (1991). They specify that the prepositional relation leading to stativity is that of *central coincidence*, i.e., the one requiring that all participants coincide in one place for every moment. Remarkably, this is precisely at the core of what existential (and locative) sentences convey: that the Figure coincides with one particular Ground. The two must obligatorily coincide as this is a prerequisite for the Figure's existence/introduction into the discourse. It is also essential that central coincidence is intrinsic to the notions of containment, support, and attachment that Svenonius (2010) assigns to 'p'.

6.3.3. Locative HAVE-sentences

A third argument for postulating that a p-head is responsible for introducing the existential predication comes from the comparison with locative-HAVE sentences. As repeatedly presented, if a Figure-Ground pair cannot appear in a simple transitive (possessive) *exo*-sentence (55a), the addition of a coindexed locative PP makes the sentence acceptable (55b).

55. a. ??? To trapezi exi ena vivlio/stilo.
the table.NOM HAVE.3SG a book/pen.SG.ACC
lit. 'The table has a book/pen.'

b. To trapezi$_i$ exi ena vivlio/stilo pano tu$_i$.
the table.NOM HAVE.3SG a book/pen.SG.ACC on it
'The table has a book/pen on it.'

This co-indexation requirement suggests that the subject creates a chain with a PP-internal position. In other words, this PP adds a step in the predication between the

two items. And critically, this step exploits a preposition. Ritter & Rosen (1997) make a stronger claim: this PP names the prepositional predicative head.

Leaving possessives aside for the moment, it is important that the same Figure-Ground pairs that become acceptable only in locative-HAVE sentences are those that are acceptable in existential sentences.

56. Exi/Ine/Iparxi ena vivlio/stilo (pano) sto trapezi.
HAVE/BE/EXIST.3SG a book/ pen.SG.ACC/NOM over on.the table
'There is a book/pen on the table.'

Given that these examples are paraphrases of locative-HAVE sentences, we can also assume such an extra step for existentials. That is, in existentials, an additional prepositional element also interferes in the predication between the two arguments.

To ensure this parallel is valid, it must be shown that the overt locative PP in existentials is not structurally part of the main predication. This is indeed supported in Section 6.4.1. Furthermore, in the case of locative-HAVE sentences, we do not need to assume an entirely independent p-based projection but rather hypothesize that the overt locative preposition takes over the role of the functional p (more on this is discussed in Chapter 8).

A final observation concerning alternations further supports the hypothesis that the predication in existentials is built upon a prepositional head. Witness in (57) that locative HAVE-sentences and existentials can appear as complements of the verb *iða* 'saw'.

57. a. Iða oti to trapezi exi ena vivlio pano tu.
see.PST.PFV.1SG COMP the table.NOM HAVE.3SG a book.SG.ACC on it
'I saw that the table has a book on it.'
b. Iða oti exi ena vivlio/stilo (pano) sto trapezi.
see.PST.PFV.1SG COMP HAVE.3SG a book/ pen.SG.ACC over on.the table
'I saw that there is a book/pen on the table.'

In this context, the CP-complement of *iða* can be reduced to a non-verbal constituent. In this case, the complementizer *oti* and the existential copula are omitted, and the Figure-Ground pair does not surface as a complex (possessive) DP (58a). Instead, a preposition mediates to define the predication between them (58b).

58. a. Iða #to vivlio tu trapezju.
see.PST.PFV.1SG the book.SG.ACC the table.GEN

lit. 'I saw the book of the table.'

b. Iða to vivlio sto trapezi.
see.PST.PFV.1SG the book.SG.ACC on.the table
lit. 'I saw the table's book.'

This constitutes evidence that a preposition is responsible for establishing the predication between the Figure and the Ground independently of the copulas.

To summarize the discussion so far, apart from cross-linguistic evidence, it is argued that a p-head is present in the syntax of Greek locatives and existentials because (a) there is an overt prepositional prefix in *iparxo,* (b) a similar prefix appears when both *exo* and *ime* get nominalized, (c) the constructions are stative, and stativity includes a p-based structure for Hale & Keyser (2002), (d) a preposition "steps in" to accommodate entity-pairs in plain HAVE-sentence, and (e) in the absence of the copula, the Figure-Ground relationship is provided by a preposition. These assumptions apply to all stative sentences containing *exo, ime,* and *iparxo*. Since possessives fall into the same stative type, they will receive a similar analysis (8.4.)

Given that a mediated-by-p predication must be assumed for all locative and existential constructions, the item that contributes to the main predication and the item that qualifies as the subject of predication needs to be identified. As explained at the end of Section 6.2., there are various assumptions in the cross-linguistic literature regarding the inner structure of the predication in locatives and existentials. Hence, the status of each constituent appearing in the predication of each type of sentence needs to be motivated. The following section is dedicated to this task.

6.4. The syntactic status of the constituents

In our attempt to unravel the underlying structure of existential and locative predication, I follow three steps. First, I focus on the overt locative item and show that its status is not the same across all the constructions (6.4.1.). Specifically, I argue that the locative PP is either a complement-of-p (in locatives, and *ime*-existentials for most speakers) or an adjunct (in all other cases). The locus of adjunction is explored in 6.4.2. Second, I focus on the nominal and argue that it is either the subject of predication (in *ime*- and *iparxo*-sentences) or a complement-of-p (in *exi*- sentences) (6.4.3.). Third, I postulate the presence of an implicit locative argument for the sentences in which the overt locative PP is an adjunct (6.4.4.).

To begin with, it is commonly proposed in the cross-linguistic literature that the overt locative item does not occupy the same syntactic position in existentials

and locatives. The original claim refers to English *there-be*-sentences as representatives of the existential construction.

First, Francez (2007: 67) observes that the overt locative item in *there-be*-sentences (59a) can have a reading as a free relative (FR), roughly with the meaning of *the place where* (59a, i). This meaning appears as the preferred alternative to a quirky one (59a, ii). In contrast, the post-copular PPs in locative sentences cannot have the free-relative reading (59b).

59. a. There is a zoo where I come from.
    i. There is a zoo in the city where I come from. (FR-reading)
    ii. A zoo is where I come from, i.e., I come from a zoo. (quirky reading)
    b. A zoo is where I come from.
    i. A zoo is where I come from, i.e., I come from a zoo. (quirky reading only)

This observation extends to Greek.[69] The locative phrase *eki opu megalosa*, *lit*. 'there, where I grew up' receives the same reading as the free-relative only in *exi*- and *iparxo*- existentials (60a, b). In fact, this is the only interpretation of these sentences. In contrast, the same phrase does not allow this reading in *ime*-sentences (60c).

60. a. Exi ena zoolojiko kipo eki pu meɣalosa.
    HAVE.3SG a zoo.SG.ACC there where grow.up.PST.PFV.1SG.
    'There is a zoo where I grew up, i.e., I grew up in a city with a zoo.'
    b. Iparxi enas zoolojikos kipos eki pu meɣalosa.
    EXIST.3SG a zoo.SG.NOM there where grow.up.PST.PFV.1SG.
    'There is a zoo where I grew up, i.e., I grew up in a city with a zoo.'
    c. (Enas zoolojikos kipos) ine (enas zoolojikos kipos) eki pu meɣalosa.[70]
    a zoo.SG.NOM BE.3SG a zoo.NOM there where grow.up.PST.PFV.1SG
    'A zoo is where I grew up, i.e., I grew up in a zoo (literally or metaphorically).'

Francez (2007: 71) continues that when the PPs are temporal, they are ambiguous between a punctual and a durational reading in *there-be*-sentences (61a). While the

[69]Note that the Greek examples do not include free relatives but typical relative clauses with *eki* 'there' as their antecedent because free relatives are restricted in the language (see Philippaki-Warburton & Stavrou 1986; Alexiadou & Varlokosta 1996; 2007; Daskalaki 2007; Spyropoulos 2011).

[70] The parentheses in the example are used to show that the reading mentioned below the examples arises regardless of the position of the noun phrase, i.e., it occurs in the surface order of the locative sentence (pre-verbal nominal) and the surface order of the existential sentence (post-verbal nominal). This type of notation is used in the following examples, too.

punctual reading is intuitive, the durational is dispreferred. There is no such ambiguity in locative sentences (62a), to the level they are acceptable. The situation in Greek is very similar because the same ambiguity arises in *exi*-and *iparxo*-existentials (61b). However, *ime*-sentences are not ambiguous regardless of their surface order (62b). They have only a durational reading in their use as locatives and existentials.

61. a. There were no flights until evening.
    b. Den exi/iparxun ptisis mexri to apojevma.
    NEG. HAVE.3SG/EXIST.3PL flight.PL.ACC/NOM until the evening
    i. According to the flight schedule, no plane arrives (or departs) earlier than the evening. (punctual)
    ii. No flight departs in the morning/noon and lasts until the evening, i.e., all flights land before evening. (durational)

62. a.? No flights were until evening.
    b. (Kamia ptisi) ðen ine (kamia ptisi) mexri to apojevma.
    any flight.SG.NOM NEG. BE.3SG any flight.SG.NOM until the evening
    ii. No flight departs in the morning/noon and lasts until the evening, i.e., all flights land before evening. (durational)

Similarly, when the PP contains an eventive nominal, it may receive a temporal reading only when it takes part in HAVE- and EXIST-based existentials (63). When a similar PP appears in a BE-based sentence (64), it has only a locative reading. This difference is illustrated by the fact that a *pote* 'when'-question is tolerable only in (63).

63. A: Exi/Iparxun pola peðja stin parelasi/sto party.
    HAVE.3SG/EXIST.3PL many kid.PL.ACC/NOM at.the parade/ at.the party
    'There are many kids at the parade/party.'
    B: (?)Pote exi/iparxun pola peðja?
    when HAVE.3SG/EXIST.3PL many kid.PL.ACC/NOM
    'When are there many kids?'

64. A: (Pola peðja) ine (pola peðja) stin parelasi/sto party.
    many kid.PL.NOM BE.3PL many kid.PL.NOM at.the parade/ at.the party
    'Many kids are at the parade/party.'
    B: *Pote ine pola peðja?
    when BE.3PL many kid.PL.NOM
    int. 'When are many kids?'

Third, Francez (2007: 72) observes that PPs in *there-be*-sentences (65a) license free-choice items, unlike locative sentences (65b). The same holds for Greek. PPs in *exi*- and *iparxo*-sentences license *opjosðipote* 'any' contrary to post-copular PPs in locatives (66). Crucially, although *ime*-existentials have been behaving like locatives so far, they diverge and pattern like *exi/iparxo*-existentials in this case.

65. a. There's a lion in any zoo.
    b. *A/The lion is in any zoo.

66. a. Exi/Iparxi/Ine ena ljodari se opjoðipote zoolojiko kipo.
    HAVE/EXIST/BE.3SG a lion.SG.ACC/NOM in any zoo
    'There's a lion in any zoo.'
    b. * Ena/To ljodari ine se opjoðipote zoolojiko kipo.
    a the lion.SG.NOM BE.3SG in any zoo
    '*A/The lion is in any zoo.'

Interestingly, next to them, I was able to record a sentence by a speaker belonging to the non-SMG group, which shows that a locative PP in a non-SMG *ime*-existential (non-SMG, because it licenses a bare count nominal, which is unacceptable for most SMG speakers) can also license the same free choice item. This utterance is not acceptable for most Modern Greek speakers (67a). Its acceptability, though, increases if an indefinite determiner is added to the post-verbal nominal (67b). This example corroborates the claim that, in this case, *ime*-existentials create a parallel with other types of existentials, not with *ime*-locatives.

67. a. Pada ine anaptiras se opjaðipote tsada mu.
    always BE.3SG lighter.SG.NOM in any purse my
    'There is always a lighter in any of my purses.'
    b. Pada ine enas anaptiras se opjaðipote tsada mu.
    always BE.3SG a lighter.SG.NOM in any purse my
    'There is always a lighter in any of my purses.'

The same researcher (Francez 2007: 65) stresses that PP-codas in *there-be*-sentences (68a) can be used to establish a part-whole or constitution relation (i) contra locative sentences (68b). Under the former interpretation, the pivot nominal is presented as a core part of the locative PP. His examples are slightly rephrased below.

68. a. There is no British minister in Greece.
    i. No British serves as a minister in the Greek government.
    ii. No British minister (from any country) is currently (visiting) Greece.
    b. No British minister is in Greece.
    ii. No British minister (from any country) is currently (visiting) Greece.

In Greek, *exi-* and *iparxo*-existentials are ambiguous between a locative and a part-whole reading (69), as their English counterparts. In contrast, the locative sentences (70) are not ambiguous since they exclude the constitution reading.

69. a. Den exi kanenan Aglo ipurɣo stin Elaða.
    NEG. HAVE.3SG any.ACC British.ACC minister.SG.ACC in.the Greece
    b. Den iparxi kanenas Aglos ipurɣos stin Elaða
    NEG. EXIST.3SG any.NOM British.NOM minister.SG.NOM in.the Greece
    'There are no British ministers in Greece.'
    i. No British serves as a minister in the Greek government.
    ii. No British minister (from any country) is currently (visiting) Greece.

70. (Kanenas Aglos ipurɣos) ðen ine (kanenas Aglos ipurɣos)
    any.NOM British.NOM minister.SG.NOM NEG. BE.3SG any.NOM British.NOM minister.NOM
    stin Elaða.
    in.the Greece
    'No British minister is in Greece.'
    ii. No British minister (from any country) is currently (visiting) Greece.

Recall from 4.3. that, in general, constitution relations hardly fit into *exi-* and *ime-* sentences. However, when they do, Francez's remark works as a diagnostic as it introduces a distinction: similarly to *iparxo*-sentences, *exi*-sentences can convey constitution relations, whereas *ime*-locatives (and existentials) cannot.

Stepping away from Francez, recall that there is a strong animacy restriction on the PP-codas in existential sentences. Even if an animate PP surfaces in this group of sentences, it receives a coerced locative interpretation. In (71), the animate-PP is accepted with *exi* and *iparxo,* yet the interpretation it yields is that 'the kids are in the house/place that John leaves or is currently located'. Note that this is also true for *ime*-existentials.

71. Exi/Iparxun/Ine pola peðja ston Jani simera.
    HAVE.3SG/EXIST.3PL/BE.3PL many kid.PL.ACC/NOM at.the John today
    'There are many kids at John's place today.'

By contrast, the locative sentence in (72) does not have a necessarily locative interpretation. Next to the reading similar to (71), the sentence can also mean that the kids are (currently) with John.

72. Ta peđja ine ston Jani.
the kid.PL.NOM BE.3PL at.the John
'The kids are at John's/with John.'

Therefore, it is clear that the PP in *exi*- and *iparxo*-sentences, as in English *there-be*-sentences, has readings unavailable to the post-copular PP in *ime*-locatives. In most cases, *ime*-existentials behave similarly to *ime*-locative sentences (in disallowing the post-copular PP's free-relative, punctual, temporal, and constitution readings). However, they pattern like *exi*- and *iparxo*-sentences regarding the licensing of free choice items in the locative PP and the necessity to coerce a locative reading for PP-codas containing animate nouns. A summary of the locative PP's properties is included in the table in (101) at the end of Section 6.4.1.

Subsequently, we are led to assume that the overt locative PP does not have the same syntactic status in all cases. Given the conclusion of 6.3. that a preposition heads the small clause in existentials and locatives, the next step is to pin down the position of the locative PP within this p-structure.

6.4.1. The overt locative

Following a long tradition in the literature, I assume and further support on the basis of evidence presented below that the PP in locatives is part of the main predication. Since I accept that small clauses are headed, this means that it appears as the complement of the predicative head. Conversely, the PP in existentials does not necessarily occupy the same position. As a matter of fact, Greek lends support to the assumption originating in McNally (1997), according to which the locative in most existentials is an adjunct (see also Leonetti 2008).

First, recall from Chapter 2 that the PP is obligatory in locatives (73a) and *ime*-existentials for most speakers (73b). At the same time, it is optional in *ime*-existentials for some speakers and in the rest of the existentials for all speakers (74). The examples illustrating this are repeated below:

73. a. Ta vivlia ine *([sto trapezi]/[eðo]).
the book.PL.NOM BE.3PL on.the table/here
'The books are *([on the table]/[here]).'

b. Ine$_{SMG}$ kati vivlia *([sto trapezi]/[eðo]).
BE.3PL some book.PL.NOM on.the table /here)
'There are books ([on the table]/[here]).'

74. Exi/Iparxun/Ine$_{NON\text{-}SMG}$ vivlia (sto trapezi).
HAVE.3SG/EXIST.3PL/BE.3PL book.PL.ACC/NOM on.the table
'There are books (on the table).'

Consider that if the PP is the main predicate or, in our case, part of the main predication, its inability to be omitted is expected as its omission wouldn't preserve the truth of the sentence. The omission of the post-copular complement in (75) leads to ungrammatically. It makes it a non-sensical utterance that attempts to assign a property to the subject without naming the property.

75. a. Ta pexniðja ine akoma sto patoma. → #Ta pexniðja ine akoma.
the toy.PL.NOM BE.3PL still on.the floor the toy.PL.NOM BE.3PL still
b. Toys are still on the floor. → #Toys still are.

In contrast, omitting the optional PP in the existential constructions necessarily preserves the truth. As shown in (76a), even when the PP is omitted, the sentence still denotes that *toys* exist somewhere. It is the case that this 'somewhere' is not specific.

76. a. Exi/Iparxun/Ine$_{NON\text{-}SMG}$ akoma pexniðja sto patoma.
HAVE.3SG/EXIST.3PL/BE.3PL still toy.PL.ACC/NOM on.the floor
→ Exi/Iparxun/Ine$_{NON\text{-}SMG}$ akoma pexniðja.
HAVE.3SG/EXIST.3PL/BE.3PL still toy.PL.ACC/NOM
b. There are still toys on the floor → There are still toys/Toys still exist.

Next, I adopt Gehrke & Lekakou (2013), who argue that P(reposition)-drop is only available with verbs that take PP arguments, namely verbs of directed motion and verbs of location. Adjunct PPs cannot drop their prepositional head, at least in most cases (see Terzi 2010 and Kouneli 2014 for the conditions under which Ps heading adjunct PPs can be dropped). The researchers show this contrast based on the following examples:

77. a. Ftano panepistimio.
arrive.1SG university.SG.ACC
'I am arriving at the university.'

b. Epistrefume kedro.
return.1PL center.SG.ACC
'We are coming back downtown.'

c. Ime tualeta.
BE.1SG toilet.SG.ACC
'I am in the loo.'

In contrast with (77), where an overt preposition does not accompany the argumental locative nominals, the non-argumental nominals in (78) cannot drop their preposition:

78. a.*Siniθos troo jimnastirio/sxolio/ɣrafio.
usually eat.1SG gym/school/office.SG.ACC
int. 'I usually eat at the gym/school/office.'

b. *Perpatisa/xorepsa jimnastirio/sxolio/ɣrafio/eklisia.
walk/dance.PST.PFV.1SG gym/school/office/church.SG.ACC
int. 'I walked/danced at the gym/school/office/church.'

To employ this as a diagnostic, it is predicted that P-drop will be permitted only in argumental PPs. Indeed, P-drop becomes available in locative sentences (79a) and, for SMG speakers, in *ime*-existentials (79b) too. *Exi*- and *iparxo*- sentences, as well as *ime*-existentials for a minority of Modern Greek speakers, do not allow it (80).

79. a. Ta peðja ine (sto) sxolio/jimnastirio/ ɣrafio.[71]
the kid.PL.NOM BE.3PL at.the school/gym/office.SG.ACC
'The kids are at the school/gym/office.'

b. Ine$_{SMG}$ pola peðja (sto) sxolio/jimnastirio/ɣrafio simera.
BE.3PL many kid.PL.NOM at.the school/gym/office.SG.ACC today
'There are many kids at the school/gym/office today.'

80. *Exi/Iparxun/Ine$_{NON\text{-}SMG}$ peðja sxolio/jimnastirio/ɣrafio simera.
HAVE.3SG/EXIST.3PL/BE.3PL kid.PL.ACC/NOM school/gym/office.SG.NOM today
int. 'There are kids at the school/gym/office today.'

To clarify the situation regarding *ime*-sentences, witness that the locative sentence in (81) is acceptable by all speakers of Greek.

[71] Note that I have intentionally left outside the discussion, examples including *spiti* 'home' since Terzi (2010) shows that this nominal behaves exceptionally, as is the case cross-linguistically, e.g., with English *home,* German *(da)heim*, Russian *doma* / *domoj*.

81. Kati peðja ine platia ke arazun.
some kid.PL.NOM BE.3PL square.SG.ACC and hang.out.3PL
'Some kids are at the square, and they hang out.'

When the existential configuration is attempted, variation among speakers arises. The vast majority of speakers, i.e., what I have been calling the group of SMG speakers, not only needs an overt determiner but also allows for P-drop. Their existential construction (82) essentially looks like an inverted locative construction.

82. Ine_{SMG} kati peðja platia ke arazun.
BE.3PL some kid.PL.NOM square and hang.out.3pl
'There are some kids at the square, and they hang out.'

Although the smaller group of non-SMG speakers accepts this sentence if asked, they can also use the sentence in (83) with the bare nominal. However, when they use it, they can no longer omit the preposition of the locative alone. That is, they can either omit the locative PP *stin platia* 'at the square' as a whole or preserve the *se*-preposition.

83. $\text{Ine}_{\text{NON-SMG}}$ peðja *(stin) platia ke arazun
BE.3PL kid.PL.NOM at.the square.SG.ACC and hang.out.3PL
'There are some kids at the square, and they hang out.'

Thereby, if we consider P-drop a diagnostic for arguments, we conclude that the PP is an argument in locatives and SMG *ime*-existentials. In contrast, it is an adjunct in *exi*-, *iparxo*- and non-SMG *ime*-existentials.

A similar observation regarding the locative inversion possibility has been made for English sentences. Although this phenomenon is still controversial in the literature, there is a consensus accepting that contrary to adjuncts, predicational or argumental PPs can be inverted and hence appear in sentence-initial positions.[72] This

[72] McNally (1997) argues that adjuncts, too, can be pre-posed. Specifically, only IP-level adjuncts can, whereas VP-adjuncts cannot. For the researcher, since PP-codas in *there-be*-sentences are not pre-posed, they do not qualify as IP-adjuncts but as VP-adjuncts. She illustrates this using the following examples (McNally 1997: 61, ex. 77):

i. a. *Enrolled in the course, there are two students who object to that.
b. *Working at the Pub these days, there is a woman who knows you.
c. *Interested in that movie, there was nobody but John.
d. *To blame, there was only myself.

has been reported by Bresnan (1994), Hale & Keyser (2000), Bailyn (2004), and especially Borer (2010) and Alexiadou (2009) for unaccusatives (the examples are from Alexiadou 2009: 16, ex 58–59).

84. a. In the corner was a lamp.
    b. Among the guests was sitting my friend Rose.
    c. Back to the village came the tax collector.

85. a. On the table appeared many wonderful delicacies.
    b. *On the table broke several precious glasses.

Based on Borer's (ibid) and Alexiadou's (ibid) assumptions, only those unaccusatives that select a locative argument allow locative inversion. In reverse, PPs that are not selected cannot be inverted. It is indicative, then, that locative *be*-sentences in English allow locative inversion (86), whereas existential *there-be*-sentences do not (87):

86. a. In the club were my friends.
    b. In the kitchen was my mom.
87. a. *In the club there were my friends.
    b. *In the kitchen there was my mom.

This diagnostic is not reliable in Greek because the latter is a free word-order language, and adjuncts surface in various positions within the sentence.[73,74]

The author holds that locative inversion shows that the PPs in existentials are not IP-level adjuncts in addition to not being (part of) the predicate or an argument of the sentence.

[73] In the same spirit, the diagnostics considering the behavior of relative clauses in English cannot be replicated in Greek, as relative clauses differ between the two languages. For English, Rothstein (2004) uses relativization by *which* as a diagnostic for predicates. The contrast presented in (i) suggests that the PP is a predicate only in the locative sentence in (a):

i. a. A child is at the PD which is not a great place to be.
   b. *There is a child at the PD which is not a great place to be.

[74] One additional piece of evidence for the analysis of locative PPs in English existentials as adjuncts is provided by Williams (1984: 132). The author observes that other nominals cannot follow complex nominal pivots. This constitutes strong evidence that the coda-phrase is in an adjunct position since adjunct nominals (except for temporal nominals like *last year)* are ungrammatical in English.

i. *There was a friend of mine an imposter.

Nevertheless, I propose that the distribution of the adverbial *again* is a diagnostic applying to both languages. This criterion shows that the PP in *exi-*, *iparxo-*, and, partially, *ime-* sentences is outside the main predicative structure. Although this test has been used for identifying complex event structure by McCawley (1968; 1971), Dowty (1979), and von Stechow (1996), it is not the use it will receive in this case since the constructions we are investigating are arguably mono-eventive.[75]

The adverb distribution is used as a diagnostic for severing the PP from the predicative phrase. Specifically, it predicts that if the PP can remain outside the scope of the adverb alone, then the PP is not part of the main predication. The examples below show that the adverb leaves the PP outside its scope and scopes over the NP alone only in *exi-* and *iparxo-*sentences (90,91) and not in *ime-*locatives (88a,89a). To make the examples more sensible, consider them as continuations of the claim that 'Yesterday there were toys in Peter's room'.

To illustrate this, witness that the locative sentence in (88a) can only mean that the toys are again in Peter's room. This is evidenced by the fact that the location cannot be denied (89a). This means that *again* takes scope over the nominal and the locative PP.

88. a. Simera ta pexniðja ine ksana sto ðomatio tu Petru.
today the toy.PL.NOM BE.3PL again in.the room the Peter.GEN
'Today the toys are again in Peter's room.'

b. ?? Simera ine (ksana) kati pexniðja (ksana) sto ðomatio tu Petru.
today BE.3PL again some toy.PL.NOM again in.the room the Peter.GEN
'Today there are again some toys in Peter's room.'

89. a. *Simera ta pexniðja ine ksana ala oxi sto ðomatio tu Petru.
today the toy.PL.NOM BE.3PL again but no in.the room the Peter.GEN
int. 'Today the toys are again in some place relevant but not in Peter's room.'

b. ?? Simera ine (ksana) kati pexniðja (ksana) ala oxi sto ðomatio tu Petru.
today BE.3PL again some toy.PL.NOM again but no in.the room the Peter.GEN
int. 'Today there are again some toys somewhere but not in Peter's room.'

This argument cannot be transferred to Greek, as nominals appear in an adjunct position. This more plausibly relies on the fact that Greek nominals have denotations unavailable to English (see Alexiadou 2001; 2011a; Tsoulas 2009; Alexopoulou & Folli & Tsoulas 2013; Kampanarou 2017; 2019; Alexopoulou & Folli 2019).

[75] What is more, I neither get into the debate on whether *again* with statives is restitutive or only repetitive (see Alexiadou & Schäfer 2011).

The judgments for *ime*-existentials are less clear (88b). Although the vast majority of speakers judge these sentences similarly to *ime*-locatives, few speakers get the interpretation in which *again* scopes only over the NP (89b). This suggests that for this limited number of speakers, *ime*-existentials behave like all other types of existentials, as presented below.

All speakers agree that *exi*- (90a) and *iparxo*-existentials (90b) have a reading in which the locative PP is left outside the scope of *again.* The surface position of the adverb does not affect this possibility in either construction. The fact that the PP can be denied in the following examples suggests that only the NP is within the adverb's scope.

90. a. Exi (ksana) pexniðja (ksana) ala oxi sto ðomatio tu Petru.
HAVE.3SG again toy.PL.ACC again but no in.the room the Peter.GEN
b. Iparxun (ksana) pexniðja (ksana) ala oxi sto ðomatio tu Petru.
EXIST.3PL again toy.PL.NOM again but no in.the room the Peter.GEN
'There are again toys in some place relevant, but not in Peter's room.

If the PP stays outside the main predication in existential sentences (modulo non-SMG ones), the assumption that it merges in an adjunct position is the only possible explanation.

Moreover, building on Cohen & Erteschik-Shir (2002) and Alexiadou (2009), we expect that locative arguments will act as stage topics (i.e., as the items that indicate the spatiotemporal parameters of the sentence, the here-and-now of the discourse) contra locative adjuncts. Although the contrast is not very sharp, the judgments seem compatible with this prediction.

91. a. Oso ja to parti, ta peðja ine akoma eki/ ine pola peðja
as for the party the kid.PL.NOM BE.3PL still there BE.3PL many kid.PL.NOM
eki akoma.
there still
'As for the party, the/many kids are still there.'
b. ?Oso ja to paljo spiti, ta epipla ine akoma eki/ ine kati
as for the old house the furniture.PL.NOM BE.3PL still there BE.3PL some
epipla akoma eki.
furniture still there
'As for the old house, the/some furniture is still there.'

The locative sentence and the *ime*-existential in (91) let the PP constituent act as a stage topic relatively easily, whereas existential sentences with *exi* and *iparxo* do not (92).

92. a. ?? Oso ja to parti, exi/iparxun pola peđja eki.
as for the party, HAVE.3SG/EXIST.3PL many kid.PL.ACC/NOM there
lit. 'As for the party, there are many kids still there.'
b. ?? Oso ja to paljo spiti, exi/iparxun kati epipla akoma eki.
as for the old house, HAVE.3SG/EXIST.3PL some furniture.PL.NOM still there
lit. 'As for the old house, there is some furniture still there.'

At this point, extraction possibilities must also be brought into the discussion. Even though this test has been extensively used in the literature to determine the syntactic position of the constituents, its validity in the context of existentials/locatives has been questioned as early as Safir (1987) but most prominently in Francez (2007). The general picture regarding this phenomenon is that extracting material (i.e., sub-extraction) out of complements is less problematic than extracting it out of subjects and adjuncts (Postal 1974). Spyropoulos & Stammatogianis (2011) show that Greek violates the *Subject Condition* since it permits extraction out of all kinds of DP-subjects in all positions. Therefore, the generalization for Greek is that when sub-extraction is significantly problematic, the constituent is an adjunct.

The distribution concerning locational constructions is indicative of a distinction as sub-extraction is available in the locative (93) and unavailable in existentials, including *ime*-ones for those that accept it (94):

93. a. Ta peđja ine koda sto spiti.
the kid.PL.NOM BE.3PL near in.the house
'The kids are near the house.'
b. Poso koda ine ta peđja sto spiti?
how.much near BE.3PL the kid.PL.NOM in.the house
'How near the house are the kids?'

94. a. Exi/Iparxun/Ine$_{\text{NON-SMG}}$ peđja koda sto spiti.
HAVE.3SG/EXIST.3PL/BE.3PL kid.PL.ACC/NOM near in.the house
'There are kids near the house.'
b. *Poso koda exi/iparxun/ine$_{\text{NON-SMG}}$ peđja sto spiti?
how.much near HAVE.3SG/EXIST.3PL/BE.3PL kid.PL.ACC/NOM in.the house
int. 'How near the house are there kids?'

This distribution suggests that the locative is an adjunct in the second case but not in the first. Given the claims in Spyropoulos & Stammatogianis (2011), it must be clarified that the grammaticality of (93) discloses what the PP is *not*, not what it actually *is*. This is so since the absence of restriction in sub-extraction means that the PP is either a subject or a complement. Either way, the locative in locative sentences is part of the main predication.

In the same spirit, Williams (1984), Kayne (1993), and McNally (1997) use extraction as a diagnostic for English locationals.[76] They claim that only predicates allow extraction. Hence, the fact that the post-copular phrase in locatives allows extraction suggests that it is a predicate. McNally (ibid) illustrates this in sentences with adjectival phrases since these phrases concern her most (95). However, she clearly states that locative PPs in predicative sentences receive a similar analysis.

95. a. The children were sick.
    b. How sick were the children?

In contrast, since the post-copular phrase does not allow extraction in *there-be*-sentences, it is not analyzed as a predicate.

96. a. There were children sick.
    b. *How sick were there children?

These examples can be felicitously replicated in Greek. The locative sentence in (97) allows extraction of the coda phrase.

97. a. Ta peðja ine koda sto tzaki.
    the kid.PL.NOM BE.3PL near to.the fireplace
    'The kids are near the fireplace.'
    b. Pu koda ine ta peðja?
    where near BE.3PL the kid.PL.NOM
    lit. 'Near where are the kids?'

The same is true for SMG *ime*-existentials (98), i.e., for *ime*-existentials for most Modern Greek speakers, even though the acceptability is slightly reduced.

[76] Keep in mind that sub-extraction differs from extraction as the latter refers to extracting a constituent as a whole.

98. a. Ine pola peđja koda sto tzaki.
BE.3PL many kid.PL.NOM near to.the fireplace
'There are many kids near the fireplace.'
b. ?Pu koda ine pola peđja?
where near BE.3PL many kid.PL.NOM
lit. 'Near where are there many kids?'

Extracting the PP from *exi*- and *iparxo*-sentences (99) is in clear contrast with the locative sentences in (97). The contrast with *ime*-existentials is not very sharp.

99. a. Exi/Iparxun pola peđja koda sto tzaki.
HAVE.3SG/EXIST.3PL many kid.PL.ACC/NOM near to.the fireplace
'There are many kids near the fireplace.'
b. ??? Pu koda exi/iparxun pola peđja?
where near HAVE.3SG/EXIST.3PL many kid.PL.ACC/NOM
lit. 'Near where are there many kids?'

As with sub-extraction, this diagnostic tells us only that the post-copular PP is a predicate in locative sentences, whereas it is not in *exi*-and *iparxo*-existential sentences. *Ime*-existentials exhibit, once again, a mixed behavior. Thus, extraction is not particularly informative about what the coda phrase really is in existential constructions.

Importantly, this diagnostic stems from a body of work where small clauses are non-headed. Therefore, the claim that the PP in locatives is a predicate is syntactically translated into an analysis where the PP is the head that projects a specifier position for its subject, i.e., the nominal (Stowell 1978; Chomsky 1981; Safir 1982; 1987; Sag & Pollard 1994). When this is transferred to headed small clauses, the locative PP in locatives should be analyzed as a complement of the predicative head (Bowers 1993; Adger & Ramchand 2003; Baker 2003; den Dikken 2006; Citko 2008; Roy 2013).

A final argument showing that the overt locative constituent in *exi*-and *iparxo*-existentials is severed from the main predication, unlike locatives, is drawn from how quantifier scope readings are determined.[77] To illustrate this, witness the following distribution.

[77] Given that the surface order *universal quantifier* (∀) >*existential quantifier* (∃) does not give true inverse scope readings, I only consider the linear order ∃>∀.

100. a. (Ine) kapjo loɣotexniko vivlio (ine) se kaθe taksi. ∃>∀, ∀>∃
BE.3SG some literary book.SG.NOM BE.3SG in each classroom
'A literary book is in each classroom.'
b. Exi/Iparxi kapjo loɣotexniko vivlio se kaθe taksi. */??∃>∀, ∀>∃
HAVE/EXIST.3SG some literary book.SG.ACC/NOM in each classroom
'There is a literary book in each classroom.'

When the interpretation reached is that of the surface order (∃>∀), the sentences mean that the same book (i.e., a copy of the same literary book) appears in every classroom, whereas under the inverse scope reading (∀>∃), there is the copy of a different literary book in every classroom.

As presented above, only *ime*-sentences allow both scope readings, at least more easily (100a).[78] This is true for the locative and the existential surface form. Building on assumptions made for ditransitives, this suggests that the two constituents are part of the same small clause (see den Dikken 1995; Harley 1995; 2002; Pesetsky 1995; Anagnostopoulou 2003).

In contrast, the existential sentences in (100b) almost lack one of the readings. Interestingly, they lack the one provided by the surface word order. Primarily, this means that these constituents are not in the same small clause. Further, it shows that the surface word order presumably does not correspond to the structural order of the constituents. In other words, it hints that the PP is introduced in a position higher than the nominal. The following section focuses on the hierarchical order between the constituents.

Summing up, in this section, I established that the overt locative constituent does not have the same status in locatives and most existentials. This view is dominant in recent literature discussing English *there-be*-sentences and their cross-linguistic counterparts. To support this further, I proposed several diagnostics that identify the role of the overt locative in the structure. These refer to (a) optionality of the overt locative constituent and preservation of the truth when omitted, (b) P-drop availability, (c) *again*-distribution, (d) availability to act as a stage topic, (e) (sub-) extraction, and (f) availability of surface/inverse scope readings.

Based on them, I have concluded that the overt locative constituent in *exi*- and *iparxo*- existentials is an adjunct. In contrast, the same constituent in locatives is part of the main predication, merged as the complement of the predicative head. The situation regarding *ime*-existentials is less cohesive. There are indications that

[78] In general, the copy-reading of the noun phrase *kapjo loɣotexniko vivlio* 'some literary book' in both contexts is not easily accessible to some speakers. However, for those that it is accessible, the contrast between the sentences is nearly sharp.

the locative is also an adjunct for the restricted non-SMG group of speakers. For the rest of the speakers, i.e., for what I have been calling the SMG group, the overt locative behaves as in locatives.

The following table summarizes the properties of the overt locative constituent in all types of sentences. It also highlights the mixed behavior of *ime*-sentences by marking the variation in the judgments if present. The general picture regarding *ime*-existentials is that the locative PP sometimes behaves like the main predicate and sometimes as an adjunct. Importantly, though, in most cases, the adjunct-like behavior is systematic to a specific and limited number of speakers.

101. *The behavior of the overt locative PP in existentials and locatives.*

Properties of the overt locative	**Types of sentences**				
	ime-locatives	*exi*-existentials	*iparxo*-existentials	*ime*-existentials*	
Free-relative reading	Unavailable	Available (unique)	Available (unique)	Unavailable	
Interpretation when temporal	Durational	Punctual/ Durational	Punctual/ Durational	Durational	
Temporal readings when eventive	Unavailable	Available	Available	Unavailable	
Licensing of free-choice items	Unavailable	Available	Available	Available	
Constitution reading	Unavailable	Available	Available	Unavailable	
Coerced locative reading when animate	Unnecessary	Necessary	Necessary	Necessary	
Omission	Unavailable	Available	Available	Unavailable (SMG)	Available (non-SMG)

Existence entailment when omitted	Unpreserved	Preserved	Preserved	Unpreserved (SMG)	Preserved (non-SMG)
P-drop	Available	Unavailable	Unavailable	Available (SMG)	Unavailable (non-SMG)
Staying outside the scope of *again*	Unavailable	Available	Available	Unavailable (SMG)	Available (non-SMG)
Stage-topic	Easily	Marginally	Marginally	Easily	
Subextraction	Available	Unavailable	Unavailable	Available (SMG)	Unavailable (non-SMG)
Extraction	Available	Unavailable?	Unavailable?	*inconclusive*	
Quantifiers-scope readings	Surface/ Inverse order	Inverse order	Inverse order	Surface/ Inverse order	

*the SMG notation refers to the judgments of the majority of Modern Greek speakers

The following section focuses on the adjunct locative PPs in existentials and tries to determine their position in the structure, i.e., the locus of adjunction.

6.4.2. Adjunct locatives: locus of adjunction

The hypothesis that the locative PP is an adjunct in existentials is familiar in the cross-linguistic literature, where one can find several assumptions regarding the locus of adjunction. For instance, Jenkins (1975) and Williams (1984; 1994) treat the locative constituent as an NP adjunct, whereas, for McNally (1997), Francez (2007; 2009), and succeeding work, it is a VP-adjunct.

Several facts acknowledged in 6.2. have shown that the view advocated by Jenkins (ibid) and Williams (ibid) cannot be maintained. Out of the arguments provided in 6.4.1., there is only one that gives merit to the latter assumption. It is the empirical evidence offered by McNally (1997) regarding locative inversion. As shown in (86,87), the fact that PPs cannot appear in a sentence-initial position suggests that they are not adjoined to the IP-level since IP-adjuncts can do so. What is crucial for McNally (ibid) and Francez (ibid) is that the PP is merged in the broad complement area of the copula as its behavior is consistent with this type of adjunct, i.e., what

McNally calls *object/theme-controlled depictives*. Some examples of them are presented below (McNally 1997: 47, ex. 64):

102. a. Max drank the lemonade *unsweetened*.
b. Kim handed the book *unopened* to her sister.
c. That guy always plays his guitar *untuned*.

For the purposes of our discussion, I adopt a long tradition that goes back at least to Alexiadou (1997) and Cinque (1999), according to which adjunct PPs are, in principle, licensed by structural projections that contain matching semantic features. Therefore, I assume that PP-adjuncts are licensed by the predicative head, namely by p, and thus, they adjoin to its maximal projection. This is compatible with McNally (1997) and Francez (2007; 2009) as the adjunct appears in the complement of the copula. In 7.3.3., I discuss the semantic effect of this adjunction.

In any case, it is essential to remind the reader that not every PP that takes part in existential sentences has the same status. The following sentences add to the examples (18-23) presented in 6.2. and illustrate the presence of multiple locative PPs in existentials. Stacking and floating (i.e., the ability to appear in more than one position in the sentence) are indeed typical properties of adjuncts.

103. a. [Stin eparxia] exi pola peđja [sta parka] [stis jitonjes].
in.the countryside HAVE.3SG many kid.PL.ACC at.the parks in.the neighborhoods.
b. [Stin eparxia] [stis jitonjes] exi pola peđja [sta parka].
in.the countryside in.the neighborhoods HAVE.3SG many kid.PL.ACC at.the parks
c. [Stin eparxia] [sta parka] exi pola peđja [stis jitonjes].
in.the countryside at.the parks HAVE.3SG many kid.PL.ACC in.the neighborhoods.
d. [Stis jitonjes] [stin eparxia] exi pola peđja [sta parka].
in.the neighborhoods in.the countryside HAVE.3SG many kid.PL.ACC at.the parks.
'In the countryside, in neighborhoods, there are many kids at the parks.'

Francez (2007) shows that multiple adjuncts in existentials are not intersective (neither like predicates nor like sets). He illustrates this using the following examples (Francez 2007: 51, ex.91,92):

104. There is a phone in most homes in some countries.

The sentence in (104) means that ''some countries are such that in those countries, most homes have a phone''. It does not mean that ''there is a phone that is in most

homes and is also in some countries'', nor does it mean that ''most homes and some countries are such that there is a phone in them''. Moreover, the sentence in (105a) does not entail either (105b) or (105c). This means that multiple locative PPs are modifiers on different levels.

105. a. There is a phone in every home in most countries.
b. There is a phone in most countries.
c. There is a phone in every home.

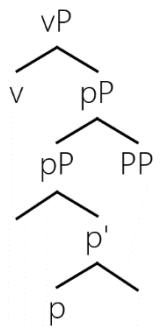
Different types of PP-modifiers also fall into distinct phonological phrases. Building on Maienborn (2001), we observe that, in Greek, frame-setting modifiers, i.e., modifiers that set the frame within which the utterance holds (more or less like stage-topics), are separated with an intonational break longer than the break preceding locative modifiers in sentence-final positions. To illustrate this, I repeat (103a) and mark intonational breaks. The larger font depicts a longer pause.

103a'. Stin eparxia | exi pola pedja sta parka | stis jitonjes.
in.the countryside HAVE.3SG many kid.PL.ACC at.the parks in.the neighborhoods.
'In the countryside, in neighborhoods, there are many kids at the parks.'

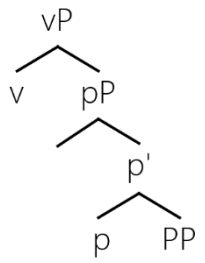
Therefore, it must be clarified that our assumption that locative PPs merge as adjuncts of the predication layer does not apply to every locative PP appearing in an existential. It applies to the locative PPs denoting the Ground argument in the Figure-Ground relation but not to other types of PPs, including frame-setting modifiers.

The following representations gather what we know so far about the structures. *Exi-*, *iparxo-* and, for some speakers (i.e., the non-SMG group), *ime*-existentials have the structure in (106), where the locative PP is an adjunct. (107) presents the structure of *ime*-locatives for all speakers and *ime*-existentials for SMG speakers.

106. *The structure of exi-, iparxo- and non-SMG ime-existentials (to be refined)*



107. *The structure of ime-locatives and SMG ime-existentials (to be refined)*



6.4.3 Tracing the nominal

This section takes the second step towards unraveling the structure of the predication layer in locational constructions as it focuses on the nominal, i.e., the Figure argument. In this section, I argue that the NP is the subject of the small clause in all *ime*- and *iparxo*-sentences. In contrast, it is the object, i.e., complement-of-p in *exi*-sentences.

First, recall that the nominal is the only obligatory item of an existential construction cross-linguistically. Given that some languages lack copulas and expletives and that the locative item may be omitted when contextually salient, the nominal is the only obligatorily overt item of an existential sentence. Even in Greek, where there is a variety of ways to achieve the existential function, i.e., to introduce new Figures with respect to a Ground, a nominal along with some items like the adverbial *simera* 'today', a tag question marker or a marked intonation are sufficient for the same function. Although optional in general, it is not the case that all of them can be omitted simultaneously. At least one of them must always be present. I repeat the examples from 6.2. below.

108. a. Pola peðja (sto sxolio) (e?)
many kid.PL.NOM at.the school tag.question.marker
lit. 'There are many kids at school, aren't there?'
b. Kapjo krio (simera) (e?)
some cold.SG.NOM today tag.question.marker
lit. 'There is cold today, isn't there?'

Due to its cross-linguistic prominence, Jenkins (1975), Barwise & Cooper (1981), Williams (1984), Huang (1987), McNally (1997), and Hazout (2004), among others, were led to consider the nominal the main predicate. Several facts, though, suggest that this is not the case. To briefly mention the cross-linguistic arguments, I add the following to everything discussed so far. Higginbotham (1987) observes that there

are noun phrases that are accepted as predicates albeit not as pivots in *there-be*-sentences (Higginbotham 1987: 54):

109. a. Everything I respect, John is.
b. *There is everything I respect.

Although this is true, Francez (2007; 2009) and Hartmann (2008) offer counterexamples (110), showing that there are predicative linear orders that are acceptable as pivots in English existentials. The bottom line is that the acceptability is affected by the lexical items involved in the linear order. The following pair is adopted from Francez (2009: 33).

110. a. There was some drummer I know in every punk band.
b. Some drummer I know was in every punk band.

Hartmann (2008) also considers that pivot nominals cannot be relativized by *which* as evidence that they are not predicates. She offers the following example to show the difference between predicative NPs (111a) and NP pivots (111b) (Hartmann 2008: 72, ex.113):

111. a. John is a murderer, which is a horrible thing to be.
b. *There's a murderer, which is a horrible thing to be.

For the same researcher, modification by a non-restrictive relative clause headed by *who* diagnoses argumental NPs. Hartmann (ibid) accepts that predicate NPs cannot be modified by such relative clauses (112). The following example cited by Hartmann originates in Rapoport (1987):

112. *Rebecca is a good eater$_i$, who$_i$ has been there for quite a while.

In contrast, the grammaticality of (113) suggests that the nominal in *there-be*-sentences is an argument (Hartmann 2008: 73, ex.115).

113. a. And there was one girl$_i$, who$_i$ fancied herself in love with a naval cadet, who$_i$ could actually produce real tears during the singing of…
b. There was another visitor$_i$, who$_i$ was as discreet - and just as vital to the Shah as Dr. Flandrin.

Additional evidence provided by Romance languages and Polish further support the hypothesis that the nominal is in an object/complement position in HAVE-based existentials. Cruschina (2015) lists three arguments supporting this hypothesis. By reviewing the literature on Romance existentials, he claims that the fact that Romance HAVE-existentials lack agreement with the nominal horizontally strongly indicates its non-subject status. Furthermore, its status as an object is verified by the fact that it surfaces with Differential Object Marking (DOM), a characteristic that applies only to objects (cf. Halevy 2022, who treats DOM as a de-topicalization marker). DOM in Romance dialects is achieved by a prepositional *a*-marker. The following example from Soleto, a Salentino dialect spoken in the province of Lecce, demonstrates this.

114. *Soleto* (Cruschina 2015: 50, ex.38)
Ave a tie/nui.
HAVE.3SG ACC 2SG/1PL
'You/We will be there.'

Finally, he considers that the clitic dislocation attested in some Salentino dialects, including Martano (115), also discloses the object status of the nominal.

115. *Martano* (Cruschina 2015: 53, ex.47)
Non l' ave, soruta, intra l' ufficiu.
not OCL.3SG HAVE.3SG sister.your in the office
'Your sister isn't there in the office.'

Assuming that headed small clauses delineate the predicative layer of the above constructions, the object-like properties mean that the nominals are complements of the predicate.

The distribution above suggests that the nominal can be an object/complement-of-predicate in both BE- and HAVE-sentences. Observing the Genitive of Negation in Polish provides additional support to this (see also 5.1.). Recall that the Genitive of Negation in Polish appears only on direct internal arguments of the verb (Błaszczak 2007; 2018; Citko 2008). This means that it is not assigned to the so-called deep subjects. Notice in (116) that though non-negated existentials in Polish use the BE-copula, negated ones use the HAVE-copula.

116. *Polish* (Błaszczak 2018: 12, ex.26)
a. W samochodzie jest silnik.
in car.LOC BE.3SG motor.NOM

'There is an engine in the car.'

b. W samochodzie nie ma silnika.
in car.LOC NEG HAVE.3SG motor.GEN
'There is no engine in the car.'

Greek provides further evidence for the assumption that the nominal is an object, at least in HAVE-sentences. First, the fact that the nominal in *exi*-existentials can be clitic-doubled indicates its object status. Based on Anagnostopoulou (1999), doubling the nominal is predicted to be acceptable only for the nominal in the object position.

117. A: Kseris ti psaxno? Astinomika miθistorimata.
know.2SG what look.for.1SG detective novel.PL.ACC
'Do you know what I am looking for? Detective novels.'
B: A! *Ta* exi afta sto kato rafi.[79]
EXCL. CL.N.3PL HAVE.3SG these on.the bottom shelf
'Oh! They are on the bottom shelf.'

118. a. Iða ena telio forema sto internet...
see.PST.PFV.1SG a perfect dress.SG.ACC on.the internet
b. ...ke rotisa an *to* exi afto sto maɣazi.
and ask.PST.PFV.1SG if CL.N.3SG HAVE.3SG this in.the store.
'I saw a perfect dress on the internet and asked whether there is (i.e., available) in the store.'

Nonetheless, this distribution is not comparable to *ime*- and *iparxo*-sentences because the NP is in the nominative, and Greek lacks nominative clitics. Thus, although clitic doubling provides evidence for the object status of the post-verbal nominal, it cannot be used as a diagnostic.

In contrast, raising to object can be used as a diagnostic. Specifically, I hold that the object status of the nominal in *exi*-sentences is supported by the fact that it cannot be raised to object:

[79] Note that for some speakers, this sentence is accepted only as a possessive with a dropped subject, roughly meaning 'the librarian/book-shop owner keeps them at the bottom shelf'. However, most of my informants, including myself, fully accept this as an existential. I thank the audience of ICGL 2022 for confirming the ambiguity of the sentence (see also 3.1.). The same holds for (118), for which the alternative interpretation is that 'the speaker asks whether the (dropped) owner has a particular dress available in the store'.

119. a. Iða na exi peðja sto parko.
see.PST.PFV.1SG to HAVE.3SG kid.PL.ACC in.the park
lit. 'I saw having(=being) kids in the park.'
b. *Iða peðja na exi sto parko.
see.PST.PFV.1SG kid.PL.ACC to HAVE.3SG in.the park
int. 'I saw kids being in the park.'

In contrast with (119), the nominal of an *iparxo*-sentence can be raised as any other subject of a transitive verb like *pezo* 'play' (120).

120. a. Iða na ?iparxun/pezun peðja sto parko.[80]
see.PST.PFV.1SG to EXIST/PLAY.3PL kid.PL.NOM in.the park
lit. 'I saw being/playing kids in the park.'
b. Iða peðja na ?iparxun/pezun sto parko.
see.PST.PFV.1SG kid.PL.ACC to EXIST/PLAY.3PL in.the park
'I saw kids being/playing in the park.'

In this case, the distribution of *ime* suggests that the nominal occupies the subject position too. Notice that although the definite subject of a locative sentence can undeniably be raised (121a), raising the nominal of an existential *ime*-sentence is bad for some speakers (121b).[81]

121. a. Iða ta peðja na ine sto parko.
see.PST.PFV.1SG the kid.PL.NOM to BE.3PL in.the park
lit. 'I saw the kids being in the park.'
b. ?Iða pola peðja na ine sto parko.
see.PST.PFV.1SG many kid.PL.ACC to BE.3PL in.the park
'I saw many kids being in the park.'

Further, building on Anagnostopoulou (1999), subject NPs are predicted to control PRO in absolute constructions. When we perform this diagnostic on *ime*-locatives, it verifies that the NP is the subject (122).

---

[80] Note that the reduced acceptance of the sentence is not a matter of raising. The verb *iparxo* is odd in the context of a perception verb, as any typical stative that describes a state that is not necessarily perceivable (see Roy 2013: 18).

[81] Hartmann (2008) also discusses how English locatives and existentials behave in various occasions of raising.

122. Vlepodas ti simveni se ales xores, i/poli ðiaðilotes stin Elaða
seeing what happens in other countries the many protester.PL.NOM in.the Greece
ine stus ðromus.
BE.3PL in.the streets
'Seeing what's happening in other countries, the/many protesters are in the streets (protesting) in Greece.'

This is also true for an *ime*-existential in which the nominal appears post-verbal, although the acceptability is slightly reduced. However, this may be tied to the fact that, for some speakers, having the controller in the post-verbal position is generally dispreferred.

123. Vlepodas ti simveni se ales xores, ine poli ðiaðilotes stus ðromus.
seeing what happens in other countries, BE.3PL many protester.PL.NOM in.the streets
'Seeing what's happening in other countries, there are many protesters in the streets (protesting).'

The latter assumption according to which the linear order of the controller reduces the acceptability of the sentence is also evidenced in the case of *iparxo* (124).

124. ?Vlepodas ti simveni se ales xores, iparxun stin Elaða ðiaðilotes
seeing what happens in other countries, EXIST.3PL in.the Greece protester.PL.NOM
stus ðromus.
in.the streets
'Seeing what's happening in other countries, there are protesters in the streets (protesting) in Greece.'

Nevertheless, *ime*- and *iparxo*-cases are contrasted to the ungrammatical example of an *exi*-sentence (125). This is compatible with the hypothesis that the nominal in *exi*-sentences is in object position.

125. *Vlepodas ti simveni se ales xores, exi stin Elaða ðiaðilotes
seeing what happens in other countries HAVE.3SG in.the Greece protester.PL.ACC
stus ðromus.
in.the streets
'Seeing what's happening in other countries, there are protesters in the streets (protesting) in Greece.'

It is the case then that the nominal patterns like an object in *exi*-sentences, whereas it behaves like a subject in *ime*- and *iparxo*-sentences. Before concluding this section, however, I will briefly discuss the Bareness effect (BarE), i.e., the restriction on bare noun phrases in *ime*-sentences. As repeatedly shown, locatives (126) and *ime*-existentials for most speakers (127) do not allow bare nominals in pre- and post-verbal positions, respectively.

126. a. *(Ena) kutavi ine stin avli.
a puppy.SG.NOM BE.3SG in.the backyard
'A puppy is in the backyard.'
b. *(Kati/Kabosa) kermata ine sto patoma.
some/plenty.NOM coin.PL.NOM BE.3PL on.the floor
'Some/Plenty of change are on the floor.'

127. a. Ine *(ena) kutavi stin avli.
BE.3SG a puppy.SG.NOM in.the backyard
'There is a puppy in the backyard.'
b. Ine *(kati/kabosa) kermata sto patoma.
BE.3PL some/plenty.NOM coin.PL.NOM on.the floor
'There's some change on the floor.'

Unlike the above, *exi*- and *iparxo*-existentials uniformly allow for bare post-verbal nominals. Therefore, if the nominal is an object in *exi*-sentences and a subject in *iparxo*-ones, the licensing of bare plurals cannot be associated with a syntactic position. In other words, the presence/lack of BarE cannot constitute evidence for the syntactic status of the nominal, and it must find a different explanation.

To begin with, bare subjects in Greek are generally dispreferred, as concluded by several researchers (Alexiadou 2001; Sioupi 2001a; 2001b; Alexiadou & Haegeman & Stavrou 2007; Tsoulas 2009; Lazaridou-Chatzigoga 2011; Alexandropoulou 2013; Kampanarou 2017; 2019; Alexopoulou & Folli 2019). Bare nominals are preferred as complements of verbs containing a HAVE-predicate, in the sense of Borthen (2003) and Espinal & McNally (2009), like *θelo* 'want', *xriazome* 'need', *vrisko* 'find' or verbs of consumption/creation like *troo* 'eat' and *xtizo* 'build' (Lazaridou-Chatzigoga 2011; Alexandropoulou 2013).

However, the distribution of bare noun phrases in Greek is not very strict. The restriction on bare subjects is not absolute, as unaccusative verbs in Greek typically select bare subjects:

128. Erxodan/Katevenan exθri apo padu.
come/descend.PST.IPFV.3PL enemy.PL.NOM from everywhere
'Enemies were coming/descending from everywhere.'

A complication in our case arises in view of the fact that (a) speakers disagree on whether bare nouns are licensed in *ime*-existentials, and (b) the speakers that do not accept them in *ime*-existentials, accept them in *iparxo*- and *exi*-sentences.

The reason for the variation described in (a) should be pinned down to the inner DP-structure. Recall that the two groups distinguished based on the BarE are also separated in terms of the omission of the coda. And, it has been argued above that the PP-coda is an adjunct for those that can omit it but a complement-of-p for those that cannot. This means there are two alternative structures or two competing Grammars regarding *ime*-sentences.

In the same vein, it can be assumed that there are two competing Grammars regarding the inner DP-structure. In each Grammar, the bare nominals do not acquire the same denotations. In particular, it can be said that for those who do not accept bare nominals in *ime*-sentences, this type of nominal cannot reach the *instances-of-a-kind* (or any other) denotation required for the existential function (see Chapter 2). Hence it is banned from this context. However, for a smaller group of speakers, it can, and, thus, it appears in *ime*-existentials.

This brings us to the issue recognized in (b): if it is a matter of the inner DP-structure, why does it apply only to *ime*-sentences? In fact, this question breaks into two more specific ones: why does it not apply to *exi*-sentences, and why not to *iparxo*-ones?

The answer to the first question is obvious: if the nominal is an object, and there is no tendency to block bare objects in the language, bare nominals are allowed to merge in this position, granted that HAVE allows it. Cross-linguistically, HAVE-verbs are the prototypical predicates licensing bare objects (see the references above).

The answer to the second question most plausibly hinges on the fact that *iparxo* is not a functional item but a lexical one meaning 'exist' since it has a root and an overt p-head. This means that the argument of *iparxo* merges as any other subject of a prefixed unaccusative verb. Then, it happens that as a bare unaccusative subject, it has a denotation suitable for the existential function. In other words, the denotation of the bare subject of an unaccusative verb meaning 'exist' overlaps with the denotation required to introduce new discourse referents via a light-verb copular sentence. This way, *iparxo* 'exist'-sentences are felicitous as existentials.

In summary, this section gathered evidence for the status of the nominal in existentials and locatives. Besides English, Romance, and Polish, Greek offers

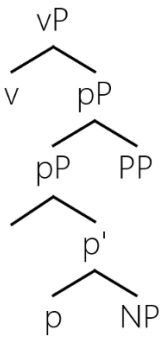
additional empirical arguments. Specifically, two phenomena in the language constitute solid diagnostics: (a) raising availability and (b) the ability to control PRO in an absolute construction. The behavior of the sentences in regard to these phenomena has led to the conclusion that the Figure nominal in *exi*-sentences is in object position, i.e., it merges as a complement of the predicative head. The same is true for the nominal in English *there-be*-sentences. In contrast, the Figure nominal is in the subject position in *iparxo*-sentences and *ime*-sentences.

In particular, the situation regarding *ime* could be summarized as follows. Across this chapter, it has been established that the speakers' judgments fluctuate such that two groups can be identified: the so-called SMG speakers (i.e., most Modern Greek speakers) and the non-SMG speakers (i.e., a limited number of Modern Greek speakers). The constructions they accept are named accordingly after them. As their differences are systematic, it could be postulated that we are facing a non-terminal stage of linguistic shift. In other words, we are in front of a structural change in the Grammar of Greek or in front of the emergence of a parallel paradigm within the Grammar. In the first case, the non-SMG *ime*-existential would replace the current prominent construction (i.e., the one closer to *ime*-locatives). In the second case, a second structure would become gradually available to speakers of Greek. Currently, the data suggest that we are in a phase where two structures are available for a minority of speakers. Hence the second scenario is more plausible.

The novelties of this emerging construction are that it allows bare pivots and/or a silent locative coda. Further, this omissible locative coda is an adjunct, while the pivot nominal patterns with subjects. In comparison, SMG *ime*-existentials look like inversed locative sentences, but crucially they behave like them too. Their obligatorily overt locative PP exhibits a predicative behavior, whereas the non-bare pivot nominal retains its subject characteristics. Their differences with *ime*-locatives are limited to the surface word order since the locative has the subject in sentence-initial position whereas the existentials is verb/copula-initial.

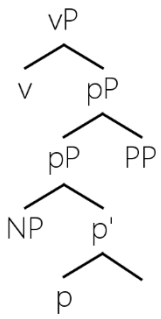
To conclude, this discussion makes it possible to fill some of the positions that had been left empty by the end of 6.4.2. Currently, the structures assumed are as follows:

129. *The structure of exi-existentials (to be refined)*



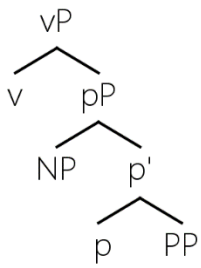
Even though the adjunct status of the overt locative PP brings *exi-* and *iparxo-* sentences together, the status of the nominal separates them:

130. *The structure of iparxo-existentials (to be refined)*



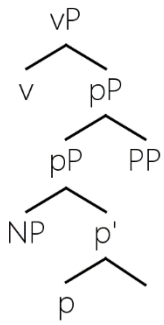
Finally, the predicative structure of locatives and SMG *ime*-existentials is entirely different from *exi*-sentences. At the same time, it shares with *iparxo-sentences* the hypothesis that the nominal is a subject:

131. *The structure of locatives and SMG ime-existentials (to be refined)*



Non-SMG *ime*-existentials differ from other types of *ime*-sentences in the status of the locative PP. The configuration of their arguments is identical to *iparxo*-sentences.

132. The structure of non-SMG *ime*-existentials (to be refined)



To strengthen this analysis and argue for the items that appear in the so-far empty positions, I resort to cross-linguistic data drawn from languages that use expletives.

6.4.4. Covert arguments in existentials

In Section 5.1.2., it was argued that an expletive *pro* is present in *exi*-sentences. This item is responsible for the accusative case marking on the overt nominal/pivot and the Active Voice morphology on the verb *exi*.

In this section, our attention is brought to another type of expletive. Recall that Francez (2007) claims that although expletives are not universally available when a language has them, they are obligatory to mark the difference between locatives and existentials. Cross-linguistic examples of existentials using expletives are repeated below:

133. a. *English*
There is a man at the door.
b. *Catalan* (Leonetti 2008: 9, ex. 11b)
Hi ha la policia al pati.
there$_{EXPL}$ HAVE.3SG the police in.the courtyard
'There are the police in the courtyard.'
c. *French*
Il *y* a beaucoup de fleurs dans le jardin.
EXPL.SBJ. LOCATIVE.PROFORM HAVE.3SG many of flowers in the garden
'There are many flowers in the garden.'

Notice that in the French example in (133c), *y* is a proform, which has more similarities to Catalan *hi* than French *il* because they are both locative in nature.[82] Bentley (2017) confirms Clark (1978) in that most Romance existentials include a locative proform which is sometimes fully fused to the copula. For instance, although Italian *ci* is a free-standing morpheme (134a), Spanish *-y* is incorporated into the copula (134b).

134. a. *Italian* (Bentley 2017: 14, ex. 44b)
Ci sono molti semi in questa frutta.
PF BE.3PL many seeds in this fruit
'There are many seeds in this fruit.'
b. *Spanish* (Bentley et al. 2013: 12, ex. 30b)
No ha-y problema.
NEG HAVE.3SG-PF problem
'There is no problem.'

[82] *Il* is an expletive subject used in French impersonal constructions. Icelandic and German cognates of this sort of expletives were discussed in 5.1.2.1.

English *there* is an expletive that, despite its locative nature, has seemingly lost its deictic locative meaning (Borer 2010; Kayne 2016 cf. Bjorkman & Cowper 2015). Its locus of insertion is discussed vigorously in the literature within or outside the context of existentials. This dissertation has little to offer in this discussion, as the proposed analysis is compatible with multiple assumptions for *there*, as long as they hold that *there* is not introduced higher than the Voice level.

Stepping away from more traditional views that take *there* to be introduced in the specifier of TP to satisfy the EPP (Chomsky 1981), I give merit to *low-there insertion* hypotheses for which Deal (2009) constitutes a hallmark. Although the researcher does not consider existentials, she argues that English *there* is inserted low: in [Spec, vP], or [Spec, VoiceP], depending on whether we assume a two-layer or three-layer de-composition of the verbal structure. Alexiadou & Schäfer (2011) also show that the insertion of *there* in intransitives is allowed when the theme argument is not competing with it for the same subject position. That is, *there*-insertion is permitted only when the theme is introduced inside the constituent below v, and the specifier of vP is open.

Since *there* is a syntactic subject, early research treated it as the syntactic and semantic subject of predication (see Williams 1994; 2006; Hazout 2004; Kallulli 2008; Hartmann 2010; 2011; Bjorkman & Cowper 2015; Kayne 2016). Another group of researchers considered it an inverted predicate instead (Hoekstra & Mulder 1990; Freeze 1992; Belvin & den Dikken 1997; Moro 1997; 2006).

More recently, researchers have concluded that the syntactic and the semantic subject in existentials need not coincide (see Francez 2007; Borer 2010; McCloskey 2014; Myler 2018). McNally (1997) is the first to advocate that the semantic subject of predication in English *there-be*-sentences is an implicit locative argument that is not necessarily realized as the expletive *there*. To keep things simple, I use the abbreviation LOC to refer to this implicit locative argument, adopting it from Partee & Borschev's work.

The most prominent reason for postulating the existence of LOC as part of the core predication in existentials is that even without any overt locative material, there is always an implied location. The latter constitutes the Ground upon which the Figure nominal is defined. This Ground argument is salient in the discourse or easily retrieved from general knowledge or the knowledge shared among the interlocutors. The same argument may be more or less vague and often has a temporal dimension (see also Iatridou 1996: 198 for a similar discussion). Moreover, depending on the semantic analysis that each researcher assumes, the postulation of LOC becomes necessary for different reasons (see 7.3.3.).

Since LOC is considered an implicit argument, it is expected to count only for semantic derivation. However, I offer evidence from Greek supporting that LOC is also syntactically present. This view is shared with McCloskey (2014), Irwin (2018), and Myler (2018) but goes against Francez (2007) and could validate the claim that expletive *there* instantiates LOC.

The first piece of evidence supporting the syntactic presence of LOC is that it can be captured as an antecedent by a clitic (135). Imagine the following context for the example below: two teachers discuss with each other. Teacher A is interested in quitting her job at her current school and finding a new one in a different school. Teacher B has a fellow teacher-friend named *Maria*, who works in a school that would be perfect for Teacher A.

135. A: Ti protinis?
what suggest.2SG
'What do you suggest?'
B: Na rotisis ti Maria. Exi kales apolaves ke kalus maθites.
SUBJ ask.PFV.2SG the Maria. HAVE.3SG good wage.PL.ACC and good student.PL.ACC
Eki na pas.
there SUBJ go.2SG
'Ask Mary. There are good wages and good students (*implied* in the school she works). You should go there.'

Notice that the deictic *eki* in Teacher's B answer picks out the implicit LOC of the preceding existential. Crucially the sentence is existential and not possessive, as *exi* can be replaced by *iparxun* (135'). For some (non-SMG) speakers, the same sentence is accepted even when *ine* replaces *exi*.

135'. B: Na rotisis ti Maria. Iparxun/?Ine kales apolaves ke kali maθites.
SUBJ ASK.2SG the Maria. EXIST.3PL/BE.3PL good wage.Pl.NOM and good student.PL.NOM
Eki na pas.
there SUBJ go.2SG

Second, it is expected from the work of Bhatt & Pancheva (2017) that implicit arguments which are syntactically present will be able to control. The licensing of the relative clauses below confirms this prediction. In (135), the relative clauses headed by *opu* are not free relatives, as extensively argued in the literature (see Philippaki-Warburton & Stavrou 1986; Alexiadou & Varlokosta 1996; 2007; Daskalaki 2007; Spyropoulos 2011). This means that a syntactic antecedent controls them. Since *opu* only refers to locations, its antecedent must be locative.

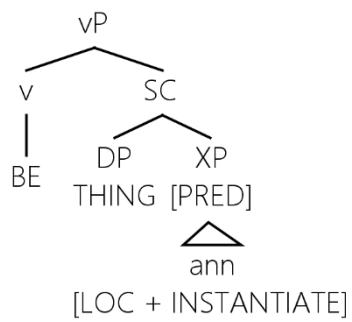
136. a. Iparxi θeos opu pistevi o kaθenas.
EXIST.3SG god.NOM wherever believe.3SG the everyone
'God exists wherever each one of us believes.'
b. Exi adisiptika opu o sinostizmos ine meɣalos.
HAVE.3SG sanitizer.PL.ACC wherever the crowding is big
'There are hand sanitizers wherever there is overcrowding.'

Apart from *there* and other locative expletives that can be equated to LOC, Irish exhibit a different realization of LOC. Following McCloskey (2014), *ann* in Irish existentials is not a subject but the amalgam of LOC and the predicative head. (137) adds to the Irish examples presented previously:

137. *Irish* (McCloskey 2014: 6,8)
a. Beidh go leor bia ann.
BE.FUT plenty food in.it
'There will be plenty of food.'
b. Is maith na badai beaga ann.
BE.PRS good the boats small in.it
'It' s a good thing that there are the small boats.'

The structure he assumes for these constructions is presented in (138). Within this structure, *ann* derives from the conflation of the complement-of-Pred, LOC, and the predicative head. McCloskey (ibid) claims that in earlier stages of the language, *ann* was the third person singular non-feminine form of a preposition meaning 'in'.[83]

138. The structure of Irish existentials by McCloskey (2014)



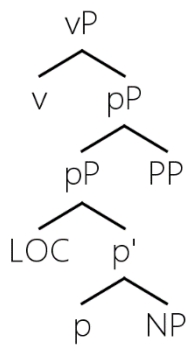
To recap, it has been shown that an additional locative argument must be assumed for existentials. In Greek, this argument stays silent in bare existentials. However, it is

[83] Ramchand (1996) shows that the form *ann* is also attested in Scottish Gaelic. She analyzes it as an expletive prepositional head with an eventuality variable.

syntactically present as it can be picked up as an antecedent and control a relative clause. The locative expletives in languages other than Greek and the Irish *ann* are considered overt realizations of this LOC, at least for a part of the literature. This observation is crucial as it implies that the status of LOC varies; it merges either in a subject (specifier) position or in the complement-of-the-predicate position. This conclusion gives us the opportunity to fill in the positions in the existential structures that have been left empty up to this point. LOC will represent the Ground argument wherever the overt locative PP does not.

In detail, *exi*-existentials lack, as described so far, a subject of predication because the nominal is arguably in a complement-of-p position. This means that [Spec, pP] is available to host LOC (139) because the overt locative is an adjunct.[84] This would account for the requirement to include LOC as the Ground argument of the predication.

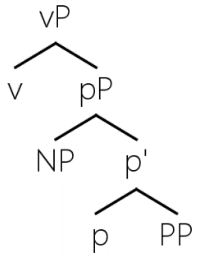
139. *The structure of exi-existentials (to be refined)*



As for locatives and SMG *ime*-existentials, the overt locative constituent has been argued to be the complement of the predicative head, and the nominal has been considered the subject. Therefore, the predicative layer has been completed, and the postulation of LOC is unnecessary.

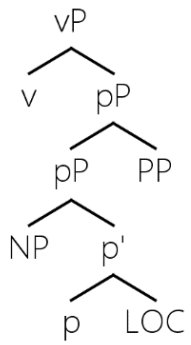
[84] Locative PPs in Greek cannot be subjects in general (Alexiadou & Carvalho 2017). However, there is no need to assume LOC in other languages where this constituent can appear as a subject. For instance, such an analysis has been proposed for Brazilian Portuguese by Avelar (2009a; 2009b) (see Appendix 2) and for Serbian Hartmann & Milicevic (2008).

140. *The structure of locatives and SMG ime-existentials (to be refined)*



LOC must be assumed, though, for *iparxo-* and non-SMG *ime*-existentials where it will occupy the complement position. Drawing a parallel with Irish *ann,* I assume that LOC is introduced as a complement of the predicative head. Alexiadou (2011b) converges with this view.

141. *The structure of iparxo- and non-SMG ime-existentials (to be refined)*



As the postulation of LOC completes the assumptions regarding the existential predication, the following section summarizes the main claims of this chapter.

6.5. The summary of the chapter

To summarize the assumptions about the predicative structure of existentials and locatives, I review the steps I followed in this chapter. Once the foundations for this analysis were presented (6.1.), I argued that a headed small clause provides the existential and locative predication (6.2.). In contrast with the most recent literature, I have supported the view that the head of the small clause is not a typical Pred head but rather a p-head of central coincidence (6.3). This preposition establishes the relationship between the Figure and the Ground.

The following sections were concerned with identifying the syntactic position of the Figure and the Ground argument within this p-projection (6.4.). Section 6.4.1. focused on the status of the overt locative item and concluded that it is a complement

of p in locatives and SMG *ime*-existentials. In contrast, it is an adjunct in *exi*-, *iparxo*- and non-SMG *ime*-existentials. More specifically, it is an adjunct merged at the level of the predication layer (6.4.2.).

Then, I focused on the position of the nominal. In 6.4.3. I argued that the nominal is in object (complement-of-predicate) position in *exi*-sentences, while it is a subject in *ime*- and *iparxo*-sentences. Finally, I assumed that an implicit locative argument representing the Ground (LOC) is present in every construction except locatives and SMG *ime*-sentences. LOC is a subject in *exi* -sentences and an object in *iparxo*- and non-SMG *ime*-sentences (6.4.4.).

The following chapter combines the assumptions regarding the predicative and the Voice layer and demonstrates the complete analysis of existentials and locatives.

7. Structuring and interpreting existentials

This chapter puts together the conclusions of Chapters 5 and 6 and presents the structures of Greek existentials in detail (7.1.). It also extends these findings to the respective sentences in Irish and English. Furthermore, it explains how some of the properties recognized in Chapters 2 and 4 derive. Moreover, it tackles the issue that although locative sentences and SMG *ime*-existentials are argued to have an identical predicative structure, they exhibit a distinct linear order (7.2.).

The rest of this chapter considers some semantic aspects of these sentences. Specifically, in 7.3.1., I deliberate how the current proposal accommodates the prevalent claim in the cross-linguistic literature about the semantics of the existential predicate. In 7.3.2., I develop a hypothesis about why each existential construction implies a different type of Figure-Ground relationship in terms of the temporary vs. permanent distinction. Finally, in 7.3.3., I comment on the semantic aspect of the locative PP's adjunction that occurs in some existentials. Section 7.4. summarizes the chapter.

7.1. The structures of existentials

The findings of Chapters 5 and 6 suggest that the too-many-surface structures of existentials and locatives are determined primarily by the Voice and predication layers. This section stresses that the two layers do not act individually, albeit they interact with each other. Their interplay introduces the variation.

Recall that, as concluded in Chapter 5, *exi*-sentences include a transitive Voice projection with an expletive *pro* in the specifier position. *Ime*-sentences involve a specifier-less Voice projection, while *iparxo*-sentences lack such a projection altogether. Further, in Chapter 6, I argued for two main configurations regarding the prepositional predicative layer: one in which the Figure c-commands the Ground (irrespective of its (c)overt status) and one with the inversed order. The latter is assumed for *exi*-sentences, and the former is assumed for the rest. In any case, the preposition acts as a RELATOR in the sense of den Dikken (2006) or a predicative/ small-clause head as it introduces a predication between a Figure and a Ground.

In this dissertation, I propose to name these two distinct p-structures as *standard p* (p) and *reversed p* (Rp). The former will refer to the case in which the arguments are arranged in a familiar way such that the Ground appears as the complement of p and the Figure as the subject in the specifier position. In the

reversed p-predication, the configuration is the opposite; the Figure is introduced in the complement position, and the Ground is merged in the specifier position.[85]

Importantly, in the current framework, the 'Figure' and the 'Ground' are interpretations assigned by LF. This means that the constituents do not merge into structures while carrying these roles. In contrast, in each case, LF is fed a distinct structure and assigns the roles accordingly. On the one hand, Syntax builds a structure where the NP is in [Spec, pP] and the PP/LOC is in a complement-of-p position. When this is fed to LF, the latter assigns the Figure role to the NP and the Ground role to the PP/LOC. On the other hand, LF can be fed a p-structure with the reverse order in which the NP appears as the complement of p while the PP/LOC is its subject. In this case, the Ground role is assigned to the item in [Spec, RpP] and the Figure to the complement of Rp.

In other words, each variant of p-structure corresponds to a different 'flavor' of p. This view echoes Adger & Ramchand (2003), Folli & Harley (2005), and D'Alessandro et al. (2017), among others, who explore flavors of 'v'. The authors claim that the thematic domain headed by v has several possible argument configurations, i.e., there are several v-structures. Each structure gets assigned a different LF-interpretation, often called a 'v'-flavor. The flavors of p are discussed in more detail in 7.3.1. and 9.3.

Having said that, I now focus on the structures of existentials and locatives and discuss each one individually, starting from *exi*-sentences, an example of which is repeated in (1).

1. Exi (kati) vivlia sto trapezi.
   HAVE.3SG some book.PL.ACC on.the table
   'There are (some) books on the table.'

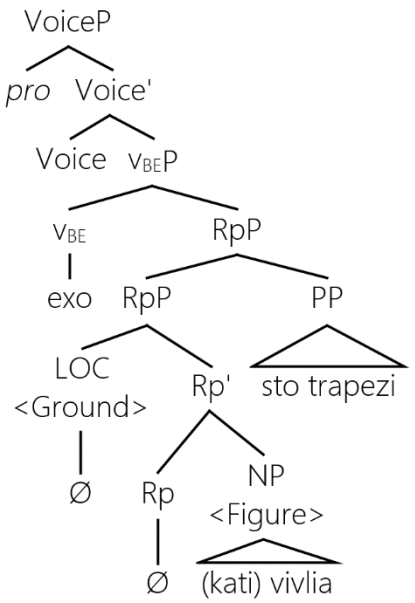
As argued in Chapter 6, the pivot nominal is introduced as the complement of p, whereas LOC is merged as the subject. This means that the p-head comes in its reversed variant (Rp); the Figure role is assigned to the pivot and the Ground role to LOC. If a locative PP (or adverb) is overt, it adjoins to RpP. In the absence of a coda-

[85] Błaszczak (2007) and Hartmann & Milicevic (2008) also postulate a standard and a reversed constituent order for existentials and locatives, although not within a p-projection. It is VP for the former researcher who discusses Polish, and PredP for the latter who takes Serbian into account (see also Boneh & Sichel 2010). Crucially, these assumptions and the one advocated in this thesis, are not identical with analyses provided by den Dikken (2006) or Moro (1997;2006) because these authors claim that the predication relationship is fixed; the NP-Figure is always predicated of the PP/LOC-Ground. Hence, the NP-subject naturally appears in the highest position (canonical order). It is the case that, under specific conditions, the predicate may be inverted and appear in a position higher than the NP (inversed order).

phrase, the step of adjunction is omitted. Notably, both LOC and the Rp-head are phonetically null.

Exo, the Greek cognate of HAVE, is inserted at PF because v_{BE} appears underneath a transitive Voice head. Crucially, the specifier of this head is filled by *pro* to ensure that *exo,* which has only forms for Active Voice (Act), will be able to be merged. The appearance of *pro* in this position yields default agreement. Hence, the verb *exo* surfaces with the third person singular marking, as *exi,* and the nominal is assigned accusative case.

2. The structure of an exi-sentence



In principle, this configuration does not restrict the morphological makeup of the Figure nominal. Any type of NP/DP can appear as the complement of Rp. This means that definite DPs and non-definite NPs, as well as strongly quantified DPs and weakly quantified NPs, are structurally licensed in the complement position.

However, we have seen that bare or weakly quantified NPs are required for the existential function (1). If the sentence is intended to introduce new discourse referents of a specific type, definite or strongly quantified DPs are also allowed only if the determiner/quantifier quantifies over the appropriate semantic type (3).

3. Exi kaθe (iðus) ðendro stin avli.
HAVE.3SG each.ACC type.GEN tree.SG.ACC in.the backyard
lit. 'There is each (type of) tree in the backyard.'

If the sentence is intended to be used as a locative instead, i.e., to establish the location of a presupposed entity, definite DPs can also appear in the post-verbal position (4).

4. Exi ton Niko stin tileorasi.
HAVE.3SG the Nick.ACC on.the TV
'There is Nick on TV.'

To account for this, it is assumed that in order to be felicitous for each function, the sentence must have a different interpretation. LF must be fed a distinct structure each time to achieve a different interpretation.

In this case, the difference in structures would be pinned down to the inner DP/NP structure where definiteness and quantification are determined (see Longobardi 1994; Borer 2005; Heycock & Zamparelli 2005 and for Greek, Alexiadou 2001; 2011a; Alexiadou et al. 2007; Tsoulas 2009; Alexopoulou et al. 2013; Kampanarou 2017; 2019; Alexopoulou & Folli 2019) (see also 7.3.1.). To ensure that the sentence is acceptable as an existential that introduces referents of a specific semantic type, the Figure must not project to the DP-level, which, according to the authors in the parenthesis above, leads to the denotation of presupposed entities. Hence, the 'NP' notation in (2). In fact, the Figure nominal must project up to the level (that is lower than the DP) in which the appropriate semantic denotation is reached, that being a Number Phrase or a Quantifier Phrase, for instance (see Borer 2005; Heycock & Zamparelli 2005).

I now turn the focus to *iparxo*-sentences (5).

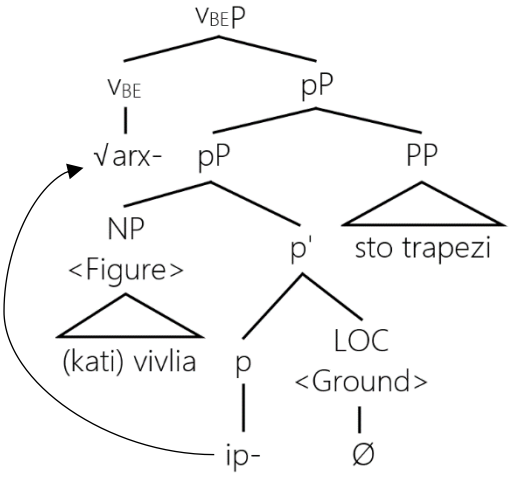
5. Iparxun (kati) vivlia sto trapezi.
EXIST.3PL some book.PL.NOM on.the table
'There are (some) books on the table.'

In this case, the arguments are typically arranged in a standard p-configuration. In contrast with (2), the silent Ground is in the complement position, while the Figure is the subject. Again, if an overt locative coda is present, adjunction takes place at the pP-level.

Unlike *exo* (and *ime),* the predicative head is overt, and v has a lexical root. The predicative prepositional head *ip*- incorporates into the root √*arx*- to derive *iparxo.* As there is no barrier between them, this movement is allowed.

Lastly, as *iparxo* is a typical unaccusative verb marked with Active Voice, I assume that Voice is not projected. The verb surfaces with default Act.

6. *The structure of an iparxo-sentence*



Once again, nothing prohibits a definite DP from appearing in the subject position. However, if a DP appears in the post-verbal position and denotes a presupposed entity, the sentence no longer introduces new discourse referents but confirms this entity's existence as in (7). The existential function still requires bare NPs, NPs with weak quantifiers, or strong quantifiers/definite determiners that do not lead to denotations of presupposed entities but those suitable for discourse-novel referents.

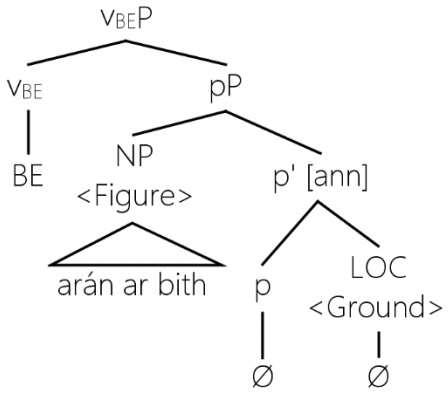
7. Iparxun ta vivlia pu zitises.
EXIST.3PL the book.PL.NOM that ask.PST.PFV.2SG
'The books that you asked for exist.'

Interestingly, McCloskey (2014) proposes a similar structure for Irish existentials (8), besides the assumption that the predication is headed by p (see 138, in 6.4.4.).

8. *Irish* (McCloskey 2014: 10–11)
Níl arán ar bith ann.
is.not bread any in.it
'There's no bread.'

However, a p-based analysis can be maintained for Irish due to the prepositional background of the predicate *ann.* Since p is a functional preposition, it is stripped of any prepositional-specific information (see 8.6.2.). It is inserted into the structure to relate two entities and mark them as Figure and Ground. Hence, unlike Ps that head lexical PPs, this projection is appropriate for *ann.* Under this assumption, *ann* would be the exponent of the 'p + LOC' complex (9).

9. *The structure of Irish existentials*



Locative sentences (10) are brought under the microscope next.

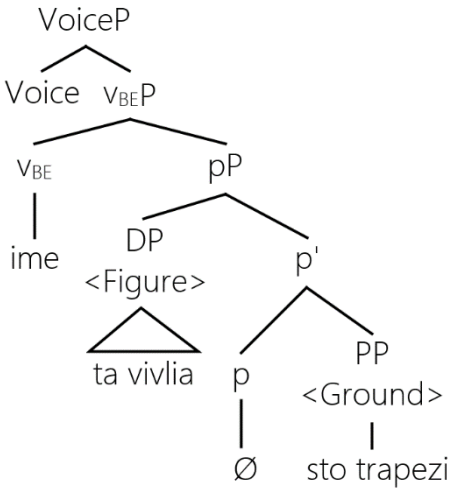
10. Ta vivlia ine sto trapezi.
the book.PL.NOM BE.3PL on.the table
'The books are on the table.'

Here the overt locative constituent merges as the complement of the predicative head, while the Figure appears as the subject of predication and the subject of the sentence.

Notice that, unlike existentials for which the 'NP' notation is preferred for the pivot (to account for all non-DP-level projections of the nominal constituent), the subject in locatives is marked as a DP. This captures the requirement for a definite/presupposed subject which characterizes these sentences. Following the authors who hold that definiteness and quantification are mirrored in Syntax (see the references above), the projection of the D-layer is obligatory for inducing presupposition.

In the case of *ime*, the projection of the Voice head with no specifier is mandatory as the copula is an unaccusative deponent. Their structure is presented in (11).

11. *The structure of locative ime-sentences*



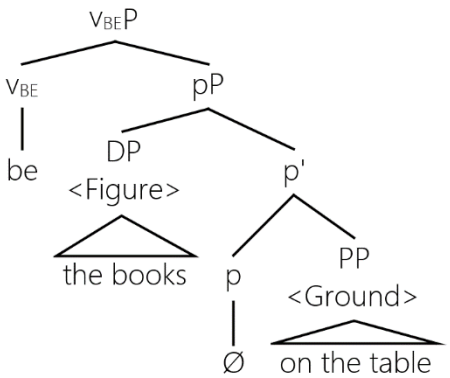
If we adopt Myler's (2018) view of *there be*-sentences and extend the p-based analysis to English locatives (12), their structure will look like (13).

12. The books are on the table.

Such a p-based analysis for English is not entirely unmotivated. Despite being stative, locative sentences in this language are nominalized by *presence* which is a prefixed cognate of BE. This implies that *be* in English could be analyzed as a covert prefixed verb. However, further research is needed to support this assumption.

By comparing (11) to (13), it becomes evident that English locatives differ from Greek ones only with respect to Voice; as there is no sign of Voice morphology on English *be,* there is no need to assume that Voice projects at all.

13. *The structure of locative sentences in English*



However, an observation made by Błaszczak (2007) suggests that the structure in (13) may be inadequate to account for the facts. The author recognizes a difference between human (14a) and non-human subjects (14b) in locatives: human subjects are more intentional and actively engaged in the situation, while non-human subjects are not. In other words, the former type of subject is an agentive controller, whereas the latter is not. For Blazczack (ibid), this means that human subjects merge in a higher syntactic position.

14. a. The kids are at the park.
    b. The books are on the table.

Suppose her hypothesis was adopted in the present framework. In that case, agentive human subjects would be introduced in VoiceP and non-human ones in vP. Crucially, even though the Figure nominal would not be inserted in [Spec, pP] under her considerations, the hierarchical order between this and the Ground argument would still be the same.

Nonetheless, this analysis cannot be replicated for Greek since *ime*-sentences lack any sign of Voice contribution. Recall that the subjects of *ime*-sentences do not exhibit the same variation in their interpretations as those of *exo*-sentences. Most importantly, though, the subject always surfaces as an internal argument in the nominalization of *ime*, unlike *exo*. Crucially, this occurs regardless of its specification for animacy. Therefore, as there is no semantic or syntactic indication of Voice, Blazczack's observation must receive a different explanation.

In 4.2. and 5.2., it has been argued that the difference between animate and non-animate subjects originates from their intrinsic properties. Humans and animate entities are more involved in the states they are in as they can cause or alter them. They are more agentive by default. In contrast, non-humans are more static by nature. As no syntactic difference between them is detected in Greek, there is no need to assume distinct structures. In this regard, I maintain that all subjects in locatives are introduced in [Spec, pP] and move higher only for reasons related to the Information Structure (see 7.2.). Their inherent properties create interpretative micro-variation.

The next case that needs to be clarified is *ime*-existentials, which arguably have two slightly different underlying structures. The characteristics leading to this conclusion are summarized in the table below, along with the properties that unify them:

15. *The properties of Greek ime-existentials*

	Nominal			**Locative Phrase**		**Type of association**
	Case	DE*	BarE	Morphological Realization	Animacy	
SMG-*ime* (BE)	Nominative	Yes	Yes	Obligatory	Non-animate	Accidental
Non-SMG-*ime* (BE)	Nominative	Yes	No	Optional	Non-animate	Accidental

*when the sentences introduce new discourse referents as instances of a kind

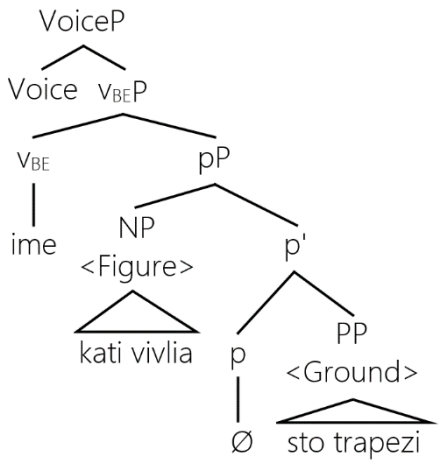
The most widespread BE-based existential is the so-called SMG *ime*-sentence (16).

16. Ine kati vivlia sto trapezi.
BE.3PL some book.PL.NOM on.the table
'There are some books on the table.'

It has been demonstrated that this type of sentence exhibits striking similarities with the locative construction (6.4.). The overt locative item behaves like a predicate; it is not omissible and lacks various readings available to adjunct PPs. Thus, it is considered introduced in the complement position.

Further, the nominal is shown to merge as the subject of predication. However, unlike locatives, the nominal does not project to the DP-level, as it must not denote presupposed entities. To account for it, I reserve the 'NP' notation in (17). Keep in mind that the determiner/quantifier preceding the nominal cannot be dropped, as the existentials share the same Bareness Effect/Restriction with locatives.

17. *The structure of SMG ime-existentials*



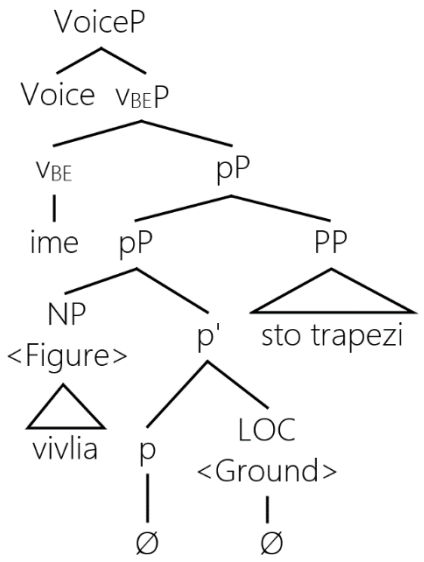
Although identical in their predicative structure, *ime*-locatives and SMG *ime*-existentials do not have the same surface order. The fronted Figure in locatives appears in a post-verbal position in existentials. This change in the word order is partially responsible for allowing this structure to function as an existential. The second is the definiteness of the Figure nominal, as presented above. This issue is discussed in detail in 7.2.

Next, a second structure is currently available to a limited number of speakers (18). This is the so-called non-SMG *ime*-existential which, as opposed to (16), allows bare post-verbal nominals along with the omission of the overt locative coda.

18. Ine vivlia (sto trapezi).
BE.3PL book.PL.NOM on.the table
'There are books on the table.'

Again, the p-structure comes in its standard configuration, as the nominal pivot shows subject properties. Unlike SMG *ime*-sentences, the overt locative constituent behaves as an adjunct (6.4.2.). For this reason, the implicit locative argument (LOC) has been assumed for the complement-of-p position.

19. *The structure of non-SMG ime-existentials*



Consequently, I claim that there are two Grammars for BE in Greek. In both Grammars, a standard p-based structure with the Ground as the complement and the Figure as the subject is available. This structure is used in locative sentences. After that, variation arises.

No other predicative structure is available for the vast majority of Modern Greek speakers. To make BE function as an existential, they change the word order and thus the Perspectival Center of the utterance (20a). On the other hand, for a smaller group of speakers, the standard p-based structure of BE comes in a second version, in which the Ground is no longer instantiated by the overt constituent but rather by LOC, which is modified/restricted by the overt locative constituent. This means these speakers do not have to change the word order to mark the difference with locatives. They can change the predication, i.e., relate the Figure and the Ground differently:

20. a. *SMG Grammar:* Standard p (PP=Ground) → Locatives & Existentials
    b. *non-SMG Grammar:* Standard p (PP=Ground) → Locatives
    Standard p (LOC=Ground) → Existentials

Assuming distinct underlying structures for BE is common practice in the cross-linguistic literature. Apart from Błaszczak (2007) and Hartmann & Milicevic (2008) (see ft. 85), Boneh & Sichel (2010) motivate separate underlying structures for three BE-based structures in Palestinian Arabic labeled as *Temporary Location, Part-Whole Relation,* and *Applicative (Inalienable possession) structure*.

However, it must be said that this analysis is not suitable for languages with clitics that behave like subjects, e.g., *ci* in Italian (21a) or *hi* in Catalan (21b):

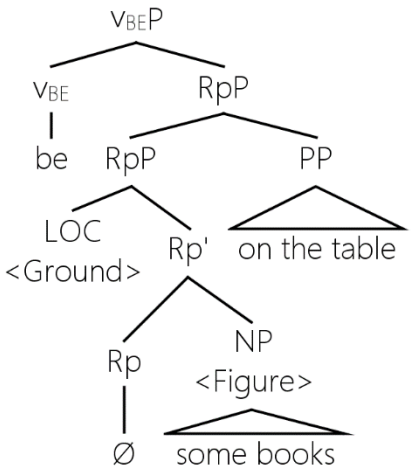
21. a. *Italian* (Bentley 2017: 344, ex. 44b)
    Ci sono molti semi in questa frutta.
    PF BE.3PL many seeds in this fruit
    'There are many seeds in this fruit.'
    b. *Catalan* (Leonetti 2008: 139, ex. 10a)
    Hi ha una solució al problema.
    there$_{EXPL}$ HAVE.3SG a solution to.the problem
    'There is a solution to the problem.'

If a p-predicate hypothesis could be supported in these languages, the reversed p-structure should be assumed. English *there-be*-sentences should also be analyzed as implicating a reversed p-structure, granted that they support the presence of a prepositional predicative head in the first place. English sentences arguably have a nominal behaving as the complement of the main predicative head (McNally 1997; Hazout 2004; Francez 2007; 2009; Irwin 2018) and an expletive *there* that occupies a subject position (recall the discussion in 6.4.4.). Since a p-based analysis is plausible,

as explained above (see the comments before example 12), the structure of an English *there-be*-sentence like (22) would be as in (23).

22. There are some books on the table.

23. *The structure of English there-be-sentences.*



To conclude, the differences between locatives and existentials are determined by (a) the level of predication (p vs. Rp) and the (c)overt status of its head, (b) the level of v (lexical vs. functional), (c) the level of Voice (projected or not, and, if projected, in what version), and (d) their interaction. It is the case that these two types of constructions are conceptually identical since they describe Figure-Ground relationships. However, this is not depicted in a uniform syntax. Although there is always a Figure related to a Ground, the way Syntax captures this relationship varies. The assumptions regarding their structure are summarized in the table below:

24. *A summary of the structural assumptions of Greek existentials*

	Voice layer	**v layer**	**Predicative layer**		
	Voice	v_{BE}	Figure-Ground configuration	p	Overt locative
Exi - existentials	Syntactically transitive Semantically intransitive {+D, Ø}	Rootless	Reversed {Ground>>Figure}	Silent	Adjunct
Ime- locatives	Syntactically & Semantically intransitive {-D, Ø}	Rootless	Standard {Figure>>Ground}	Silent	Complement
SMG *ime*- existentials	Syntactically & Semantically intransitive {-D, Ø}	Rootless	Standard {Figure>>Ground}	Silent	Complement
Non-SMG *ime* - existentials	Syntactically & Semantically intransitive {-D, Ø}	Rootless	Standard {Figure>>Ground}	Silent	Adjunct
Iparxo- existentials	Not projected	*√-arx-*	Standard {Figure>>Ground}	*ip-*	Adjunct

The hierarchical order between the Figure and the Ground has in the highest position either the Figure (*ime*- and *iparxo*- sentences) or the Ground (*exi*- sentences). That is, the predication layer exhibits the standard or the reversed argument arrangement, respectively (6.4.1., 6.4.3.). The Ground argument is realized by the overt locative constituent in locatives and SMG *ime*-existentials, while LOC instantiates it in the rest of the constructions (6.4.1.,6.4.4). In the latter case, whenever an overt locative constituent appears, it merges as an adjunct (6.4.2).

Then, if a root merges with v_{BE}, *iparxo* is the only way to go (5.3.). If no root appears, PF realizes v_{BE} as *exi* when it finds it underneath a syntactically transitive Voice head with *pro* in its specifier position (5.1.). In contrast, it realizes it as *ime* in the presence of a syntactically intransitive Voice head (5.2.).

Finally, I assume that the structure of Irish existentials is closest to the structure of *iparxo*-sentences. In contrast, English *there-be*-sentences share the same predication layer with Greek *exi*-sentences and lack a VoiceP layer like *iparxo*-sentences. The structure of locatives is cross-linguistically the same up to the vP-level.

The last part of the structures that need to be discussed is the left-periphery of the sentences, namely their Information structure. The following section is dedicated to this. This section also addresses the word-order difference between *ime*-locatives and *ime*-existentials.

7.2. Word Order and Topics

The comparison between locatives and SMG *ime*-existentials emphasizes that the linear order of the constituents is important. As the discussion in the literature on how word order is determined in this context is long, I will only refer to a few aspects that are relevant to our discussion.

To begin with, Kuroda's (1972; 1992) distinction between *thetic* and *categorical* clauses helps describe Greek (see also Agouraki 2013). *Thetic* is used for sentences that report the perception of a situation. At the same time, *categorical* describes sentences that draw attention to an entity and then to a property attributed to that entity. Kechagias (2011) captures this in terms of the contrast between *predicative* and *non-predicative* strategy (corresponding to categorical and thetic sentences accordingly) and argues that Greek formally realizes this distinction via word order. Crucially, predicative clauses surface as non-verb-initial orders and non-predicative ones as verb-initial orders. Under these assumptions, existential sentences fall into the thetic/non-predicative category, whereas locatives are the only ones belonging to the categorical/predicative type.

Cohen & Erteschik-Shir (2002) show that the thetic vs. categorical distinction is depicted in Syntax as a choice of the item that constitutes the *Topic* of the sentence. Following Strawson (1964), Reinhart (1981) considers the Topic ''as the 'address' in the file system under which sentences are evaluated''. Every sentence must have a Topic. According to the same researchers, the item that will constitute the Topic is selected among the discourse-old/known referents.

Nevertheless, there is yet to be a consensus on whether Topics are externally or internally merged in their surface position. Given that they are part of the left

periphery of the sentence, it is a matter of ongoing debate whether they originate in this area or move to their final position (see Oikonomou et al. 2020 for a recent review on the issue focusing on Greek). Since, in our cases, both arguments, namely the Figure and the Ground, are considered core parts of the predication, a base-generation assumption for Topics cannot be maintained. For this reason, I follow Roussou & Tsimpli (2006), Spyropoulos & Revithiadou (2009), and Sifaki (2013), who treat Topics as raised items.

The Figure-nominals in locatives that are presupposed, i.e., old referents, are optimal candidates for Topics. As such, they are chosen as the items raised to the Topic Phrase (25).

25. $[_{TopicP}$ DP $[_{TP}[_{VoiceP}$ $[_{pP}$ ~~DP~~]]]]

For all other cases that involve verb-initial orders, the Ground must be the Topic because this is the old referent upon which the new referent is anchored. Cohen & Erteschik-Shir (2002) and Francez (2007; 2009) claim that the implicit argument qualifies as the Topic in the absence of an overt locative argument. Therefore, it is LOC that is raised to Topic Phrase in existentials (26).[86] Crucially, it cannot be the overt locative that moves, as it is an adjunct, and adjuncts cannot be Topics, according to Cohen & Erteschik-Shir (2002). As a result, this process will not front the nominal constituent, and the sentence will exhibit a verb-initial order.

26. $[_{TopicP}$ LOC $[_{TP}[_{VoiceP}$ $[_{(R)pP}$ ~~LOC~~]]]]

Finally, recall that SMG *ime*-existentials have no LOC and the overt locative PP that acts as the Ground is argued to have an argumental status. Therefore, it can be said that in their case, it is the overt locative PP that moves to the Topic Phrase, as this is the known referent upon which the referent denoted by the nominal is introduced into the discourse (27). However, it must be specified that this movement will take place covertly since the Ground PP does not naturally surface in the sentence-initial position.

27. $[_{TopicP}$ PP $[_{TP}[_{VoiceP}$ $[_{pP}$ ~~PP~~]]]]

[86] See also Beaver et al. (2005), Partee & Borschev (2006), Gast & Haas (2011), Cruschina (2012), Bentley (2013), and Halevy (2022) on the hypothesis that the pivot nominal is not the topic in existentials sentences and a different constituent (not LOC necessarily) must be assumed for this role.

Interestingly, this means that Freeze (1992), who claimed that definiteness is the feature that determines which item will be raised, was not far from the truth. Although I do not adopt his idea that the raised constituent ends up in [Spec, TP], I share with him the intuition that definiteness partially determines the anchor of the utterance because definiteness is what makes a referent known and, thus, the Topic of the sentence.

If the reasoning of Partee & Borschev (2004; 2006, i.a.) is brought back in the foreground, we see that the syntactic projection of Topic can capture the notion of the Perspectival Center. On the one hand, a predicative/categorical clause emerges when the Figure is known and becomes the Topic of the sentence, i.e., the constituent the sentence is about. As such, it also provides the perspective/camera-angle from which the Figure-Ground relationship is uttered; hence it acts as the Perspectival Center. On the other hand, non-predicative/thetic clauses appear when the Ground is known, and thus it is selected to act as the Topic and, subsequently, as the Perspectival Center.[87]

This contrast is what keeps locative *ime*-sentences apart from existential *ime*-sentences. Locative sentences constitute utterances about the Figure, i.e., about the presupposed entity for which a (locative) property is introduced. *Ime*-sentences achieve the existential function through the verb-initial word order. Underneath the surface, a covert movement of LOC/PP takes place and makes the utterance about the presupposed Ground. A new referent will be introduced anchored upon this old, given Ground.

''Manipulating'' the word order in order to change the Topic/Perspectival Center, and thus the function of the sentence is a strategy attested cross-linguistically. In some languages, changing the word order is usually enough to establish a different function of the same BE (THING, LOC) proposition, i.e., the Figure-Ground relationship. Although Clark (1978) and Freeze (1992) consider it fundamental, typological work by Aikhenvald & Dixon (2013), Gaeta (2013), and Creissels (2014) shows that word-order-scrambling is *just one* of the strategies that languages exploit to keep locatives apart from existentials. As a reminder, Finnish and Russian follow this strategy. As

[87] Alternatively, it could be assumed that the Perspectival Center is determined by the (silent) small preposition that acts as the predicative head of all the sentences under discussion. This hypothesis builds on Svenonius (2010), Nchare & Terzi (2014), and Ramadanidis (2022), who show that prepositions may also serve as viewpoint or logophoric markers, indicating that in each case, the locational relationship between two entities is presented from a different point of view. Investigating if this proposal fares better than the one presented in this chapter is left for future research. However, I thank Winnie Lechner for bringing this to my attention.

evidenced by Greek, manipulating the word order does not necessarily preclude using another strategy in addition. Changing the predication relationship and assigning a different syntactic status to the constituents is a second strategy co-existing with the former.

Therefore, it is the case that the perspective of the sentence becomes encoded in the syntax. Even though this may appear directly (for example, in languages like Japanese, where specialized morphological markers for the Perspectival Centers are part of the Grammar), it also emerges indirectly. In the latter case, perspective is encoded in word orders and the syntactic status of each item.

7.3. Some notes on the semantics

Although the current dissertation focuses on the syntax of existentials, locatives, and possessives, a short discussion of their semantics is necessary. In this section, I make some observations that can only sketch a semantic analysis of Greek existentials. A more cohesive and robust proposal on the semantics of these sentences is left for future research. McNally (2011; 2016) reviews the semantic assumptions made across the literature concerning all locational sentences.

Currently, I postulate that the (silent) p-head taking part in the constructions discussed so far can have various interpretations, the so-called *allosemes*, depending on the environment in which it appears (7.3.1.). One of them is responsible for introducing new discourse referents. This approach builds particularly on work on Voice by Schäfer (2008), Wood (2015), and Oikonomou & Alexiadou (2022). In addition, I show that the implication of temporary or permanent existence derives partially from the status of p: a silent p yields temporariness by default, while the overt p-head in *iparxo* implies permanence. The fact that *iparxo* has a lexical root is also crucial. Further, both semantic implications may be overridden under certain conditions (7.3.2.). Finally, I consider the semantic aspect of the adjunction of the locative PP (7.3.3.).

7.3.1. $\text{Pred}_{\text{EXIST}}$ as a flavor of p

Adopting the principles of *contextual allosemy* (Wood 2015) within Distributed Morphology, I assume that the semantic interpretations of a particular head are determined configurationally. Wood (ibid) introduces this notion as the semantic counterpart of *conditioned allomorphy*. As the morphological exponent of a syntactic projection is determined by the structural configuration in which it takes place, so does the semantic interpretation of a projection. That is, Syntax is responsible for

building the structure around the head. Specific structures count as marked, and they are assigned idiosyncratic interpretations. These interpretations are called *allosemes*. The author states that each head retains a universal abstract function identified in all allosemes. Allosemes are the specifications of this function.

To make Wood's proposal clear, I use Voice as an example. For Wood (2015: 30), the set of rules defining how transitive Voice is conditioned and interpreted is presented in (28):

28. a. $[\![\text{Voice}]\!] \Leftrightarrow \lambda x_e.\lambda e_s.\text{Agent}(x,e)$ / ___(agentive, dynamic event)
    b. $[\![\text{Voice}]\!] \Leftrightarrow \lambda x_e.\lambda e_s.\text{Holder}(x,e)$ / ___(stative eventuality)
    c. $[\![\text{Voice}]\!] \Leftrightarrow \lambda x.x$ / ___(elsewhere)

This set of rules determines the semantic contribution of transitive Voice in three different cases. In a Kratzerian-style analysis, the transitive Voice introduces the external argument in its specifier position. This is its universal function.

The rules in (28) show that this function is further specified when a marked environment appears. According to (28a), if Voice is projected over an agentive and dynamic event, LF assigns the role of Agent to the argument it introduces, whereas if it is merged over a stative eventuality, LF makes its external argument a State Holder (28b). In all other cases, i.e., whenever the event below Voice is not agentive and dynamic or stative, the Voice will get its unmarked interpretation, that of identity function (28c). This means that it will not have a semantic contribution but will pass up the tree, whatever has been built underneath it. This is, for instance, assumed for anticausatives containing an expletive Voice (Schäfer 2008). Keeping this in mind, one additional background assumption is required for our discussion.

This assumption refers to the semantics assigned on the predicative head of existentials (henceforth, $\text{Pred}_{\text{EXIST}}$). A part of the literature states that the predicative head yields *instantiate* semantics (McNally 1997; McCloskey 2014; Irwin 2018; Myler 2018, cf. Barwise & Cooper 1981; Keenan 1987; Zucchi 1995; Francez 2007; 2009, for an analysis in terms of generalized quantifiers).

As initially assumed by McNally (1997), the interpretation of the existential predicate is 'to be instantiated'. As formulated in (29b), this existential Pred head in a sentence like (29a) implies that the property of being a *book* is instantiated by an entity in the discourse. In other words, an entity instantiating the property *book* exists in the discourse. The '$^{\cap}$' operator adopted from Chierchia & Turner (1988) guarantees that the nominal will be of or type shifted to the right semantic type corresponding to the so-called *entity correlates to a property*.

29. a. There is a book on the table.
b. instantiate ($^{\cap}\lambda x.$ book(x)))

For Myler (2018), $Pred_{EXIST}$ is a variant of a Pred head, as $Pred_{INDIVIDUAL}$ and $Pred_{STAGE}$. The complete paradigm of Pred heads he proposes is presented in (30):[88]

30. a. $[\![Pred_{STAGE}]\!] \Leftrightarrow \lambda P\langle e,t\rangle.\lambda x_e.\lambda e_s.holds(P,e)\ \&\ Holder(x,e)$
b. $[\![Pred_{INDIV}]\!] \Leftrightarrow \lambda P\langle e,t\rangle.P$
c. $[\![Pred_{EXIST}]\!] \Leftrightarrow \lambda P\langle e,t\rangle.\lambda LOC\langle e,t\rangle.[instantiate(\lambda x_e.[P(x)\&LOC(x)])]$

According to (30), the $Pred_{STAGE}$ denotes that a property/predicate (P) holds of some eventuality (e), and this eventuality has a Holder (x). This means that $Pred_{STAGE}$ introduces a Davidsonian event variable, and thus, it leads to stage-level readings. In contrast, $Pred_{INDIV}$, which is responsible for individual-level interpretations, does not introduce an event variable and denotes an identity function over predicates (see also Adger & Ramchand 2003; Balusu 2018). Instead, $Pred_{EXIST}$ takes a property (P) (denoted by the nominal) as its first argument and asserts that an entity instantiates this property at a particular location, represented by LOC. The identity of the location introduced by LOC may be determined contextually or by the coda, if there is one. In other words, $Pred_{EXIST}$ introduces a referent that corresponds to a property in a contextually salient location.

Despite being dominant in the recent literature, this type of analysis has shortcomings. Irwin (2018) argues that some existentials are not captured by *instantiate* semantics because they do not introduce a discourse referent. By citing the following example from Kimball (1973: 263), she claims that when the Figure and the Ground are in an inalienable possession relation, we cannot have the interpretation that the entity correlate to the property denoted by the nominal is instantiated in a contextually salient location. For the sentence in (31), the interpretation yielded is not that an entity *space* is instantiated in *the manger*. *Space* is not something that can be transferred to another room.

31. There was space in the manger, #but now it's in the kitchen.

In her attempt to solve this problem, Irwin (ibid) postulates a different denotation for the predicative head, building on McCloskey (2014). Even though the latter author

[88] For the sake of simplicity, the notation in (31) does not contain the conditions under which each alloseme is created.

does not step away from *instantiate* semantics, he formalizes them differently, using Francez's (2007; 2009) original assumptions.

In detail, McCloskey (ibid) puts forth that the main existential predication is provided by the constituent that equals Irish *ann*, e.g., in (32).

32. *Irish* (McCloskey 2014: 8)
Is annamh baisteach ann.
BE.PRS rare rain in.it
'There's rarely (any) rain.'

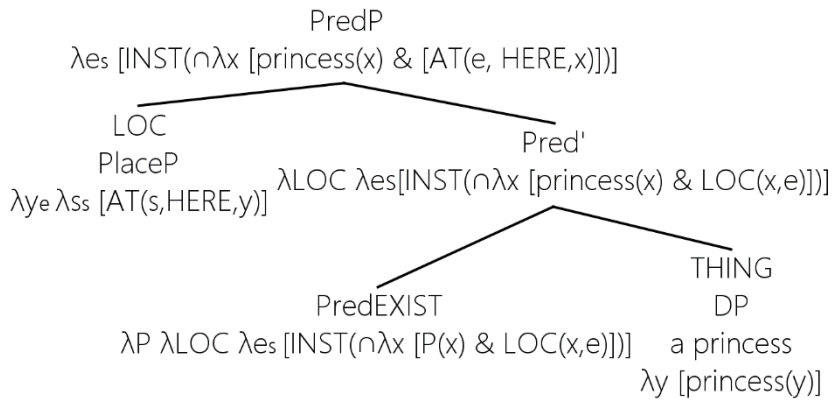
Ann conflates the semantic import of Pred and that of LOC (see 7.1.), and it is formalized as R(x, α) (McCloskey 2014: 36):

33. a. *ann* is ''the property that a property has when it is instantiated by some individual x located at a contextually defined spatiotemporal location''.
b. $[\![\text{ann}]\!] = \lambda P\ [\text{instantiate}\ (^{\cap}\lambda x\ (P(x)\ \&\ R(x, \alpha)))]$

In R(x, α), R stands for the contextually-determined relation, x for the individual, and α for the contextually-determined location/anchor, i.e., it is a salient ''here''. Informally, R is a ''located-at'' relation. The interpretation of the whole existential predicate is the ''at-here''-property, where ''here'' refers to a physical or metaphorical space. Following the discussion in Chapter 4, it can be assumed that the values of R are essentially the degrees of closeness in the relationships between entities. In other words, R-values constitute the web of entity networks.

Building on this, Irwin (2018) decomposes the contribution and assigns the semantics to two separate heads: R to Pred and α to LOC. For the same author, a sentence like (34a) is semantically interpreted as in (34b).

34. a. There is a princess.
b. *The structure of English existentials by Irwin (2018)*



In the representation above, Partee and Borscev's THING corresponds to the entity x in the R(x, α) relation. $Pred_{EXIST}$ is responsible for introducing the discourse referent, while context dependence is achieved through LOC. Irwin also adds an event variable *e* in the composition to capture the fact that ''the individual being instantiated is in the state of being at the location denoted by the contextually determined location, LOC'' (Irwin 2018: 16). Within this analysis, the existential proposition receives the reading that an instance of some set or property (corresponding to THING) exists at a given physical/metaphorical spatiotemporal ''location'' (LOC). It is the case, then, that Irwin's R(x, α)-analysis and McNally's INSTANTIATE-analysis can be seen as two sides of the same coin.

Regardless of the formal representation, all hypotheses accept that a contextually dependent relation holds between a THING and a LOCATION. Essentially, they capture that existentials describe a locational relationship, i.e., a relationship between a Figure and a Ground.

Interestingly, this is what prepositions actually do. They also establish relationships between a Figure and a Ground. Each preposition implies specific information about how the two are related, including how they are physically attached or at least interrelated. But if we abstract away from item-specific information, we see that prepositions simply relate Figures to Grounds. In Wood's (2015) terms, this is the universal function of prepositions (see also Franco et al. 2021).

Along these lines, the most appropriate denotation for the unmarked case, i.e., the elsewhere interpretation of (static, at least) prepositions, is the one suggested by Hale & Keyser (2002), i.e., that of central coincidence. In this case, prepositions convey that the Figure and the Ground coincide in space and time.[89] $Pred_{EXIST}$ is an alloseme of p arising under certain conditions discussed below.

The rules that would capture the current assumptions regarding the interpretations of p are presented in (35). Even though this set of rules refers primarily to silent prepositions, overt prepositions may also receive the same meaning. For instance, the spatial preposition *se,* which is treated by Terzi (2010) as the realization of PlaceP (in a structure *a la* Svenonius 2008; 2010), could be taken as an instantiation of the elsewhere interpretation (35b).

35. a. $[\![p]\!] \Leftrightarrow Pred_{EXIST}$
    b. $[\![p]\!] \Leftrightarrow$ central coincidence/___(elsewhere)

[89] Note that coincidence in time *and* space is indispensable. This view is also validated by Irwin's proposal to add the event variable in the semantic denotation of existentials. Further, the specification that this generalization applies to static prepositions is necessary to exclude directional ones from the discussion, since they behave differently.

To pin down the conditions determining allosemy, we need to focus on the arguments of p. Since zero prepositions are assumed only for *exo*- and *ime*-sentences, *iparxo*-sentences are left aside for the moment. Regarding the two former cases, it has been argued that *exi*-sentences use an RpP, whereas *ime*-sentences use a pP. Therefore, the argument arrangement does not create a marked environment for allosemy.

However, it has been observed that if the nominal argument denotes a presupposed entity, these sentences do not introduce new discourse referents. This means they do not involve the $Pred_{EXIST}$ interpretation. I repeat some relevant examples below:

36. a. (O Nikos) ine (o Nikos) stin tileorasi.
the Nick.NOM BE.3SG the Nick.NOM on.the TV
'Nick is on TV.'
b. Exi ton Niko stin tileorasi.
HAVE.3SG the Nick.ACC on.the TV
'There is Nick on TV.'

To introduce new discourse referents, the nominal argument must be non-presupposed.

Therefore, a proposal for capturing the fact that $Pred_{EXIST}$ is an interpretation brought about by standard and reversed p-configuration only on the condition that the nominal argument is not presupposed is presented in (37).

37. a. ⟦p⟧ ⇔ $Pred_{EXIST}$ / _____ RpP & non-presuppositional Figure
b. ⟦p⟧ ⇔ $Pred_{EXIST}$ / _____ pP & non-presuppositional Figure
c. ⟦p⟧ ⇔ central coincidence / ____(elsewhere)

According to the above, central coincidence is the elsewhere interpretation, i.e., the LF-interpretation assigned in the absence of any marked environment (78c). In contrast, no matter which formal representation of $Pred_{EXIST}$ is adopted, I consider that it emerges in two environments: in the presence of a reversed p (Rp) or a standard p (pP) structure on the condition that the argument representing the Figure is not presuppositional.[90]

[90] Note that if the environment that counts as marked were to be captured in terms of syntax, we could draw on de-compositional analyses of the DP (Borer 2005; Heycock & Zamparelli 2005) according to which presuppositional noun phrases constitute DP-projections syntactically. Then, it could be said that

An essential advantage of this proposal is that we do not have to postulate separate structures for the existential and the non-existential use of *exi*- and *ime*-sentences. It is a matter of interpretation whether the structure is suitable for introducing new discourse referents. Syntactically, nothing prohibits any nominal projection from participating in each construction. To see this in reverse, each pragmatic function requires specific denotations, and each denotation requires a specific syntactic environment.

To make it explicit, in this view, the sentences in (38) have the same underlying structure in which the Ground c-commands the Figure (Rp configuration).

38. a. Exi vivlia sto trapezi.
HAVE.3SG book.PL.ACC on.the table
'There are books on the table.'
b. Exi ton proθipurɣo sti ðeθ simera.
HAVE.3SG the prime.minister.SG.ACC at.the T.I.F. today
'There's the prime minister at TIF (Thessaloniki International Fair) today.'

When the Rp-based structure reaches Spell-Out, LF provides $Pred_{EXIST}$ semantics for (38a) and central coincidence for (38b) because it recognizes a nominal argument denoting a non-presupposed entity in (38a) and the same type of argument denoting a presupposed entity in (38b). Since in the existential function, the referent must be novel to be introduced into the discourse, only the sentence assigned $Pred_{EXIST}$ semantics will be felicitous for this function. As only the sentence in (38a) yields $Pred_{EXIST}$ semantics, it is the one that functions as existential. In contrast, the presuppositional DP in (38b) blocks this interpretation. Hence, the sentence cannot be used as an existential. Instead, it qualifies as a locative sentence that establishes the location of the presupposed entity.

Subsequently, this means that the DE in existentials is unrelated to syntax. It arises as a pragmatic and semantic condition to ensure that the denotation of the referent is suitable to give rise to the $Pred_{EXIST}$ alloseme and, thus, allow the sentence to introduce new referents into the discourse.[91] Section 9.3. revisits the semantics of this p-head once possessive structures have been taken into account.

---

the $Pred_{EXIST}$ interpretation is assigned to a pP- or an RpP-structure when the Figure is not a structural DP.

[91] See also Carnie & Harley (2000) for a related view on how presupposition creates Definiteness effects and affects telicity.

7.3.2. Temporary vs. permanent existence

As presented in Chapter 2, *iparxo* implies a more permanent association between the Figure and the Ground. Although this could be solely attributed to the fact that contrary to *ime* and *exo*, *iparxo* has a root, the fact that its p element is overt is also important.

Kouneli (2014), who discusses PP-structures in general, argues that silent prepositions are allowed only when the association between the arguments is temporary. By adopting her conclusion, I hypothesize that as both *ime* and *exo* include silent prepositions, they inherit the temporariness implication from them. In contrast, *iparxo*, as English *exist* and all its Romance equivalents, does not yield such implication because its p is not silent (in addition to the fact that it has a root with the meaning of 'existence' at its core).

As the temporary/permanent contrast has been detected at a cross-linguistic level, alternative explanations have been proposed in the literature. For instance, Francez (2007) claims that since LOC is contextually determined, it acts as a stage topic. Thus, stage predication, i.e., temporariness, is brought about whenever LOC is present. On the other hand, McNally (1997) observes that only stage-level adjectives are licensed if the coda phrase is adjectival. These coda phrases are secondary predicates that merge as adjuncts and act as object depictive modifiers. The researcher explicitly claims that this analysis extends to prepositional codas. Therefore, as temporariness is provided by this particular type of modifier, it appears only in cases where the overt locative constituent is such an adjunct.

The problem for these analyses is created by *iparxo*. If either LOC or the type of modification provided by adjunct PPs is responsible for temporariness, *iparxo* sentences that arguably include both should yield temporariness only, which is contrary to fact.

Therefore, I stick to the proposal that temporariness is implied by the silent p. By using ''imply'', I also mean to leave the possibility that temporariness may be canceled once appropriate material appears. Such material is, for instance, an overt adverbial like *pada* 'always' in (39a) or marking the adjunct PP with plural in (39b).

39. a. Exi pada arkuðes sto vuno.
HAVE.3SG always bear.PL.ACC on.the mountain
'There are always bears on the mountain.'

b. Exi arkuðes sta vuna.
HAVE.3SG bear.PL.ACC on.the mountains
'There are bears on the mountains.'

The adverb in (39a) cancels temporariness and conveys a permanent association. The plural marking on the nominal in (39b) makes the sentence introduce multiple Figures *(bears)* in multiple instances of the Ground *(mountains)*.

Similarly, the permanence implication of *iparxo* is canceled when the adverbs *simera* 'today' or *tora* 'now' modify it.

40. Iparxi kinisi sto kedro simera/tora.
EXIST.3SG traffic.SG.NOM at.the city.center today/now
'There is traffic at the city center today/now.'

Nonetheless, it still needs to be clarified why emptiness would have such an effect in the first place. Kouneli (2014) does not provide a definitive answer to this question. Specifically, she argues that although Gallego & Uriagereka's (2009) analysis of the *ser* vs. *estar* distinction in Spanish seems promising in this case, it has shortcomings suggesting that a modification of the original hypothesis is required.

Gallego & Uriagereka (2009: 5) observe that *estar* in Spanish is the BE-copula's variant denoting temporariness. This is in opposition with *ser,* which brings about permanence. This contrast is pinned down in cases where adjectival predicates follow the copulas (41); *estar* as the 'temporary BE' licenses s-level predicates, whereas *ser* forbids them:

41. *Spanish* (Gallego & Uriagereka 2009: 1)
a. Es/*Está amenazante, ilusionante, aluzinante…
BE(PERM)/BE(TEMP).3SG threatening encouraging amazing
'(S)he/it is threatening, encouraging, amazing…'
b. *Es/Está amenazado, ilusionado, aluzinado…
BE(PERM)/BE(TEMP).3SG threatened encouraged amazed
'(S)he/it is threatened, encouraged, amazed…'

The authors also argue that all adjectives are decomposed into a noun-component and an adposition-component. The adposition assumed for adjectives that are licit complements of *estar* bears a specific characteristic (which they subscript as P_T) that makes them stage-level predicates. Only this adposition can be incorporated into *ser* and derive *estar* in the following way:

42. a. $[_{serP}$ *ser* $[_{SC}$ DP [P+N]]]
b. $[_{estarP}$ P_T+*ser* $[_{SC}$ DP [tP [P+N]]]]

However, this analysis does not clarify if the characteristic inherited by the adposition or the incorporation mechanism itself makes *estar* the temporary BE. Further, the fact that Spanish locatives exploit *estar* even when the location is conceived as permanent creates a problem for Gallego & Uriagereka's (2009) analysis.

Therefore, Kouneli (2014) assumes that this temporariness effect is either brought by a diacritic on the incorporating preposition or by the incorporation itself. In the first scenario, this diacritic must be formulated differently to account for the fact that Spanish locatives employ *estar* uniformly. In the second scenario, further assumptions regarding the nature of the incorporating mechanism and additional PF-related rules regulating the copies that will be phonologically realized are required. Nonetheless, she does not choose between the two and leaves this issue open for future research, as will I. Crucially, though, her analysis shares with the present thesis the assumption that temporariness is an implication judged by our pragmatic knowledge.

To sum up, this section concludes that the temporary-permanent existence derives from the (c)overt status of the predicative head. Expressly, temporariness is provided by the silent p. By contrast, the permanence implication is encoded in the root (that has the meaning of 'existence' at its core) and the overt prefix of the verb *iparxo.* The implication is cancellable in both cases once additional material appears in the sentence.

The following section addresses a final semantic aspect as it focuses on the adjunction of the locative PP.

7.3.3. Interpreting the locative adjunct

In all three cases where the overt locative constituent is omissible, it has been argued to be an adjunct (*exi-*, *iparxo-*, and non-SMG *ime-*existentials). However, it has been noted that its omission is permitted only when the Ground is easily retrieved by the context or shared knowledge. This means that existence is always relevant to a location (see 1.2.1.). Therefore, I have assumed that the Ground role is never semantically absent. It is always implied, even if it is not overtly expressed in the sentence.

For this reason, I have argued that, in these existentials, the Ground role is primarily satisfied by a phonetically null locative argument (LOC) which is also syntactically present as evidenced by the fact that it can be captured as an antecedent of a clitic or a relative clause (6.4.4.). Thus, LOC is not an implicit argument (in terms of Bhatt & Pancheva 2017), i.e., an argument that counts only for the LF-

interpretation, but a covert (phonologically null) argument that also matters for syntactic processes.

The presence of LOC and the semantic role of the adjunct PP-coda is generally debated in the cross-linguistic literature, where one can find two main lines of approach. On the one hand, Stowell (1978), Barwise & Cooper (1981), Chomsky (1981), Safir (1982; 1987), and Keenan (1987), among others, advocate that LOC is entirely absent in the presence of an overt locative constituent. When the latter is present, it is integrated as the main semantic predicate. This means that the overt locative *introduces* the Ground argument.

On the other hand, Hoekstra & Mulder (1990), McNally (1997), Moro (1997), Francez (2007; 2009), McCloskey (2014), Irwin (2018), and Myler (2018), among others, argue that LOC is present anyway. The overt locative codas, when present, are modifiers of LOC. This means that they do not introduce the Ground argument in the Figure-Ground relationship, but they *specify* it.

For the purposes of this thesis, it is not crucial to pick a side regarding this debate. It is essential, however, to distinguish *ime*-locatives and SMG *ime*-existentials from all other types of existential sentences. Given the syntactic structures assumed, locative PPs *introduce* the Ground argument in locatives and SMG *ime*-existentials. However, they may not do so in the rest of existential constructions. Although I will not address this issue in detail, I will make some preliminary remarks. My view on this debate is that the second line of approach that takes the PP-coda as a modifier of the Ground argument seems more promising, as it can explain why several Figure-Ground pairs cannot fit into existentials with adjunct PPs.

Chapter 2 and, more prominently, Chapter 4 have concluded that pairs describing close relationships that are prototypically expressed via possessive constructions are not widely acceptable in existentials. To be more specific, the general picture is that *exi-*, non-SMG *ime-* and *iparxo-* existential constructions can host such pairs (recall from 6.4. that they license constitution readings) but not naturally. Even further, close/inescapable relationships implied by relational nominals are ungrammatical in existentials.

If the overt locative has an adjunct modifier status, this is expected. The modifier status is demoted compared to the argumental one. Therefore, Figure-Ground pairs denoting close relationships or determined by relational Figures need not be inserted in structures where this close relationship is not depicted in syntax. Thus, they are marginally attested in existential sentences. This holds since the language offers alternative structures that accommodate Figure-Ground relationships as argumental relations.

Nevertheless, it is worth noting that in terms of semantic composition, the interpretation of the sentence is not affected by the locus of adjunction as long as the hierarchy of the constituents is respected. The sentence would retain the same reading if adjunction took place on (R)pP, vP, or VoiceP. This is true because the two highest projections are semantically expletive. Recall that v_{BE} has an identity function, meaning that it simply passes up the tree anything that has been built underneath. In turn, VoiceP, if projected, is semantically expletive as it is projected solely for morphological reasons. However, in 6.4.2. I proposed adjoining the locative PP to the (R)p-level to be consistent with Alexiadou (1997) and Cinque (1999), who hold that adjuncts merge in projections containing matching semantic features.

7.4. The assumptions regarding existentials and locatives

This chapter aimed to summarize the findings of the previous chapters and present the structure of existentials in detail. First, it was shown in Chapter 5 that the accusative case marking on the pivot nominal in *exi*-existentials suggests that an expletive *pro* must be postulated. This expletive must obligatorily be introduced in the specifier of a transitive Voice head, which is projected in HAVE-sentences in general. Unlike HAVE, BE projects an idiosyncratic version of Voice, which is identified for all types of deponents. *Iparxo,* the Greek equivalent of EXIST, assimilates English *be* since it is an unaccusative that lacks Voice altogether. Second, in Chapter 6, our attention was brought to the predication layer for which I postulated a mediating predicative head. The latter is not argued to be a typical Pred head but a prepositional one.

Then, it was necessary to trace the position of the Figure and Ground arguments within the p-projection. First, I identified the status of the overt locative item. I concluded that the locative item is a complement of p in locatives (cross-linguistically) and SMG *ime*-existentials. In contrast, it is an adjunct in English *there-be*-sentences, *exi*-, *iparxo*- and non-SMG *ime*- existentials (6.4.1.). As an adjunct, the locative PP adjoins the level of the predication layer (6.4.2.). As for the nominal, I argued that it merges in the object (complement-of-predicate) position in *exi*-sentences as it does in English *there-be*-sentences, whereas it is a subject in locatives (cross-linguistically), as well as Greek *ime*- and *iparxo*-existentials (6.4.3.). Last, following the cross-linguistic literature, I postulated a covert locative argument (LOC) in all existentials except for SMG *ime*- sentences. This argument is in a subject position in *exi*- and *there-be*-sentences, whereas it is in an object position in non-SMG *ime*- and *iparxo*-sentences (6.4.4.).

Next, it was shown that *ime*-locatives differ from all existentials in terms of their Topic; the former type of sentence projects the presupposed nominal as their topic, whereas existentials project the locative constituent. This is depicted as a difference in the linear order of the constituents and encodes a different Perspectival Center in each case (7.2.).

Finally, I made some remarks on the semantics of existentials and locatives that can only sketch a semantic analysis. This section argued that prepositions heading small clauses are twofold interpreted depending on the context and their status as overt or silent items. On the one hand, they are interpreted as the marked alloseme that introduces novel discourse referents of a specific semantic type (labeled as $\text{Pred}_{\text{EXIST}}$) whenever a non-presuppositional referential noun phrase appears in their structure. On the other hand, in the absence of this marked environment, they get assigned the unmarked interpretation of central coincidence (7.3.1.). Next, the silent functional prepositions assumed for *exo* and *ime* were considered responsible for implicating a temporary association between the Figure and the Ground (7.3.2.). Last, in 7.3.3., I touched upon the issue of how adjunct PP-codas are semantically related to LOC.

This concludes our discussion on locatives and existentials and turns our focus to possessives. Their structure is explored in the following chapter.

8. Structuring possessives

In this chapter, our focus is turned to possessive constructions. Before we delve into the details of their structure, I clarify why possessives must be taken into consideration in the first place.

So far, the comparative study of existentials has provided evidence for a predicative layer headed by a preposition. Within this layer, the arguments can have at least two configurations: in a standard pP-structure, the Figure c-commands the Ground, while in a reversed pP, the Ground argument c-commands the Figure. Adding possessives into the picture further supports the postulation of these two types of prepositional predicative layers.

Moreover, the possessive reading is part of the too-many-meanings of BE- and HAVE-sentences. Thus, their study is essential to any attempt to analyze the structure of these copulas comprehensively. Possessive sentences are particularly telling about the interplay between predication and Voice.

Lastly, possessives must be included in this research as they are integral to the set of alternating constructions in which Figure-Ground relationships can fit.

For these purposes, I briefly refer to some previous approaches that are fundamental for this thesis (8.1.). In 8.2., I describe the crosslinguistic picture of possessives and demonstrate that there are two strategies for building possessive relationships: either as a nominal dependency, i.e., within a DP, or via a preposition, i.e., as a PP. Then, I show how Greek fits into this picture. In 8.3., I argue that sentence-level possessives in Greek are not built on top of DP-level possessives. Instead, I propose that sentential possessives exploit a preposition, as was the case with existentials/locatives (8.4.). In 8.5., I focus on possessive HAVE-sentences, and I present their derivation. In 8.6., I discuss how the variation among possessives arises by focusing on *ime-me-* and *mu-vriskete-*sentences. Finally, 8.7. summarizes the findings of the chapter.

8.1. Previous proposals

Recall from 6.1. that Clark (1978) was the first to create a typology of existentials, locatives, and possessives. Building on earlier work that had already established their close affinity, her proposal was the basis for the so-called 'Possessors as Locations' hypothesis, most famously defended by Freeze (1992) and Kayne (1993).

Clark (1978), in the earlier version of her paper in 1970, holds that it is fairly acceptable by our conceptual system that if an entity is at a location and that location is an animate entity, then the first entity is possessed by that location. To put it

differently, the [+human] feature of the location allows for the possessive interpretation. Slobin (1985: 1179) describes the locative nature of possession in terms of the Figure/Ground distinction: "Broadly conceived, possession is a locative state in which the Ground is an animate being, and the Figure-Ground relation is of an enduring or socially sanctioned nature" (see also Benveniste 1966; Lyons 1967; Jackendoff 1983; Barker 1995; Herslund & Baron 2001; i.a.).

Evidence from several unrelated languages has supported that this localist aspect of possession is mirrored in Syntax. Locative case markings on the possessors or adpositions that precede/follow them (recall the Ancient Greek, Finnish, Russian, and Modern Irish examples from the first lines of Chapter 5) constituted the most discussed pieces of evidence (see also Tsujioka 2002 for Japanese, Avelar 2009a; 2009b for Brazilian Portuguese, Boneh & Sichel 2010 for Palestinian Arabic, and Jung 2011 for Russian, among others). This tradition reduced possessives, existentials, and locative sentences to a single underlying structure, which is based on a preposition.

However, typological work, particularly on possessives, raised considerable doubts regarding this generalization. Clark (1978), Heine (1997), Stassen (2009), Aikhenvald & Dixon (2013), and Creissels (2014) showed that the locative scheme is not universal. The assimilation of possessives to locatives is simply one of the strategies attested cross-linguistically (see 3.1. and Appendix 1 for some examples of alternative schemas).

This gave rise to the so-called non-unification approaches that are prevalent nowadays. These analyses assume that the structure underneath BE- and HAVE-sentences is not necessarily unified. Specifically, these approaches hold that some surface orders (and interpretations) have a common structure. Still, it is not the case that they all originate from one single structure.

For instance, Borschev & Partee (2002), Błaszczak (2007; 2018), and Partee et al. (2011) conclude that BE-possessives share a whole range of syntactic and semantic properties with BE-existentials but not with copular BE-sentences in Slavic languages. Dalmi et al. (2020) support these findings for Slavic and extend them to Finno-Ugric languages. The contributions in that volume also dissociate HAVE-sentences from both types of BE-sentences. Regarding possessives, the postulation of a prepositional head is severely questioned.

The most widespread alternative is that predicative/sentence-level possessives are built on top of phrasal/nominal/DP-level possessives, an idea that is proposed by Szabolcsi (1981; 1983; 1994) (see also Barker 1995; Jensen & Vikner 1996; Postma 1997; Tham 2004; Myler et al. 2014; Myler 2016; Błaszczak 2018). According to this view, the structure of the predicative possessive in (1a) relies on the structure of the DP-possessive in (1b).

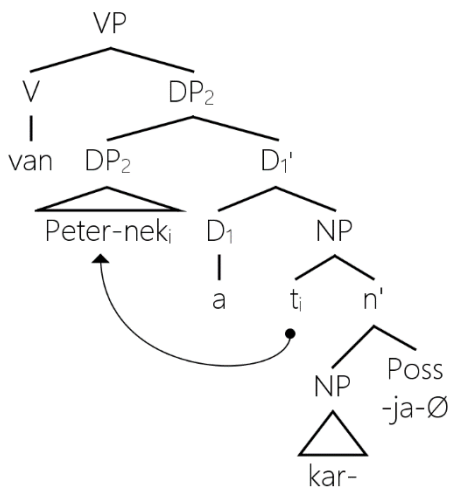
1. *Hungarian* (Szabolcsi 1981: 265)

a. Peter-nek van kar-ja-ø.
Peter-DAT BE arm-POSS-3SG
'Peter has an arm.'

b. Peter-nek a kar-ja-ø.
Peter-DAT the arm-POSS-3SG
'Peter's arm'

The simplified version of the derivation proposed by Szabolcsi (1994) is as follows. In (2), the possessive sentence derives when a possessive DP is embedded under an existential verb, and then, the possessor moves out of this DP to take up the position of the subject:

2. *The structure of a sentence-level possessive, according to Szabolcsi (1994).*



Although Szabolcsi (1981; 1983; 1994) takes possession to be determined within the DP, the abovementioned body of work consolidated *Poss* as the functional layer responsible for introducing the possessive relationship between the two arguments. This *Poss*-head is necessary in phrasal and sentential possessives, specifically in cases of alienable possession.[92]

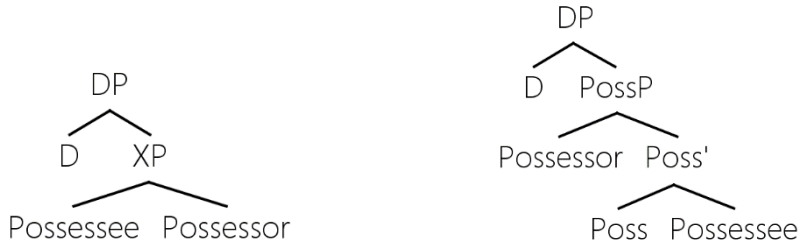
The DP-internal structure may differ if inalienable possession is at stake, e.g., in part-whole relationships, kinships, or body parts.[93] Those who assume that they differ have the possessor being introduced as a direct argument of the nominal (see Anderson 1983; Seiler 1983; Guéron 1985; Chappell & McGregor 1989; Tellier 1990;

[92] See Beavers et al. (2008) and references therein for different views of the status of *Poss*.

[93] Assuming a structural difference between alienable and inalienable possession is driven by the fact that the two are also semantically different (recall the discussion in 1.2.2. and 4.3.)

Vergnaud & Zubizarreta 1992; Dahl & Koptjevskaja-Tamm 2001). Español-Echevarría (1997) argues that the inalienable possessor DP occupies [Spec, NP], a position further supported in Alexiadou (2003), who proposes the following structures:

3. a. *Inalienable possession structure* b. *Alienable possession structure*



According to (3a), inalienable possessors are merged as direct arguments of the possessee or form a complex predicate with it. In contrast, alienable possessors are introduced via the nominal functional head *Poss* (3b).

Nonetheless, regardless of the inner DP-structure, sentence-level possessives are built on top of it. Sentence-level possessives are created when a copula, a meaningless form of v, applies over the possessive DP. This way, a possessive relationship between two entities can access verbal projections.[94]

The major advantage of this line of thinking, contra unification approaches, is that it naturally accounts for the variation intra- and cross-linguistically. It does not need to resort to complex movements or intricate semantics to explain how possessives have different surface orders and interpretations from locatives and existentials. In this case, there is no preposition to begin with. Hence, the variation in possessives is a matter of how each language grammaticalizes possession within the DP-structure.

It is also essential that these assumptions take into account the distinction between inalienable and alienable possession. This is required for languages that express this distinction at the sentence level. However, Greek is only one of the languages showing that the (in)alienable distinction is only sometimes relevant to the

[94] Note that neither the characterization of copulas as meaningless elements nor the assumption that they are exponents of v are indisputable. The consensus regarding the semantic contribution of copulas is that they are semantically less content-full than lexical verbs. Bach (1967), Lyons (1968), Williams (1980), Partee (1985), Pustet (2003), and den Dikken (2006) specify further that they are void of any semantic meaning (cf. Brugman 1988; Rothstein 1999; 2000; Becker 2004; Pereltsvaig 2007). Moreover, copulas are introduced in v only for a part of the literature (Halle & Marantz 1993; Moro 1997; Rothstein 1999; Mikkelsen 2005 cf. Baker 2003; Roy 2013; Cowper 2017).

sentence level, or, at least, that the implementation of this distinction at the DP-level is not necessarily mirrored at the sentence level.

In the next section, I show that both lines of approach share some merit of the truth. Cross-linguistic evidence suggests that the possessive relationships can be introduced within the maximal projection of the NP (extended or not by *Poss*) or through a preposition. Further, sentence-level possessives can be construed either on the basis of the NP/PP structure or independently. In the latter case, DP-level possessives are shown to introduce the possessor as a nominal dependent, while sentence-level possessives merge the possessor via a preposition. 8.2. describes these strategies in detail.

8.2. The cross-linguistic picture: two modes for structuring possessives at the phrasal (DP) and the sentential (TP) level.

The literature review in the previous section demonstrated that there are two major lines of approach to how possessives are built. Researchers contend that possessives can be construed through a preposition or as a dependency within the noun phrase.

This section demonstrates that the cross-linguistic picture suggests that both analyses can be maintained if seen as depicting two modes for structuring possessives, which are, in principle, available to all languages. Specifically, I propose that possessive relationships can be built in a DP- or a PP-based structure. The cross-linguistic variation depends on (a) whether a language uses both or only one, and (b) if it uses both or each in the sentence- and the phrase-level. If a language uses both, further variation emerges from the interpretations accommodated in each scheme. This, however, will not concern us much. Our focus will be on the first two questions.

The critical point of divergence between these two modes is the status of the Possessor and the Possessee as independent theta roles. When a language accommodates the Possessor and the Possessee as nominal dependents, it recognizes them as separate roles because it reserves specific structures and morphological markings. In other words, the language delineates a set of relationships between entities as close (i.e., as a relationship between a Possessor and a Possessee) and accommodates them in a possessive structure. This structure is often dedicated to possessive marking, i.e., reserved only for those close relationships (see, for instance, the examples from Macushi in 1.2.2.). Alternatively, it is a structure used elsewhere in the language that can depict the close affinity between entities. As an example of the latter, consider that Greek uses genitive case marking on the

Possessor, a strategy also exploited for marking internal arguments of nominals. Either way, the important characteristic is that the Grammar recognizes the Possessor and the Possessee roles as independent thematic roles. Hence, there is no need to exploit a mediating predicative head. The relationship between the two participants is determined within the limits of the noun phrase itself.

In contrast, when the Grammar of a language does not identify the Possessor and the Possessee as independent roles, it needs a mediating head to relate two entities. A preposition is suitable for taking up the role of the mediator, as its universal function is to relate two entities, i.e., a Figure and a Ground. This means that the language subsumes the Possessor-Possessee roles under the Ground-Figure roles and depicts the possession relationship as a locative one. In DM-terms, roots, in this case, cannot specify the Possessor role for their external argument. Crucially, it is not the case that these roles do not exist cognitively or semantically but that the Grammar of the language does not identify them as separate roles that are associated with individual structures.

The following sections elaborate on these observations and present how these modes are manifested intra- and cross-linguistically on two levels: phrasal (DP)- and sentential (TP)-level possession. As phrasal possessives have not been discussed in this thesis, I consider them first in the following section.

8.2.1. The phrasal (DP) level

This section is said to discuss cases of phrasal possession. However, this should be rephrased since 'possession' is a label reserved for close relationships (1.2.2.). To be in line with the definitions adopted in this thesis, it should be specified that this section discusses how the relationships between entities are expressed at the phrasal level.

According to an overview of associative DPs across languages offered by Chappell & McGregor (1989;1996), Coene & D'Hulst (2003), and Aikhenvald & Dixon (2013), among others, it is observed that languages frequently use a p-based structure for entity pairs whose association is circumstantial or accidental. This can hardly be considered ''possessive'' because it does not depict a close relationship between the entities.

Empirical evidence from Greek suggests that this language substantiates this claim vividly. In Greek, the distinction between a DP-structure and a p-based one is defined based on ''closeness'': the introduction of the possessor and the possessee as nominal dependents is reserved for cases when the two are either inseparable (4) or standardly/consistently associated with each other (5).

4. a. i miti/xara tis Marias
the nose/joy.SG.NOM the Mary.GEN
'Mary' s nose/joy'
b. i seliða /to eksofilo tu vivliu
the page.SG.NOM/the cover.SG.NOM the book.SG.GEN
'the page/cover of the book'

5. a. to amaksi/i ðulja tis Marias
the car.SG.NOM/ the job.SG.NOM the Mary.GEN
'Mary' s car/job'
b. (?)to vazo/keri/suver tu trapezju.
the vase /candle/coaster.SG.NOM the.GEN table.SG.GEN
'the vase/candle/coaster of the table.'

In contrast, a PP-based structure is used for cases where the two entities simply coincide in time and space, i.e., they are not closely related.[95]

6. a. To vivlio sto amaksi, pjanu ine?
the book.SG.NOM in.the car.SG.ACC whose is??
lit. 'The book in the car, whose is it?'
b. I tsada sto patoma, ðen ine ðikja mu.
the bag.SG.NOM on.the floor.SG.ACC NEG is mine 1SG.GEN
'The bag on the floor is not mine.'

Note, however, that there is variation among speakers on which entity pairs can fit into every construction. The '?' notation on (5b) suggests that there are speakers who do not recognize a standardized relationship between *vases and tables, candles and tables,* and *coasters and tables*. For those speakers, a PP-based structure must be used instead. Unlike these intermediate cases, the pairs in (7) unequivocally fit into a PP-based structure only.

7. a. *to karpuzi/kliði/vivlio tu pagu
the watermelon/key/book.SG.NOM the counter.SG.GEN

[95] Interestingly, dialectal evidence from Greek suggests that DP-level possessives can also be construed based on a preposition. Michelioudakis et al. (2021/to app.) provide examples from a dialect spoken in Grevena, Greece (i). In view of these data, a more detailed picture of Greek would have to be sketched. However, since the distribution in Standard Modern Greek is straightforward, this is left for future research.

(i) tu vivliu ap tun ðimarxu
the.SG.NOM book.SG.NOM of the.ACC mayor.ACC
lit. 'the book of the mayor'

lit. 'counter' s watermelon/hey/book'

b. to karpuzi/kliði/ vivlio ston pago
the watermelon/key/book.SG.NOM on.the counter.ACC
'the watermelon/key/book on the table'

English, on the other hand, separates the types of relationships differently. The language uses both modes for close (i.e., possessive) relationships (8,9), while it reserves only the P-based structure for non-possessive readings (10).

8. a. John's eyes/book
   b. the table's leg/color
9. a. the eyes of John
   b. the leg/color of the table
10. a.*the table's book/key
    b.*the book/key of the table
    c. the book/key on the table

Witness that the language introduces Possessors as pre-nominal genitives (in the so-called *Saxon Genitive construction*) (8) more freely.[96] *Of*-PPs introduce Possessors necessary for the Possessee's existence or inseparable from them (9). Interestingly, once the genitive marking appears on the nominal following *of,* more distant associates become acceptable:

11. The book/backpack of John's.

It is the case that English uses a P-based structure for expressing various types of relationships between entities. Yet, it has grammaticalized a specific one, *of*, for a limited set of them.

Piotrowska (2021: 62) shows that only Dutch *van* exhibits a similar degree of grammaticalization. Scandinavian languages, and most prominently Danish and Swedish, use several spatial prepositions for possessive constructions depending on the semantic relations they are expressing, e.g., *av* 'of', *på* 'on', *till* 'to', *i* 'in', *efter* 'after', *med* 'with', etc. However, no specific preposition is grammaticalized to the same degree as *of* in English or *van* in Dutch.

Icelandic splits the interpretations among the two modes differently. The language reserves a PP-based structure for body parts while optionally using it for abstract nominals. Leaving aside the requirement for definiteness marking, concrete

[96] See Bernstein & Tortora (2005) for an analysis of this morpheme that compares it to the morphology of possessive pronouns and Bernstein (2005) for an extension of this analysis to Romance languages.

entities, kinship terms, and optionally abstract nominals participate in structures where the entities appear as nominal dependents. The following table from Myler et al. 2014: 5) summarizes the distribution:

12. *Icelandic phrasal possession*

	A: NP-POSS.PRON	**B:** NP-DEF POSS.PRON	**C:** NP-DEF-PREP-PRON
Concrete 'my book'	#bók mín book my	bók-in mín book-DEF my	* bók-in hjá mér book-DEF at me
Kinship 'my sister'	systir mín sister my	* systir-in mín sister-DEF my	* systir-in hjá mér sister-DEF at me
Body part 'my eyes'	#augu mín eyes my	% augu-n mín eyes-DEF my	augu-n í mér eyes-DEF in me
Abstract 'my idea'	hugmynd mín idea my	* hugmynd-in mín idea-DEF my	hugmynd-in hjá mér idea-DEF at me

Finally, there are languages exhibiting a more extensive use of PP-based structures. Mandarin Chinese and French constitute such examples.

On the one hand, Luo (2013: 187–188) observes that Mandarin Chinese uses *de*-constructions under almost any association between the two entities. The construction fits pairs that denote body parts (13a), kinship relations (13b), ownership (13c), and location (13d).

13. *Mandarin Chinese* (Luo 2013: 187–188)

a. ta de lian/shou
3SG POSS face/hand
'her face/hand (whole-part)'

b. muqin (de) haizi
mother POSS child
'the mother's child/the child of the mother'

c. wo de shu
1.SG POSS book
'my book'

d. tian shung de xingxing
sky above POSS star
'the stars in the sky'

The *de*-marker in (13b) is optional, as kinship relations can be expressed only via juxtaposing the two entities. Juxtaposition is used for part-whole relations, materials,

contents, and appositions.[97] The following table summarizes the distribution of the *de*-construction and the juxtaposing construction in Mandarin Chinese (see also Chappell & Thompson 1992; Chappell 1996; B. H. Partee 2006).

14. *De*-marking distribution in Mandarin Chinese (Luo 2013: 191)

Presence of *de*	Semantic types
Yes	Possessive Relationships, Body-part, Association, Propensity/property, Attribution, Time, Location and Orientation
Optional	Kinship
No	Part-Whole, Material, Content, NPs in apposition

On the other hand, a *de*-structure is particularly pervasive in French, as in many languages within the Romance family. Bartning (1996; 1998; 2001) shows that this *de*-marker relates two entities independently of their relationship status. That is, it brings together entities that are inseparably associated with each other, e.g., body parts or parts of wholes (15a), kinship terms (15b), psychological states, properties, events like *arrive* 'arrival' or *voyage* 'travel' (15c) and nominals that express time intervals or locations. As the author puts it, these readings range from possession to origin.

15. *French* (Bartning 2001: 152–153)

a. la poignée de la porte
the handle of the door
'the handle of the door'

b. l'épouse de Jean
the wife of John
'John's wife'

c. le voyage de Luc
the travel of Luc
'Luc's travel'

Next to them, there are pairs of entities that are expected to be related, yet their co-relation is not necessary for their existence. *Cars*, *books,* or *clothes* represent entities expected to be owned by humans.

[97] Note that juxtaposition is used widely at the crosslinguistic level, particularly in West-Papuan languages in the Bird's Eye peninsula of Indonesia, e.g., in Tucano, Ewe, and Moskona (see Koptjevskaja-Tamm 2008; Aikhenvald 2013 and references therein).

16. *French* (Bartning 2001: 154)

a. la voiture de Jean
the car of John
'John's car'

b. les livres de Nicolas
the books of Nick
'Nick's books'

c. les vêtements de Catherine
the clothes of Catherine
'Catherine's clothes'

In the meantime, there are entities entering a *de*-structure that are associated with each other only in the discourse. This means that this type of structure accommodates pairs that are not even conceptualized as being related but are brought together in a particular discourse.

17. French (Bartning 1996: 30)

a. *Duras, L'Amant I, p. 21*
C'est cette photographie qui est au plus près de celle qui n' a
there is this photograph which is at most close to that which NEG HAVE.3SG
pas été faite de *la jeune fille du bac*.
NEG been made of the young girl of boat

'It is this photograph that is closest to the one that was not made of (depicting) the young girl from the boat.'

b. *Dumas, Mousquetaires, 183-4*
Debout devant la cheminée était un homme de moyenne taille,
standing in.front.of the fireplace was a man of average height
à la mine haute et fière, [...]. De temps en temps, *l'homme*
of the appearance upper.class and proud from time to time the man
de la cheminée levait les yeux de dessus les écritures.
of the fireplace raised the eyes to above the writings

'Standing in front of the fireplace was a man of medium height, from the high society and proud, [...]. From time to time, the man in the fireplace looked up from the scriptures.'

c. *Duras, L'Amant II, p. 59*

Et puis à le voir, lui, l'homme de la Mandchourie endormi ou mort.
and then to him see himself the man of the Manchuria asleep or dead
Celui de la main, celui du voyage.
the.one of the hand the.one of travel

'And then to see him, in person, the man of Manchuria, asleep or dead. The man of the hand (i.e., that once touched her hand), the man of the travel (i.e., the man she met on a trip).'

It is the case, then, that French generalizes a PP-structure to all instances of associative DPs. That is, no matter the status of the association between the entities that the DPs denote, a PP-structure headed by *de* is used to accommodate them.

To be exact, French is not entirely oblivious to the degrees of closeness in the relationship between entities. Kleiber (2003) shows that the language considers them in the case of pronominal possessors, for which he reports the following: "[...] With concrete objects (or non-humans or, at least, non-animates), the formation of a possessive NP is based on an *a priori* semantic relation between the Ns of the entities implied. In the absence of such a relation, the possessive is impossible, even when the discourse allows the formation of a binominal NP with *de*. Therefore, *voiture* 'car' and *banane* 'banana', for instance, united by the relation of incompatibility, could not yield an NP of the form **sa banane* 'its banana' (or **sa voiture* 'its car'), whereas, as clearly shown by Bartning (1996; 1998), one may have, according to an interpretation which she calls discourse interpretation, a prepositional NP such as *la banane de la voiture* 'the banana of the car', provided that one has the necessary contextual information to understand the determination implied." (Kleiber 2003: 59).

Guéron (1992) adds that another French possessive structure is even more restricted than the one with the pronominal possessor. It is a structure in which the possessee does not bear any possessive marking but surfaces with the definite determiner (18). As also discussed in Rooryck (2022), this structure is available for the meronymic pair *human-hand* in (18a) but not for the kinship pair in (18b).

18. *French* (Rooryck 2022: 12, ex. 28)

a. Elle$_i$ mange avec la$_i$ main droite.[98]
she eats with the hand right
'She eats with her right hand.'

[98] Co-indexation in these examples is used as a marker for the participants in this possessive relation.

b. Elle$_i$ mange avec sa$_i$/ *la$_i$ tante.
she eats with her/ the aunt
'She eats with her aunt.'

The same author shows that the nominals appearing as possessees marked with the definite article fall into the categories of body parts, parts of wholes, mental and physical states, facial expressions, as well as items of clothing, protection, and adornment. He then recognizes that what they all have in common is that they are expected to be located *in* or *on* their DP-Possessor. He captures this under the *Expected Location Generalization:*

19. The *Expected Location Generalization (TELG):*
Only nouns whose referent is expected or supposed to be located *on* or *in* a DP can use the definite determiner to indicate that 'possession' relation to the DP.

He also specifies that the term *expectedness* is optimal for this context because "[...] it can be viewed as a value of evidentiality, more in particular of the notion of inferential on the basis of common knowledge. Admittedly, evidentiality is commonly viewed as a property of propositions rather than of noun phrases. [...] I propose that 'expectedness' is an evidential value of the definite determiner in the nominal domain, more in particular it is the nominal counterpart of the sentence-level notion of 'inferential on the basis of common knowledge.'" (Rooryck 2022: 11).

The advantage of using expectedness in its evidential sense is that we do not need to assume new theoretical constructs to describe the relationship between the Possessor and the Possessee. Possession is reformulated as a locative relation where the Figure is expected or supposed to be located on or in the Ground based on common knowledge.

The notion of 'expectedness' has another advantage as it dispenses with the (in)alienable distinction and the permanence vs. temporariness contrast. To illustrate this, consider that prototypical cases of inalienable possession are always characterized as expected. It is easy to see why: body parts are permanent possessions of their owners, kinships are life-long relationships, and parts are undefined without their wholes. Therefore, traditional cases of inalienable possession refer to relationships that are permanent and, thus, expected from our pragmatic knowledge. In other words, what is permanent is also expected.

However, the reverse is not true. For example, clothes are not permanent possessions of their wearers, albeit they are characteristically expected to be worn by

them. Personality traits may also change or evolve, meaning they are temporary. Nonetheless, they are expected to be associated with people and define them.

This final remark circles back to the claim made at the beginning of this chapter: in principle, there are two modes for structuring relationships between entities. The first mode builds or exploits structures dedicated to Possessors and Possessees. This means that the Grammar recognizes a specific (and possibly different for each language) set of relationships and distinguishes them by accommodating them as nominal dependents. In other words, it separates a number of relationship types and has them marked within the noun phrase itself. This is the so-called DP-based possession or the possession that is depicted as a nominal dependency.

In contrast, the second mode exploits locative adpositions. This mode benefits from a relationship-building mechanism that already exists in the language. This means that the Grammar does not separate the thematic roles of the Possessor and the Possessee. More specifically, it does not allow these interpretations that exist cognitively/semantically to determine Syntax. Therefore, the Possessors and the Possessees are merged into structures as Grounds and Figures in a p-based structure. It then leaves the possessive interpretation to our Encyclopedia and our pragmatic knowledge of which relationships are expected to hold between entities.

Each language distributes the interpretations that are accommodated by each mode differently. French and Mandarin Chinese show a sweeping use of PP-based structures, while Icelandic and English exhibit a more moderate distribution. Greek stands in the other extreme as it does not use PP-based structures for possessive relationships, albeit only for accidental/circumstantial, i.e., not close, associations.

Therefore, languages differ in the structures they use and which interpretations they fit into each structure. To use the terminology introduced in Chapter 4, they differ on the syntax that accommodates relational nominals and on which nominals qualify as relational.

Our focus will now turn to predicative, i.e., sentence (TP)-level possessives, which add a perspective besides manifesting the two modes for structuring relationships between entities. Predicative possessives highlight that the two modes may act independently in the phrasal and the sentential domain, meaning that it is possible to find languages that use mode *x* in the phrasal domain and mode *y* in the sentential. Further, the set of relationships accommodated by mode *x* in the former domain may differ from the set of relationships accommodated by the same mode *x* at the level of the sentence.

8.2.2. The sentence (TP) level

This section considers Hungarian, Cochabamba Quechua, and Japanese as languages in which sentence-level possession is based on phrasal possession that introduces the arguments as nominal dependents. Then, I discuss Icelandic, which builds predicative possession on both DP- and PP-based structures, and Swahili (Bantu) as an example of a language using a PP-based structure only.

Then, I present cases where the two levels are construed differently. Russian and Finnish are discussed as examples of languages that introduce the Possessor and the Possessee as nominal dependents in phrasal possessives but treat them as Figures and Grounds related via a preposition in predicative possessives. English constitutes an example of a language exploiting both modes at the phrasal level but only the DP-based one at the sentence level. As such, it represents a case of semi-independence of the two modes.

To begin with, there are clear cases of languages in which sentence-level possession is built on top of DP-level possession. As noted by Szabolcsi (1981; 1983; 1994) and den Dikken (1999), Hungarian is such a case. In this language, phrasal and sentential possession use a structure in which the Possessor appears dependent on the Possessee nominal.

As discussed in 8.1., Szabolcsi (ibid) argues that sentential possessives are created by embedding a possessive DP under an existential verb and then obligatorily extracting the possessor out of this. I repeat the relevant examples below:

20. *Hungarian* (Szabolcsi 1981: 265)

a. Peter-nek van kar-ja-∅.
Peter-DAT BE arm-POSS-3SG
'Peter has an arm.'

b. Peter-nek a kar-ja-∅.
Peter-DAT the arm-POSS-3SG
'Peter's arm'

As shown in (20b), the possessive marking *-ja-* that appears on the nominal at the level of the phrase is retained at the sentence level. If *Peter* and *kar* 'arm' were introduced in (20a) as arguments of the copula BE, i.e., not as dependent on each other, the possessive marking would be totally unexpected. For this reason, the author assumes that sentence-level possessives are created by introducing *van* over the possessive DP. The possessor introduced within the possessive DP must move to a higher position for reasons not mentioned presently. To use Szabolcsi's phrasing, the possessor must "run away from home''.

Den Dikken (1999) also argues for an analysis according to which sentential possessives in Hungarian are built on top of phrasal possessives. However, he does not adopt the view that the possessor is extracted from the possessive DP. He claims that the possessor is introduced in the highest position and controls a pronoun inside the DP.

Next to Hungarian is Cochabamba Quechua, which is spoken in Bolivia and has been thoroughly investigated by Myler (2016). In brief, the author shows that the language has two predicative possessive constructions, which he calls *BE-possessive* (21a) and *BE-APPL(ICATIVE)-possessive* (21b).

21. *Cochabamba Quechua* (Myler 2016: 182, ex. 16–17)

a. Noqa-qta auto-s-ni-y tiya-n.
I-GEN car-PL-EUPH-1POSS BE_{EXIST}-3SBJ
'I have cars.' *lit*. 'There are cars of mine.'

b. Noqa-qta auto-s tiya-pu-wa-n.
I-GEN car-PL BE_{EXIST}-APPL-1OBJ-3SBJ
'I have cars.' *lit*. 'There are cars for me.'

Both are created by introducing the existential copula *tiya* over the possessive DP in (22).

22. *Cochabamba Quechua* (Myler 2016: 182)
Noqa-qta auto-s-ni-y
I-GEN car-PL-EUPH-1POSS
'my cars', *lit* 'cars of mine'

The difference between *BE-possessive* and *BE-APPL-possessive* hinges on the fact that the Possessor, although semantically introduced in the DP, is not syntactically merged in the specifier of this DP. In the BE-possessive (21a), the DP that satisfies the role merges within the DP and runs away from home like Hungarian possessors. In the BE-APPL-possessive (21b), it is syntactically introduced by the Applicative *-pu-*.

This means there are two sentence-level possessive structures that are semantically identical but syntactically different. Crucially, both are construed based on a DP specialized for introducing Possessors and Possessees.

Lastly, Tsujioka (2002) argues for a similar situation in Japanese. He shows that what he calls the *E(xistential)-possessive* (24) is a sentence where the existential copula sentencifies a phrasal possessive (23). Once again, the possessor merges in the DP and obligatorily moves to the position of the sentential subject.

23. *Japanese* (Tsujioka 2002: 23, ex.1)

a. John no gaaruhurendo
John GEN girlfriend.NOM
'John's girlfriend'

b. John no kuruma
John GEN car
'John's car'

c. teeburu no asi
table GEN leg
'The table's legs.'

24. *Japanese* (Tsujioka 2002: 23, ex. 2)

a. John ni gaamhurendo ga i-ru
John DAT girlfriend NOM BE-PRS.
'John has a girlfriend.'

b. John ni kuruma ga ar-u
John DAT car NOM BE-PRS
'John has a car.'

c. teeburu ni asi ga ar-u
table DAT leg NOM BE-PRS
'The table has legs.'

To sum up, Hungarian, Cochabamba Quechua, and Japanese are examples of languages that construe sentential possession on top of phrasal possession. More precisely, they use across the board a structure where the entities become related as dependent on each other, i.e., a DP-structure dedicated to Possessors and Possessees. In other words, these are languages in which the two roles are fully grammaticalized on both levels.

Icelandic is a language that construes predicative possessives on top of phrasal ones, yet the basis can be either a DP-structure or a PP-structure. Specifically, the language has two versions of HAVE, namely *hafa* and *eiga*. As Myler et al. (2014) explain, the former can be used only when the phrasal possessive structure is construed via a preposition. The latter is used only when DP-level possession does not exploit a preposition. To witness, compare the table repeated in (25) to the distribution in (26).[99]

[99] Recall that Icelandic has a third type of possessive sentence that is undeniably construed based on a preposition as it is an instantiation of a BE-WITH-possessive. The so-called *vera-með*-construction is discussed in detail in 3.2.

25. *Icelandic phrasal possession*

	A: NP-POSS.PRON	**B:** NP-DEF POSS.PRON	**C:** NP-DEF-PREP-PRON
Concrete 'my book'	#bók mín book my	bók-in mín book-DEF my	* bók-in hjá mér book-DEF at me
Kinship 'my sister'	systir mín sister my	* systir-in mín sister-DEF my	* systir-in hjá mér sister-DEF at me
Body part 'my eyes'	#augu mín eyes my	% augu-n mín eyes-DEF my	augu-n í mér eyes-DEF in me
Abstract 'my idea'	hugmynd mín idea my	* hugmynd-in mín idea-DEF my	hugmynd-in hjá mér idea-DEF at me

26. *Icelandic* (Myler 2016:296, ex. 88)

a. Teir hafa/*eiga augu.
they.NOM HAVE$_1$/HAVE$_2$ eyes.ACC
'They have eyes.'

b. Teir *hafa/eiga stora bok
they.NOM HAVE$_1$/HAVE$_2$ big book.ACC
'They have a big book.'

This distribution suggests that Icelandic uses both modes for structuring relationships between entities on both levels. The language separates a specific set of interpretations (concrete possessees and kinships) as possessive and reserves a particular structure (non-prepositional association and *eiga)* for them. This means that it partially recognizes the Possessor and Possessee roles as independent. At the same time, it treats other types of Possessors and Possessees as Grounds and Figures, respectively, meaning that it does not distinguish them as separate roles.

Finally, some languages consistently assimilate Possessors to Grounds and Possessees to Figures. This means they do not distinguish the possessive roles with special syntax. This is particularly widespread in Bantu languages, where possessive relationships are accommodated as Figure-Ground associations brought by a comitative preposition. Notably, these languages do not clearly differentiate phrasal from sentential domains.

27. *Swahili* (Creissels 2014: 40)

a. Hamisi a na kitabu.
(CL^1)Hamisi CL^1 with CL^7.book
lit. 'Hamisi he (is) with book.' → 'Hamisi has a book.'

b. Kisima ki na maji.
CL[7].well CL[7] with CL[6].water
lit. 'The well it (is) with water.' → 'The well has water.'

Therefore, it is cross-linguistically common to construe sentence (TP)-level possessives on top of phrase (DP)-level possessives, regardless of the chosen mode.

However, there are cases where the two modes act independently, as each level selects a different one. To be more specific, as the recognition of the Possessor and the Possessee role requires merging them as nominal dependents, it is expected to find languages that manifest this possibility at the phrasal level and not at the sentential one. In other words, it is predicted to find languages with a DP-based structure at the level of phrasal possession and a PP-based structure for sentential possessives.

Russian is a language instantiating this. Recall that sentence-level possessors in this language are introduced as PPs.

28. *Russian* (Arylova 2013: 28)
a. U menja jest' masin-a.
at I.GEN BE.PRS car.F-NOM.SG
'I have a car.'
b. Vas-e pis'm-o u sekretar'-a.
your-N.NOM.SG letter.N-NOM.SG at secretary.M-GEN.SG
'The secretary has your letter.'
c. U Kol-i byl-i gusty-je volos-y.
at Kolya-GEN BE.PST-PL thick-NOM.PL hair-NOM.PL
'Kolya had thick hair.'

Unlike sentential possessives, in phrasal possessives, the possessor is introduced either as a nominal dependent marked for genitive (29) or as an adjectival pronominal item (30) (see Isacenko 1974; Babyonyshev 1997; Kagan 2013; Gepner 2021):[100]

[100] Partee & Borschev (2005) show that these two types of constructions are not semantically equal. That is, the adjectival form in (30) acts as a modifier that can take up only *prototypical* possession as its interpretation. In contrast, the Russian prenominal genitive has a broader range of interpretations since, as argued by Vikner & Jensen (2002) and Jensen & Vikner (2004), pre-nominal genitives are arguments, and they receive any interpretation that an argument can have, provided that the head nominal licenses it.

29. *Russian* (Partee & Borschev 2005: 3, ex.6)

a. nožk-a stol-a
leg-NOM.SG table-GEN.SG
'leg of the table, table leg'

b. portret Pet-i
portrait.NOM.SG Petja-GEN
'picture of Petja'

c. sobak-a dočer-i
dog-NOM.SG daughter-GEN.SG
'the daughter's dog'

30. *Russian* (Gepner 2021: 1, ex.1)

a. maš-in-a knig-a
Masha-POSS-F.SG.NOM book-F.SG.NOM
'Masha's book'

b. mam-in-y ključ-i
mother-POSS-PL.NOM key-PL.NOM
'My mom's keys'

The distribution in Finnish also shows that phrasal and sentential possessives are construed differently. On the one hand, the possessor in phrasal possessives is typically introduced as a nominal dependent. In the examples below, the possessor is marked with genitive case. Mahieu (2013) argues that the latter is a structural case not dedicated to expressing possession. This is partly evidenced by the fact that it can have various interpretations depending on the head nominal.

31. *Finnish* (Mahieu 2013: 6–7, ex.2)

a. Peka-n auto
Pekka-GEN car.NOM
'Pekka's car'

b. lapse-n suru
child-GEN sorrow.NOM
'a child's sorrow'

c. voittaja-n palkinto
winner-GEN prize.NOM
'the winner's prize'

On the other hand, sentence-level possessives use a prepositional predicational head. This becomes manifested as a locative-case marking on the Possessor. Sentence-level Possessors surface with adessive-case marking when animate (32a) or, with its internal case equivalent, inessive case, when inanimate (32b).

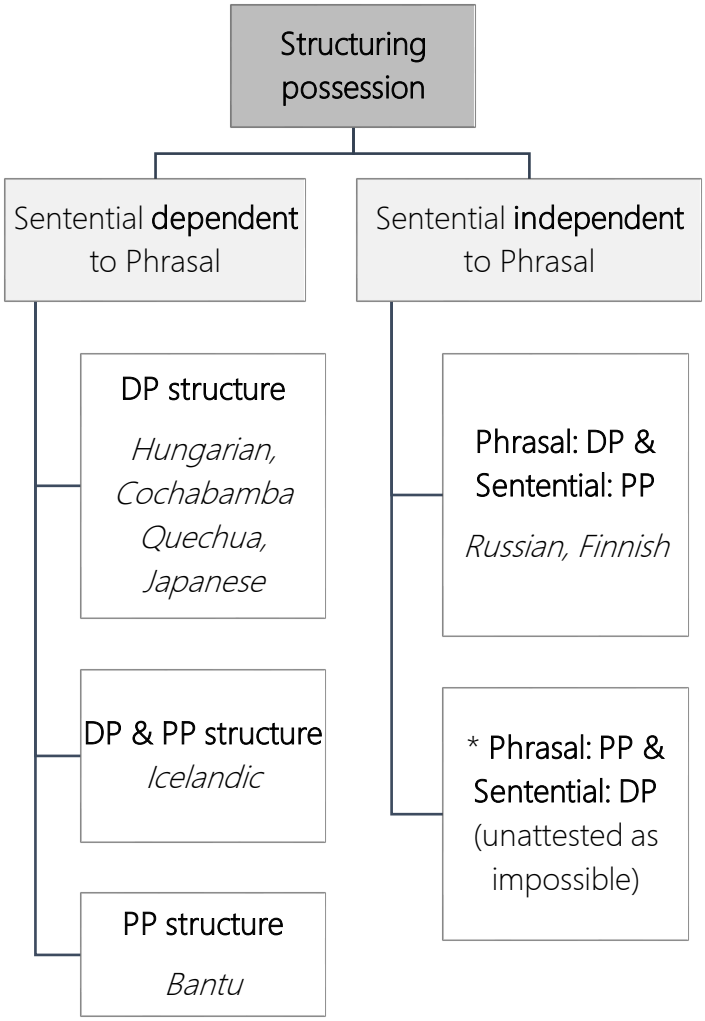
32. *Finnish* (Mahieu 2013: 42–43, ex.51)

a. Peka-lla on auto.
Pekka-ADE BE.3SG car.NOM
'Pekka has a car.'

b. Auto-ssa on uude-t renkaa-t.
car-INE BE.3SG new-PL.NOM wheel-PL.NOM
'The car has new wheels.'

Therefore, the examples from Russian and Finnish show that phrasal and sentential possession may be construed independently of each other. The two available modes for structuring possession are based on a nominal or a prepositional structure. These two ways of structuring possessive relationships are summarized in (33).

33. *Two modes for structuring possession in two levels*



To complete the discussion, I briefly consider English, which exhibits mixed behavior. As explained in 8.2.1., the language exploits a DP-based (34) and a PP-based structure (35) to introduce possessive relationships at the phrasal level. However, there are restrictions on the interpretation of each one.

34. a. John's eyes/book
    b. the table's leg/color
35. a. the eyes of John/ *the book of John
    b. the leg/color of the table

If sentence-level possessives are built on top of possessive DPs, this means that predicative possessives are oblivious to the P-based mode for structuring possessives. Conversely, if the reasoning provided by analyses stemming from Freeze (1992) is on the right track, sentence-level possession in English becomes ignorant to the option of merging the Possessor and the Possessee as nominal dependents and builds their relationship through a preposition, i.e., it represents them as Grounds and Figures and leaves it up to our pragmatic knowledge/Encyclopedia to deduct the proper reading. This thesis will argue that this second line of approach is, in fact, more suitable for English (8.6.1.). Either way, predicative possessives do not exhibit the variation present at the phrasal level. Hence, we must assume that English represents an intermediate situation, as it partially construes sentence-level possession on top of phrasal possession.

The rest of this chapter shows how Greek can fit into this crosslinguistic picture. In the following sections, I argue that Greek behaves like Russian and Finnish as sentence-level possessives are construed independently of DP-level possessives; sentential possessives are built on top of a p-based structure, whereas phrasal possessives are not. This means that the Possessor and the Possessee are introduced as Grounds and Figures at the sentence level.

Crucially, even though this p-based structure unifies possessives, existentials, and locatives, it does not do so in a Freezian way. That is, it is not assumed that a common underlying structure lies underneath each and every type of sentence. Instead, the sentences are differentiated in terms of their argument structure, albeit they share that a(n) (c)overt preposition heads their predication layer.

In 8.2.1., I showed that Greek expresses possessive relationships at the DP-level by marking the Possessor and the Possessee as nominal dependents. Section 8.3. brings the focus to *exo*-possessives and demonstrates that this strategy is not transferred to the sentence level.

8.3. Against a building on top of a DP analysis

This section primarily refers to HAVE-sentences and provides evidence against a Szabolcsian analysis. *Ime-me-* and *mu-vriskete*-constructions are more easily dissociated from this analysis according to which a possessive DP constitutes their predication layer because (a) their interpretations are significantly restricted compared to the interpretations of DP-level possessives, (b) *ime-me* rigidly uses a preposition to build the relationships (8.7.2.), and (c) the *mu-vriskete*-construction qualifies as an external possession sentence that does not integrate a genuine possessive relationship (8.7.3.).

Further, it should be stressed that, although HAVE-sentences in Greek are not arguably construed based on possessive DPs, there are copular sentences that do so. In other words, there are sentences supporting a Szabolcsian analysis. Predicational copular constructions (36) are a case in point since they upgrade phrasal possessives to the sentence level.[101]

36. To vivlio ine tu Jani.
the book.SG.NOM BE.3SG the John.GEN
'The book is John's.'

As an indication, consider that the (in)alienable distinction that is relevant at the DP-level is inherited in this type of copular construction. Inalienable possessors are not acceptable as the complement of *ime* (37a), whereas alienable ones are (37b).[102]

37. a. *I miti ine tu Jani.
the nose.SG.NOM BE.3SG the John.GEN
'*The nose is John's.'
b. To vivlio ine tu Jani.
the book.SG.NOM BE.3SG the John.GEN
'The book is John's.'

---

[101] The inner structure of *aniko* 'belong'-type sentences (i) is a related issue that remains open for future research.

i. To vivlio/* I miti aniki ston Jani.
the book/the nose.SG.NOM belong.3SG to.the John.ACC
'The book/nose belongs to John.'

[102] The distribution in (37) also shows that inalienable possessors behave similarly to argumental genitives, while alienable ones act similarly to DP-modifiers or adjuncts. This has been reported for several languages, e.g., Russian (Isacenko 1974; Babyonyshev 1997; Arylova 2013; Kagan 2013; Gepner 2021) or English and Dutch (see Grimshaw 1990; de Wit 1997).

To focus on HAVE-existentials, the first argument against a building on top of a DP analysis derives from the fact that they lack interpretations and idiomatic readings available at DP-level possessives. For instance, in an out-of-the-blue context, the nominal-dependent DP in genitive *tu Jani* in (38a) is interpreted as the book's writer, reader, buyer, owner, or even as the entity that is discourse-related to this book because *Janis* mentioned or pointed towards it. And these are only a few of the interpretations it receives.[103] In contrast, in (38b), the same DP, which is now a nominative subject and surfaces as *o Janis,* denotes the book's owner.[104]

38. a. To vivlio tu Jani (ine sto trapezi.)
the book.SG.NOM the John.GEN BE.3SG on.the table
'John's book is on the table.'
b. O Janis exi ena vivlio.
the John.NOM HAVE.3SG a book.SG.ACC
'John has a book.'

More prominently, there are idiomatic readings of phrasal possessives that are not transferable to the sentence level. For instance, the idiosyncratic reading of the DP in (39a), which is similar to the English 'the devil's advocate', is absent from (39b).

39. a. o ðikiɣoros tu ðjavolu
the advocate.SG.NOM the devil.SG.GEN
'the devil's advocate'
b.# o ðjavolos exi ðikiɣoro.
the devil.SG.NOM HAVE.3SG advocate.SG.ACC
'The devil has an advocate.'

The same is true for the idiom in (40a), which is used after verbs of directed motion or static location. The DP is roughly interpreted as denoting a place distant from the current location of the interlocutors or as an unintended goal of the motion. These readings are not available in (40b):

40. a. Vriskete sto ɣamo tu Karagjozi.
be.located.3SG at.the wedding the Karagiozis.GEN

[103] In fact, the range of interpretations is not entirely unconstrained. Seiler (1983), Babyonyshev (1997), and Partee & Borschev (2005) show how some readings are excluded.

[104] In fact, the same sentence can be used to express, for example, that 'Janis, as an author, has (written) a book', yet this requires that the interlocutors are familiar with Janis's capacity as an author. In an out-of-the-blue context, the interlocutors hardly resort to this interpretation.

lit. 'He is at Karagiozis' wedding.'

b. # Viskete sto ɣamo pu exi o Karagjozis.
be.located.3SG at.the wedding that HAVE.3SG the Karagiozis.NOM
lit. 'He is at the wedding that Karagiozis is having.'

Although the list continues, I only add (41), which includes a body part. The non-compositional reading of this idiom is that of 'great variety and/or in large amounts'. Even body parts create idioms not transferable to a HAVE-sentence, showing that the type of possession is not critical to the non-paraphrasability.

41. a. Afto to maɣazi exi tis panajas ta matja.
this the shop HAVE.3SG the Holy.Mary.GEN the.PL eye.PL.ACC
lit. 'This shop has Holy Mary's eyes', i.e., 'This shop has a great variety of items.'.

b. #Afto to maɣazi exi ta matja pu exi i Panaja.
this the shop HAVE.3SG the eye.PL.ACC that HAVE.3SG the Holy.Mary.NOM
lit. 'This shop has the eyes that Holy Mary has.', *int.* 'This shop has a great variety of items.'.

Traditionally, idiomatic readings are generated within the noun phrase, if not only within the lexical level of the noun phrase (see Jackendoff 1997; Sag et al. 2002; Svenonius 2005; Bruening et al. 2018 cf. Espinal & Mateu 2010; Gehrke & McNally 2019). This is compatible with the assumption that phrasal possessors are introduced within the noun phrase, either in its extended-by-*Poss* form or not.

Therefore, the reasoning is that since these readings disappear at the level of the sentence, it cannot be assumed that the possessors in the sentences are introduced in the same position as the possessors at the DP-level.

The behavior of modifiers like *former* brings a second piece of evidence against a building-on-top-of-the-DP analysis. In general, the modifier introduces ambiguity in examples containing DP-level possessives (42). Under the first reading (i), it leads to the denotation of an entity that was once a book, but it no longer is, e.g., because it has been torn apart or destroyed. In this case, the adjective modifies the property denoted by the nominal. In contrast, in (ii), it modifies the possessive relationship between the two arguments (the book and the speaker-possessor). Thus, it leads to the interpretation that the possession relation has ceased to hold (see also Vikner & Jensen 2002; Jensen & Vikner 2004; Partee & Borschev 2005).

42. to proin vivlio mu
the former book.SG.NOM/ACC my

'my former book'
i. something that was a book but no longer is.
ii. something that is still a book but no longer in my possession.

This ambiguity is not transferred to the sentence level. In (43) *former* modifies only the property denoted by the nominal, not the possessive relation:

43. Exo ena proin vivlio.
HAVE.1SG a former book.SG.ACC
'I have a former book.'
i. something that was a book but no longer is.

The same is true for English examples mentioned by Myler (2016: 54).

The ambiguity at the DP-level reflects two distinct loci of adjunction (Larson & Cho 2003). Under the interpretation in (i), the non-intersective reading of the modifier is achieved if the latter is adjoined DP-internally (see Alexiadou et al. 2007; Cinque 2010). In contrast, according to Larson (1998), the modifier should apply to an eventuality to reach the interpretation in (ii). Since *Poss* arguably provides this eventuality (Barker 1995), the modifier must be adjoined to PossP to convey (ii). Consequently, if *Poss* was present at sentence-level possessives, *former* should have retained both modification possibilities. This is, however, contrary to fact.

Third, it is essential that the (in)alienable distinction in phrasal possessives is not mirrored in predicative HAVE-possessives. The only sentence type sensitive to this distinction in a manner identical to phrasal possessives is copular sentences using BE, as discussed in (37).

To elaborate on this, recall that although DP-level possessives expressing inalienable possession are structurally different from those denoting alienable possession (despite their morphological similarity), possessive HAVE-sentences can equally accommodate both types of possession relations (compare 44 to 37).

44. a. O Janis exi #(meɣali)[105] miti.
the John.NOM HAVE.3SG big nose.SG.ACC
'John has a big nose.'
b. O Janis exi ena vivlio.
the John.NOM HAVE.3SG a book.SG.ACC
'John has a book.'

[105] It is not the case that the omission of the modifier leads to ungrammaticality, but instead that the utterance without the modifier is uninformative because it is taken for granted that humans (to whom *John* belongs) have noses.

It is the case, then, that the (in)alienable distinction is decisive in DP-possessives but not in HAVE-sentences. If the latter type of sentence was built on top of DP-level possessives, the loss of the sensitivity in the (in)alienable distinction would not be expected. This behavior constitutes an additional piece of evidence in support of the assumption that HAVE-sentences are not construed based on DP-level possessives.

As a last argument in favor of the same idea, recall that there are Figure-Ground pairs that can appear in a DP-possessive while they cannot take part in a simple *exo*-sentence unless a PP containing a pronoun coindexed with the subject is also present (45).

45. a. (?) to vazo/keri/suver tu trapezju.
the vase/candle/coaster.SG.NOM/ACC the table.SG.GEN
'the vase/candle/coaster of the table'

b. To trapezi$_i$ exi ena vazo/keri/suver *(pano tu$_i$).
the table HAVE.3SG a vase /candle/coaster.SG.ACC on it
'The table has a vase/candle/coaster on it.'

Note that although there are speakers accepting the DP-possessives in (45a), none of them accepts the sentence in (45b) without the coindexed PP. Therefore, the fact that the set of Figure-Ground pairs accommodated as nominal dependents is not identical to the set accommodated in plain HAVE-sentences suggests that these sentences are not construed based on possessive DPs.

In summary, Greek offers evidence that HAVE-possessives cannot be built on top of DP-possessives. This evidence includes the lack of idiomatic readings and *former*-ambiguity as well as the fact that the effect of the (in)alienable distinction at the DP-level is not transferred to *exo*-sentences (unlike predicative copular *ime*-sentences). Moreover, it is indicative that the Figure-Ground pairs participating in DP-possessives are not felicitous in plain *exo*-sentences.

Therefore, since *exo*-sentences cannot be construed based on a possessive DP, the question is what constitutes their predicative layer. In the next section, I argue that unification approaches have already given the answer, as a prepositional head is responsible for introducing the predication between the Figure and the Ground in this possessive sentence.

8.4. It is a prepositional predication again

Regardless of the assumptions made in the context of PAL hypotheses, this dissertation has already argued for the existence of a p(repositional) head in *exo*- and *ime*-sentences in their existential and locative use. The following paragraphs add

to the conclusions of Section 6.3. Since there is no need to assume multiple HAVEs and BEs in the language, as they can be captured as realizations of a meaningless little v conditioned by Voice, I hold that the copula has no semantic import in the interpretation of the sentence. The small clause it selects and its inner structure determine the available readings of HAVE and BE.

The critical point is that this generalization applies to stative sentences. Eventive sentences with HAVE and BE might have similarities in their underlying structures, yet their interpretation is undoubtedly different. This suggests that the argumentation presented in the context of existentials/locatives also applies to possessives, given that these sentences are also stative.

The two main arguments supporting the postulation of a prepositional predicative head have been drawn from the morphological form of *exo's* nominalization and the stativity characterizing *exo*-sentences which, according to Hale & Keyser (2002), derives from the inclusion of a prepositional relation.

Recall from the discussion concerning existentials that postulating a preposition-containing structure for HAVE is supported by the fact that the nominalization of *exo*, namely *katoxi,* makes this preposition overt in the form of the prepositional prefix *kat-.* To summarize the argument, I propose that the prepositional prefix *kat-* in *katoxi* is an incorporated syntactic head that introduces the Figure and Ground arguments. The same p-head, in its covert version, also introduces the arguments in the verbal form of *exo.*

Importantly, *exo* is nominalized only in the context of possessives, particularly when denoting ownership. To add to the examples presented in 6.3.1., the nominalization is also acceptable as an expression of kinship relations, as shown in (46). Although acceptable, this example is rare as it mainly appears in juristic documents and legislation.

46. (?) i kat-ox-i peðjon
the PREF-HAVE.PFV-F.NOM kid.PL.GEN
lit. 'the possession of kids'

The stativity of possessive HAVE-sentences (that do not include an eventive nominal in the possessee position) constitutes an argument for the presence of a prepositional predicative head, according to Hale & Keyser (2002). A diagnostic for their stativity is the fact that these sentences do not accept event modifiers, i.e., manner adverbials (47) and 'it takes x-time' modification (48).

47. *Exo ɣriɣora vivlia.
HAVE.1SG quickly book.PL.ACC
'* I have books quickly.'

48. *Xriazonde ðeka lepta ja na exi o Janis vivlia.
it.takes ten minutes in.order to HAVE.3SG the John.NOM book.PL.ACC
'*It takes 10 minutes for John to have books.'

Moreover, possessives can hardly form imperatives as all statives. Although HAVE-sentences including alienable possessees are tolerable as imperatives (49a), HAVE-sentences expressing kinships are not (49b).

49. a. ?Exe vivlia![106]
HAVE.2SG.IMP book.PL.ACC
lit. 'Have books!'
b. *Exe aderfja!
HAVE.2SG.IMP sibling.PL.ACC
lit. 'Have siblings!'

Next, they are not widely acceptable as complements of *piezo/anagazo* 'force' (50).

50. ?Me piezi/anagazi na exo vivlia.
1SG.ACC force.3SG to HAVE.1SG book.PL.ACC
int. 'He/She/It forces me to have books.'

Last, when marked for past tense, lifetime effects arise. In the presence of past tense marking, the state described by the verb has ceased to hold at the time of the utterance. In (51), this implication is confirmed as the continuation *tora ðen exi* 'now she doesn't have (many books)' is accepted.

51. Kapote ixe pola vivlia. Tora ðen exi.
once HAVE.PST.3SG many book.PL.ACC now NEG HAVE.PRS.3SG
'Once she had many books. Now she doesn't have (many books).'

Furthermore, it has been shown on the basis of (52) that the possession relationship between a Figure and a Ground that fail to enter a simple *exo*-sentence requires an additional PP. The fact that this PP contains a pronoun that is necessarily coindexed with the Ground/Possessor-subject suggests that the relationship it holds with the Figure/Possessee originates as a prepositional relationship.

52. To trapezi$_i$ exi ena vazo/keri/suver *(pano tu$_i$).
the table HAVE.3SG a vase /candle/coaster.SG.ACC on it

[106] Note that this sentence is mainly acceptable if HAVE is coerced to a change-of-state interpretation, meaning 'obtain, acquire' or 'keep'.

'The table has a vase/candle/coaster on it.'

Finally, it is worth noting that introducing the possessor as a PP is, arguably, attested in the diachrony of Greek. Recall from 3.3. that Ancient (Homeric, Classical, and Hellenistic) Greek and Early Medieval Greek possessives were construed based on BE and a dative or genitive nominal denoting the Possessor (53).

53. a. *Ancient Greek* (Herodotus, *Historiae* 1.34.2)

ἦσαν δὲ τῷ Κροίσῳ δύο παῖδες
ε:san de tכ:i Krois כ:i dyo paides
BE.PST.IPFV.3PL PRT the.DAT Croesus.DAT two.NOM son.PL.NOM
'Croesus had two sons.'

b. *Ancient Greek* (Herodotus, *Historiae* 3.117.1)

τοῦτο τὸ πεδίον ἦν μέν κοτε Χορασμίων
to:to to pedion ε:n mén kote Khorasmiכ:n
this.NOM the.NOM plain.NOM BE.PST.IPFV.3SG PRT once Chorasmians.GEN
'this plain belonged once to the Chorasmians'

Another set of examples illustrating the dative- (54a) and the genitive- (54b) pattern is presented below.

54. a. *Ancient Greek* (Herodotus, *Historiae* 3.41.1)

ἦν οἱ σφρηγὶς
ε:n hoi sphrε:gis
BE.PST.IPFV.3SG 3SG.DAT seal.NOM
'He had a seal.'

b. *Ancient Greek* (Aristophanes, *Acharnians* 47-48)

ὁ γὰρ Ἀμφίθεος Δήμητρος ἦν καὶ Τριπτολέμου
ho gar amphitheos dε:mε:tros ε:n kai triptolemo:
the PRT Amfitheos.NOM Demeter.GEN BE.PST.IPFV3SG and Triptopolemus.GEN
'...because Amphitheus was the son of Demeter and Triptolemus.'

Based on diachronic data, Anagnostopoulou & Sevdali (2020; 2021) argue that Genitive and Dative are inherent cases in Ancient Greek. Following Rezac (2008), Pesetsky (2013), and Baker (2015), this means they are introduced by prepositions. As these types of possessives were replaced by *exo*-sentences in Modern Greek, they have been used as evidence to support the view that HAVE derives from BE+P, as Freezian analyses assume (Kulneff-Eriksson 1999; Bentein 2016; Asyllogistou 2018).

However, Anagnostopoulou & Sevdali (2020) argue that the case system of Ancient Greek has been reanalyzed as a dependent-case system in Modern Greek. Hence, it is not p-incorporation that led to the emergence of HAVE. For this reason, I do not concur with Kulneff-Eriksson (1999), Bentein (2016), and Asyllogistou (2018), who consider the fact that 'BE+ genitive/dative' was replaced by 'nominative + HAVE' strong evidence for the presence of an incorporating preposition in Modern Greek *exo*-sentences.

Nonetheless, the Ancient Greek distribution indicates that introducing the possessor via a preposition is a strategy that has been available in the diachrony of the language. Even in the synchrony of Greek, there is the case of *ime-me*-sentences where the overt preposition *me* is used to convey a possessive interpretation (see more in 8.6.2.).

To conclude, since a DP-based analysis is unsuitable for Greek *exo*-sentences, a p-based structure is explored as an alternative, building on insights from PAL hypotheses. Given that only one HAVE (and one BE) exists in the language, this section adds to the argumentation provided in the context of existentials and locatives. In particular, it corroborates the claim that a p-based structure must be hypothesized because the sentences are unambiguously stative and since the covert p-head becomes overt in the nominalization, specifically under the ownership interpretation. This section also elaborates on the affinity between plain and locative HAVE-sentences and on synchronic and diachronic evidence suggesting that building possession through a preposition has been available for Greek since its earliest eras.

As this discussion suggests that Greek opts for a p-based structure to build possessive relations, it shows that Greek behaves like Russian and Finnish. Although this language merges the Possessor and the Possessee as nominal dependents at the phrasal (DP)-level, it does not do so at the sentence-level. At the latter, the Possessor and the Possessee are merged as Grounds and Figures, respectively, and their ultimate interpretation as members of a possession relationship is left to our pragmatic knowledge.

The following section elaborates on the structure of *exo*-sentences.

8.5. The structure of *exo*-sentences

Identifying the position of the overt constituents in *exo*-sentences is easier compared to existentials/locatives as the evidence is clear and a consensus exists in the literature; in HAVE-sentences, the Possessor clearly constitutes the external subject of the sentence, while the Possessee is the object. The issue that needs to be addressed is the insertion position of the subject Possessor.

The Voice morphology of *exo* and the rules regulating it suggest that the possessor DP is externally merged in the highest position, namely [Spec, VoiceP]. Specifically, recall that according to Alexiadou et al. (2015), as extended by Oikonomou (2011) active Voice morphology on a verb that is not unaccusative appears iff an item externally merges in the specifier position of Voice.

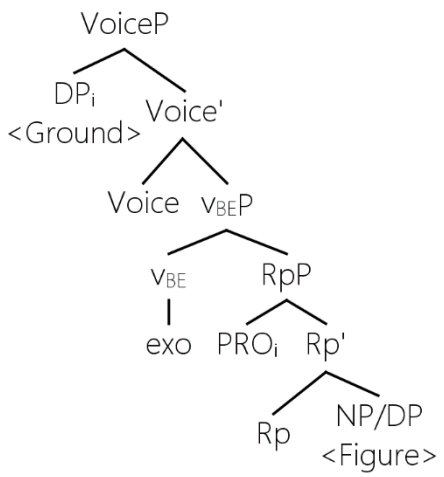
An additional argument supporting the conclusion that the subject of HAVE merges in [Spec, VoiceP] emerges once we take a closer look at experiencer-HAVE sentences (55).

55. O Petros$_i$ ixe skopima to sinoðiɣo na tu$_i$ milai
the Peter.NOM HAVE.PST. 3SG deliberately the co-driver.SG.ACC to 3SG.GEN talk.3SG
(ja na ton$_i$ kratai ksipnjo).
in.order to 3SG.ACC keep awake
'Peter deliberately had his co-drive talking to him (to keep him awake).'

Notice that the licensing of modification by *skopima* 'deliberately' suggests that intentionality is ascribed to the experiencer-subject *o Petros* 'Peter'. This property cannot characterize Peter when related neither to *milao* 'talk' nor to *kratao ksipnjo* 'keep awake', as, in both cases, Peter is the patient/object. This means that intentionality can be ascribed to Peter only when he is related to *exo.* As this property is typically applied to subjects introduced by a Kratzerian Voice, the above distribution suggests that the subject of HAVE is an external argument *introduced* by Voice.

However, given that HAVE has no semantic import since, in the current framework, it is considered a vacuous root-less item, the subject must somehow be semantically connected to the predicative structure so that it becomes interpreted as being in relationship with the Figure/Possessee (which merges in the predicative structure). For this reason, and since a raising analysis cannot be maintained, a control analysis must be assumed instead. In this analysis, the subject merging in [Spec, VoiceP] controls an empty pronoun PRO that appears as the subject of predication (Brunson & Cowper 1992; Déchaine et al. 1994; Belvin & den Dikken 1997; Ritter & Rosen 1997; den Dikken 1999; Dalmi et al. 2020). The ultimate derivation I assume is as follows:

56. *The structure of plain exo-sentences*



In detail, in (56), the possessee-NP is introduced as the Figure complement of the predicative head. The predication layer introduces the second argument semantically and syntactically, but the possessor DP is not inserted there. Instead, PRO merges as the subject of RpP. In this position, PRO is controlled by the Ground DP introduced in the specifier of Voice. v_{BE} verbalizes the predication, and since a Voice head with a projected specifier projects over it, *exo* becomes its exponent.[107]

Myler (2016) favors a late saturation analysis for English possessive *have*-sentences. Instead of assuming raising/movement or control, he argues that the predicative head (Pred) semantically introduces the Possessor role but no position for it to merge. Voice is forced to be projected to offer a position for the DP that will late saturate this role. However, this analysis cannot be maintained for Greek because predication in Greek HAVE-sentences is, arguably, headed by a preposition, not Pred. If the pP were specifier-less, the copula would surface with Non-Active Voice morphology, according to Alexiadou (2019), and this is contrary to fact (see more in 8.6.1.).

Finally, it is interesting that the proposed analysis parallels the so-called *external possession sentences* (Payne & Barzhi 1999). For Deal (2017), who introduces a cross-linguistic typology (see also Haspelmath 1999), *external possession sentences* contain a nominal argument dependent on the verb, which is also understood as the possessor of one of its co-arguments. For example, the DP *tis Marias* in (57) is understood as the recipient of the action denoted by the verb *ðangose* 'bit' (57a) or

[107] Note that, in principle, if there were no restrictions implied by the morphology of the copula, a raising/movement analysis *a la* Szabolcsi would be possible. However, as this process would be a movement from a theta ([Spec, RpP]) to a theta ([Spec, VoiceP]) position, an analysis à la Hornstein (1999) should be pursued.

skupise 'toweled' (57b) and, at the same time, as the possessor of the nominal that surfaces as the direct object of the verb, i.e., *ti miti* 'the nose' in (57a) and *ta malja* 'the hair' (57b).[108]

57. a. O Janis (tis$_i$) ðango-se tis Marias$_i$ *(ti miti (tis$_i$)).
the John.NOM 3SG.GEN bit-PST.3SG the Maria.GEN the nose.SG.ACC (her)
'John bit Maria in the nose.'
b. O komotis (tis$_i$) skupi-se tis Marias$_i$ ta malja (tis$_i$).
the hairdresser.SG.NOM 3SG.GEN towel-PST.3SG the Maria.GEN the hair.PL.ACC (her)
'The hairdresser toweled Maria's hair.'

As opposed to possessors introduced as DP-internal arguments (58), external possessors are interpreted as affected possessors. This means that they are understood not only as entities related to the second nominal but also as entities affected by what the verb describes. To make it clear, compare the sentence in (57b) with the sentence in (58):

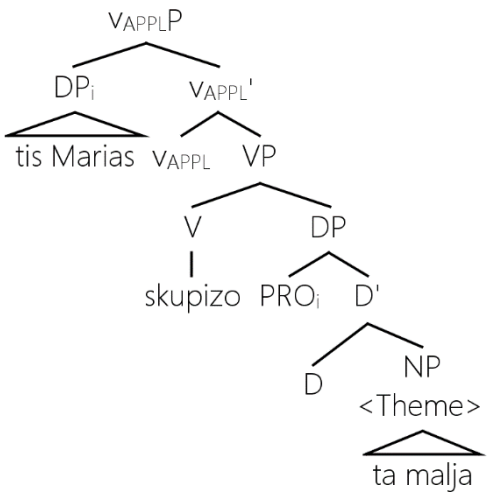
58. O komotis skupi-se ta malja tis Marias.
the hairdresser.SG.NOM sweep/towel-PST.3SG the hair.PL.ACC the Mary.GEN
'The hairdresser swept/toweled (dried) Maria's hair.'

The sentence in (58) is ambiguous between a reading in which the hairdresser swept the hair he had already cut from Maria's head and a reading in which the hairdresser used a towel and swept Maria's hair to absorb the moisture and dry them. Unlike (58), the sentence in (57b) reserves only the second reading, according to which the hair is still attached to Maria's head. Hence, the action described by the verb *skupise* affects Maria herself. In this case, the verb is only interpreted as 'toweled'.

Regarding the structure of the sentences in (57), Anagnostopoulou & Sevdali (2020) argue that Greek exploits a control strategy, which is, in general, available cross-linguistically, as shown by Deal (2017). In this control structure, the possessor appears inside the DP as an empty pronoun PRO, which is necessarily bound by the affectee DP-argument introduced by the Applicative head.

[108] The examples in (57) and (58) are from Anagnostopoulou & Sevdali (2020: 22, ex. 46).

59. *The structure of external possessive structures*



It is the case, then, that *exo*-sentences draw a parallel with external possession sentences since they both include a control structure. Deal (2017) also shows that the alternative to this is a movement strategy, as happens with HAVE-possessives.

This observation creates an interesting prediction: languages that choose movement over control in their plain HAVE-possessive sentences are expected to use movement in external possession sentences and vice versa. The same holds if a language chooses control; in this case, it will likely use control across the board and exclude the movement strategy. As the exploration of this prediction is beyond the scope of this dissertation, it is left for future research.

Along these lines, it is also noteworthy that in both cases where the Possessor is related to the Possessee via a control structure, an affectedness effect arises. This is expected since the argument appears in two parts of the derivation. For external possession sentences, it appears within the predication where it obtains the possessor role and in a verbal applicative where it becomes a participant of the event itself. For plain HAVE-sentences, this effect is expressed as the restriction on entity-pairs that have a close relationship with each other. These sentences accommodate Figure-Ground pairs where the Ground is related to the Figure while affected by its presence/existence.[109]

[109] Another interesting parallel is created with transitive anticausatives, some examples of which are presented below. According to Schäfer (2022), the subject of these verbs is inserted in the specifier of a semantically intransitive Voice head and, thus, does not receive a thematic role typical of external arguments. Instead, it is interpreted as the possessor of the internal argument, i.e., the object, through binding a pronoun within the object DP. Given the similarity among *exo*-possessives, external possession sentences, and transitive anticausatives in having the external argument interpreted as a possessor

At this point, I will turn our focus to the structure of locative HAVE-sentences (60), which accommodate pairs of entities that are not closely related. In the rest of this section, I will argue that their structure differs from plain HAVE-sentences as they include a standard p-based predication rather than a reversed p-one. Déchaine et al. (1994), Myler (2016), and Cowper (2017) also argue for the need to assume different structures for the two types of sentences.

First, recall that the PP, including the pronoun co-indexed to the subject Possessor, is obligatory (60).

60. To trapezi$_i$ exi ena vivlio *(pano tu$_i$).
the table.SG.NOM HAVE.3SG a book.SG.ACC on it
'The table has a book on it.'

Although this could be taken to indicate that this locative PP names the lowest position of the control relationship, i.e., it appears in the structure instead of PRO (Ritter & Rosen 1997), this cannot hold. Alexiadou & Carvalho (2017) convincingly show that PPs in Greek cannot appear as subjects in any environment.

Even further, these locative PPs can be replaced by a different type of predicate, including *na*-clauses, i.e., clauses headed by *na,* which is, arguably, not equivalent to other complementizers heading CPs in Greek (see Agouraki 1991; Tsoulas 1993; Roussou 2000; 2009; Holton et al. 2012).[110]

61. To paraθiro$_i$ exi ena klaði na to$_i$ xtipai.
the window.SG.NOM HAVE.3SG a tree.branch.SG.ACC to CL.N.3SG poke.3SG

---

through binding/control, future research is required to determine whether these types of sentences exhibit further structural affinity.

i. Ta sinefa alaksan to sxima tus.
the cloud.PL.NOM change.PST.ACT the shape.SG.ACC theirs
'The clouds changed their shape.'

ii. I atmosfera miose tin θermokrasia tis.
the atmosphere.NOM drop.PST.ACT the temperature.SG. ACC its
'The atmosphere reduced its temperature.'

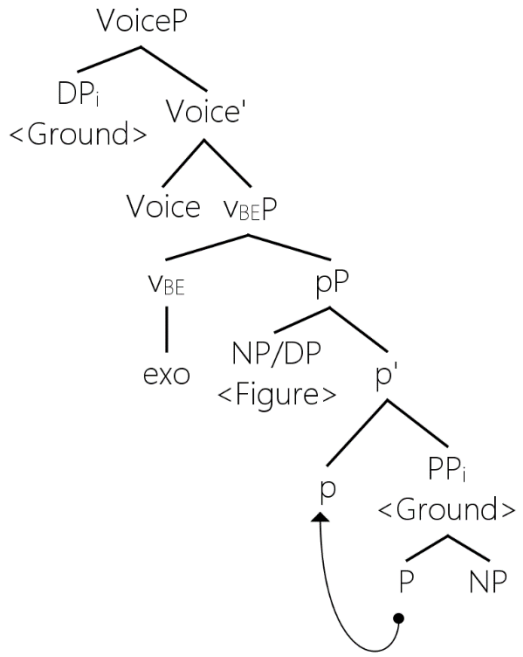
[110]Myler (2016: 141, 263) reports similar variation in the complement types in English locative *have-sentences* where *-ing* verbal predicates are also shown to be allowed as predicates based on examples like the following:

i. The tree has two buildings flanking it.

'The window has a tree branch poking it.'

These facts suggest that the constituent following the post-verbal nominal in locative HAVE-sentences is the complement of p, i.e., it is part of the main predication. Hence, we must assume that locative HAVE-sentences involve a standard p-configuration. In case the complement of the predicate is a PP, we can hypothesize that the preposition *se* that heads the coindexed-PP becomes reanalyzed as the functional p-head (see also Cowper 2017). This is what happens with BE-WITH-possessives as well. The complete derivation of locative HAVE-sentences including PP-codas, is presented in (62).

62. *The structure of locative HAVE-sentences*



In the derivation in (62), the main predication is built via a p-head in the standard arrangement. This means that the verb *exo* selects neither the Figure nor the Ground argument alone. It selects the small clause that includes both constituents. This assumption has an important advantage since it correctly predicts the entailments of the sentence. As the verb does not select the Figure nominal, the sentences in (60) and (61) are not expected to entail the sentence without the predicate, i.e., that *the table* has *a book* and that *the window* has a *tree branch,* respectively. Indeed, these sentences do not have the above entailment, thus corroborating the assumption that HAVE selects a (small) clause complement.

It is crucial, however, that when the subject of HAVE is non-animate, the predicate must be somehow co-indexed with it. This is required independent of the

predicate type, i.e., a PP (60) or a clausal complement (61). As argued in Chapter 5, this is a restriction posed by Voice: since the Voice head is thematic, it introduces a thematic role for the external argument that is somewhat agentive. A non-animate entity must be involved in the situation/state described to have some degree of intentionality/agentivity towards it. Non-animate entities are non-sentient (at least in non-metaphoric contexts), so they can be affected and hence considered active participants only in situations that include them.[111]

Interestingly, the co-indexation requirement is suspended if an animate entity appears as the subject of HAVE (63).

63. O Janis exi to amaksi sto garaz tis Marias.
the John.NOM HAVE.3SG the car.SG.ACC in.the garage the Mary.GEN
'John has the car in Mary's garage.'

Arguably, the standard p-analysis presented in (62) is also suitable for these cases, as it captures the fact that this sentence does not denote possession. Indeed, the sentence in (63) does not entail that *John* has *the car*. However, in this case, the subject of HAVE does not need an antecedent in the small clause. This position is occupied by a sentient entity, a human that can be affected by a situation that does not include them directly. The human subject can be conceived of as the state holder who is not necessarily intentional towards the situation described in the complement.

Apart from locative HAVE-sentences, temporary possession sentences could also involve a standard p-structure as they show striking similarities with the sentences above. They, too, can include a co-indexed PP as in (64). However, in this case, the complement does not come in various types. It can only name the current holder of the Possessee.

64. O Janis exi ta kliðja (mazi tu).
the John.NOM HAVE.3SG the key.PL.ACC with him
'John has the keys (with him).'

Unlike locative HAVE-sentences, the locative PP, in this case, can be omitted, and the reason seems to be related to the fact that the PP does not add any new information to the discourse because it refers back to the subject. Even if another preposition, like *pano* 'on', were to replace *mazi* 'with', its contribution would be to specify the

[111] Iatridou (1996), Landman (2004), and Sæbø (2009) offer a different explanation for the co-indexation requirement in terms of semantic composition. They claim that this pronoun serves (or turns into) a variable, which is, in general, the type of denotation that HAVE takes as its complement. An indefinite Figure or the predicate complement can provide this variable.

way in which the subject holds the keys. Yet, this would not change anything in the association between the holder and the "possessee".

Therefore, I propose that temporary possession sentences have the structure in (62) in the presence of a locative PP-coda. Furthermore, to account for the case in which the same sentence receives a physical possession interpretation, i.e., it implies that the "possessee" physically accompanies the subject (see 3.1.), it could be assumed that the preposition *mazi* that originates as a lexical P heading the locative PP is reanalyzed as a functional p without discharging its lexical semantics (see also 8.6.2.).

Nonetheless, temporary and physical possession readings are yielded even without an overt locative PP on the condition that the post-verbal nominal is definite. On this occasion, there is no need to hypothesize a phonetically null PP (as Sæbø 2009 does). A sentence like *O Janis exi ta kliðja* 'John has the keys' can have a structure similar to relational HAVE-sentences as presented in (56). In this derivation, the predicative layer involves a p-structure in its reversed form: the "possessee" is the complement of Rp, while a PRO co-referring with the overt subject occupies its specifier position. Then, the definiteness of the "possessee" will be responsible for blocking the possessive/relational interpretation. Specifically, given the allosemy conditions of the p-heads presented in 7.3.1., since the Figure-"Possessee" is presuppositional, the p-head will convey that it centrally coincides with the subject.

Finally, it must be clarified that all types of HAVE-sentences, namely plain, locative, and temporary possession ones, involve one additional step in their derivation. This step takes place in their left periphery and is implied by the Information structure. Notice that in all cases, the subject possessor constitutes the old information. Hence, it is chosen as the Topic of the sentence. This means it provides the Perspectival Center or the Empathy Locus of the utterance. This assimilates HAVE-possessives to HAVE-existentials and sets them apart from BE-locatives. However, unlike existentials, the fact that the constituent is overt makes it a more prominent Perspectival Center than LOC.

At this point, it must have been clear that the interaction of the predication and Voice and the interplay of the constituents within each layer creates the variation in the expressions denoting relations between entities. Besides the inner structure of the predication, i.e., the choice between a standard p- and a reversed p-structure, and the presence of Voice, the available mechanisms (e.g., raising and control) are also responsible for creating a variety of structures.

The following section focuses on a few more aspects of this variation.

8.6. Variation in predicative possessives

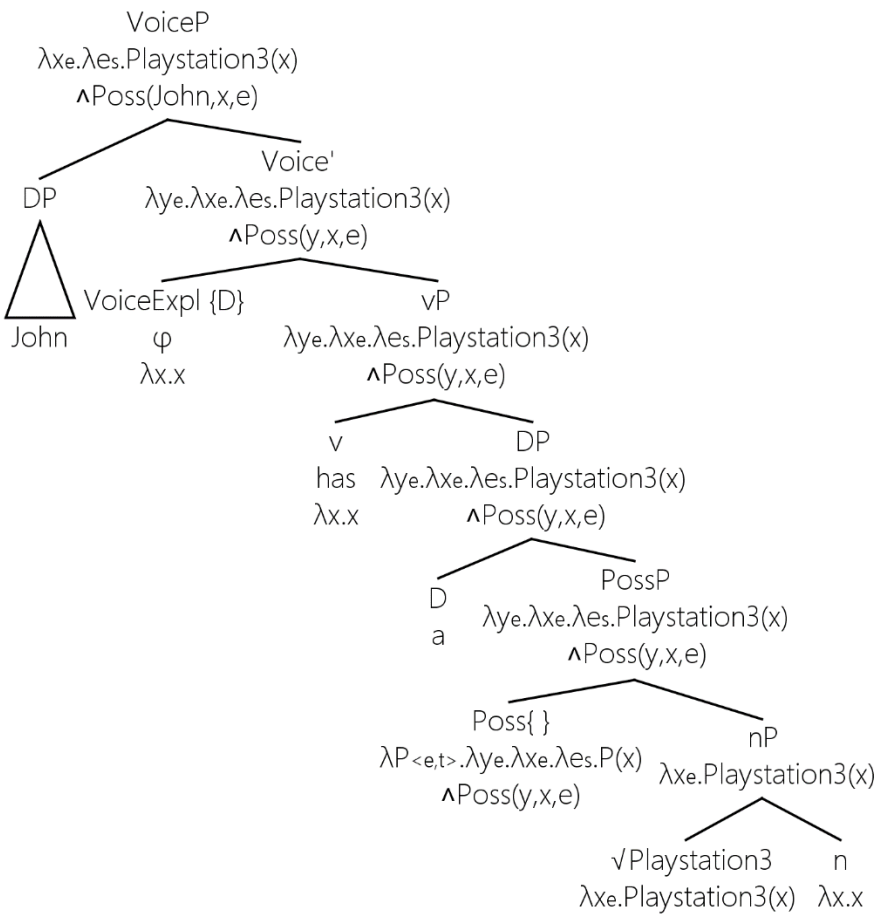
The distribution in Greek has highlighted that although possession is semantically a relationship between two arguments, the Possessor and the Possessee, the syntactic realization of this relationship does not necessarily have the Possessor and the Possessee as direct dependents. We have already seen that introducing the possessor as an external argument and letting it bind a pronoun in the predication layer is one option that Greek HAVE-sentences exploit. A raising/movement analysis in the spirit of Szabolcsi (1981; 1983; 1994) is another option available cross-linguistically.

English *have*-sentences support a late saturation analysis instead (8.6.1.). Possession can also be depicted as a relationship of accompaniment brought by a lexical preposition that takes over the role of the functional p. This is what happens in *ime-me*-sentences (8.6.2.). Finally, in 8.6.3., the *mu-vriskete*-constructions are shown to instantiate an alternative way of structuring relationships between entities via Applicatives, similar to external possession sentences presented in 8.5.

8.6.1. Late saturation of the possessor: English *have*-sentences

As an alternative to a control hypothesis, Myler (2016) proposes a "delayed gratification" analysis. The derivation he proposes for a sentence like John has a Playstation 3 is presented in (65).

65. *The structure of English have-sentences by Myler (2016)*



In this representation, the predicative head (Pred) introduces the role of the Possessor but no specifier position for it. Voice is then forced to be projected to host the DP that will late saturate this role. As this Voice is regulated by the specifier-less PossP, it comes in its expletive version. This means that it has no semantic import. The DP merged in [Spec, VoiceP] has no bundle role (cf. Alexiadou 2019). It saturates only the role introduced by Poss.

The question that arises is whether a p-based analysis could be assumed for English *have*-sentences. Prima facie, the answer is positive. This is supported by evidence showing that English *have*-sentences are not built on top of a possessive DP. The first piece of evidence is that idioms lose their idiomatic interpretation when taking part in a *have*-sentence. To add to the example already presented in 5.1. I cite a second one listed by Myler (2016: 339):

66. a. the bee's knees = 'the bit of *Apis mellifera*'s body corresponding to our *articulatio genus*'/'something outstanding'
    b. the knees that the bee has. = 'the bit of *Apis mellifera*'s body corresponding

to our *articulatio genus*'/'*something outstanding'

c. The bee has knees. = *Apis mellifera*'s body has parts corresponding to our *articulatio genus*'/'*this is outstanding.'

Moreover, the ambiguity of *former* is not retained at the sentence level, as illustrated in (67).

67. a. my former book
    i. something that was a book but no longer is.
    ii. something that is still a book but no longer in my possession.

    b. I have a former book.
    i. I have something that was a book but no longer is.

Furthermore, the distinction between genitive PPs and *of*-PPs in DP-level possessives (68) is not transferred to the sentence level as both are paraphrased by simple *have*-sentences (69).

68. a. Chris's blue eyes/ the blues eyes of Chris
    b. Chris's blue costume/*the blue costume of Chris

69. a. Chris has blue eyes.
    b. Chris has a blue costume.

The above distribution suggests that sentence-level possession is not built on top of DP-level possession. Thus, according to the cross-linguistic picture presented in 8.2., building sentence-level possessives on top of a preposition-based structure constitutes the only alternative.

The stativity of these sentences supports the postulation of a p-head if Hale & Keyser's (2002) view is adopted. The examples (47)-(51) in 8.4. have already shown that these sentences are stative based on their incompatibility with manner modification and 'it takes x time' modification, their reduced acceptability in forming imperatives and being the complement of *force*-verbs, and the lifetime effects that arise once past tense marking appears on the verb. Finally, their stativity is also indicated by the fact that they are incompatible with the progressive aspect:

70. a. *I am having three kids.
    b. *I am having a collection of 1000 books.

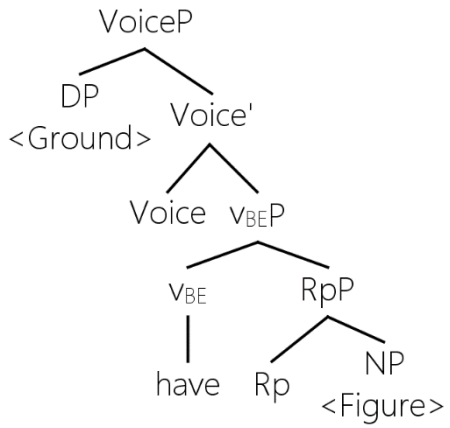
Nonetheless, there is neither a prefixed variant of *have* in English nor a nominalization that would reveal the presence of an underlying prepositional head. However, *have* appears in constructions that include p-based complements (71) (see Talmy 1975; 1985; Folli & Harley 2006; Harley 2008).

71. a. Sarah had him down.
    b. I had my friends around yesterday.

Although further research is required to support a p-based analysis of English *have*-sentences, this hypothesis seems to be on the right track. This is so because sentence-level possessives are, arguably, not construed based on phrasal (DP)-level possessives, and, according to the cross-linguistic picture, a p-based structure constitutes the only alternative, contra Myler (2016).

If a p-based structure is assumed for English possessive sentences, their structure would be as follows:

72. *The syntax of English have-sentences*



In (72), a prepositional predication takes the Figure as its complement. The Ground argument that will eventually be interpreted as the Possessor is not inserted in [Spec, RpP] as this position is not projected at all. The argument is late saturated in [Spec, VoiceP]. The Ground DP will not receive an additional thematic role, as the Voice is non-thematic, according to Myler.

To sum up, regardless of the nature of the predicative head, the late saturation hypothesis adds an alternative to raising and control in the inventory of the mechanisms available to languages for building their Argument Structure in possessives and in general. This addition extends the sources of variation for the structures and languages. The following section focuses on variation stemming from the status of the p-head.

8.6.2. From P to p: Greek *ime-me*-sentences

As presented in detail in 3.2., *ime-me* is a sentence construed by a subject Possessor, the copula *ime* 'be' and a PP headed by the preposition *me* 'with' which is followed by the Possessee nominal. This construction qualifies as the Greek instantiation of a BE-WITH-possessive (or a *WITH-possessive* in Stassen's 2009 terms). For illustrative purposes, I repeat a few examples here.

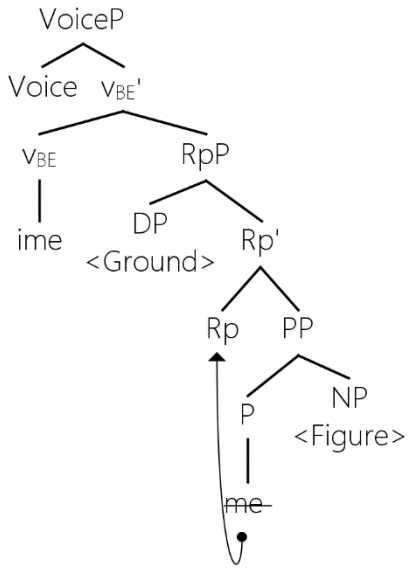
73. a. Afto to padeloni ine me kubja.
this the trousers.SG.NOM BE.3SG with button.PL.ACC
'These trousers are buttoned.'
b. Ta ðomatia tu ksenoðoxiu ine me ðio krevatia
the room.PL.NOM the hotel.SG.GEN BE.3PL with two bed.PL.ACC
'The hotel rooms are twin-bedded.'
c. I paralies sti Milo ðen ine mono me amo.
the beach.PL.NOM at.the Milos NEG BE.3SG only with sand.SG.ACC
'The beaches at Milos are not only with sand.'

As explained in the same chapter, this construction is less productive than the *exo*-one. Mainly, it is restricted to expressing temporary and physical possessions, diseases, body parts, clothes, and abstract attributes. To use Myler's (2016) terminology, this construction is limited to cases where the Possessee "physically accompanies" the Possessor. Ownership and kinship meanings are excluded. This makes this Greek type of sentence the equivalent to the Icelandic *vera-með*-construction, some examples of which are repeated in (74).

74. *Icelandic*
a. Hún er með bækurnar fimm.
she.NOM BE.3SG with books.the.ACC five
'She has five books.'
b. Jón er með kvef.
John.NOM BE.3SG with cold.SG.ACC
'John has a cold.'
c. * þeir eru með systur.
they.NOM are with sister.SG.ACC
int. 'They have a sister.'

The structure I propose for *Greek ime-me*-sentences is presented in (75).

75. *The structure for Greek ime-me-sentences*



First, it is clear that the *me*-PP occupies the complement position. Given that the copula does not introduce any arguments but verbalizes a predicative structure determined by another head, we must assume that this second head introduces the Possessor. In (75), I show that *me* functions as this predicative head. Specifically, I argue that *me* originates as the head introducing the Possessee-PP but takes over the role of the small p and introduces the external argument, i.e., the Possessor.

The view that *me* serves as a functional (or light) preposition (Starke 1993; Yadroff 1999) in Greek is common ground in the literature (Theophanopoulou-Kontou 2000; Lechner & Anagnostopoulou 2006; Botwinik-Rotem & Terzi 2008; Terzi 2010a; 2010b; 2017; Ramadanidis 2022). Although the researchers disagree on whether their function is to assign theta roles (Theophanopoulou-Kontou, ibid) or case (Terzi, ibid; Ramadanidis, ibid), they accept that functional/light prepositions (*se* 'to, in', *apo* 'from, by', *me* 'with', *ja* 'for') are heads less contentful than lexical/heavy ones like *pros* 'towards', *mexri* 'until, up to', *eos* 'until, up to', etc.

The main argument supporting the view that *me* is a functional preposition comes from the fact that it appears, in general, as a complement of other prepositions (the status of which is debated in the literature).

76. a. O Janis ine mazi me ti Maria.
the John.NOM BE.3SG together with the Mary.ACC
'John is with Mary.'
b. O Janis rotise sxetika me tin etisi.
the John.NOM ask.PST.PFV.3SG regarding with the application
'John asked regarding the application.'

Nonetheless, it can never be omitted neither when appearing as a complement of other prepositions nor when appearing on its own.

76′ a. O Janis ine (mazi) *(me) ti Maria.
the John.NOM BE.3SG together with the Mary.ACC
'John is with Mary.'

This is also true for BE-WITH-constructions; *me* cannot be omitted. Note, however, that *me* does not always bear the accompaniment requirement that has been identified as the characteristic unifying all BE-WITH-possessives. The preposition receives a vaguer interpretation in the rest of the environments in which it appears. For instance, in (77), the accompaniment requirement of *me* exceeds physical space; the preposition leads to the reading that John and Mary accompany each other in life, i.e., they are in a relationship. In (76b), the interpretation of *me* becomes even more abstract, as the Greek preposition becomes almost equivalent to English *for*.

77. O Janis ine me ti Maria.
the John.NOM BE.3SG with the Mary.ACC
'John is (in a relationship) with Mary.'

It is the case, then, that although functional, *me* is slightly more contentful in BE-WITH- possessives than in its other guises. For this reason, I propose that, in BE-WITH-possessives, this preposition originates as a lexical P and takes over the role of the functional p that relates a Figure and a Ground during the derivation. In other words, these types of sentences *me* is reanalyzed from lexical P to functional p.

Interestingly, a reanalysis-based hypothesis has been proposed for Finnish possessives. Mahieu (2013) shows that the Freezian P, that headed Possessor-PPs and was responsible for assigning the adessive case on the Possessor, became reanalyzed, at some point in the diachrony of the language, as a functional preposition incorporated into the verbal copulas. In other words, it acquired the status of a suffix. Therefore, for reasons unknown to the author, the derivation of Finnish possessives went from (78) to (79):

78. a. … $[_{VP}$ **be** $[_{PP}$ $NP_{POSSESSEE}$ $[_{P'}$ **at** $NP_{POSSESSOR}]]]$

b. $[_{P'}$ **at** $NP_{POSSESSOR}]_i$ $[_{VP}$ **be** $[_{PP}$ $NP_{POSSESSEE}$ $t_i]]$

79. a. ... [$_{VP}$ **be** [$_{PP}$ NP$_{POSSESSEE}$ [$_{P'}$ **at** NP$_{POSSESSOR}$]]]

b. [NP$_{POSSESSOR}$]$_k$ [$_{VP}$ **be-at**$_i$ [$_{PP}$ NP$_{POSSESSEE}$ t_i t_k]]

The evolution of the Irish predicate *ann* that originates from the feminine form of a preposition and the properties of the homonymous preposition in Scottish Gaelic (Ramchand 1996), as well as the reanalysis of locative expressions to locative (subject) clitics (see Allan 1971; Ciconte 2010; Fagard & Mardale 2012) are also instances of the same grammaticalization process (see also Gaeta 2013). Despite being a widespread phenomenon in the cross-linguistic diachrony (see Hopper & Traugott 1993; Rhee 2017; 2019 and references therein), we have already encountered an instance of this in the history of Greek.

Asyllogistou (2018) shows that Ancient Greek prepositions shifted from independent morphemes to prefixes. In other words, lexical prepositions heading PPs became, arguably, prefixes fully incorporated into verbal roots. This turned them into functional elements that control the verbs' arity and Voice morphology (Alexiadou 2020).

Therefore, I propose that *me,* in this context, has acquired the status of a functional preposition in a way that is familiar in Greek and other languages. However, this preposition has not been incorporated into the verbal copula, as expected from the diachrony in Greek. The reason behind this is not clear, and further research is required. To stipulate, the fact that *me* is a short form of the Ancient Greek *meta* 'with', which was the form taking part in incorporation, might be responsible for this. For independent reasons, *me* replaced free-standing *meta* in Modern Greek but not in its use as a prefix. Further, phonological reasons may also prohibit the formation.

To sum up, this section has presented a construction in which the possession interpretation is reached again via a p-head. This corroborates the claim that Greek qualifies as a language that does not recognize the Possessor and the Possessee role as independent thematic roles at the level of the sentence. Instead, it subsumes these roles under the Ground-Figure distinction and builds its sentence-level possessives via a prepositional head.

The following section discusses *mu-vriskete*-constructions as a case in which the "possession" relationship does not derive from a two-place predicative structure.

8.6.3. Introducing the possessor via an Applicative: the *mu-vriskete*-construction

A final source of variation in the expressions of relationships between entities refers to the status of the Possessor. Besides originating as an argument of a two-place relationship, the Possessor can be inserted via an Applicative head. This means it becomes related to the second entity indirectly as verbal structure mediates between them. As already shown in 8.5., external possessive constructions are taken to involve such derivation. The *mu-vriskete*-construction is a second example that involves a possessor introduced by an Applicative head.

To begin with, it must be clarified how *mu* or any other clitic preceding the verb *vriskome* qualifies as an Applicative. In a series of papers, Anagnostopoulou & Sevdali (2015; 2020; 2021) discuss, among others, *dyadic unaccusative verbs* that surface with an argument in genitive besides their nominative theme-argument. This verb class consists of psychological predicates corresponding to Belletti & Rizzi's (1988) *'piacere'* class (see Anagnostopoulou 1999 for Greek), sensation verbs, and verbs of possession/deprivation. Some examples are *areso* 'please, like', *xriazete* 'need', and *lipi* 'miss, lack' (80).

80. a. (Tu Jani) tu aresi i zoɣrafiki.
the John.GEN 3SG.GEN like.3SG the painting.SG.NOM
'John likes painting.'
b. Tu Jani tu xriazete/lipi ena amaksi.
the John.GEN 3SG.GEN need/miss.3SG a car.NOM
'John needs/lacks a car.'

The genitive case marking that is consistently assigned to the highest argument is the exponent of structural dative, which is assigned under the rule in (81).

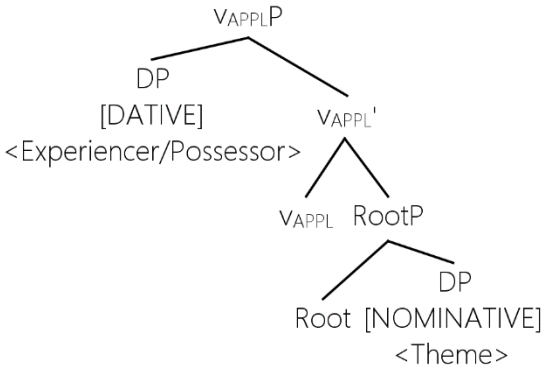
81. For Dative: *(Baker 2015: 131):*
If XP c-commands ZP in VP, then assign U (dative) to XP.

By adopting the seminal proposal of Pylkkänen (2002), the authors above agree with Michelioudakis (2012) and Georgala (2012) that dative arguments are introduced by an applicative v that combines with a root that introduces the Theme argument.[112] They stress, however, that "any VP-structure representation would lead to the same result under Baker's definition in (81) above as long as the genitive is higher than the

[112] The Theme is taken to be an argument of the root, although alternative analyses according to which roots do not take complements are acknowledged by the authors (see Alexiadou 2014).

nominative." (Anagnostopoulou & Sevdali 2021: 248). The representation of their structure is as follows:

82. *The structure of dyadic unaccusative verbs*



To see the complete derivation of a *mu-vriskete*-sentence, it is also essential to identify the status of the verb. As claimed in 5.3., there is no consensus on the status of *vriskome,* which is considered either a deponent or the non-active version of *vrisko* 'find'. However, as the current framework is based on morphology, and *vriskome* is undeniably the NAct form of *vrisko,* I have adopted the view that it is the non-Active variant of an alternating pair.

Being the non-active variant suggests that a specifier-less Voice head is projected, based on the rule presented in 5.1.2.2. Then, the question is whether this Voice head is semantically contentful, i.e., whether it introduces a thematic role, even though it does not project a position for it to be satisfied.

If the Voice head was thematic and no DP was merged to satisfy it, the external role introduced by Voice would be existentially closed, as predicted by Schäfer (2008). This means that there would be an implication of a third participant. To draw a parallel, this is what happens to implicit agents in passives.

Clearly, there is no such implication when *vriskome* is used in this context. The sentence conveys that there are only two participants in the situation. To witness this, consider the contrast with the passive use of *vriskome,* which has the meaning 'be found/discovered by someone' (83):

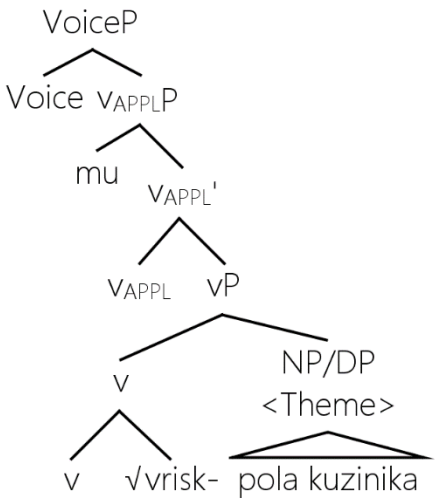
83. Ta kliða vreθikan apo enan perastiko.
the key.PL.NOM find.PST.PFV.N.ACT.3PL by a passer-by.
'The keys were found by someone passing by.'

It must be assumed, then, that, in the constructions of our interest, an expletive non-Active Voice is used instead. Under this view, *vriskome* shows structural similarities

with Greek marked anticausatives. The structure of a *mu-vriskete*-sentence (84), is as in (85).

84. Mu vriskode pola kuzinika.
1SG.GEN find.NACT.3PL many kitchenware.PL.NOM
'I happen to have much kitchenware.'

85. *The structure of the mu-vriskete-construction*



The derivation starts from a verbal structure built around the root *√vrisk*. The root takes a Theme argument and licenses an Applicative head. The latter, constrained by the affectedness restriction, allows only for sentient entities, i.e., animates, if not humans, exclusively. This significantly restricts the types of relationships accommodated into the structure.

It is essential that the relationship it creates is between a Theme and an affected entity. Nothing in the syntax says that this is a possessive relationship. Once again, our Encyclopedia recognizes this structure as denoting such a relationship based on our internalized entity networks. Besides, strictly speaking, and based on the definition of possessive constructions I have adopted in 1.2.2., this construction does not qualify as possessive since it does not depict a close relationship between entities. The entities involved are accommodated as participants in a situation that is coerced to a "possessive" interpretation.

This example concludes the discussion on how possessive relationships are structured or, to be more precise, how relationships between entities are built. The following section provides a summary of our findings.

8.7. Summary of the chapter

This chapter has highlighted that entities can generally be related in several degrees of closeness, and the Grammar of a language has a variety of ways to express them. In principle, each Grammar separates a set of relationships that reserves for special treatment and accommodates in possessive constructions. This set is determined by each language individually, although there are some cross-linguistic tendencies (see, for instance, the traditional notions subsumed under constructions of inalienable possession).

Generally, the affinity between entities can be realized as an association between arguments of a predicative structure or as a more indirect association (e.g., cases of external possession). As evidenced by the cross-linguistic distribution (8.2.), once the Grammar opts for using a predicative structure, it can choose whether the entities will be related as nominal dependents or come together via the mediation of a preposition. In other words, the Grammar has the option to sever the Possessor and the Possessee roles as independent thematic roles or subsume them under the Ground-Figure distinction.

Further variation is created depending on whether this "decision" applies horizontally or not, i.e., whether the Possessor-Possessee roles are identified as independent roles (and, thus, treated differently) when building relationships between entities at the phrase (DP) and the sentence (TP) level. The cross-linguistic picture suggests that both options are available in principle; languages like Hungarian, Cochabamba Quechua, Japanese, Icelandic, and members of the Bantu family are shown to build their sentential possessives based on phrasal ones. In contrast, languages like Finnish, Russian, and Greek provide evidence for the opposite. Specifically, Hungarian, Cochabamba Quechua, and Japanese treat the Possessor and the Possessee as nominal dependents at both levels, Bantu languages as Grounds and Figures, respectively, at both levels, whereas Icelandic exhibit both options at both levels.

The fact that the Possessor and the Possessee role can be captured in terms of the Ground-Figure distinction suggests that possessive sentences can indeed be part of Freeze's locative paradigm since they share the same predicative head with existentials and locatives. This supports the claim made by unification approaches and typological research according to which existentials, locatives, and possessives have commonalities in their forms and structure.

This thesis has shown that Greek offers strong evidence for postulating commonalities among these structures, although it is not a language that does so overtly, as happens in Russian and Finnish. In the preceding paragraphs, it has been

argued that Greek possessive sentences are not built on top of DP-level possessives (8.3.). Based on arguments that derive from (a) interpretational mismatches, including the lack of idiomatic readings and the lack of ambiguity of *former*-type modifiers, (b) restrictions that appear only at the level of the sentence, and (c) the need for an overt locative PP with a pronoun co-referring with the subject, in specific occasions, it has been proposed that Greek and English possessive sentences construed with HAVE and BE do not constitute a verbalization of DP-possessives. In contrast, the predication between their arguments is built via the mediation of a prepositional head, as was the case with existentials and locatives (8.3.). By assuming one HAVE and one BE in Greek, the evidence provided for existentials and locatives is replicated in possessives.

As for their inner structure, I demonstrated that *exo*- and *ime-me*-sentences use the reversed version of p, i.e., a configuration in which the Ground c-commands the Figure. The second type of sentence also involves reanalyzing the lexical preposition as a functional one. The same claim has been proposed for *exo*-sentences expressing physical possession. In deviation, locative HAVE-sentences are shown to involve the standard p-structure in which the Figure c-commands the Ground. HAVE-sentences denoting temporary possession are argued to have the same structure as plain HAVE-sentences when lacking an overt locative PP-coda, whereas, in the presence of a PP-coda, they are analyzed similarly to locative HAVE-sentences.

Moreover, it has been shown that there is variation in how possessors are introduced into the structures. The assumption that the Possessor is instantly gratified in the position it is semantically introduced (in *ime-me*-sentences) is contrasted with the hypothesis that the Possessor merges in [Spec, VoiceP]. In this position, it either controls a PRO inserted in [Spec, RpP] (in Greek *exo*-sentences) or it late saturates the role of the Ground if Rp does not project a specifier for it (in English *have*-sentences). Finally, the *mu-vriskete*-construction represents a fourth available option in which the Possessor is merged by an applicative. This construction also constitutes an instance of deriving possession without the mediation of a p- or a *Poss*-head.

The next chapter compiles the assumptions regarding the structures headed by prepositions as it puts together the conclusions of our discussion on existentials, locatives, and possessives.

9. Existentials, locatives, and possessives: bringing them back together

No matter the presence of an alternative, the claim that possessive sentences can be built based on a predicative prepositional head revives the core part of Possessors-as-Locations (PAL) hypotheses and reunites existentials, locatives, and possessives. However, the present thesis substantiates this in the framework of DM. The most important advantage of this is that it avoids inheriting the problems of the original hypotheses. This is explained in 9.1. In 9.2. I show that the revival of the so-called *locative paradigm* introduces a typology of prepositional heads parallel to the typology of Voice. Each type of p-structure has distinct syntactic and semantic properties that explain if and why specific arguments can be accommodated within each structure. Finally, 9.3. sketches how the possession interpretation derives from a preposition-based structure.

9.1. Overcoming the problems of traditional PAL hypotheses

PAL hypotheses, and Freeze (1992) as their hallmark, have received much criticism in the literature (see Harves 2003; Tham 2004; Hartmann 2008, i.a.). Besides language-specific problems, e.g., in Polish (Błaszczak 2018), Freeze's analysis creates issues for syntactic theory; as it assumes movement of the P'-layer (see 6.1), it goes against the *Structure Preservation Hypothesis* of Emonds (1976) and Chomsky (1986) that predict movement of heads and maximal projections only.

It has also been pointed out that there is a need to sever possessives from any attempt for structural unification. An essential suggestion by the opponents of PAL hypotheses is that the surface similarities between locations and possessors should not carry away the researchers. Despite the existence of languages like Finnish and Russian, where all locational sentences are morphologically identical, there are many languages where existentials, locatives, and possessives are different.

Clearly, by proposing that there are two modes for structuring predicative possessives (8.2.), the current analysis does not run into this problem. Possessives can be built based on PPs or DPs. Even more so, a language can opt for each mode independently at the phrase and the sentence level.

Although I did not discuss this for existentials, a similar variation in their structuring modes is less probable. The alternative to prepositions, in their case, is PredPs, or other types of RELATORS that define small clauses, if a small-clause analysis is suitable in the first place. However, the assumption of a p-based structure for all existentials and locatives cross-linguistically seems more appropriate as it accounts

for the nature of locative relations and their stativity. Further, by assigning special semantics (alloseme interpretations) to this head (7.3.1.), the functional preposition can account for the Definiteness effect. This is important since the Definiteness effect is, at least, partially semantic and needs to be captured as a restriction in denotations.

Another problem with the original PAL hypothesis Freeze (1992) proposed is that it postulates a standard p-structure across the board. This means that the arguments are constantly in the same hierarchical order, and the various surface orders derive via movement. Thus, this hypothesis cannot account for several facts, e.g., the variation between locatives and existentials regarding the readings of *again* or quantifier-scope readings, as extensively presented in 6.4.2. Moreover, the assumption of a unified hierarchical order cannot explain why only some nominal arguments can be raised to object positions (6.4.4.).

My analysis overcomes this problem by postulating two prepositional heads with opposite hierarchical orders: the standard p-structure where the Figure c-commands the Ground and the reversed p-structure where the Ground c-commands the Figure. This naturally accounts for the divergent behavior of the constructions under scrutiny.

Next, another issue for PAL hypotheses that has been employed as a point of criticism concerns the linking patterns, i.e., how the roles Location-Locatee and Possessor-Possessee are linked to the syntactic positions. Tham (2004) observes that according to the unification line of approach, locatives, and existentials link the Locatee (the Figure in our terms) to a subject position only. In contrast, possessives vary. In an *own*- and a *have*-type construction, the Location/Possessor maps to the subject position, whereas in a *belong*-type sentence, it is the Locatee/Possessee merging as the subject. Given that the distribution in possessives shows that both linking patterns are available, PAL hypotheses cannot explain why linking the Location to a subject position in locatives/existentials is not an option.

The present study has presented evidence that the latter linking pattern is indeed attested. Existential *exi*-sentences in Greek, English *there-be*-sentences (7.1.), and *tem*-existentials in Brazilian Portuguese (Appendix 2) are only a few examples in which Location occupies the subject position. Further, contrary to PAL hypotheses that tie the alleged lack of the above linking pattern to the Definiteness of the non-locative constituent, the Greek data show that Definiteness is irrelevant to the linking patterns. The presence of locative *exi-sentences* (1) constitutes sufficient empirical evidence against the claim that the Definiteness of the pivot nominal is responsible for the lack of a specific linking pattern.

1. a. Exi ton proθipurɣo sti ðeθ simera.
HAVE.3SG the prime.minister.SG.ACC at.the T.I.F. today
'There's the prime minister at TIF (Thessaloniki International Fair) today.'
b. Exi ton Niko stin tileorasi.
HAVE.3SG the Nick.ACC on.the TV
'There's Nick on TV.'

Therefore, the data themselves suggest that the criticism according to which PAL hypotheses make incomplete predictions is not validated.

Moreover, the observation that the pattern in *own/have*-sentences is more frequent than the pattern in *belong*-sentences cross-linguistically is worth some attention. Tham (2004) claims that this statistical difference cannot be predicted by any Freezian-style approach, which assumes that all surface orders are available once the relevant rule (based on definiteness or animacy) applies. To explain this, the researcher deliberates that Possessors are more prominent than Possessees. *Own/Have*-sentences are more frequent as they depict the prominence of possessors by placing them in the subject position.

As the framework of the present analysis offers the opportunity to pursue an explanation in the spirit of Tham (ibid), it does not inherit the inadequacy of PAL hypotheses. To see how the current analysis captures the abovementioned observation, consider the complete distributional picture of possessives: HAVE- and BE-WITH-sentences have the Possessor surfacing as the subject and the Possessee as the object (2). *Belong*-type sentences show the same mapping as predicational copular sentences since the Possessor is the complement, and the Possessee appears as the subject (3).

2. a. O Janis exi ena vivlio.
the John.NOM HAVE.3SG a book.SG.ACC
'John owns/has a book.'
b. O Janis ine me pireto/ɣripi.
the John.NOM BE.3SG with fever/flu.SG.ACC
'John is with fever/the flu.'
3. a. To vivlio aniki ston Jani.
the book.SG.NOM belong.3SG to.the John.ACC
'The book belongs to John.'
b. To vivlio ine tu Jani.
the book.SG.NOM BE.3SG the John.GEN
'The book is John's.'

In the proposed analysis, the fact that the former mapping is statistically more common is predicted by how the inherent properties of (the roots of) nominals interact with syntax. The aspect of animacy is critical at this point. As detailed in Chapter 4, animate entities are conceptually more prominent than non-animate ones. If it has the option, the Grammar depicts this prominence by placing animate arguments in prominent syntactic positions, preferably in subject ones. Indeed, such a possibility is available in Greek, among other languages, as the relevant structure exists in its inventory. Therefore, an increased number of sentences respecting the prominence of animate entities is expected to be found. Thus, the current proposal allows us to adopt Tham's explanation and overcome the issue identified for more traditional PAL hypotheses.

A final problem that is ravaging for unification approaches is that by assuming a common underlying structure, such approaches equate the Definiteness effects in existentials and possessives, which is an undesirable outcome.

Jensen & Vikner (1996), Partee & Borschev (2005), and Bassaganyas-Bars (2017), among others, show that the DE in possessives is a semantic restriction. The nominals that appear in the complement position of HAVE cannot be definite because this would make them complete predicates, and complete predicates wouldn't be able to become relational to a second entity, i.e., the possessor. This is why when a definite DP appears as the complement of HAVE, the interpretation of the sentence is not that the subject is genuinely related to the entity denoted by the definite DP (4).

4. a. O Janis exi meɣali karðja.
the John.NOM HAVE.3SG big.SG.ACC heart.SG.ACC
'John has a big heart.'

b. O Janis exi ti meɣali karðja.
the John.NOM HAVE.3SG the big.SG.ACC heart.SG.ACC
'John has a heart-shaped object, e.g., balloon, cake.'

In contrast, Ward & Birner (1995), McNally (1997), Leonetti (2008), Fischer (2013), and Bassaganyas-Bars & McNally (2019), among others, argue that the DE in existentials arises as a combination of semantic and pragmatic factors. Since the pivot/figure nominal introduces a new discourse referent, it must be pragmatically novel, i.e., non-presupposed. Hence, definite noun phrases implying presupposition are prohibited. As for the semantic aspect of the DE, since the new discourse referent is introduced as a particular type of referent, e.g., an instance of a kind for McNally (1997) and Bassaganyas-Bars & McNally (2019), only noun phrases that can receive this denotation appear in the pivot position. Definite noun phrases cannot, in principle,

receive the intended interpretation (see the exceptions discussed in 2.1.), and they are, therefore, unable to appear in this position.

The current proposal assumes distinct underlying structures for existentials and possessives. Thus, the two DEs need not be assimilated. The explanations provided by the authors above are compatible with the present analysis, as the conditions triggering the DE in possessives are accommodated as LF-restrictions posed by the predicative head (see 7.3.1. for existentials/locatives and 9.3. for possessives)

Finally, it must be stressed that the major criticism against the PAL hypotheses is not against the hypothesis itself but rather against its accompanying one, i.e., the one that assumes a derivational relationship between HAVE and BE. Interestingly, the assumption that HAVE *per se* involves a p-structure (independently from BE) has not been severely questioned (cf. Błaszczak 2007; 2018, Myler et al. 2014).

By adopting the suppletive allomorphy assumption proposed by Myler (2016; 2018), BE and HAVE are not derivationally related. They are treated as two exponents of v_{BE}, with HAVE being the exponent in a marked environment and BE qualifying as the elsewhere case. The data from Greek has evidenced that treating HAVE and BE as copulas, i.e., as semantically vacuous items related via transitivity, is on the right track, even though BE in Greek has not been shown to qualify as the elsewhere exponent but rather as the intransitive variant of HAVE (Chapter 5).

In summary, the denunciation of PAL hypotheses was based on facts arguing against the presence of a single underlying structure for locatives, existentials, and possessives. Non-unification approaches emerged as an answer to these problems. The postulation of multiple underlying structures accounted for a broader range of structures and highlighted two perspectives for addressing the issue: one can start from the too many meanings of a particular surface form and study if these meanings derive from one structure. Another option is to adopt the too-many-surface-forms perspective and explore the parameterization in the expression of one single meaning. Nonetheless, both strands of research have yet to showcase the similarities between existentials, locatives, and possessives. This remains a benefit of the original PAL hypotheses.

This thesis has brought together the two traditions in the literature using the framework of DM. This has made it possible to account for the variation both intra- and cross-linguistically while promoting unification. The following section focuses on the element that brings existentials, locatives, and possessives together: the p-head.

9.2. A typology of prepositions

In this section, I introduce the typology of p-heads delineated by the assumptions made in this dissertation. Before presenting it, I briefly summarize the two pillars upon which this typology is constructed. Specifically, I add to the p/Rp distinction that is inspired by Harley (1995; 2002) and Pesetsky (1995), the typology of Voice which was introduced by Schäfer (2008) and was later enriched in Alexiadou et al. (2015) and Wood (2015).

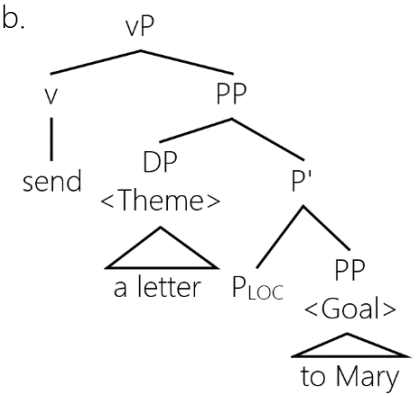
9.2.1. The Foundations for the Typology

The proposed typology of p-heads is partially inspired by the work of Harley (1995; 2002) and Pesetsky (1995) on ditransitives, which exhibit a *to*-dative construction and a double-object one.

Harley (1995; 2002) and Pesetsky (1995) propose two prepositional structures to account for the two possible structures of ditransitives. In brief, the authors argue that the structure of a *to-dative sentence* (5a) has the Theme argument c-commanding the Goal. For Harley (2002), this configuration is headed by a P_{LOC} (plain *P* for Pesetsky) (5b). In contrast, the so-called *double-object construction* of a ditransitive (6a) contains a P_{HAVE} structure in which the Goal c-commands the Theme (6b). The same head is called *G* by Pesetsky (1995).

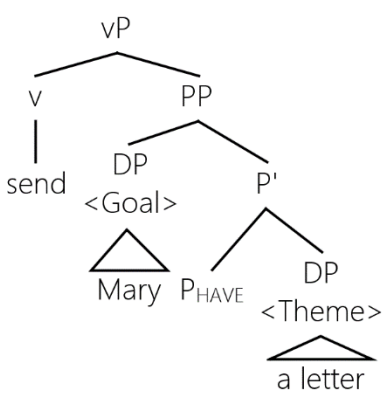
5. a. John sent a letter to Mary.

b.



6. a. John sent Mary a letter.

b.



Harley named each p-structure after the relationship it implies. When the P_{HAVE} configuration is in use, the Goal is interpreted as the perspective possessor of the Theme.[113] In contrast, when P_{LOC} is used, a locative reading is implied instead.

Harley (ibid) claims that the structures of ditransitives available in a language predict the structures of its possessive sentences and vice versa. This means that if a language exhibits only the *to*-dative construction in ditransitives, it will also use the Theme-over-Goal hierarchy in possessives, leading to the so-called *Locational Possession Structures* as named by Heine (1997). On the other hand, if a language uses the double object construction, it is predicted that the P_{HAVE} structure will also be used in possessive sentences.[114]

The current proposal of a standard and a reversed p leads to a generalization parallel to the one advanced by Harley (2002). Within the standard p-structure, the Figure (corresponding to Harley's Theme) occupies the subject position while the Ground (which is similar to Harley's Goal) is a complement of p. The representation of this structure (7a) is akin to Harley's P_{LOC} structure (5b). In the reversed configuration, the Ground occupies the same position as Harley's Goal in the P_{HAVE} structure, while the Figure appears in the same position as the Theme (7b).

7. a. *Standard p-projection* b. *Reversed p-projection*

Keep in mind that, at this point, I am concerned neither with the realization of the Ground by an overt (e.g., the locative PP) or a covert item (e.g., implicit LOC) nor with the (c)overt status of the prepositional head itself (cf. the comparison of *iparxo*-sentences to *exi/ime*-sentences in Chapter 6).

Based on the above, one could argue that this proposal violates the Theta Criterion, and more specifically, the Thematic Hierarchy according to which the hierarchical order of the theta-roles is standard and cannot be inversed (see, for instance, Fillmore 1968; Belletti & Rizzi (1988); Larson (1988); Grimshaw (1990), i.a.).

---

[113] This implication is often considered responsible for the animacy restriction of the Goal, usually found as *Oehrle's Generalization* in the literature (see Oehrle 1976; Larson 1988; 1990; Pesetsky 1995; Hallman 2015).

[114] Further variation is created depending on whether the prepositional head incorporates into v, creating HAVE, or it does not incorporate, hence licensing BE as the exponent of v.

However, it is important to clarify that the framework adopted in this dissertation does not adopt the existence of a Thematic Hierarchy fixed *a priori* to determine the merge positions of the constituents realizing each theta-role. Given standard views of the semantic component, the minimalist architecture does not require the Theta Criterion. All that is needed is 'Full Interpretation': LF must be able to assign an interpretation to a structure built in syntax. A DP must bear a theta role because LF has to integrate the denotation of the DP into the semantic representation of the sentence. The role that each DP will bear is determined configurationally, as LF processes the whole structure that has been fed to it. Thus, arguing that the picture in (7) violates the Thematic Hierarchy is invalid in this context.[115]

Given that Harley's work constitutes the first pillar for the proposed typology of p-heads, I consider Schäfer's (2008) and Wood's (2015) work on Voice as the second pillar. As presented in Chapter 5, Schäfer (2008) states that verbs are syntactically decomposed into verbal layers projected on top of a category-neutral lexical root. Voice is the layer responsible for introducing the external argument of a verb in the sense of Kratzer (1996).

The interpretation of Voice, i.e., the role it assigns to the argument it introduces, depends on the structure below it. $\text{Voice}_{\text{AGENT}}$ introduces Agents iff projected over a non-stative verbal phrase. $\text{Voice}_{\text{HOLDER}}$ projects over a stative VP/vP and introduces an argument with the role of State Holder. These are the two basic types of Voice proposed by Kratzer (ibid).

Following the work of Arad (2002), Folli & Harley (2005), and Alexiadou et al. (2006), among others, Schäfer (2008) implements this by postulating that Voice carries a thematic feature. In Alexiadou et al. (2015), this feature is marked as 'λx' to account for the fact that Voice introduces a thematic role for its argument. This marking is adopted in this study, too.

Next, to account for the distinction between Active (Act) and non-Active (NAct) Voice morphology, Schäfer (ibid) assumes that Voice is differentiated based on the specifier's projection. Voice can either project a specifier position for the external argument or not. In technical terms, he puts forth that Voice has a '{D}' feature when projecting a specifier position. This feature mandates the merger of a DP in [Spec, VoiceP]. No specifier is projected if this feature is absent; hence, no integration is required.

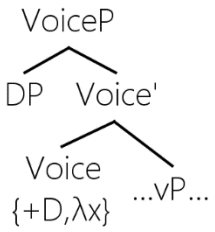
In Schäfer's work, these two parameters delineate the typology of Voice. Four types of Voice are created based on whether Voice is *semantically transitive* (or

[115] Note that Harley (2002) assumes different thematic roles for each p-structure to avoid a conflict with Thematic Hierarchy. She claims that P_{LOC} has a Locatee c-commanding a Location, while P_{HAVE} has a Possessor c-commanding a Possessee.

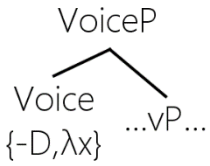
thematic), i.e., it introduces a thematic role for its argument, and whether it is *syntactically transitive*, i.e., projects a specifier. When Voice does not project a specifier, it is considered *syntactically expletive*. In contrast, it is often called *semantically expletive* or *athematic* when it does not introduce a thematic role. This typology is summarized in (8).

8. *The typology of Voice (Alexiadou et al. 2015: 109)*

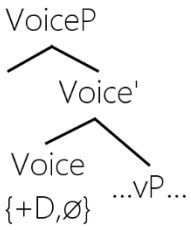
a. *Thematic Active Voice*



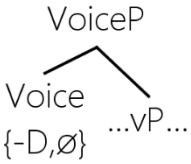
b. *Thematic non-Active Voice*



c. *Expletive Active Voice*



d. *Expletive non-Active Voice*



In brief, the thematic Active Voice structure in (8a) projects over any standard transitive verb, including agentive and causative verbs. The thematic non-Active Voice in (8b) is assumed for passives of the Greek type (see Alexiadou et al. 2015: 120 et seq.). In this case, the thematic role introduced by Voice is not satisfied by an overt DP; instead, it stays implicit and becomes existentially closed (see Bruening 2013 cf. Collins 2005). The structure in (8c) is hypothesized for *se*-anticausatives attested in Romance languages. Last, the expletive non-active Voice (8d) is assumed for Greek marked anticausatives, i.e., anticausatives that surface with NAct.

Turning to the constructions studied in this dissertation, I have argued for the presence of (8a) in the case of transitive *exo*-sentences and the presence of (8c) in *exi*-sentences. Finally, *ime*- and *vriskome*-sentences include a Voice layer like (8d).

Wood's (2015) proposal is very close to Schäfer's view of Voice. He also argues for a configurational approach to Voice and recasts Kratzer's assumptions within the DM framework. In particular, he considers that $\text{Voice}_{\text{AGENT}}$ (9a) and $\text{Voice}_{\text{HOLDER}}$ (9b) are two marked cases of Voice emerging in a designated environment. The former appears when Voice merges over an agentive, dynamic

event, whereas the latter occurs when it projects over a stative one. Without any marked context, Voice takes its elsewhere interpretation (9c). This set of rules treats the interpretations of Voice as allosemes in complementary distribution, i.e., as suppletive allosemes.

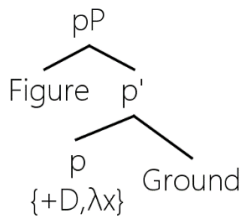
9. a. [[Voice]] ↔ $\lambda x_e.\lambda e_s$. AGENT(x,e) / ___ (agentive, dynamic event)
   b. [[Voice]] ↔ $\lambda x_e.\lambda e_s$. HOLDER(x,e) / ___ (stative event)
   c. [[Voice]] ↔ $\lambda P_{<s,t>}$. P / ___ (elsewhere)

By putting together Schäfer's (2008) and Wood's (2015) assumptions on Voice and Harley's (1995;2002) hypothesis on p-structures, I draw the typology of p-heads, described in detail in the following section.

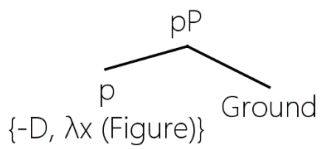
9.2.2. Delineating the typology of p-heads

If semantic and syntactic transitivity are combined with the distinction between standard and reversed p-structure, four types of each structure are defined. The complete typology of the standard p-structure is presented in (10).

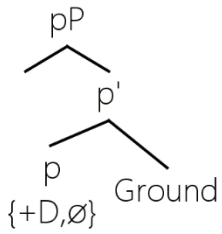
10. a. *Syn. transitive & Sem transitive*



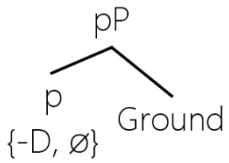
b. *Syn. intransitive & Sem. transitive*



c. *Syn. transitive & Sem. intransitive*

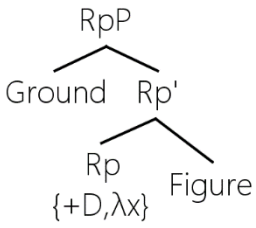


d. *Syn. intransitive & Sem. intransitive*

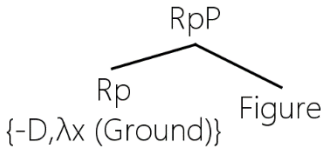


Similarly, the reversed p-structure also has four types (11).

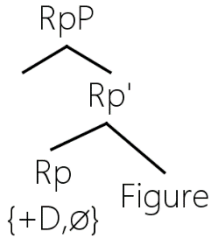
11. a. *Syn. transitive & Sem transitive*



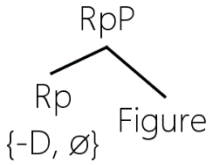
b. *Syn. intransitive & Sem. transitive*



c. *Syn. transitive & Sem. intransitive*



d. *Syn. intransitive & Sem. intransitive*



Several remarks are required to refine this typology. Firstly, it is crucial that semantic intransitivity "cancels" the relational status of small prepositions since it yields a structure where there is only one role assigned. To elaborate on this, consider that small prepositions are, by definition, semantically transitive as relational: they introduce a relationship between a Figure and a Ground (Rooryck 1996; Koopman 1997; Yadroff 1999; Yadroff & Franks 2001; Bailyn 2004; Svenonius 2008; 2010; Franco et al. 2021). However, to identify an entity as the Figure or the Ground, a second entity identified as having the opposite role must be present. That is, the Figure and the Ground always appear as a pair. This holds for every type of relation between the Figure and the Ground, including the possessive one.

Therefore, if p could be semantically intransitive, the distinction between (10d) and (11d) would not matter. The only argument appearing as the complement of p would not be contrasted to a higher argument. Thus, it could be identified neither as the Figure nor as the Ground. In other words, there is no need to distinguish (10d) from (11d) since semantic intransitivity collapses them.

Nonetheless, semantic (in)transitivity is essential in separating lexical from functional prepositions, i.e., Ps from ps. To illustrate this, compare the above conclusion on functional prepositions to the behavior of lexical prepositions. The latter type of preposition need not be semantically transitive. Although lexical prepositions can obtain the status of functional ones at some point in their history (diachronically) or some point in the derivation (synchronically) (see 8.6.2.), they begin as non-relational, i.e., as heads naming the place, path, axe, etc. of the location

denoted by the nominal complement (see Koopman 1997; Levinson 2003; Rooryck & Vanden Wyngaerd 2007; Svenonius 2008; 2010).

Therefore, the syntactically and semantically intransitive structure can be assumed for prepositional phrases that appear as adjuncts. These phrases are usually understood as Grounds but not with respect to a Figure. As modifiers, they constitute the background or the frame for the events described in the sentence. Even if they are understood as Grounds with respect to a Figure, it is the case that this Figure is an entity provided by another argument-introducing head of the sentence, not by the Ground itself.

Another environment suitable for the structures in (10d) and (11d) is verbal constructions that are not reduced to prepositional small clauses but take prepositional arguments. For instance, verbs of manner of motion or directed motion take prepositional complements that are headed by lexical prepositions that may project to higher functional layers *a la* Svenonius (2010) but never reach the relational p-layer (see Talmy 1985; Tenny 1995; Levin & Rappaport Hovav 2005; Folli & Harley 2006; Irwin 2018; i.a.).

Turning our focus to (10c) and (11c), we find a p-head that projects a specifier position but no theta role for the item that will occupy this position. For this reason, this position must be filled by items that do not need semantic integration. For Schäfer (2008) and Alexiadou et al. (2015), *se*-reflexives are qualified to do so. Expletive *there* is not allowed since it is not a DP that can fulfill the {D} feature, and expletive *it* has φ-features, and as such, it is referential. *Self*-reflexives are not semantically vacuous; therefore, only *se*-reflexives are the only candidates for this position. Therefore, this type of structure is expected to be found in Romance (see Postma 1997 for such an analysis) or other languages with similar expletives. As Greek does not have this type of expletives in its inventory, I doubt that this type of p-head is used in the language. However, future research is required to test the latter hypothesis.

Wood (2014) has argued that the structure in (10c) is used outside the context of existentials/possessives. Icelandic's '-*st*' *Figure reflexives* have been argued to involve the structure in (10c). The Figure reflexives in (13) are named after the fact that the subject, which is interpreted as an agent, is also understood as a Figure with respect to a spatial Ground. Figure reflexives usually alternate with non-*st*-constructions where the Figure DP is distinct from the subject (12).

12. *Icelandic* (Wood 2014: 12,16, ex. 20a,36)

a. Ég laumaði miðanum úr fötunni.
I.NOM snuck note.the.DAT out.of waste.bin.the

'I snuck the note out of the waste bin.'

b. Bjartur tróð blýöntunum í pokann.
Bjartur.NOM squeezed pencils.the.DAT in bag.the
'Bjartur squeezed the pencils into the bag.'

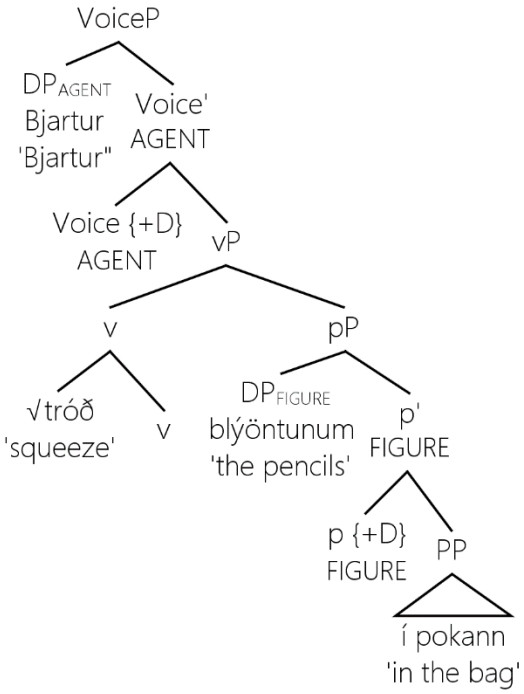
13. *Icelandic* (Wood 2014: 12,19, ex. 20b,40)

a. Ég laumaði-st úr fötunni.
I.NOM snuck-ST out.of waste.bin.
'I snuck out of the waste bin.'

b. Bjartur tróð-st gegnum mannþröngina.
Bjartur.NOM squeezed-ST through crowd.the.ACC
'Bjartur squeezed through the crowd.'

Starting from a standard transitive sentence as in (12b), Wood (ibid) argues for the structure in (14). In this structure, the Ground role is satisfied by the PP-complement, while the Figure role is satisfied by the DP merged in [Spec, pP]. The verb then applies over the pP and Voice projects to introduce the external argument.

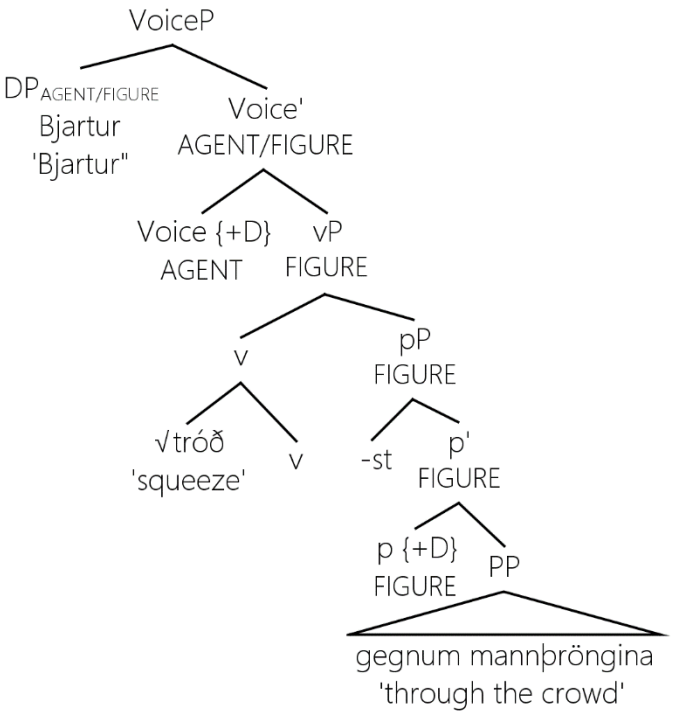
14. *The structure of transitive sentences in Icelandic (Wood 2014)*



In the *st*-structure (15), [Spec, pP] is not occupied by a DP. In contrast, the position is filled by the -*st* suffix, an element with no semantic effect and no need for semantic integration. It is a non-thematic element merged in an argumental position. Its insertion, though, renders the DP inserted in [Spec, VoiceP] acquiring two roles: the

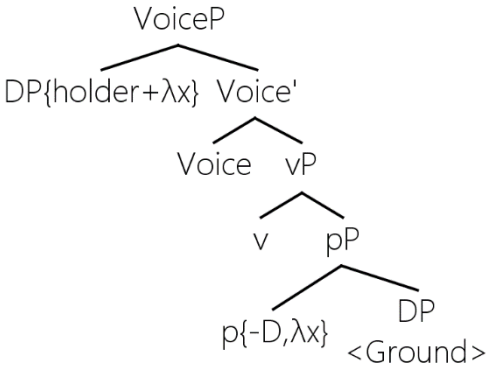
role of the Agent (assigned due to the event described in the vP) and the role of the Figure (assigned because of the non-contrasted Ground denoted in the PP). Note that, under his assumptions, the p-head in this structure is not semantically transitive, i.e., it is not relational. Albeit, it renders to be because the *-st* reflexive is c-commanded by the DP in [Spec, VoiceP], which, once it appears, can act as a Figure contrasted to the Ground described by the locative PP.

15. *The structure of Icelandic -st Figure reflexives in Icelandic (Wood 2014)*



Further, the types in (10b) and (11b) include a prepositional head that introduces a thematic role to its external argument but no position to satisfy it. This structure, and particularly the one in (10b) with the standard argument arrangement, has been assumed by Alexiadou (2019) for Greek deponents:

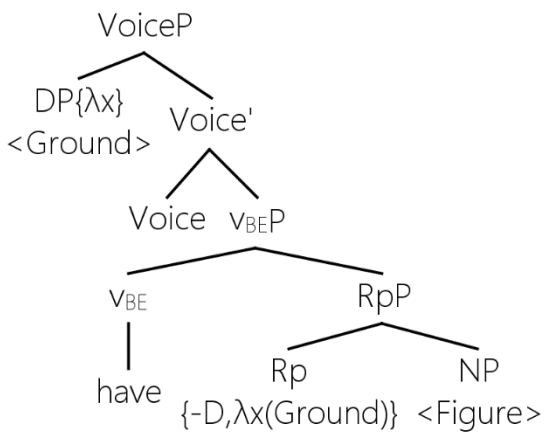
16. *The structure of deponents in Greek, according to Alexiadou (2019)*



In (16), a DP occupying the complement-of-p position satisfies the Ground role. Although the head p introduces the thematic role of Figure for its external argument (λx=Figure), it does not project a specifier position ({-D}). Under a late saturation approach, the role is satisfied by a DP merged later in the structure, particularly by the DP introduced in [Spec, VoiceP]. Unlike the structure of Icelandic *-st* reflexives in (15), there is no projected specifier in (16). Hence, no item occupies the position of the external argument within the projection of p.

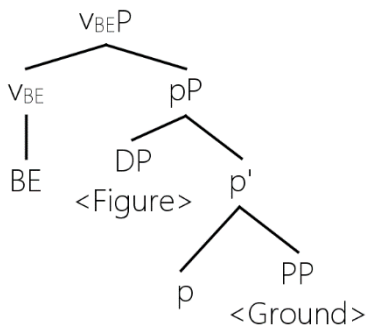
Moreover, the structure in (11b) is assumed for English *have*-sentences (17). Adopting Myler's (2016) late-saturation assumptions in a p-based analysis, *have*-sentences would exploit a semantically transitive but syntactically intransitive Rp-head. The Ground role introduced by Rp would be late saturated by the DP that merges in [Spec, VoiceP] (see 8.6.1.).

17. *The syntax of English have-sentences*



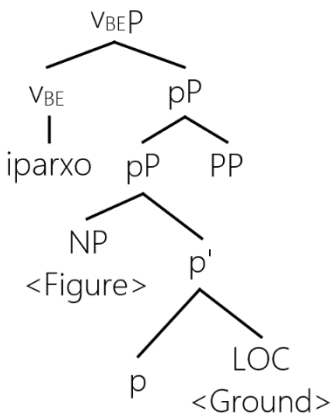
To complete the discussion on how the typology of p-head is manifested within and across languages, I now turn to the types presented in (10a) and (11a). These are the structures most often assumed in this dissertation. The structure in (10a) is argued to lie underneath Greek and English locative constructions where the overt locative PP merges as the complement of p. The Figure DP occupies the subject position (18). Greek locatives differ from English ones only regarding the Voice layer; Greek locatives involve a semantically and syntactically intransitive Voice head. The following representation depicts the part of the locative structure that is common between the two languages.

18. *The common part of the structure of Greek and English locative sentences*



The same structure is assumed for *ime*-existentials, although for a minority of Modern Greek speakers, the overt locative PP does not instantiate the Ground. In their case, there is a phonetically null locative argument (LOC) instantiating the Ground. This LOC is specified/modified by the overt locative PP that merges as an adjunct. For this group of speakers, the structure of *ime*-existentials shares the same predicative layer as *iparxo*-sentences, which, for all Modern Greek speakers, have the structure in (19). *Iparxo*-sentences do not involve a Voice layer, similar to English *be*-sentences, unlike Greek *ime*-sentences for reasons presented in Chapter 5.

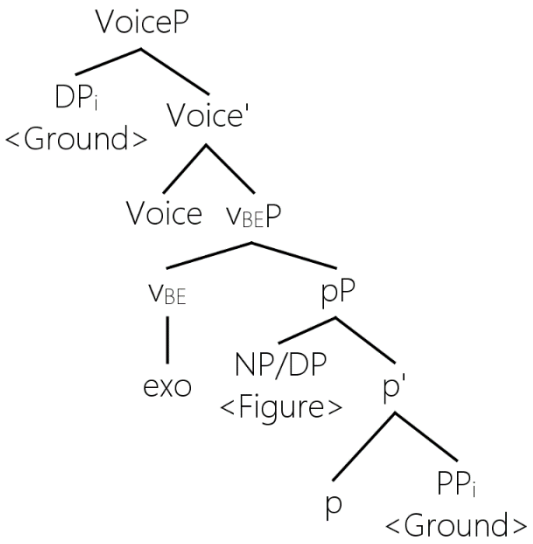
19. *The structure of an iparxo-sentence*



Irish existentials discussed in Section 7.1. also support a p-based analysis; their syntax involves a predication of the type (10a). Specifically, their structure assimilates (19), with the idiosyncrasy that *ann* 'in it' conflates p and LOC.

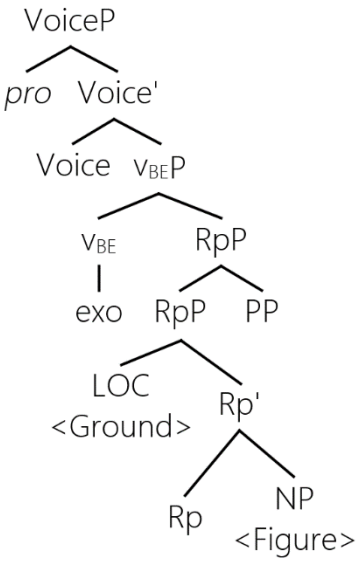
Furthermore, locative HAVE-sentences and temporary possession HAVE-sentences with overt PP-codas are shown to employ the syntactically and semantically standard p-structure in (10a):

20. *The structure of locative/temporary possession HAVE-sentences*



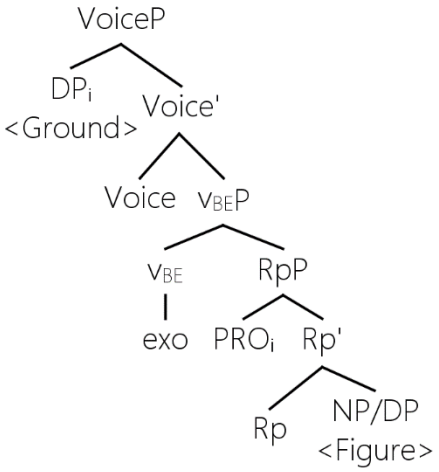
On the other hand, the semantically and syntactically transitive version of the reversed p (11a) is assumed for Greek *exi*-sentences. In their case, the subject-of-predication position is filled by a phonetically null locative argument (21). The same is true for English *there-be*-sentences.

21. *The structure of an exi-sentence*



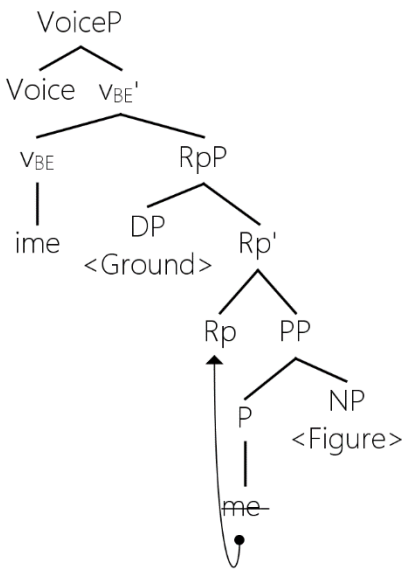
Possessive HAVE-sentences in Greek also use a syntactically and semantically transitive Rp-head. However, they choose to satisfy the [Spec, RpP] position with a PRO controlled by the subject that merges in [Spec, VoiceP]. Their complete derivation is presented in (22). The same structure is assumed for HAVE-sentences denoting temporary possession in the absence of a PP-coda:

22. *The structure of plain exo-sentences*



Finally, Greek BE-WITH-possessives are also construed based on (11a) as they involve a syntactically and semantically transitive reversed p-predication:

23. *The structure for Greek ime-me-sentences*



To sum up, this section has presented that the factors of (a) the standard or reversed argument arrangement and (b) syntactic and semantic transitivity delineate a typology of prepositional heads that are assumed for multiple phenomena, but most predominantly for existentials, locatives, and possessives. This typology draws a direct parallel with the typology of Voice and outlines a new area of research.

The following section capitalizes on how Wood's (2015) proposal of suppletive allosemes can be transferred to the typology of p-heads to capture the semantic difference between locatives/existentials and possessives.

9.3. Deriving the possession interpretation through prepositions.

The discussion on existentials and locatives in 7.3.1. concluded with the generalization that, no matter the formal representation assigned to $Pred_{EXIST}$, its denotation constitutes a marked alloseme for LF. According to (24), it is the marked interpretation arising when a p-based structure, regardless of its standard or reversed configuration, merges a noun phrase that does *not* denote a presuppositional Figure.

24. a. ⟦p⟧ ⇔ $Pred_{EXIST}$ / _____ RpP & non-presuppositional Figure
    b. ⟦p⟧ ⇔ $Pred_{EXIST}$/ _____ pP & non-presuppositional Figure
    c. ⟦p⟧ ⇔ central coincidence / ____(elsewhere)

In the same section, it was shown that $Pred_{EXIST}$ has two sides. On the one hand, it is the alloseme that allows the introduction of new referents of specific semantic types. On the other hand, it is the alloseme denoting a contextually-determined relation between an entity x and a contextually-determined anchor α, i.e., a "here", schematically represented as R(x,α) (McCloskey 2014; Irwin 2018). In other words, $Pred_{EXIST,}$ besides introducing novel referents, establishes an ''at-here''-property, where ''here'' refers to a physical or metaphorical space that is contextually determined.

The R(x,α) is, in fact, a contextually determined Figure-Ground relationship. The value of this R, i.e., the type of relationship that holds between the entities, can be provided semantically by x or determined pragmatically through our Encyclopedia. Relational nominals encode the specification of R in their root. In contrast, the roots of sortal nominals do not carry such specifications. When the latter type of nominal enters a relation R, it leaves it to our pragmatic knowledge to identify the type of R. This means that R is filtered by our Encyclopedia. Speakers draw on their internalized entity networks to specify what kind of relation holds between an individual and its anchor. If such a pair is found to stand in a close relationship in their network, R is interpreted as possessive.

Besides this, additional factors contribute to the specification of R. First, the status of the constituents involved in the p-structures that receive the R(x,α) interpretation is important. It is clear that when p is overt, the specification of R is lexically provided. Further, if an overt constituent realizes x and α, and there is no need to derive the specification of R through modification (e.g., as does the locative PP in LOC in existentials) or through co-indexation (as in locative HAVE-sentences), the relationship between the entities is more rigid. Finally, the intricate characteristics

of the participants promote specific interpretations. In the most obvious case, animate anchors and non-animate Figures determine typical ownership interpretations.

On this view, possession is an interpretation of R(x,α), or, in other words, the interpretation of the marked alloseme of p, $Pred_{EXIST}$. Given the structures assumed for possessives in Chapter 8, only RpPs (with non-presuppositional Figures) yield the possession R(x,α). In other words, only the 'Ground>>Figure' configuration leads to possessive interpretations. Interestingly, this is reminiscent of assumptions holding that possessive interpretations derive through an inclusion relation (den Dikken 1997; Postma 1997; Bjorkman & Cowper 2016; Tsedryk 2020; Franco et al. 2021).

To illustrate the parallel between possession and inclusion, consider that these assumptions adopt the idea that syntactic structures depict relations in an iconic way. On the one hand, in the standard p-configuration (Figure>> Ground), the Figure is predicated of the Ground. This means that the predication originates from the Ground and is directed towards the Figure. This means that this structure attempts to *pinpoint* a Figure (or multiple Figures, for what it matters) within a larger space. In other words, this structure *locates* a Figure within a Ground. For this reason, this structure most naturally leads to locative readings.[116]

On the other hand, the reversed p-configuration (Ground>>Figure) is a structure construed based on the Figure and directed towards the Ground. This hierarchy is most naturally seen as expressing a *containment* or *inclusion* relationship in which the Ground contains the Figure. For the same authors, the containment relationship is stronger than the locative one and naturally leads to possessive relations. Thus, it is unsurprising that reversed p-heads account for close, possessive relationships expressed via HAVE-based sentences (see also Slobin 1985; Barker 1995; Svenonius 2008).

In the same vein, recall that Harley's (1995; 2002) distinction between P_{LOC} and P_{HAVE} is inspired by the interpretative implications brought by each head. The P_{HAVE} configuration is named after the fact that it implicates that the hierarchically higher argument is interpreted as the perspective possessor of the lower argument. The configuration in P_{LOC} implicates a locative reading instead.

Finally, it is essential to understand the importance of the Definiteness effect. In the current analysis, the DE is the condition that regulates the interpretation of p as $Pred_{EXIST}$. $Pred_{EXIST}$ has two sides; it is the alloseme allowing the introduction of new

[116] Recall that a standard p-analysis is assumed for all *ime*- and *iparxo*-sentences, as well as for locative and (partially) temporary possession *exo*-sentences.

discourse referents of specific semantic types as well as the alloseme introducing the R(x,α). The first side is fundamental for existentials, and the second for possessives.

On the one hand, existentials are the sentences that introduce new discourse referents as Figures with respect to the Ground. In order to do so, they must include non-presuppositional noun phrases denoting the new referent. More specifically, when they introduce referents of specific semantic types, e.g., as instances of a kind, they require Figure nominals able to denote those semantic types. Syntactically, this means that the noun phrase denoting the Figure must not be a DP. When this happens, the $Pred_{EXIST}$ alloseme is chosen at LF. At the same time, $Pred_{EXIST}$ brings along the R(x,α) function. Thus, it allows existentials to establish relationships between Figures and Grounds. In doing so, the DE poses restrictions on the denotation of x.

On the other hand, possessive interpretations are also derived through $Pred_{EXIST}$. The DE, in their case, arises so that the R(x,α) function of $Pred_{EXIST}$ is triggered at LF. In other words, the DE in possessives arises so that the copula can sentencify a relation.

This brings the current proposal close to Brunson & Cowper (1992) and Jensen & Vikner (1996), who propose that HAVE selects a relation, and Iatridou (1996), Landman (2004), and Sæbø (2009), who argue that the DE in HAVE-predicates is necessary to ensure that the complement of a relational predicate is, specifically, a variable.

Subsequently, since the conditions regulating the emergence of R(x,α) overlap with those required for introducing new discourse referents, possessive sentences also introduce new referents. In this sense, possessive sentences are also existentials, as observed in Chapter 1. In reverse, existentials also establish relationships between entities. This is the result of the dual interpretation of $Pred_{EXIST}$. However, since our pragmatic knowledge filters relationships and classifies them as possessives, existential sentences are not understood as possessive.

In summary, although the above observations are nowhere near a semantic analysis of possession, they constitute a basis for anyone willing to provide one. Further, they highlight that the affinity between locative, existential, and possessive constructions is both syntactic and semantic, besides cognitive. Even though the above constructions are only sometimes structurally and semantically pertinent, they are always cognitively related. This is compatible with the findings of typological studies on existential and possessive sentences in the synchrony (Clark 1978; Freeze 1992; Stassen 2009; Aikhenvald 2013; Creissels 2014) and the diachrony (Kayne 1993; Heine 1997; Bentein 2016) of languages.

This remark concludes the discussion of existential, locative, and possessive constructions. The following chapter summarizes the findings and the contribution of this dissertation.

10. Conclusions

In this dissertation, I have studied existential, locative, and possessive sentences in Greek. I have shown that although these types of sentences are not reduced to one single underlying structure, they share syntactic components. However, micro-variation in the syntactic status of the constituents and their configuration in the syntactic structure licenses different sets of entities in each type of sentence. These sentences describe relationships between entities, and their structural similarities lead to similar interpretations. This echoes the cognitive affinity between them. Filtering these interpretations through our pragmatic knowledge results in separating possessive sentences from existentials and locatives.

To its greatest extent, this study has addressed the *too-many-surface-structures* puzzle. The question I have been trying to answer is why there are so many different expressions for such a simple task: describe the relationship between two entities.

To answer this question, I first pointed out the individual characteristics of the expressions used for this task in Greek. In Chapter 2, I focused on existentials and locatives and showed that there are mainly three types of existentials and one type of locative sentence. Existential constructions in Greek are based on HAVE, BE, and EXIST (1). As for BE-existentials, I presented a systematic variation between two groups of speakers defined, among others, by the obligatoriness of an overt determiner preceding the post-verbal nominal (see the variation in 1b).

1. a. Exi ena vivlio sto trapezi.
   HAVE.3SG a book.SG.ACC on.the.SG.ACC table.SG.ACC
   b. Ine (ena) vivlio sto trapezi.
   BE.3SG a book.SG.NOM on.the.SG.ACC table.SG.ACC
   c. Iparxi ena vivlio sto trapezi.
   EXIST.3SG a book.SG.NOM on.the.SG.ACC table.SG.ACC
   'There is a book on the table.'

This distribution indicated that Greek had been misclassified as a solely HAVE-based language in terms of the form of its existential sentence. Indeed, Greek exhibits a multiplicity of constructions that are observed in several other languages.

Locative sentences in this language are prototypically headed by BE (2a). However, a presentative HAVE-sentence (2b) and an EXIST-sentence confirming the existence of a presupposed entity (2c) have readings similar to BE-locatives.

2. a. I Maria ine sto nisi.
   the.SG.NOM Mary.NOM BE.3SG on.the.SG.ACC island.SG.ACC

'Mary is on the island.'

b. Exi ton Niko stin tileorasi.
HAVE.3SG the.SG.ACC Nick.ACC on.the.SG.ACC TV.SG.ACC
'There is Nick on TV.'

c. Ta vivlia pu zitises iparxun.
the.PL.NOM book.PL.NOM that ask.PST.2SG EXIST.3PL
'The books that you asked for exist.'

The comparison between these sentences revealed that, despite their surface similarities, *exi-, ime,* and *iparxo*-sentences have structural differences. In fact, the hypothesis that a functional relational preposition heads their predication unifies them, but the assumptions regarding the status and the hierarchical order of the constituents comprising their predication layer set them apart. In each case, the sentences relate two entities as being in a Figure-Ground relationship.

The data presented, mainly in Chapter 6, provided support for a prevalent view in the literature according to which the overt locative constituent in most existentials is an adjunct. However, the properties of BE-based existentials, in particular, indicated that the overt locative PP might also be the complement of the predicate, as is the case with BE-locatives. Although the adjunct-PP assumption distinguished locatives from existentials, the latter observation gave merit to older proposals that argued for a single structure underneath existentials and locatives. Nonetheless, our assumptions regarding the syntactic status of the nominal constituent introduced further differentiation among the sentences since it separated *exi*-existentials from all other types of sentences.

The status of each constituent has been considered central for licensing a specific set of Figure-Ground pairs in existentials. The adjunct status of the overt locative PP in most existentials has been argued to be the reason why animate entities do not appear as PP-codas in these sentences. As prominent, animates are preferably merged in prominent argumental positions if the language offers the option. As Greek has relational HAVE-sentences, animate entities do not have to be merged as adjuncts.

Furthermore, I proposed that the frame offered by each construal presents either the Figure or the Ground as the Perspectival Center or the Empathy Locus. This makes specific forms more appropriate for a particular function. For instance, the scheme offered by a locative *ime*-sentence is suitable for establishing the location of a presupposed entity. In contrast, the one provided by an *exi*-sentence is ideal for introducing a new referent. Along these lines, this claim has made it possible to account for why each type of sentence is more felicitous in different contexts and

why the language has a variety of constructions describing a two-place relationship between entities in its inventory.

Then, I also explained why HAVE- and BE-based existentials imply a more temporary association between the entities, whereas EXIST-sentences do not, by attributing this implication to the prepositional predicative head. Specifically, I argued that the fact that p is silent in the former cases leads to a temporary reading. At the same time, since the p-predicate surfaces as the prefix *ip-* in *iparxo* 'exist', it does not yield a temporariness implication. This comes in addition to the fact that, contra HAVE and BE, EXIST is considered a lexical verb with the root *√arx* having the meaning of 'existence' at its core.

Finally, I concurred with the cross-linguistic literature in recognizing the Definiteness effect as a fundamental property that distinguishes existentials from locatives. To account for this, I converged with Bassaganyas-Bars & McNally (2019), who hold that the Definiteness effect is a requirement posed for semantic and pragmatic reasons. As locatives are used to establish the location of presupposed entities, I argued that the sentences used for this function require DPs with the respective denotations. Existentials, conversely, introduce novel discourse referents, most often as instances of a kind. Thus, they exclude any morphological marking that cannot lead to this semantic denotation.

The picture became more complex once possessive structures were brought into light. The Greek dataset, in this case, comprises three types of sentences construed based on HAVE (3a), BE-WITH (3b), and BE-FOUND (3c). Once again, this plurality suggested that Greek is not exclusively a HAVE-possessive language, as typologies on possessives assumed.

3. a. I maθites exun pola vivlia.
the.PL.NOM student.PL.NOM HAVE.3PL many.ACC book.PL.ACC
'Students have many books.'

b. I Đanai ine me sanđalja.
the.SG.NOM Danai.NOM BE.3SG with sandal.PL.ACC`
'Danai is with sandals.'

c. Mu vriskete poli ipomoni akoma!
1SG.GEN find.NACT.3SG much.SG.NOM patience.SG.NOM still
'I still have much patience!'

The presentation of their distribution in Chapter 3 disclosed that these sentences can accommodate entities conceived of as being in various relationships. Given that possession has been defined as a "close relationship" across this thesis, *exo*-sentences are the most prominent example of a possessive sentence since they account for

ownership, kinships, physical and emotional sensations, and part-whole relations. *Ime-me*-sentences can also be labeled possessive because they host entities that necessarily accompany each other. In contrast, *mu-vriskete*-sentences accommodate accidental associations. Thus, strictly speaking, they do not qualify as possessive.

This variation in the entity pairs that can fit into each type of sentence was attributed to a different syntax underneath each kind of sentence. Merging the Possessor as an external argument introduced by Voice and having it control the PRO-subject of predication requires more "agentive" entities. This is what happens in *exo*-sentences. In contrast, introducing the Possessor via a verbal Applicative, as in *mu-vriskete*-sentences, creates a more distant link with the alleged Possessee.

In fact, by comparing Greek to the cross-linguistic picture, I argued that, in general, there are two strategies readily available for building possessives. Languages can relate the Possessor and the Possessee as nominal dependents or via a preposition. The first strategy suggests that the language recognizes the Possessor and Possessee as independent thematic roles, whereas the second implies that these roles are subsumed under the Ground-Figure distinction. These strategies are, in principle, applicable to possession at the phrasal (DP) and sentential (TP) levels. However, languages may differ on whether they choose one or both strategies across the board or construe possession at each level independently.

Regarding Greek, I argued, in Chapter 8, that although the language introduces the Possessor and the Possessee as nominal dependents at the phrasal (DP) level, it does not do so at the sentence (TP) level. Sentential (*exo* and *ime-me*-) possessives exploit the same prepositional predicative head postulated for existentials and locative. This means the Possessor and Possessee roles are not independent of the Ground-Figure distinction in Greek sentential possessives.

By assuming a p-based structure for Greek possessives, I brought existentials, locatives, and possessives back together, as Freezian analyses did. However, I specified that the current thesis does not propose a unified underlying structure. The element that structurally unifies these sentences is a prepositional predicative head, whereas the arguments' status and configuration within this p-based predication is what differentiates them. Along these lines, this approach retained the central claim of traditional PAL hypotheses, while it did not inherit their problems. At the same time, it combined it with more recent theories that advocate for the need to assume multiple underlying structures.

Given the above considerations, I was able to draw a typology of prepositional heads. Specifically, I demonstrated that despite the distinction between the standard (Figure>>Ground) and the reversed (Ground>>Figure) p-head, the typology of prepositions is also delineated by two more factors: syntactic and semantic

transitivity. Therefore, each version of p comes, in general, into four types, each with unique properties and uses. The proposal of this typology indicated that prepositions are a fundamental building block of structures cross-linguistically.

Thus, the cognitive affinity between locative and possessive relationships has been partially attributed to structural similarities. The rest were left to our pragmatic knowledge that draws on our internalized entity networks and filters which associations between entities count as close, possessive, and which do not.

To conclude, this dissertation made a number of contributions to the empirical and theoretical domains. On the one hand, it provided a detailed presentation of Greek existential, locative, and possessive sentences that needed to be added to the existing literature. By bringing the variation attested in the language into light, it offered solid evidence for a correct classification of Greek in the respective typologies and created a substantial dataset for future researchers.

On the other hand, despite its focus on Greek, it offered conclusions with cross-linguistic implications. It also allowed its theoretical claims to be extended to other areas of syntactic research. First, it signaled the importance of prepositions not only as items defining locative relations but also as pillars for structuring stative constructions. Second, it proposed that the seeming similarities between sentences should not be ignored. Specifically, they should neither be considered markers of a structural unification nor be treated as a coincidence *a priori*. An in-depth study that takes into account the syntactic, semantic, and pragmatic properties of related constructions can reveal whether the truth leans toward one of these sides or lies somewhere in the middle. Third, it showed that notions that are cognitively robust and autonomous, like the roles of Possessor and Possessee, may not be treated by Grammar as such. The Grammar can subsume them under more generalized concepts that function as umbrella terms, e.g., the Ground and Figure roles.

Subsequently, this dissertation highlighted that Argument Structure constitutes a fundamental part of Syntax delineated by its rules and mechanisms. Although these rules and mechanisms are specific to Syntax, their output is not independent of the other components. PF must read off the construal to realize the arguments and create the utterance. LF must assign thematic roles to the arguments and establish the interpretation of the construal. The ultimate result is an utterance with individual characteristics suitable for specific pragmatic functions.

Despite its contribution, this dissertation has left some issues open for future research. It has not provided a detailed diachronic analysis of Greek existential, locative, and possessive expressions. To better understand the synchronic distribution, a diachronic study should examine a wide variety of sentences in Greek on a timescale more extensive than the one covered by the existing literature.

Furthermore, researching these constructions in dialectal Greek would not also designate whether the variation attested in Greek (particularly in BE-existentials) is tied to dialectal preferences.

Finally, this study did not consider BE- and HAVE-sentences with eventive complements. An investigation of them would reveal whether and how the inventory of the underlying structures of the copulas should be expanded. Such research will also clarify whether BE and HAVE qualify as copulas, i.e., meaningless verbalizers that acquire semantic content through their complements. It will also provide evidence for or against the assumption that BE and HAVE are related via transitivity. The hypothesis that BE in Greek is a deponent and a covert prefixed verb in the uses discussed in this dissertation should also be tested in other uses of BE, i.e., in non-locative predicational sentences, as well as identificational, specificational, and equative ones.

I hope this thesis has provided a solid foundation for future research on Greek and other languages and will initiate fruitful discussions within linguistics and beyond.

Appendix 1: Predicativization Possessives are not reduced to other types of Possessives.

In 3.2., it was presented that a copular possessive sentence with a post-copular adjectival or participial cognate constitutes an alternative to the *ime-me*-construction. For Stassen (2009), this constitutes a different strategy for building sentence-level possessives. Myler & Nevins (2015) show that this structure is not special as it does not differ from any other predicational sentence with a post-copular adjectival item. This section supports their claim through a study of the Greek distribution.

In brief, Myler & Nevins (2015) argue that what Stassen (2009) calls *Predicativization possessives* is not reducible to any of the more familiar types of sentence-level possessives. They discuss the English sentences in (1) to argue for it.

1. a. Sarah is brown-eyed.
   b. John is (not) bearded.

Specifically, they observe that Predicativization possessives have three main properties. First, they report the *inalienability restriction*, i.e., the fact that the possessee must be an inalienable possessee of the subject possessor. This contrast is shown by comparing (1a) to (2).

2. *Sarah is brown-carred.

Second, they observe that phrases larger than a compound size are not allowed in the post-copular position. This is what they call the *size restriction*. In contrast with (1a), the sentence in (3) that includes one additional modifier is ungrammatical.

3. *Sarah is big brown-eyed.

Third, they claim that, although in some cases, no modifier is needed (see 1b), there are cases where a modifier is required. For instance, the sentence in (1a) is accepted only when a modifier accompanies *eyed.* As shown in (4), the adjective on its own is unacceptable. For the researchers, this variation is related to informativeness, thus referred to as the *informativeness restriction*.

4. *Sarah is eyed.

The authors attribute these restrictions to the syntax and the function of the suffixes in the post-copular material. They consider that the suffixes are categorizing heads in the DM sense, i.e., they are heads that define the grammatical category of the constituent. For instance, the English -*ed* suffix defines adjectives, as does the German -*ig* (5).

5. *German* (Myler & Nevins 2015: 12, ex. 50a)
   ein blau-äug-ig-es Mädchen.
   a blue-eye-y-N.SG girl
   'a blue-eyed girl'

Unlike them, the Cochabamba Quechuan -*yoq* creates nominal constituents:

6. *Cochabamba Quechua* (Myler & Nevins 2015: 15, ex. 57)
   Noqa [ashkha puka auto-s]-ni-yoq ka-ni.
   I many red car-PL-EUPH-YOQ BE-1SBJ
   'I am many-red-carred.'

Each suffix may attach to a different "host" with specific syntactic and semantic properties. English -*ed* selects only roots, hence the size restriction. In addition, the same suffix semantically requires a relation-denoting root to get attached. As only the roots of relational nominals do so, they are the only possible "hosts" for the -*ed* suffix.[117] Finally, the informativeness restriction is explained by assuming that informativeness, in general, is restricted in specific domains. Unlike *have*-sentences, where informativeness is evaluated at the sentence level, informativeness in -*ed*-constructions is assessed at the adjective level. This means that informativeness must be guaranteed by the time the adjectival (or nominal in Cochabamba Quechua) formation has been completed.

The analysis proposed by Myler & Nevins (2015) predicts that categorizing morphemes vary not only in the category they introduce (compare -*ed* to -*yoq*) but also in the constituent they select. For instance, when compared to English -*ed*, the Quechuan -*yoq* is shown to select larger structures. This is evidenced by the example in (6), where the suffix attaches to an alienable possessee with plural morphology and two modifiers.

If their considerations are extended to Greek, we see that Greek Predicativization constructions are closer to the English constructions than the

[117] For the distinction between relational and sortal nominals, see 4.3.

Cochabamba Quechua ones, as the suffixes used in Greek form adjectives or adjectival participles.

To name only a few that are used in the examples that have been already mentioned, there is -*os* in *embiret-os* 'fever-ed', *tetraport-os* 'four-doored', *ðiklin-os* 'two-bed-ed', *-is* in *prasinomat-is* 'green-eyed', and -*oðis* in *am-oðis* 'sandy' (for the latter see Anastassiadis - Symeonidis 2001; 2003 while for an overview of Greek suffixes see Ralli 2005; Meissner 2006; Manolessou & Ralli 2015). Apart from them, there is also -*menos* in *ɣripjasmenos* 'with-the-flu' and -*tos* in *kubo-tos* 'buttoned' and *kokinis-tos* 'cooked-in-tomato-sauce', which are suffixes of adjectival participles (see Anagnostopoulou 2003).

As evidenced by the interpretation of the above adjectives, the inalienability restriction also applies to Greek examples. *Embiretos, prasinomatis,* and *ɣripjasmenos* are used to describe a human's disease or body part, while *tetraportos* and *ðikilinos* refer to components of a whole. Finally, *amoðis* and *kubotos* describe a property.

The informativeness restriction is also crucial in determining the acceptance of a formation. Informativeness is responsible for why *tetraportos, ðiklinos,* and *prasinomatis* are not attested as plain **portos, *klinos,* or **matis.* Clearly, this correlates with the size restriction, which also applies to Greek word formations.

Therefore, as the situation in Greek seems analogous to the situation in English, I do not consider that there are sentences with post-copular adjectives that are reduced to a possessive structure. This type of sentence is constructed as any other predicational copular sentence in the language.

Appendix 2: Why Brazilian Portuguese existentials do not contradict the assumption that HAVE is always transitive.

Brazilian Portuguese (hereafter *BP*) exhibit HAVE-based existential constructions similar to Greek. However, the fact that in this language, the existential pivot bears nominative instead of accusative case could constitute an argument against the analysis advocated in this thesis, as mentioned in 5.1.2.1. In particular, the nominative-case marking may be considered evidence against the hypothesis that the HAVE-copula is transitive across languages.

To begin with, it should be clarified that the frame of BP existentials is relatively rare. Clark (1978), Cruschina (2015), and Bentley 2017) list BP as a unique case. The two latter authors, who have extensive work on Romance languages and dialects, show that only some central Catalan dialects (in the presence of specific elements in the pivot position), as well as the dialect spoken in Celle di San Vito, Puglia use a HAVE-copula and share a similar case pattern with BP. Slavic existentials also involve nominative pivots in non-negated contexts (Clark 1978; Freeze 1992; Borschev & Partee 1998; 2002; 2008; Błaszczak 2007; 2018).

However, modulo the case on the pivot nominal, Brazilian Portuguese existentials have striking similarities to Greek existentials.

1. Tem muitos livros na biblioteca. (Avelar 2009b: 140)
   HAVE.3SG many books in.the library
   'There are many books in the library.'

As presented in (1), BP existentials use the invariant form *tem,* which is part of the paradigm of the HAVE-copula *ter* 'hold, have' (Creissels 2014). First, as nominals do not have distinct morphological markings for case, the only environment where the nominative marking becomes morphologically overt is when the item following *tem* is a pronoun, as in the example below adopted from Bentley (2013: 679).

2. Maria não está sozinha. Tem eu / você / nós / eles.
   Mary NEG. BE.3SG alone HAVE.3SG I you we they
   'Mary is not alone. There is me/you/us/them.'

To use the case as an argument for the transitivity of HAVE in BP, we must take into consideration (a) the Voice system of the language and (b) the correct

characterization of nominative: is it a case assigned under agreement with T, or does it qualify as the unmarked case? (see Alexiadou & Anagnostopoulou 2021 for a discussion on this debate). This also applies to any attempt to extend this proposal to any other language. Unfortunately, the literature on these issues in BP is insufficient, and future research is required. However, the fact that the post-verbal nominal in existentials bears nominative case marking in BP is consistent with the analysis pursued in this thesis for the following reasons.

First, as already mentioned, *tem* is a form of the transitive possessive verb *ter* 'hold, have', which is still used as a possessive in BP. The situation is then very similar to Greek *exo*. As argued in Avelar (2009a), the interpretation of *tem* as an existential appeared when the syncretism in the verbal forms arguably led the language to lose its pro-drop status. In this period, BP started diverging from a typical pro-drop language status towards a status where null referential subjects became rarer and rarer, i.e., a status where referential subjects needed to be overtly realized. That is, although, in a previous stage, the sentence in (3) would be interpreted as a transitive possessive sentence with a dropped subject meaning '(S)he has several pants inside the closet', in the second stage, the only interpretation of the sentence that survived is the existential one. European Portuguese (EP) never entered this new stage and retained the original interpretation.

3. Dentro do armário tem várias calças. (Avelar 2009b: 146)
   inside of.the closet HAVE.3SG several pants
   EP: '(S)he has several pants inside the closet.'
   BP: 'There are several pants inside the closet.'

Avelar (2009a) further points out that, in this new stage, BP replaced the original referential argument with the locative phrase itself. In a Freeze-style analysis, the locative prepositional phrase is initially introduced within a P(reposition)-based predication layer. Then, due to EPP, it is raised to the subject position, i.e., to [Spec, TP]. Although he does not specify it, his analysis predicts that a phonetically null locative argument is raised to the subject position in the absence of an overt locative phrase, as in (3). If this is true, there is evidence that the nominative case on the nominal/pronoun qualifies as a Dependent case along the lines of Marantz (1991) and Baker (2015). As there is no competitor for the nominal within the sentence, it is assigned the unmarked case, i.e., nominative. Crucially, nominative case marking does not mean that there is nothing above or below the pivot but nothing that qualifies as a case competitor.

Moreover, there is supporting evidence that *tem* is transitive in BP, even in its use as an existential in this second stage. As reported again by Avelar (2009b), the personal pronoun *você* can appear as the subject of *tem* without taking away the existential interpretation of the sentence:

4. a. (Você) tem prédios altíssimos em Nova York. (Avelar 2009b: 152)
   you HAVE.3SG buildings very.high in New York
   'There are huge buildings in New York.'

   b. (Você) tem muitos jogadores brasileiros em times europeus.
   you HAVE.3SG many players Brazilians in teams Europeans
   'There are many Brazilian football (soccer)-players in European teams.'

For reasons explained in the same paper, *você* must first be introduced in a thematic position and then raised to the TP. For Avelar, *você* is introduced in [Spec, PP], leaving open the question of how the overt locative, e.g., *em Nova York* or *em times europeus* in (4) above, is introduced in the structure. Under current assumptions, *você* could be merged in [Spec, VoiceP]. This would not only be compatible with its requirement to be first-merged in a thematic position but also make it possible to reserve, for this case, the same predication structure postulated in the absence of *você*.

Therefore, as with Greek, independent evidence leads to the conclusion that *tem*-sentences in BP are transitive, i.e., they include a Voice head with a projected specifier. Whether the nominative case in the post-verbal nominal can be used as an argument for this needs more research, primarily on how case assignment is determined in this language. What is crucial is that the distribution does not contradict the analysis pursued in this thesis and the claim that the accusative case is an argument for the transitivity of *exi*-sentences in Greek.

References

Abbott, Barbara. 1992. Definiteness, Existentials, and the 'List' Interpretation. *Semantics and Linguistic Theory* 2. 1–16. DOI: https://doi.org/10.3765/salt.v2i0.3028

Abbott, Barbara. 1993. A pragmatic account of the definiteness effect in existential sentences. *Journal of Pragmatics* 19(1). 39–55. DOI: https://doi.org/10.1016/0378-2166(93)90069-2

Abbott, Barbara. 1997. Definiteness and Existentials. *Language* 73(1). DOI: https://doi.org/10.2307/416595

Abbott, Miriam. 1991. Macushi. In Desmond C. Derbyshire & Geoffrey K. Pullum (eds.), *Handbook of Amazonian Languages: Volume 3*, 23–160. Berlin: Mouton De Gruyter. DOI: https://doi.org/doi:10.1515/9783110854374

Abdoulaye, Mahamane L. 2006. Existential and possessive predications in Hausa. *Linguistics* 44(6). DOI: https://doi.org/10.1515/LING.2006.037

Adger, David & Ramchand, Gillian. 2003. Predication and Equation. *Linguistic Inquiry* 34(3). 325–359. DOI: https://doi.org/10.1162/002438903322247515

Afonso, Susana. 2008. Existentials as impersonalising devices: the case of European Portuguese. *Transactions of the Philological Society* 106(2). 180–215. DOI: https://doi.org/10.1111/j.1467-968X.2008.00192.x

Agouraki, Yoryia. 1991. *A Modern Greek complementizer and its significance for Universal Grammar*. UCL Working Papers in Linguistics 3.

Agouraki, Yoryia. 2013. Verb-Initial versus Subject-Initial Clauses in Greek: Eventuality Existentials versus Predication Clauses. *Journal of Greek Linguistics* 13(2). 279–322. DOI: https://doi.org/10.1163/15699846-13130201

Aikhenvald, Alexandra Y. & Dixon, Robert M.W. 2013. *Possession and ownership: a cross-linguistic typology*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199660223.003.0001

Aikhenvald, Alexandra Y. 2013. Possession and ownership: a cross-linguistic perspective. In *Possession and Ownership: a cross-linguistic typology*, 1–64. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199660223.003.0001

Aikhenvald, Alexandra Y. 2019. Expressing 'possession': Motivations, meanings, and forms. In Lars Johanson & Lidia Federica Mazzitelli & Irina Nevskaya (eds.), *Possession in Languages of Europe and North and Central Asia*, 7–25. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/slcs.206.02aik

Aissen, Judith. 1999. Markedness and Subject Choice in Optimality Theory. *Natural Language & Linguistic Theory* 17(4). 673–711. Retrieved from http://www.jstor.org/stable/4047932.

Aissen, Judith. 2003. Differential Object Marking: Iconicity vs. Economy. *Natural Language & Linguistic Theory* 21(3). 435–483. Retrieved from http://www.jstor.org/stable/4048040.

Alexandropoulou, Stavroula. 2013. *The lexical restrictions on verbs taking bare nominal complements in Greek: Empirical evidence and implications for an analysis*. Utrecht University dissertation.

Alexiadou, Artemis & Anagnostopoulou, Elena & Schäfer, Florian. 2006. The properties of anticausatives crosslinguistically. In Frascarelli Mara (ed.), *Phases of Interpretation*, 187–212. Berlin, New York: Mouton de Gruyter. DOI: https://doi.org/10.1515/9783110197723.4.187

Alexiadou, Artemis & Anagnostopoulou, Elena & Schäfer, Florian. 2015. *External Arguments in Transitivity Alternations*. *External Arguments in Transitivity Alternations*. DOI:https://doi.org/10.1093/acprof:oso/9780199571949.001.0001

Alexiadou, Artemis & Anagnostopoulou, Elena. 1998. Parametrizing AGR: Word order, V-movement and EPP-checking. *Natural Language and Linguistic Theory* 16(3). DOI: https://doi.org/10.1023/A:1006090432389

Alexiadou, Artemis & Anagnostopoulou, Elena. 2021. Rethinking the nature of nominative case. *Syntactic Architecture and Its Consequences III: Inside Syntax* 69–93. DOI: https://doi.org/10.5281/ZENODO.4680302

Alexiadou, Artemis & Carvalho, Janayna. 2017. The role of locatives in (partial) pro-drop languages. In Michelle Sheehan & Laura R. Bailey (eds.), *Order and structure in syntax II: Subjecthood and argument structure*, 41–67. Berlin: Language Science Press. DOI: https://doi.org/10.5281/ZENODO.1116755

Alexiadou, Artemis & Doron, Edit. 2012. The syntactic construction of two non-active Voices: Passive and middle. *Journal of Linguistics* 48(1). 1–34. DOI: https://doi.org/10.1017/S0022226711000338

Alexiadou, Artemis & Haegeman, Liliane & Stavrou, Melita. 2007. *Noun Phrase in the Generative Perspective: Studies in Generative Grammar 71*. Berlin, New York: Mouton de Gruyter.

Alexiadou, Artemis & Iordăchioaia, Gianina. 2014. The psych causative alternation. *Lingua* 148. 53–79. DOI: https://doi.org/10.1016/j.lingua.2014.05.010

Alexiadou, Artemis & Schäfer, Florian. 2011. An Unaccusativity Diagnostic at the Syntax-Semantics Interface: there-insertion, Indefinites and Restitutive again. In Ingo Reich & Eva Horch & Dennis Pauly (eds.), *Proceedings of Sinn &*

Bedeutung 15, 101–115. Saarbrücken, Germany: Universaar – Saarland University Press.

Alexiadou, Artemis & Varlokosta, Spyridoula. 1996. *The Syntactic and Semantic Properties of Free Relatives in Modern Greek*. ZAS Papers in Linguistics 5. 1–32.

Alexiadou, Artemis & Varlokosta, Spyridoula. 2007. The syntactic and semantic properties of free relatives in Modern Greek. In Artemis Alexiadou (ed.), *Studies in the Morpho-syntax of Greek*, 222–251. Newcastle, UK: Cambridge Scholars Publishing.

Alexiadou, Artemis. 1997. *Adverb Placement*. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/la.18

Alexiadou, Artemis. 2001. *Functional Structure in Nominals*. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/la.42

Alexiadou, Artemis. 2003. Some notes on the structure of alienable and inalienable possessors. In Martine Coene & Yves D'Hulst (eds.), *From NP to DP: Volume 2: The expression of possession in noun phrases*, 167–188. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.56.12ale

Alexiadou, Artemis. 2005. Possessors and (in)definiteness. *Lingua* 115(6). 787–819. DOI: https://doi.org/10.1016/j.lingua.2004.01.005

Alexiadou, Artemis. 2009. *Unaccusativity mismatches and the syntax of unaccusatives*. Paper presented at Syntax and Semantics Meeting in Moscow, October 9-11.

Alexiadou, Artemis. 2011a. Plural Mass Nouns and the Morpho-syntax of Number. In *Proceedings of the 28th West Coast Conference on Formal Linguistics*, 33–41.

Alexiadou, Artemis. 2011b. Statives and nominalization. In *Recherches Linguistiques de Vincennes*, Vol. 40. 25-52. DOI: https://doi.org/10.4000/rlv.1991

Alexiadou, Artemis. 2014. Roots don't take complements. *Theoretical Linguistics* 40(3-4). DOI: https://doi.org/10.1515/tl-2014-0012

Alexiadou, Artemis. 2018. -Able adjectives and the syntax of psych verbs. *Glossa* 3(1). DOI: https://doi.org/10.5334/gjgl.498

Alexiadou, Artemis. 2019. A form-function mismatch? The case of Greek deponents. In J.M.M. Brown & Andreas Schmidt & Marta Wierzba (eds.), *Of trees and birds. A Festschrift for Gisbert Fanselow*, 107–117. Potsdam: University of Potsdam.

Alexiadou, Artemis. 2020. The Complexity of Greek Verbal Morphology. In *Complex Words*, 192–216. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/9781108780643.012

Alexopoulou, Theodora & Folli, Raffaella & Tsoulas, George. 2013. Bare Number. In *Syntax and its Limits*, 300–323. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199683239.003.0015

Alexopoulou, Theodora & Folli, Raffaella. 2019. Topic Strategies and the Internal Structure of Nominal Arguments in Greek and Italian. *Linguistic Inquiry* 50(3). 439–486. DOI: https://doi.org/10.1162/ling_a_00315

Allan, Keith. 1971. A Note on the Source of There in Existential Sentences. *Foundations of Language* 7(1). 1–18. Retrieved from http://www.jstor.org/stable/25000507.

Altshuler, Daniel & Schwarzschild, Roger. 2013. Moment of change, cessation implicatures and simultaneous readings. In Emmanuel Chemla & Vincent Homer & Grégoire Winterstein (eds.), *Proceeding of Sinn und Bedeutung*, Vol. 17, 45–62.

Anagnostopoulou, Elena & Sevdali, Christina. 2015. Case alternations in Ancient Greek passives and the typology of Case. *Language* 91(2). 442–481. DOI: https://doi.org/10.1353/lan.2015.0024

Anagnostopoulou, Elena & Sevdali, Christina. 2020. Two modes of dative and genitive case assignment: Evidence from two stages of Greek. *Natural Language and Linguistic Theory* 38(4). DOI: https://doi.org/10.1007/s11049-020-09465-z

Anagnostopoulou, Elena & Sevdali, Christina. 2021. From lexical to dependent. In Jóhannes Gísli Jónsson & Thórhallur Eythórsson (eds.), *Syntactic Features and the Limits of Syntactic Change*, 241–264. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oso/9780198832584.003.0011

Anagnostopoulou, Elena. 1999. On Experiencers. In Artemis Alexiadou & Geoffrey Horrocks & Melita Stavrou (eds.), *Studies in Greek Syntax*, 67–93. Dordrecht: Springer Netherlands. DOI: https://doi.org/10.1007/978-94-015-9177-5_4

Anagnostopoulou, Elena. 2003. Participles and voice. In Artemis Alexiadou & Monica Rathert & Armin von Stechow (eds.), *Perfect Explorations*, 1–36. Berlin: Mouton De Gruyter. DOI: https://doi.org/10.1515/9783110902358.1

Anastassiadis - Symeonidis, Anna. 2001. Suffix -odis in Greek: a case of grammaticalization [Greek title: Το στοιχείο -ώδ(ης) στην ελληνική. Μια περίπτωση γραμματικοποίησης]. In *Proceedings of the 4th International Conference on Greek Language*, 315–340. Thessaloniki: University Studio Press.

Anastassiadis - Symeonidis, Anna. 2003. L'élément –odhis en grec moderne: un cas de grammaticalisation. *Silexicales* 3. 136–149.

Anderson, Mona. 1983. Prenominal Genitive NPs. *The Linguistic Review* 3(1). 1–24. DOI: https://doi.org/10.1515/tlir.1983.3.1.1

Angelopoulos, Nikos & Collins, Chris & Terzi, Arhonto. 2020. Greek and English passives, and the role of by-phrases. *Glossa: A Journal of General Linguistics* 5(1). DOI: https://doi.org/10.5334/gjgl.1185

Arad, Maya. 2002. Universal features and language-particular morphemes. In Artemis Alexiadou (ed.), *Theoretical Approaches to Universals*, 15–39. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.49.03ara

Arche, María J. & Fábregas, Antonio & Marín, Rafael. 2019. Main questions in the study of copulas. In María J. Arche & Antonio Fábregas & Rafael Marín (eds.) *The Grammar of Copulas Across Languages*, 1–30. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oso/9780198829850.003.0001

Arylova, Aysa. 2013. *Possession in the Russian clause: Towards dynamicity in syntax*. University of Groningen dissertation.

Asyllogistou, Athanasia. 2018. *Result in the Diachrony of Greek*. University of Ulster dissertation.

Avelar, Juanito. 2009a. On the emergence of TER as an existential verb in Brazilian Portuguese. In Paola Crisma & Giuseppe Longobardi (eds.), *Historical Syntax and Linguistic Theory*, 158–175. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199560547.003.0010

Avelar, Juanito. 2009b. The comitative-copular basis of possessive-existential constructions in Brazilian Portuguese. In Jairo Nunes (ed.), *Minimalist essays on Brazilian Portuguese syntax*, 139–160. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.142.10ave

Babyonyshev, Maria. 1997. The Possessive Construction in Russian: A Crosslinguistic Perspective. *Journal of Slavic Linguistics* 5(2). 193–233. Retrieved from http://www.jstor.org/stable/24599711.

Bach, Emmon. 1967. Have and be in English Syntax. *Language* 43(2). 462–485. DOI: https://doi.org/10.2307/411547

Baerman, Matthew & Corbett, Greville G. & Brown, Dunstan & Hippisley, Andrew. 2007. Deponency and Morphological Mismatches. In *Proceedings of the British Academy 145*. Oxford: Oxford University Press.

Bailyn, John Frederick. 2004. Generalized Inversion. *Natural Language & Linguistic Theory* 22(1). 1–50.

Baker, Mark C. 2003. *Lexical Categories*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511615047

Baker, Mark C. 2015. *Case*. Cambridge University Press. DOI: https://doi.org/10.1017/CBO9781107295186

Bally, Charles. 1926/1996. The expression of concepts of the personal domain and indivisibility in Indo-European languages. In Hilary Chappell & William

McGregor (eds.), *The grammar of inalienability: A typological perspective on body part terms and the part-whole relation*, 31–64. Berlin: Mouton de Gruyter.

Balusu, Rahul. 2018. A New Kind of Perspective Sensitivity Cross-linguistically: Primary Predication with *-gaa*. *University of Pennsylvania Working Papers in Linguistics* 24(1).

Barker, Chris. 1995. *Possessive descriptions*. Stanford, CA: CSLI Publications.

Baron, Irène & Herslund, Michael. 1997. The Danish Verb have and the Notion of Possession. In Irène Baron & Michael Herslund (eds.), *Possessive Structures in Danish [KLIMT 3]*, 131–157. Copenhagen Business School.

Bartning, Inge. 1996. Eléments pour une typologie des SN complexes en *de* en français. *Langue Française* 109(1). 29–43. DOI: https://doi.org/10.3406/lfr.1996.5332

Bartning, Inge. 1998. 'Modèle intégré des SN complexes en *de*. Typologie d'interprétation et reprise anaphorique'. In *Romanische Forschungen 1998: II*, 165-184. Retrieved from http://urn.kb.se/resolve?urn=urn:nbn:se:su:diva-9950.

Bartning, Inge. 2001. Towards a Typology of French NP de NP Structures or How much possession is there in Complex Noun Phrases with *de* in French?. *Typological Studies in Language 47* 147-167. Retrieved from http://urn.kb.se/resolve?urn=urn:nbn:se:su:diva-9989.

Barwise, Jon & Cooper, Robin. 1981. Generalized Quantifiers and Natural Language. *Linguistics and Philosophy* 4(2). 159–219. Retrieved from http://www.jstor.org/stable/25001052.

Bassaganyas-Bars, Tony & McNally, Louise. 2019. There be- and have-sentences: Different semantics, different definiteness effects. *The Linguistic Review* 37. 179–208.

Bassaganyas-Bars, Tony. 2017. *Have-sentences in discourse*. Barcelona: Universitat Pompeu Fabra dissertation.

Beaver, David & Francez, Itamar & Levinson, Dmitry. 2005. Bad Subject: (Non-) canonicality and NP Distribution in Existentials. *Semantics and Linguistic Theory* 15. 19–43. DOI: https://doi.org/10.3765/salt.v15i0.2920

Beavers, John & Ponvert, Elias & Wechsler, Stephen. 2008. Possession of a Controlled Substantive: Light 'have' and Other Verbs of Possession. *Semantics and Linguistic Theory* 18. 108-126. DOI: https://doi.org/10.3765/salt.v18i0.2502

Becker, Misha. 2004. *Is* isn't *be*. *Lingua* 114(4). 399–418. DOI: https://doi.org/10.1016/S0024-3841(03)00066-4

Belletti, Adriana & Rizzi, Luigi. 1988. Psych-Verbs and θ-Theory. *Natural Language & Linguistic Theory* 6(3). 291–352. Retrieved from http://www.jstor.org/stable/4047649.

Belvin, Robert & den Dikken, Marcel. 1997. There, happens, to, be, have. *Lingua* 101(3–4). 151–183. DOI: https://doi.org/10.1016/S0024-3841(96)00049-6

Belvin, Robert. 1996. *Inside events: The non-possessive meanings of possession predicates and the semantic conceptualization of events*. Los Angeles, CA: University of Southern California dissertation.

Bentein, K. 2016. *Verbal Periphrasis in Ancient Greek: Have- and Be- Constructions*. Oxford: Oxford University Press.

Bentley, Delia & Ciconte, Francesco Maria & Cruschina, Silvio. 2013. Existential constructions in crosslinguistic perspective. *Rivista Di Linguistica* 25. 1–13.

Bentley, Delia & Ciconte, Francesco Maria & Cruschina, Silvio. 2015. *Existentials and Locatives in Romance Dialects of Italy*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780198745266.001.0001

Bentley, Delia. 2013. Subject canonicality and definiteness effects in Romance there-sentences. *Language* 89(4). 675–712. DOI: https://doi.org/10.1353/lan.2013.0062

Bentley, Delia. 2017. Copular and existential constructions. In Andreas Dufter & Elisabeth Stark (eds.), *Manual of Romance Morphosyntax and Syntax*, 332–366. Berlin: Mouton De Gruyter. DOI: https://doi.org/10.1515/9783110377088-009

Benveniste, Émile. 1966. *Problèmes de linguistique générale*. Paris: Gallimard.

Benvenuto, Maria Carmela & Pompeo, Flavia. 2015. Verbal Semantics in Ancient Greek Possessive Constructions with eînai. *Journal of Greek Linguistics* 15. 3–33.

Bernstein, Judy B. & Tortora, Christina. 2005. Two types of possessive forms in English. *Lingua* 115(9). 1221–1242. DOI: https://doi.org/10.1016/j.lingua.2004.03.002

Bernstein, Judy B. 2005. On the morpho-syntax of possessive constructions. *Recherches Linguistiques de Vincennes* (34). 55–76. DOI: https://doi.org/10.4000/rlv.1364

Bhatt, Rajesh & Pancheva, Roumyana. 2017. Implicit Arguments. In Martin Everaert & Henk C. van Riemsdijk (eds.), *The Wiley Blackwell Companion to Syntax*, 2nd ed., 1–35. Hoboken, NJ, USA: John Wiley & Sons, Inc. DOI: https://doi.org/10.1002/9781118358733.wbsyncom118

Biberauer, Theresa. 2009. Semi null-subject languages, expletives and expletive pro reconsidered. In Theresa Biberauer & Anders Holmberg & Ian Roberts & Michelle Sheehan (eds.), *Parametric Variation: Null subject in Minimalist*

Theory, 153–199. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511770784.005

Bjorkman, Bronwyn M. & Cowper, Elizabeth. 2015. Where *there* is, and why. In *Proceedings of the 2015 annual meeting of the Canadian Linguistic Association.* University of Ottawa, 30 May - 1 June 2015.

Bjorkman, Bronwyn M. & Cowper, Elizabeth. 2016. Possession and necessity: From individuals to worlds. *Lingua* 182. 30–48. DOI: https://doi.org/10.1016/j.lingua.2016.02.002

Błaszczak, Joanna. 2007. *Phase Syntax: The Polish Genitive of Negation*. University of Potsdam, Habilitation thesis.

Błaszczak, Joanna. 2018. Clause structure, case and agreement in Polish existential, possessive and locative sentences: A phase-based account. *Poznan Studies in Contemporary Linguistics* 54(4). 637–696. DOI: https://doi.org/10.1515/psicl-2018-0025

Bobaljik, Jonathan David. 2008. Where's phi? Agreement as a post-syntactic operation. In Daniel Harbour & David Adger & Susana Béjar (eds.), *Phi-Theory: Phi features across interfaces and modules*, 295–328. Oxford: Oxford University Press.

Bobaljik, Jonathan David. 2012. *Universals in Comparative Morphology*. Cambridge, MA: MIT Press. DOI: https://doi.org/10.7551/mitpress/9069.001.0001

Boneh, Nora & Sichel, Ivy. 2010. Deconstructing possession. *Natural Language & Linguistic Theory* 28(1). 1–40. Retrieved from http://www.jstor.org/stable/40608169.

Borer, Hagit. 2005. *Structuring Sense: Volume 1: In Name Only*. Oxford: Oxford University Press.

Borer, Hagit. 2010. Locales. In Malka Rappaport- Hovav & Edit Doron & Ivy Sichel (eds.), *Lexical Semantics, Syntax, and Event Structure*, 309–336. Oxford: Oxford University Press.

Borschev, Vladimir & Partee, Barbara H. 1998. Formal and Lexical Semantics and the Genitive in Negated Existential Sentences in Russian. In Zeljko Boskovic & Steven Franks & William Snyder (eds.), *Formal Approaches to Slavic Linguistics 6: The Connecticut Meeting 1997*, 75–96. Ann Arbor: Michigan Slavic Publications.

Borschev, Vladimir & Partee, Barbara H. 2002. The Russian genitive of negation in existential sentences. In Eva Hajičová & Petr Sgall & Jirí Hana & Tomáš Hoskovec (eds.), *Prague Linguistic Circle Papers: Travaux du cercle linguistique de Prague nouvelle série*, Vol. 4, 185–250. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/plcp.4.11bor

Borthen, Kaja. 2003. *Norwegian bare singulars*. Norwegian University of Science and Technology dissertation.

Botwinik-Rotem, Irena & Terzi, Arhonto. 2008. Greek and Hebrew locative prepositional phrases: A unified Case-driven account. *Lingua* 118(3). 399–424. DOI: https://doi.org/10.1016/j.lingua.2007.08.001

Bouchard, Denis. 2002. *Adjectives, Number and Interfaces: Why Languages Vary*. Oxford: Elsevier.

Bowers, John. 1993. The Syntax of Predication. *Linguistic Inquiry* 24(4). 591–656. Retrieved from http://www.jstor.org/stable/4178835.

Branigan, Holly P. & Feleki, Eleonora. 1999. Conceptual accessibility and serial word order in Greek language production. In *Proceedings of the 21st Conference of the Cognitive Science Society, Vancouver*. New York: Psychology Press.

Bresnan, Joan & Dingare, Shipra & Manning, Christopher D. 2001. Soft constraints mirror hard constraints: Voice and person in English and Lummi. In *Proceedings of the LFG01 Conference*, 13–32. Stanford: CSLI Publications.

Bresnan, Joan. 1994. Locative Inversion and the Architecture of Universal Grammar. *Language* 70. 72–131.

Broekhuis, Hans & Cornips, Leonie. 1997. Inalienable possession in locational constructions. *Lingua* 101(3–4). 185–209. DOI: https://doi.org/10.1016/S0024-3841(93)00022-Z

Bruening, Benjamin & Dinh, Xuyen & Kim, Lan. 2018. Selection, idioms, and the structure of nominal phrases with and without classifiers. *Glossa: A Journal of General Linguistics* 3(1). DOI: https://doi.org/10.5334/gjgl.288

Bruening, Benjamin. 2013. By-phrases in Passives and Nominals. *Syntax* 16(1). 1–41. DOI: https://doi.org/10.1111/j.1467-9612.2012.00171.x

Brugman, Claudia M. 1988. *The Syntax and Semantics of HAVE and its Complements*. Berkley: University of California, Berkley dissertation.

Brugman, Claudia. 2001. Light verbs and polysemy. *Language Sciences* 23(4). 551–578. DOI: https://doi.org/https://doi.org/10.1016/S0388-0001(00)00036-X

Brunson, Barbara A. & Cowper, Elizabeth A. 1992. On the topic of have. In *Proceedings of CLA Annual Conference, Toronto Working Papers in Linguistics. University of Toronto*, 43–52.

Butt, Miriam. 2003. *The light verb jungle.* Harvard Working Papers in Linguistics 9.

Caha, Pavel. 2009. *The nanosyntax of case*. University of Tromso dissertation.

Cann, Ronnie. 2008. Towards a Dynamic Account of BE in English. In Ileana Comorovski & Klaus von Heusinger (eds.), *Existence: Semantics and Syntax*, 13–48. Dordrecht: Springer. DOI: https://doi.org/10.1007/978-1-4020-6197-4_1

Carnie, Andrew & Harley, Heidi. 2000. Existential Impersonals. Unpublished manuscript, University of Arizona.

Catsimali, Georgia. 1990. *Case in Modern Greek: Implications for clause structure*. University of Reading dissertation.

Chappell, Hilary & Lü, Shanshan. 2022. A semantic typology of location, existence, possession and copular verbs: areal patterns of polysemy in Mainland East and Southeast Asia. *Linguistics* 60(1). 1–82. DOI: https://doi.org/10.1515/ling-2021-0219

Chappell, Hilary & McGregor, William. 1989. Alienability, Inalienability and Nominal Classification. *Proceedings of the 15th Annual Meeting of the Berkeley Linguistics Society* 15. 24-36. DOI: https://doi.org/10.3765/bls.v15i0.1734

Chappell, Hilary & McGregor, William. 1996. *The Grammar of Inalienability*. In Hilary Chappell & William McGregor (eds.), *A Typological Perspective on Body Part Terms and the Part-Whole Relation*. Berlin: Mouton De Gruyter. DOI: https://doi.org/doi:10.1515/9783110822137

Chappell, Hilary & Thompson, Sandra. 1992. The semantics and pragmatics of associative DE in Mandarin discourse. *Cahiers de Linguistique - Asie Orientale* 21(2). 199–229. DOI: https://doi.org/10.3406/clao.1992.1422

Chappell, Hilary. 1996. Inalienability and the personal domain in Mandarin Chinese discourse. In Hilary Chappell & William McGregor (eds.), *The Grammar of Inalienability*. Berlin, Boston: Mouton De Gruyter. DOI: https://doi.org/10.1515/9783110822137.465

Charnavel, Isabelle & Mateu, Victoria. 2015. The clitic binding restriction revisited: Evidence for antilogophoricity. *The Linguistic Review* 32(4). DOI: https://doi.org/10.1515/tlr-2015-0007

Chen, Rong. 2011. The mind as ground: A study of the English existential construction. In Klaus-Uwe Panther & Günter Radden (eds.), *Motivation in Grammar and the Lexicon [Human Cognitive Processing 27]*, 49–70. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/hcp.27.05che

Chierchia, Gennaro & Turner, Raymond. 1988. Semantics and property theory. *Linguistics and Philosophy* 11(3). 261–302. DOI: https://doi.org/10.1007/BF00632905

Chierchia, Gennaro. 1998. Reference to Kinds across languages. *Natural Language Semantics* 6(4). 339–405. DOI: https://doi.org/10.1023/A:1008324218506

Chomsky, Noam. 1981. *Lectures on Government and Binding: The Pisa Lectures*. Dordrecht: Foris.

Chomsky, Noam. 1986. *Knowledge of language: its nature, origin and use*. New York: Praeger.

Chomsky, Noam. 2000. Minimalist Inquiries: The framework. In Roger Martin & David Michaels & Juan Uriagereka (eds.), *Step by step*, 89–155. Cambridge, MA: MIT Press.

Chung, Sandra. 1987. The syntax of Chamorro existential sentences. In Eric Reuland & Alice ter Meulen (eds.), *The Representation of (In)definiteness*, 191–225. Cambridge, MA: MIT Press.

Ciconte, Francesco M. 2010. *Existential Constructions in the Early Italo-Romance Vernaculars*. University of Manchester dissertation.

Cinque, Guglielmo. 1999. *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. Oxford: Oxford University Press.

Cinque, Guglielmo. 2010. *The Syntax of Adjectives*. Cambridge, MA: The MIT Press. DOI: https://doi.org/10.7551/mitpress/9780262014168.001.0001

Citko, Barbara. 2008. Small clauses reconsidered: Not so small and not all alike. *Lingua* 118(3). 261–295. DOI: https://doi.org/10.1016/j.lingua.2007.05.009

Clark, Eve. 1978. Locationals: Existential, Locative and Possessive Constructions. In Joseph H. Greenberg & Charles Ferguson & Edith A. Moravcsik (eds.), *Universals of Human Language*, *Vol. 4: Syntax*, 86–126. Stanford: Stanford University Press.

Coene, Martine & D'Hulst, Yves. 2003. *From NP to DP Volume 2: The expression of possession in noun phrases*. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/la.56

Cohen, Ariel & Erteschik-Shir, Nomi. 2002. Topic, Focus, and the Interpretation of Bare Plurals. *Natural Language Semantics* 10(2). 125–165. DOI: https://doi.org/10.1023/A:1016576614139

Cole, Peter. 1982. *Imbabura Quechua*. Amsterdam: North-Holland Publishing Company.

Collins, Chris. 2005. A smuggling approach to the passive in English. *Syntax* 8(2). 81–120. DOI: https://doi.org/10.1111/j.1467-9612.2005.00076.x

Comrie, Bernard. 1989. *Language Universals and Linguistic Typology: Syntax and Morphology*. Chicago: Chicago University Press.

Copley, Bridget & Harley, Heidi. 2009. Futurates, directors, and have causatives. *Snippets 1*.1–3.

Cowper, Elizabeth. 2017. Affected-topic *have*: An applicative account. *Linguistica Atlantica* 35(1). Retrieved from https://journals.lib.unb.ca/index.php/la/article/view/25402.

Creissels, Denis. 2014. Existential predication in typological perspective. In *Paper presented at 46th Annual Meeting of the Societas Linguistica Europaea (Split, 18 - 21 September 2013)*.

Creissels, Denis. 2019. Inverse-locational predication in typological perspective. *Italian Journal of Linguistics* 31(2). 37–106.

Creissels, Denis. 2023. Existential predication and have-possessive constructions in the languages of the world. In Sarda, Laure & Lena, Ludovica (eds.), *Existential constructions across languages*, 34–67. Amsterdam: Benjamins.

Croft, William. 2022. *Morphosyntax: Constructions of the world's languages*. Cambridge: Cambridge University Press.

Cruschina, Silvio. 2012. Focus in Existential Sentences. In Valentina Bianchi & Cristiano Chesi (eds.), *Enjoy Linguistics! Papers offered to Luigi Rizzi on the occasion of his 60th birthday*, 77–107. Roma: CISCL Press.

Cruschina, Silvio. 2015. Patterns of variation in existential constructions. *Isogloss. A Journal on Variation of Romance and Iberian Languages* 1(1). 33–65. DOI: https://doi.org/10.5565/rev/isogloss.5

Czinglar, Christine. 2002. Decomposing existence: Evidence from Germanic. In Werner Abraham & C. Jan-Wouter Zwart (eds.), *Issues in Formal German(ic) Typology*, Vol. 45, 85–126. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/la.45

D'Alessandro, Roberta & Franco, Irene & Gallego, Angel J. 2017. *The Verbal Domain* Oxford: Oxford University Press. DOI: https://doi.org/10.1093/oso/9780198767886.001.0001

Dahl, Östen & Koptjevskaja-Tamm, Maria. 2001. Kinship in grammar. In *Dimensions of Possession*, 201–226. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/tsl.47.12dah

Dalmi, Gréte & Witkoś, Jacek & Cegłowski, Piotr. 2020. *Approaches to Predicative Possession*. London: Bloomsbury Academic. DOI: https://doi.org/10.5040/9781350062498

Dalmi, Gréte. 2021. The status of the oblique possessor in BE-possessives: Evidence from Russian and Hungarian. *Zeitschrift Für Slawistik* 66(4). 634–662. DOI: https://doi.org/10.1515/slaw-2021-0029

Daskalaki, Evangelia. 2007. Free Relatives in Greek: The Interaction between Case (Mis)matches and Relativization Strategies. In Artemis Alexiadou (ed.), *Studies in the Morpho Syntax of Greek.*, 252–293. Newcastle, UK: Cambridge Scholars Publishing.

de Swart, Peter & de Hoop, Helen. 2018. Shifting animacy. *Theoretical Linguistics* 44(1–2). 1–23. DOI: https://doi.org/10.1515/tl-2018-0001

de Wit, Petra. 1997. *Genitive Case and Genitive Constructions*. Utrecht University dissertation.

Deal, Amy Rose. 2009. The Origin and Content of Expletives: Evidence from "Selection". *Syntax* 12(4). 285–323. DOI: https://doi.org/10.1111/j.1467-9612.2009.00127.x

Deal, Amy Rose. 2017. External Possession and Possessor Raising. In *The Wiley Blackwell Companion to Syntax, Second Edition*, 1–32. Hoboken, NJ, USA: Wiley. DOI: https://doi.org/10.1002/9781118358733.wbsyncom047

Déchaine, Rose-Marie & Hoekstra, Teun & Rooryck, Johan. 1994. Augmented and non-augmented HAVE. In Léa Nash & George Tsoulas (eds.), *Proceedings of Langues et Grammaire I*, 85–101. Paris.

Déchaine, Rose-Marie & Wiltschko, Martina. 2002. Decomposing Pronouns. *Linguistic Inquiry* 33(3). 409–442. Retrieved from http://www.jstor.org/stable/4179198.

Delveroudi, Rea. 1992. The Modern Greek existential predicate: ine, exi, iparxi [Greek title: Τα υπαρκτικά ρήματα στα νέα ελληνικά: είναι, έχει, υπάρχει]. In *Studies in Greek Linguistics 13. Proceedings of the 13th Annual Meeting of the Department of Linguistics, School of Philology, Faculty of Philosophy, A.U.Th*, 426–446.

den Dikken, Marcel. 1995. *Particles: On the Syntax of Verb-Particle, Triadic and Causative Constructions*. Oxford: Oxford University Press.

den Dikken, Marcel. 1997. The syntax of possession and the verb 'have'. *Lingua* 101(3–4). 129–150. DOI: https://doi.org/10.1016/S0024-3841(96)00054-X

den Dikken, Marcel. 1999. On the Structural Representation of Possession and Agreement. In István Kenesei (ed.), *Crossing Boundaries: Advances in the theory of Central and Eastern European languages*, 137–178. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/cilt.182.10dik

den Dikken, Marcel. 2003. On the syntax of locative and directional adpositional phrases. Unpublished manuscript, CUNY Graduate Center.

den Dikken, Marcel. 2006. *Relators and Linkers*. Cambridge, MA: The MIT Press. DOI: https://doi.org/10.7551/mitpress/5873.001.0001

den Dikken, Marcel. 2011. Directions from the GET-GO. On the syntax of manner-of-motion verbs in directional constructions. *Catalan Journal of Linguistics* 9. 23-53.

den Dikken, Marcel. 2015. The morphosyntax of (in)alienably possessed noun phrases. In Katalin É. Kiss & Balázs Surányi & Éva Dékány (eds.), *Approaches to Hungarian: Volume 14: Papers from the 2013 Piliscsaba Conference*, 121–145. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/atoh.14.05dik

Derbyshire, Desmond C. 1979. *Hixkaryana*. Amsterdam: North Holland.

DMGL. 2012[4]. Dictionary of Modern Greek Language [Greek title: *Λεξικό της νέας ελληνικής γλώσσας]*. Athens: Lexicology Center.

Dobrovie-Sorin, Carmen & Beyssade, Claire. 2012. *Redefining Indefinites* Vol. 85. Dordrecht: Springer Netherlands. DOI: https://doi.org/10.1007/978-94-007-3002-1

Dowty, David R. 1979. *Word Meaning and Montague Grammar* Vol. 7. Dordrecht: Springer Netherlands. DOI: https://doi.org/10.1007/978-94-009-9473-7

Dowty, David R. 1991. Thematic Proto-Roles and Argument Selection. *Language* 67(3). 547–619. DOI: https://doi.org/10.2307/415037

Drinka, Bridget. 2003. Areal factors in the development of the European periphrastic perfect. *Word* 54(1). 1–38. DOI: https://doi.org/10.1080/00437956.2003.12068826

Drinka, Bridget. 2007. The development of the HAVE perfect: Mutual influences of Greek and Latin. In Raul Aronovich (ed.), *Split Auxiliary Systems: A cross-linguistic perspective*, 101–121. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/tsl.69.06dri

DSMG. 1998. Dictionary of Standard Modern Greek [Greek title: Λεξικό της Κοινής Νεοελληνικής]. Thessaloniki: Institute of Modern Greek studies. Available at: https://www.greek-language.gr/greekLang/modern_greek/tools/lexica/triantafyllides/

Efthymiou, Angeliki. 2015. Modern Greek Parasynthetic Verbs: A Hierarchical Relationship Between Prefixes and Suffixes? In Stela Manova (ed.), *Lexi 508*, 82–108. Oxford: Oxford University Press. DOI: https://doi.org/https://doi.org/10.1093/acprof:oso/9780190210434.003.0004

Embick, David & Noyer, Rolf. 2001. Movement Operations after Syntax. *Linguistic Inquiry* 32(4). 555–595. DOI: https://doi.org/10.1162/002438901753373005

Embick, David. 1998. Voice Systems and the Syntax/Morphology Interface. In Heidi Harley (ed.), *Papers from the UPenn/MIT roundtable on argument structure and aspect*, Vol. 32, 41–72.

Embick, David. 2010. *Localism versus Globalism in Morphology and Phonology*. Cambridge, MA: MIT Press. DOI: https://doi.org/10.7551/mitpress/9780262014229.001.0001

Emonds, Joseph. 1976. *A transformational approach to English syntax: root, structure-preserving and local transformations*. New York: Academic Press.

Español-Echevarría, Manuel. 1997. Inalienable possession in copulative contexts and the DP-structure. *Lingua* 101(3). 211–244. DOI: https://doi.org/https://doi.org/10.1016/S0024-3841(96)00023-X

Espinal, M. Teresa & Mateu, Jaume. 2010. On classes of idioms and their interpretation. *Journal of Pragmatics* 42(5). 1397–1411. DOI: https://doi.org/10.1016/j.pragma.2009.09.016

Espinal, Teresa M. & McNally, Louise. 2009. Characterizing 'have' predicates and indefiniteness. In Teresa M. Espinal & Manuel Leonetti & Louise McNally (eds.), *Proceedings of the 4th Nereus International Workshop Definiteness and DP Structure in Romance Languages (Arbeitspapier 124)*, 27–43.

Faarlund, Jan Terje & Lie, Svein & Vannebo, Kjell Ivar. 1997. *Norsk referansegrammatikk*. Oslo: Universitetsforlaget.

Fagard, Benjamin & Mardale, Alexandru. 2012. The pace of grammaticalization and the evolution of prepositional systems: Data from Romance. *Folia Linguistica* 46(2). DOI: https://doi.org/10.1515/flin.2012.011

FDMGL. 2023. Functional Dictionary of Modern Greek [Greek title: *Χρηστικό λεξικό της νεοελληνικής γλώσσας*. Athens: Academy of Athens. Available at https://christikolexiko.academyofathens.gr/

Fillmore, Charles J. 1968. The case for case. In E. Bach & R. Harms (eds.), *Universals in Linguistic Theory*, 1–88. New York: Holt, Rinehart, and Winston.

Fischer, Susann J. 2013. Unaccusatives, Existentials and the Definiteness Restriction: Explorations of the Syntax-Semantic Interface. In Sofiana Chiriacescu (ed.), *Proceedings of the VI Nereus International Workshop "Theoretical implications at the syntax-semantics interface in Romance". Arbeitspapier 127. Fachbereich Sprachwissenschaft, Universität Konstanz 2013*, 33–55.

Folli, Raffaella & Harley, Heidi. 2005. Flavors of v. In Paula Kempchinsky & Roumyana Slabakova (eds.), *Aspectual Inquiries*, 95–120. Dordrecht: Springer Netherlands. DOI: https://doi.org/10.1007/1-4020-3033-9_5

Folli, Raffaella & Harley, Heidi. 2006. On the licensing of causatives of directed motion: Waltzing Matilda all over. *Studia Linguistica* 60(2). 121–155. DOI: https://doi.org/10.1111/j.1467-9582.2006.00135.x

Fox, Danny & Grodzinsky, Yosef. 1998. Children's Passive: a View from the by-phrase. *Linguistic Inquiry* 29: 311–332.

Francez, Itamar. 2007. *Existential propositions*. Stanford, CA: Stanford University dissertation.

Francez, Itamar. 2009. Existentials, predication, and modification. *Linguistics and Philosophy* 32(1). 1–50. DOI: https://doi.org/10.1007/s10988-009-9055-4

Franco, Ludovico & Manzini, M. Rita & Savoia, Leonardo M. 2021. Locative Ps as general relators. *Linguistic Variation* 21(1). 135–173. DOI: https://doi.org/10.1075/lv.00035.fra

Freeze, Ray. 1992. Existentials and Other Locatives. *Language* 68(3). DOI: https://doi.org/10.2307/415794

Gaeta, Livio. 2013. Existential constructions: A semasiological perspective. In Elly van Gelderen & Jóhanna Barðdal & Michela Cennamo (eds.), *Argument Structure*

in Flux: The Naples-Capri Papers, 477–510. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/slcs.131.18gae

Gallego, Ángel & Uriagereka, Juan. 2009. *Estar = ser + P*. Paper presented at the 19th Colloquium on Generative Grammar, Vitoria, Spain, April 1-3.

Gast, Volker & Haas, Florian. 2011. On the distribution of subject properties in formulaic presentationals of Germanic and Romance. In Andrej Malchukov & Anna Siewierska (eds.), *Impersonal Constructions: A cross-linguistic perspective*, 127–166. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/slcs.124.05gas

Gehrke, Berit & Lekakou, Marika. 2013. How to Miss Your Preposition. *Studies in Greek Linguistics* 33. 92–106.

Gehrke, Berit & McNally, Louise. 2019. Idioms and the syntax/semantics interface of descriptive content vs. reference. *Linguistics* 57(4). 769–814. DOI: https://doi.org/10.1515/ling-2019-0016

Gehrke, Berit. 2008. *Ps in motion: On the semantics and syntax of P elements and motion verbs*. Utrecht University dissertation.

Georgala, Effi. 2012. *Applicatives in their structural and thematic function: A minimalist account of multitransitivity*. Cornell University dissertation.

Georgiou, Renos. 2023. Greek Topicalization: How do properties move? *Glossa: A Journal of General Linguistics* 8(1). DOI: https://doi.org/10.16995/glossa.7954

Gepner, Maria. 2021. The semantics of prenominal possessives in Russian. *Glossa: A Journal of General Linguistics* 6(1). DOI: https://doi.org/10.5334/gjgl.1198

Giannakidou, Anastasia & Staraki, Eleni. 2013. Rethinking ability: Ability as modality and ability as action. In Mari Alda & Claire Beyssade & Fabio del Prete (eds.), *Genericity*, 250–275. Oxford: Oxford University Press.

Giannakidou, Anastasia. 2012. The Landscape of Greek Quantifiers. In Edward L. Keenan & Denis Paperno (eds.), *Handbook of Quantifiers in Natural Language*, 285–346. Dordrecht: Springer. DOI: https://doi.org/10.1007/978-94-007-2681-9_6

Grestenberger, Laura. 2014. "Split Deponency" in Proto-Indo-European. In Stephanie W. Jamison & Craig H. Melchert & Brent Vine (eds.), *Proceedings of the 25th Annual UCLA Indo-European Conference*, 75–84. Bremen: Hempen.

Grestenberger, Laura. 2018. Deponency in finite and nonfinite contexts. *Language* 94(3). 487–526. DOI: https://doi.org/10.1353/lan.2018.0034

Grimshaw, Jane. 1990. *Argument structure*. Cambridge, MA: The MIT Press.

Guéron, Jacqueline. 1985. Inalienable Possession, PRO-Inclusion and Lexical Chains. In Jacqueline Guéron & Hans-Georg Obenauer & Jean-Yves Pollock (eds.), *Grammatical Representation*, 43–86. Dordrecht: Foris.

Guéron, Jacqueline. 1992. Inalienable Possession and Locative Aspect. *Anuario Del Seminario de Filología Vasca 'Julio de Urquijo'* 27. 135–146.

Hackl, Martin. 1998. On the semantics of ability attributions. Unpublished manuscript, MIT.

Haider, Hubert. 2001. *How to stay accusative in insular Germanic.* Working Papers in Scandinavian Syntax 68.

Haider, Hubert. 2019. On expletive, semantically void, and absent subjects. In Bernhard Pöll & Peter Herbeck & Anne Wolfsgruber (eds.), *Semantic and syntactic aspects of impersonality (Linguistische Berichte - Sonderhefte)*, Vol. 26, 11–46. Hamburg: Helmut Buske Verlag.

Hale, Ken & Keyser, Samuel J. 2000. There-insertion in unaccusatives. Unpublished manuscript, MIT. Available at: https://ling-phil.mit.edu/papers/hale/papers/hale013.pdf

Hale, Ken & Keyser, Samuel Jay. 2002. *Prolegomenon to a Theory of Argument Structure*. *Prolegomenon to a Theory of Argument Structure*. Cambridge, MA: MIT Press. DOI: https://doi.org/10.7551/mitpress/5634.001.0001

Halevy, Rivka. 2022. The existential construction in Spoken Modern Hebrew. *Journal of Speech Sciences* 11. DOI: https://doi.org/10.20396/joss.v11i00.17454

Halle, Morris & Marantz, Alec. 1993. Distributed morphology and the pieces of inflection. In Kenneth Hale & Samuel Jay Keyser (eds.), *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, 111–176. Cambridge, MA: MIT Press.

Halle, Morris & Marantz, Alec. 1994. *Some key features of Distributed Morphology.* MIT Working Papers in Linguistics 21.275-288.

Hallman, Peter. 2015. Syntactic Neutralization in Double Object Constructions. *Linguistic Inquiry* 46(3). 389–424. DOI: https://doi.org/10.1162/LING_a_00187

Halpert, Claire & Diercks, Michael. 2018. More on have and need. *African Linguistics on the Prairie* 289–305. DOI: https://doi.org/10.5281/ZENODO.1251742

Harley, Heidi. 1995. *Subjects, Events and Licensing*. Cambridge, MA: MIT dissertation.

Harley, Heidi. 1997. Logophors, variable binding and the interpretation of have. *Lingua* 103(2–3). 75–84. DOI: http://doi.org/10.1016/S0024-3841(97)00017-X

Harley, Heidi. 1998. You're having me on!: aspects of have. In Guéron, Jacqueline & Zribi-Hertz, Anne (eds.), *La grammaire de la possession*, 195–226. Paris: Université Paris X – Nanterre.

Harley, Heidi. 2002. Possession and the double object construction. In Pica Pier (ed.) *Linguistic Variation Yearbook* 2, 31-70. Amsterdam: John Benjamins DOI: https://doi.org/10.1075/livy.2.04har

Harley, Heidi. 2008. The bipartite structure of verbs cross-linguistically, or, Why Mary can't exhibit John her paintings. In Thaïs Cristófaro Silva & Heliana Mello (eds.), *Conferências do V Congresso Internacional da Associação Brasileira de Lingüística*, 45–84. Belo Horizonte, Brazil: Abralin and FALE/UFMG.

Harris, Jessee A. 2021. Extended Perspective Shift and Discourse Economy in Language Processing. *Frontiers in Psychology* 12:613357. DOI: 10.3389/fpsyg.2021.613357

Hartmann, Jutta M & Milicevic, Natasa. 2008. The Syntax of Existential Sentences in Serbian. In Gerhild Zybatow & Uwe Junghanns & Denisa Lenertova & Petr Biskup (eds.), *Studies in Formal Slavic Phonology, Morphology, Syntax, Semantics and Information Structure. Proceedings of FDSL 7, Leipzig 2007 (Linguistik International; 21)*, 131–142. Frankfurt am Mein: Peter Lang.

Hartmann, Jutta M. 2008. *Expletives in existentials: English there and German da.* University of Tilburg dissertation.

Hartmann, Jutta M. 2010. The predicate nominal analysis of English there-sentences. *Bucharest Working Papers in Linguistics* XII.

Hartmann, Jutta M. 2011. Predicate Inversion and English there-sentences. *Acta Linguistica Hungarica* 58(3). 221–240. Retrieved from http://www.jstor.org/stable/26191856.

Hartmann, Jutta M. 2013. Apparent exceptions to the definiteness effect in English. In *Bucharest Working Papers in Linguistics*, 5–25.

Harves, Stephanie A. 2003. *Unaccusative syntax in Russian*. Princeton University dissertation.

Haspelmath, Martin. 1993. *A Grammar of Lezgian*. Berlin: Mouton De Gruyter. DOI: https://doi.org/doi:10.1515/9783110884210

Haspelmath, Martin. 1999. External Possession in a European Areal Perspective. In Doris L Payne & Immanuel Barshi (eds.), *External Possession*, 109–135. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/tsl.39.09has

Haspelmath, Martin. 2008. *Alienable vs. inalienable possessive constructions*. Paper presented at Syntactic Universals and Usage Frequency, Leipzig Spring School on Linguistic Diversity, March 2008.

Haspelmath, Martin. 2022. *Nonverbal clause constructions*. Unpublished manuscript. Available at: lingbuzz/006673.

Haspelmath, Martin. 2023. *On existential and predlocative construction-functions and construction-strategies*. Paper presented at the 56th Annual Meeting of the Societas Linguistica Europaea, Athens, August 2023.

Hazout, Ilan. 2004. The Syntax of Existential Constructions. *Linguistic Inquiry* 35(3). 393–430. Retrieved from http://www.jstor.org/stable/4179283.

Heine, Bernd. 1997. *Possession*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511581908

Hermon, Gabriella. 2001. Non-canonically marked A/S in Imbabura Quechua. In Alexandra, Y. Aikhenvald & R.M.W. Dixon & Masayuki Onishi (eds.), *Non-canonical Marking of Subjects and Objects*, 149–176. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/tsl.46.07her

Herslund, Michael & Baron, Irène. 2001. Introduction. In Irene Baron & Michael Herslund & Finn Sørensen (eds.), *Dimensions of Possession*, 1. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/tsl.47.01her

Heycock, Caroline & Zamparelli, Roberto. 2005. Friends and Colleagues: Plurality, Coordination, and the Structure of DP. *Natural Language Semantics* 13(3). 201–270. DOI: https://doi.org/10.1007/s11050-004-2442-z

Higginbotham, James. 1987. Indefiniteness and predication. In Eric Reuland & Alice G.B. ter Meulen (eds.), *The Representation of (In)definiteness*, 43–70. Cambridge, MA: The MIT Press.

Higgins, Francis R. 1979. *The Pseudo-Cleft Construction in English*. London: Routledge. DOI: https://doi.org/10.4324/9781315693545

Hoekstra, Teun & Mulder, R.A. 1990. Unergatives as copular verbs. Locational and existential predication. *Linguistic Review* 7. 1–79.

Hoekstra, Teun. 1994. HAVE as BE plus or minus. In Guglielmo Cinque & Jan Koster & Jean-Yves Pollock & Luigi Rizzi & Raffaella Zanuttini (eds.), *Paths towards universal grammar: Studies in honor of Richard S. Kayne*, 199–215. Washington DC: Georgetown University Press.

Holton, David & Mackridge, Peter & Philippaki-Warburton, Irene & Spyropoulos, Vassilios. 2012. *Greek: A Comprehensive Grammar of the Modern Language*. London: Routledge. DOI: https://doi.org/10.4324/9780203802380

Hopper, Paul J. & Thompson, Sandra A. 1980. Transitivity in Grammar and Discourse. *Language* 56(2). 251. DOI: https://doi.org/10.2307/413757

Hopper, Paul J. & Traugott, Elizabeth Closs. 1993. *Grammaticalization*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9781139165525

Hornstein, Norbert. 1999. Movement and Control. *Linguistic Inquiry* 30(1). 69–96. Retrieved from http://www.jstor.org/stable/4179050.

Horrocks, Geoffrey. 2010. *Greek*. Hoboken, NJ, USA: Wiley. DOI: https://doi.org/10.1002/9781444318913

Huang, James C.T. 1987. Existential sentences in Chinese and (in)definiteness. In Eric J. Reuland & Alice G.B. ter Meulen (eds.), *The Representation of (In)definiteness*, 226–253. Cambridge, MA: MIT Press.

Huumo, Tuomas. 2003. Incremental existence: the world according to the Finnish existential sentence. *Linguistics* 41(3). DOI: https://doi.org/10.1515/ling.2003.016

Iatridou, Sabine & Embick, David. 1997. A propos pro. *Language* 73(1). 58. DOI: https://doi.org/10.2307/416593

Iatridou, Sabine. 1996. To Have or Have not. In *Proceedings of the 14th WCCFL*, 185–202. Stanford: CSLI Publications.

Irwin, Patricia. 2018. Existential unaccusativity and new discourse referents. *Glossa: a journal of general linguistics* 3(1): 24. DOI: https://doi.org/10.5334/gjgl.283

Isacenko, Alexander V. 1974. On 'have' and 'be' languages. In Michael Flier (ed.), *Slavic Forum: Essays in Linguistics and Literature*, 43–77. Berlin: Mouton De Gruyter. DOI: https://doi.org/10.1515/9783110888386-006

Ittmann, Johannes. 1939. *Grammatik des Duala.* Berlin: Reimer.

Jackendoff, Ray. 1983. *Semantics and cognition. Semantics and cognition*. Cambridge, MA:MIT Press.

Jackendoff, Ray. 1997. *The Architecture of the Language Faculty*. Cambridge, MA: MIT Press.

Jenkins, Lyle. 1975. *The English existential*. Berlin: Mouton De Gruyter. DOI: https://doi.org/10.1515/9783111357188

Jensen, Per Anker & Vikner, Carl. 1996. The double nature of the verb have. In *LAMBDA 21, OMNIS Workshop 23-24 Nov. 1995*, 25–37. Institut for Datalingvistik: Handelshøjskolen i København.

Jensen, Per Anker & Vikner. Carl. 2004. The English prenominal genitive and lexical semantics. In Ji-Yung Kim & Yury A. Lander & Barbara Partee (eds.), *Possessives and beyond: Semantics and syntax (UMOP 29)*, 3–27. Amherst, MA: GLSA Publications.

Jespersen, Otto. 1924. *The Philosophy of Grammar*. London: Routledge.

Jung, Hakyung. 2011. *The Syntax of the Be-Possessive*. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/la.172

Kagan, Olga. 2013. *Semantics of Genitive Objects in Russian*. Dordrecht: Springer Netherlands. DOI: https://doi.org/10.1007/978-94-007-5225-2

Kagan, Olga. 2020. The Definiteness Effect in Russian existential and possessive sentences. In Gréte Dalmi & Jacek Witkoś & Piotr Cegłowski (eds.), *Approaches to Predicative Possession*. London, New York: Bloomsbury Academic. DOI: https://doi.org/10.5040/9781350062498.ch-004

Kahn, Charles H. 1966. The Greek Verb 'to Be' and the Concept of Being. *Foundations of Language* 2(3). 245–265.

Kallulli, Dalina. 2008. There Is Secondary Predication in There-Existentials. In Charles B. Chang & Hannah J. Haynie (eds.), *Proceedings of the 26th West Coast Conference on Formal Linguistics*, 279–287. Somerville, MA: Cascadilla Proceedings Project.

Kallulli, Dalina. 2009. (Non-)Blocking in the voice system. *Language Typology and Universals* 62(4). 269–284. DOI: https://doi.org/10.1524/stuf.2009.0021

Kallulli, Dalina. 2013. (Non-) canonical passives and reflexives. In Artemis Alexiadou & Florian Schäfer (eds.), *Non-Canonical Passives*, 337–358. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.205.16kal

Kampanarou, Anna. 2017. *Bare Noun Phrases in Greek: investigating the co-relation between Number and reference [Greek title: Άναρθρες Ονοματικές Φράσεις της Ελληνικής: εξετάζοντας τη σχέση αριθμού και αναφοράς]*. Thessaloniki: Aristotle University of Thessaloniki MA thesis.

Kampanarou, Anna. 2019. Bare Noun Phrases in Modern Greek: The interplay between Number and Reference. In Giorgos Papanastasiou & Dimitris Koutsogiannis & Nikolaos Amvrazis (eds.), *Studies in Greek Linguistics*, Vol. 39, 539–554. Thessaloniki: Institute of Modern Greek Studies. Manolis Triandaphyllidis Foundation.

Kampanarou, Anna. to app. Relating BE and HAVE via transitivity. Glossa: a journal of general linguistics.

Kastner, Itamar. 2017. Reflexive verbs in Hebrew: Deep unaccusativity meets lexical semantics. *Glossa: A Journal of General Linguistics* 2(1). DOI: https://doi.org/10.5334/gjgl.299

Kayne, Richard S. 1993. Toward a modular theory of auxiliary selection. *Studia Linguistica* 47(1). 3-31. DOI: https://doi.org/10.1111/j.1467-9582.1993.tb00837.x

Kayne, Richard. 2016. The Unicity of There and the Definiteness Effect. In Elisângela Gonçalves (ed.), *Existential Constructions in Focus*. Salvador, Brazil: Editora da Universidade Federal da Bahia.

Kechagias, Axiotis. 2011. *Regulating Word Order in Modern Greek: Verb Initial and Non-Verb Initial Orders & the Conceptual-Intentional Interface*. University College of London dissertation.

Keenan, Edward. 1987. A semantic definition of indefinite NP. In Eric J Reuland & Alice G B Ter Meulen (eds.), *The Representation of (in)definiteness*, 286–317. Cambridge, MA: M.I.T. Press.

Kempchinsky, Paula. 1996. Perfective auxiliaries, possession, and existence in Romance. In Karen Zagona (ed.), *Grammatical Theory and Romance Languages: Selected papers from the 25th Linguistic Symposium on Romance*

Languages (LSRL XXV) Seattle, 2–4 March 1995, 135–144. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/cilt.133.11kem

Kimball, John. 1973. The grammar of existence. In *Ninth regional meeting, Chicago Linguistic Society*, 262–270. Chicago: Chicago Linguistics Society.

Kleiber, Georges. 2003. The possessive via associative anaphor. In Martine Coene & Yves D'Hulst (eds.), *From NP to DP: Volume 2: The expression of possession in noun phrases*, 43–71. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.56.06kle

Kontosopoulos, Nikolaos. 2008. *Modern Greek dialects and idioms. [Greek title: Διάλεκτοι και Ιδιώματα της Νέας Ελληνικής].* Athens: Grigoris.

Koopman, Hilda. 1997. Prepositions, postpositions, circumpositions and particles: The structure of Dutch PPs. In Hilda Koopman (ed.) *The Syntax of Specifiers and Heads: Collected Essays of Hilda J. Koopman*, 204-260. London: Routledge.

Koptjevskaja - Tamm, Maria. 2008. *Adnominal possession*. Paper presented at Uralic Typology Database Project, Wien, September 2008.

Kotzoglou, George. 2013. On the Unmarked Position for Greek Subjects: Problematic Issues and Implications for Constituent Order. *Journal of Greek Linguistics* 13(2). 203–238. DOI: https://doi.org/10.1163/15699846-13130203

Koufaki, Maria. 2012. *Existential constructions in Modern Greek. [Greek title: Οι υπαρκτικές δομές στα Νέα ελληνικά].* Rethymnon: University of Crete MA thesis.

Kouneli, Maria. 2014. *The Syntax of Silent Locative Prepositions in Greek*. Yale University dissertation.

Kratzer, Angelika. 1996. Severing the External Argument from its Verb. In Johan Rooryck & Laurie Zaring (eds.), *Phrase Structure and the Lexicon*, 109–137. Dordrecht: Springer Netherlands. DOI: https://doi.org/10.1007/978-94-015-8617-7_5

Kulneff-Eriksson, Karin. 1999. *On 'have' in Ancient Greek. An investigation on echo and the construction einai with a dative as expressions for 'have'.* Lund University dissertation.

Kuno, Susumu & Kaburaki, Etsuko. 1977. Empathy and Syntax. *Linguistic Inquiry* 8(4). 627–672. Retrieved from http://www.jstor.org/stable/4178011.

Kuno, Susumu. 1971. The position of locatives in existential sentences. *Linguistic Inquiry* 2. 333–378.

Kuno, Susumu. 1987. *Functional Syntax: Anaphora, Discourse, and Empathy*. Chicago: University of Chicago Press.

Kuroda, Shigeyuki. 1972. The Categorical and the Thetic Judgment: Evidence from Japanese Syntax. *Foundations of Language* 9(2).153-185.

Kuroda, Shigeyuki. 1992. *Japanese Syntax and Semantics*. Dordrecht: Springer Netherlands. DOI: https://doi.org/10.1007/978-94-011-2789-9

Ladusaw, W.A. 1980. *Negative Polarity as Inherent Scope Relations*. New York: Garland.

Lambrecht, Knud. 1994. *Information Structure and Sentence Form*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511620607

Landman, Fred. 2004. *Indefinites and the Type of Sets*. Hoboken, NJ, USA: Wiley. DOI: https://doi.org/10.1002/9780470759318

Langacker, Ronald W. 1987. *Foundations of Cognitive Grammar. Vol. I: Theoretical Prerequisites* 2010th ed. Berlin, Boston: Stanford University Press. Retrieved from https://www.degruyter.com/database/COGBIB/entry/cogbib.7220/html.

Langacker, Ronald W. 1991. *Foundations of Cognitive Grammar. Vol. II: Descriptive Application*. Berlin, Boston: Stanford University Press. DOI: https://doi.org/10.1515/9780804764469

Langacker, Ronald W. 1993. Reference-point constructions. *Cognitive Linguistics* 4(1). 1–38. DOI: https://doi.org/10.1515/cogl.1993.4.1.1

Langacker, Ronald W. 2009. *Investigations in Cognitive Grammar*. Berlin, New York: Mouton de Gruyter. DOI: https://doi.org/10.1515/9783110214369

Larson, Richard & Cho, Sungeun. 2003. Temporal Adjectives and the Structure of Possessive DPs. *Natural Language Semantics* 11(3). 217–247. DOI: https://doi.org/10.1023/A:1024915400586

Larson, Richard K. 1988. On the Double Object Construction. *Linguistic Inquiry* 19(3). 335–391. Retrieved from http://www.jstor.org/stable/25164901.

Larson, Richard K. 1990. Double Objects Revisited: Reply to Jackendoff. *Linguistic Inquiry* 21(4). 589–632. Retrieved from http://www.jstor.org/stable/4178697.

Larson, Richard. 1998. Events and Modification in Nominals. *Semantics and Linguistic Theory* 8. 145–168.

Lavidas, Nikolaos. 2009. *Transitivity Alternations in Diachrony Changes in Argument Structure and Voice Morphology*. Newcastle: Cambridge Scholars Publishing. Retrieved from http://lib.ugent.be/catalog/ebk01:3390000000009085.

Lazaridou-Chatzigoga, Dimitra. 2011. The distribution and interpretation of bare singular count nouns in Greek. In *Sinn und Bedeutung satellite workshop on weak referentiality, Utrecht*.

Le Bruyn, Bert & de Swart, Henriëtte & Zwarts, Joost. 2013. Have, with and without. In *Proceedings of SALT 23*, 535–548.

Lechner, Winfried & Anagnostopoulou, Elena. 2006. Clitics and adjacency in Greek PPs. In Hans Broekhuis & Norbert Corver & Riny Huijbregts & Ursula Kleinhenz & Jan Koster (eds.) *Organizing Grammar*, *Linguistic Studies in Honor of Henk*

van Riemsdijk, 390–406. Berlin: Mouton De Gruyter. DOI: https://doi.org/10.1515/9783110892994.390

Leonetti, Manuel. 2008. Definiteness effect and the role of the coda in existential constructions. In Henrik Høeg Müller & Alex Klinge (eds.), *Essays on Nominal Determination: From morphology to discourse management*, 131–162. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/slcs.99.09leo

Levin, Beth & Krejci, Bonnie. 2019. Talking about the weather: Two construals of precipitation events in English. *Glossa: A Journal of General Linguistics* 4(1). DOI: https://doi.org/10.5334/gjgl.794

Levin, Beth & Rappaport Hovav, Malka. 2005. *Argument Realization*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511610479

Levinson, Lisa. 2011. Possessive *with* in Germanic: *have* and the Role of P. *Syntax* 14(4). 355–393. DOI: https://doi.org/10.1111/j.1467-9612.2011.00159.x

Levinson, Stephen C. 2003. *Space in Language and Cognition*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511613609

Lewis, Henry & Pedersen, Holger. 1961. *A Concise Comparative Celtic Grammar*. Gottingen: Vandenhoeck & Ruprecht.

Löbner, Sebastian. 1985. Definites. *Journal of Semantics* 4(4). 279–326.

Löbner, Sebastian. 1998. Definite associative anaphora. In Simon Botley (ed.), *Approaches to Discourse Anaphora. Proceedings of DAARC96- Discourse Anaphora and Resolution Colloquium, Lancaster University July 17th-18th 1996*. Lancaster: Lancaster University.

Longa, Victor M. & Lorenzo, Guillermo & Rigau, Gemma. 1998. Subject clitics and clitic recycling: locative sentences in some Iberian Romance languages. *Journal of Linguistics* 34(1). 125–164.

Longobardi, Guiseppe. 1994. Reference and Proper Names: A Theory of N-movement in Syntax and Logical Form. *Linguistic Inquiry* Vol. 25, No. 4, 609-665. http://www.jstor.org/stable/4178880.

Lumsden, Michael. 1988. *Existential Sentences: Their Structure and Meaning*. London: Routledge. DOI: https://doi.org/10.4324/9781315857435

Luo, Yongxian. 2013. Possessive constructions in Mandarin Chinese. In Alexandra Aikhenvald & Robert M.W. Dixon (eds.), *Possession and Ownership*, 186–207. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199660223.003.0008

Lynch, John. 1973. Verbal Aspects of Possession in Melanesian Languages. *Oceanic Linguistics* 12(1/2). 69–102. DOI: https://doi.org/10.2307/3622853

Lyons, John. 1967. A Note on Possessive, Existential and Locative Sentences. *Foundations of Language* 3(4). 390-396.

Lyons, John. 1968. *Introduction to Theoretical Linguistics*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9781139165570

Lyons, John. 1977. *Semantics*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511620614

Mackridge, Peter. 1985. *The Modern Greek language: a descriptive analysis of standard Modern Greek*. Oxford: Oxford University Press.

Mahieu, Marc-Antoine. 2013. The genitive case and the possessive construction in Finnish. In Anne Carlier & Jean-Christophe Verstraete (eds.) *The Genitive*, 19–54. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/cagral.5.04mah

Maienborn, Claudia. 2001. On the Position and Interpretation of Locative Modifiers. *Natural Language Semantics* 9(2). 191–240. DOI: https://doi.org/10.1023/A:1012405607146

Maienborn, Claudia. 2005. On the limits of the Davidsonian approach: The case of copula sentences. *Theoretical Linguistics* 31(3). DOI: https://doi.org/10.1515/thli.2005.31.3.275

Manney, Linda Joyce. 2000. *Middle Voice in Modern Greek*. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/slcs.48

Manolessou, Io & Ralli, Angela. 2015. From Ancient Greek to Modern Greek. In *Word-Formation*, Vol. 3, 2041–2061. Berlin: Mouton De Gruyter. DOI: https://doi.org/10.1515/9783110375732-027

Marantz, Alec. 1991. Case and Licensing. In Proceedings of the *Eastern States Conference on Linguistics (ESCOL '91)*, Vol. 8, 234–253.

McCawley, James D. 1968. *Lexical insertion in a transformational grammar without Deep structure.* Chicago: University of Chicago Press.

McCawley, James D. 1971. Tense and time reference in English. In Charles J. Fillmore & Terence D. Langėndoen (eds.), *Studies in Linguistic Semantics*, 96-113. New York: Holt, Rinehart and Winston.

McCloskey, James. 2014. Irish existentials in context. *Syntax* 17(4). DOI: https://doi.org/10.1111/synt.12020

McFadden, Thomas. 2018. *ABA in stem-allomorphy and the emptiness of the nominative. *Glossa: A Journal of General Linguistics* 3(1). DOI: https://doi.org/10.5334/gjgl.373

McNally, Louise. 1997. *A Semantics for the English Existential Construction. A Semantics for the English Existential Construction*. New York: Garland. DOI: https://doi.org/10.4324/9781315536491

McNally, Louise. 2011. Existential sentences. In Klaus von Heusinger & Claudia Maienborn & Paul Portner (eds.), *Handbooks of Linguistics and*

Communication Science, 1829-1848. Berlin: Mouton De Gruyter. DOI: https://doi.org/10.1515/9783110255072.1829

McNally, Louise. 2016. Existential Sentences Crosslinguistically: Variations in Form and Meaning. *Annual Review of Linguistics* 2. 211-231 DOI: https://doi.org/10.1146/annurev-linguistics-011415-040837

Meissner, Torsten. 2006. *S-Stem Nouns and Adjectives in Greek and Proto-Indo-European*. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780199280087.001.0001

Mertyris, Dionysios. 2014. *The loss of the genitive in Greek. A diachronic and dialectological analysis*. Melbourne: La Trobe University dissertation.

Michelioudakis, Dimitris & Chatzikyriakidis, Stergios & Spathas, Giorgos. (2021/to app.). The emergence of prepositional genitives in Northern Greek beyond suppletion. In Elena Anagnostopoulou & Christina Sevdali & Dionysios Mertyris (eds.) *The Place of Case in Grammar*. Oxford: Oxford University Press.

Michelioudakis, Dimitris. 2012. *Dative arguments and abstract Case in Greek*. University of Cambridge dissertation.

Mikkelsen, Line. 2002. Reanalyzing the definiteness effect: evidence from Danish. *Working Papers in Scandinavian Syntax* 69, 1-75.

Mikkelsen, Line. 2005. *Copular Clauses*. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/la.85

Miller, George A. & Johnson-Laird, Philip N. 1976. *Language and Perception*. Cambridge, MA: Harvard University Press. DOI: https://doi.org/10.4159/harvard.9780674421288

Milsark, Gary L. 1974. *Existential Sentences in English*. Massachusetts Institute of Technology dissertation. https://doi.org/10.4324/9781315856728

Milsark, Gary L. 1977. Toward an explanation of certain peculiarities of the existential construction in English. *Linguistic Analysis* 3. 1–29.

Moro, Andrea. 1997. *The Raising of Predicates*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511519956

Moro, Andrea. 2000. *Dynamic Antisymmetry (Linguistic Inquiry Monograph 38)*. Cambridge, MA: MIT Press.

Moro, Andrea. 2006. Existential Sentences and Expletive There. In Martin Everaert & Henk van Riemsdijk (eds.), *The Blackwell Companion to Syntax*, 210–236. Malden, MA, USA: Blackwell Publishing. DOI: https://doi.org/10.1002/9780470996591.ch24

Mucha, Anne & Renans, Agata & Romoli, Jacopo. 2023. Sequence of tense and cessation implicatures: evidence from Polish. *Natural Language & Linguistic Theory* 41(1). 267–346. DOI: https://doi.org/10.1007/s11049-022-09545-2

Munn, Alan & Schmitt, Cristina. 2002. Bare nouns and the morphosyntax of number. In Teresa Satterfield & Christina Tortora & Diana Cresti (eds.), *Current Issues in Romance Languages: Selected papers from the 29th Linguistic Symposium on Romance Languages (LSRL), Ann Arbor, 8–11 April 1999*, 225–239. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/cilt.220.16mun

Munn, Alan & Schmitt, Cristina. 2005. Number and indefinites. *Lingua* 115(6). 821–855. DOI: https://doi.org/10.1016/j.lingua.2004.01.007

Munn, Alan & Schmitt, Cristina. 2020. Bare Singulars. In *The Wiley Blackwell Companion to Semantics*, 1–34. Hoboken, NJ, USA: Wiley. DOI: https://doi.org/10.1002/9781118788516.sem088

Myers, Scott. 1984. Zero-derivation and inflection. In *MIT Working papers in linguistics 7. Papers from the January 1984 MIT Workshop in Morphology*. Cambridge, MA: MIT Press.

Myler, Neil & Nevins, Andrew. 2015. *Inalienable Possession and the Morphosyntax of 'Brown-Eyed'.* Paper presented at Incontro Di Grammatica Generativa, Perugia February 15.

Myler, Neil & Wood, Jim & Sigurðsson, Einar Freyr. 2014. *Predicative Possession Builds on Top of Attributive Possession: Evidence from Icelandic*. Paper presented at the 37th annual meeting of Generative Linguistics in the Old World (GLOW 37), Center for Research in Syntax, Semantics and Phonology (CRISSP) (Brussels, Belgium). Semantics Workshop: 'Understanding Possession', 5 April.

Myler, Neil. 2016. *Building and Interpreting Possession Sentences*. *Building and Interpreting Possession Sentences.* Cambridge, MA: MIT Press. DOI: https://doi.org/10.7551/mitpress/9780262034913.001.0001

Myler, Neil. 2018. Complex copula systems as suppletive allomorphy. *Glossa* 3(1). DOI: https://doi.org/10.5334/gjgl.214

Nchare, Abdoulaye & Terzi, Arhonto. 2014. Licensing silent structure: The spatial prepositions of Shupamem. *Natural Language & Linguistic Theory* 32. DOI: 10.1007/s11049-014-9230-3.

Nichols, Johanna. 1988. On alienable and inalienable possession. In William Shipley (ed.), *In Honor of Mary Haas*, 557–610. Berlin: Mouton De Gruyter. DOI: https://doi.org/10.1515/9783110852387.557

Oehrle, Richard T. 1976. *The grammatical status of the English dative alternation*. Cambridge, MA: MIT dissertation.

Oikonomou, Despina & Alexiadou, Artemis. 2022. Voice Syncretism Crosslinguistically: The View from Minimalism. *Philosophies* 7(1). DOI: https://doi.org/10.3390/philosophies7010019

Oikonomou, Despina & Golcher, Felix & Alexiadou, Artemis. 2020. Quantifier scope and information structure in Greek. *Glossa: A Journal of General Linguistics* 5(1). DOI: https://doi.org/10.5334/gjgl.1183

Oikonomou, Despina. 2011. *Voice and Argument Structure: Deponent Verbs in Modern Greek*. Unpublished manuscript, MIT.

Oltra-Massuet, Isabel. 2013. *Deverbal Adjectives at the Interface*. Berlin: Mouton De Gruyter. DOI: https://doi.org/10.1515/9781614510659

Ormazabal, Javier & Romero, Juan. 2007. The Object Agreement Constraint. *Natural Language & Linguistic Theory* 25(2). 315-347. DOI: https://doi.org/10.1007/s11049-006-9010-9

Ortmann, Albert. 2018. Connecting the typology and semantics of nominal possession: alienability splits and the morphology–semantics interface. *Morphology* 28(1). 99–144. DOI: https://doi.org/10.1007/s11525-017-9319-6

Ouhalla, Jamal. 2000. Possession in Sentences and Noun phrases. In Jacqueline Lecarme & Jean Lowenstamm & Ur Shlonsky (eds.), *Research in Afroasiatic Grammar: Papers from the Third conference on Afroasiatic Languages, Sophia Antipolis, 1996*, Vol. 202, 221–242. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/cilt.202

Panagiotidis, Phoevos & Spyropoulos, Vassilios & Revithiadou, Anthi. 2017. Little v as a categorizing verbal head: Evidence from Greek. In *The Verbal Domain*, 29–48. Oxford: Oxford University Press.

Papangeli, Dimitra & Lavidas, Nikolaos. 2009. Deponents and non-finite constructions in Greek. In Claire Halpert & Jeremy Hartman & David Hill (eds.), *Proceedings of the 2007 Workshop in Greek Syntax and Semantics at MIT*, Vol. 57, 197–211. Retrieved from http://ikee.lib.auth.gr/record/263003.

Partee, Barbara H. & Borschev, Vladimir & Paducheva, Elena V. & Testelets, Yakov & Yanovich, Igor. 2011. Russian Genitive of Negation Alternations: The Role of Verb Semantics. *Scando-Slavica* 57(2). 135–159. DOI: https://doi.org/10.1080/00806765.2011.631775

Partee, Barbara H. & Borschev, Vladimir. 1998. Integrating Lexical and Formal Semantics: Genitives, Relational Nouns, and Type-Shifting. In *Proceedings of the Second Tbilisi Symposium on Language, Logic, and Computation 97*.

Partee, Barbara H. & Borschev, Vladimir. 2002. Genitive of Negation and Scope of Negation in Russian Existential Sentences. In Toman Jindrich (ed.), *Annual workshop on formal approaches to Slavic linguistics: the 2nd Ann Arbor meeting 2001 (FASL10)*, 181–200. Ann Arbor, Michigan: Michigan Slavic Publications.

Partee, Barbara H. & Borschev, Vladimir. 2004. The Semantics of Russian Genitive of Negation: The Nature and Role of Perspectival Structure. *Semantics and Linguistic Theory* 14. 212–234. DOI: https://doi.org/10.3765/salt.v14i0.2908

Partee, Barbara H. & Borschev, Vladimir. 2005. *Possessives, Relational Nouns and the Argument-Modifier Distinction.* Paper presented at Universidade da Coruña, April 4, 2005.

Partee, Barbara H. & Borschev, Vladimir. 2006. Information structure, perspectival structure, diathesis alternation, and the Russian genitive of negation. In Beáta Gyuris & László Kálmán & Chris Piñón & Károly Varasdi (eds.), *Proceedings of the ninth symposium on logic and language*, 120–129. Budapest: Research Institute for Linguistics, Hungarian Academy of Sciences, Theoretical Linguistics Programme, Eötvös Loránd University.

Partee, Barbara H. & Borschev, Vladimir. 2008. Existential Sentences, BE, and the Genitive of Negation in Russian. In Ileana Comorovski & Klaus von Heusinger (eds.), *Existence: Semantics and Syntax. Studies in Linguistics and Philosophy*, Vol. 84, 147–190. Dordrecht: Springer. DOI: https://doi.org/10.1007/978-1-4020-6197-4_6

Partee, Barbara H. & Borschev, Vladimir. 2012. Sortal, Relational, and Functional Interpretations of Nouns and Russian Container Constructions. *Journal of Semantics* 29(4). 445–486. DOI: https://doi.org/10.1093/jos/ffs009

Partee, Barbara H. 1985. Ambiguous Pseudoclefts with Unambiguous Be. *North East Linguistics Society* 16(1). 354–367.

Partee, Barbara H. 1986. Noun Phrase Interpretation and Type-Shifting Principles. In *Studies in Discourse Representation Theory and the Theory of Generalized Quantifiers*, 115–144. Berlin: Mouton De Gruyter. DOI: https://doi.org/10.1515/9783112420027-006

Partee, Barbara H. 1997. Genitives: A case study. In J.F.A.K. van Benthem & Johan van Benthem & Alice G.B. Ter Meulen (eds.), *Handbook of Logic and Language*. Cambridge MA: MIT Press.

Partee, Barbara H. 2006. A note on Mandarin possessives, demonstratives, and definiteness. In Betty J. Birner & Gregory Ward (eds.), *Drawing the Boundaries of Meaning: Neo-Gricean studies in pragmatics and semantics in honor of Laurence R. Horn*, 263–280. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/slcs.80.15par

Payne, Doris L. & Barzhi, Immanuel. 1999. *External Possession* Vol. 39. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/tsl.39

Peeters, Bert & Junker, Marie-Odile & Travis, Catherine & Farrell, Patrick & Perini-Santos, Pedro & Maher, Brigid. 2006. *Natural Semantic Metalanguage*

exponents and universal grammar in Romance: Speech actions, events and movement; existence and possession; life and death. (B. Peeters, Ed.) 2010th ed. Berlin, Boston: John Benjamins.

Pereltsvaig, Asya. 2007. Copular Sentences in Russian: An Overview. In Asya Pereltsvaig (ed.), *Copular Sentences in Russian: A Theory of Intra-Clausal Relations*, 1–15. Dordrecht: Springer Netherlands. DOI: https://doi.org/10.1007/1-4020-5793-8_1

Pesetsky, David M. 1995. *Zero Syntax: Experiencers and Cascades*. Cambridge, MA: MIT Press.

Pesetsky, David M. 2013. *Russian Case Morphology and the Syntactic Categories*. Cambridge, MA: MIT Press.

Philippaki- Warburton, Irene & Stavrou, Melita. 1986. Free relatives in Modern Greek [Greek title: Οι ελεύθερες αναφορικές προτάσεις στα Νέα Ελληνικά.]. In *Studies in Greek Linguistics 7,* 117–34.

Philippaki- Warburton, Irene. 1975. The Passive in English and Greek. *Foundations of Language* 13(4). 563–578. Retrieved from http://www.jstor.org/stable/25000937.

Philippaki-Warburton, Irene. 1970. *On the verb in modern Greek*. Bloomington: Indiana University.

Piotrowska, Alicja. 2021. *Possessive expressions in Danish and Swedish in a diachronic and synchronic perspective*. Poznan: Adam Mickiewicz University dissertation.

Postal, Paul. 1974. *On Raising*. Cambridge, MA: The MIT Press.

Postma, Gertjan. 1997. On the configurational nature of possession. *Lingua* 101(3–4). 271–294. DOI: https://doi.org/10.1016/S0024-3841(96)00052-6

Prat-Sala, Mercè & Branigan, Holly P. 2000. Discourse Constraints on Syntactic Processing in Language Production: A Cross-Linguistic Study in English and Spanish. *Journal of Memory and Language* 42(2). 168–182. DOI: https://doi.org/10.1006/jmla.1999.2668

Prat-Sala, Merce & Shillcock, Richard & Sorace, Antonella. 2000. Animacy effects on the production of object-dislocated descriptions by Catalan-speaking children. *Journal of Child Language* 27(1). DOI: https://doi.org/10.1017/S0305000999004031

Primus, Beatrice. 2002. Proto-Roles and Case Selection in Optimality Theory. *Theorie Des Lexikons: Arbeiten Des Sonderforschungsbereichs* 282(122). 1–39.

Prince, Ellen F. 1992. The ZPG Letter: Subjects, definiteness, and information status. In William C. Mann & Sandra Thompson (eds.), *Discourse description: Diverse linguistic analyses of a fund-raising text*, 295. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/pbns.16.12pri

Pustejovsky, James. 1991. The syntax of event structure. *Cognition* 41(1–3). 47–81. DOI: https://doi.org/10.1016/0010-0277(91)90032-Y

Pustet, Regina. 2003. *Copulas: Universals in the Categorization of the Lexicon*. Oxford: Oxford University Press.

Pylkkänen, Liina. 2002. *Introducing arguments*. MIT dissertation.

Ralli, Angela. 2004. Stem-based versus Word-based Morphological Configurations: The Case of Modern Greek Preverbs. *Lingue e Linguaggio* 2. 241–275.

Ralli, Angela. 2005. *Morphology* [Greek title: Μορφολογία]. Athens: Patakis.

Ramadanidis, Athanasios Michael. 2022. Projective and other locative PPs in Greek. *Glossa: A Journal of General Linguistics* 7(1). DOI: https://doi.org/10.16995/glossa.6153

Ramchand, Gillian Catriona. 1996. Two Subject Positions in Scottish Gaelic: The Syntax-Semantics Interface. *Natural Language Semantics* 4(2). 165–191. Retrieved from http://www.jstor.org/stable/23748707.

Rapoport, Tova Rebecca. 1987. *Copular, nominal, and small clauses: a study of Israeli Hebrew*. MIT dissertation.

Reinhart, Tanya. 1981. Pragmatics and Linguistics: an analysis of Sentence Topics. *Philosophica* 27(n/a).

Rezac, Milan. 2008. Phi-agree and theta-related case. In Daniel Harbour & David Adger & Susane Béjar (eds.), *Phi theory: Phi-features across modules and interfaces*, 83–129. Oxford: Oxford University Press.

Rhee, Seongha. 2017. *On Grammaticalization of Prepositions in English: A Comparative and Typological Review*. Paper presented at KASELL 2017 Fall Conference at Hanyang University, Seoul, Korea.

Rhee, Seongha. 2019. *Grammaticalization in English: Trends and Prospect*. Paper presented at English Linguistics Society of Korea (ELSOK) Conference. Korea National Open University, Seoul, Spring 2019.

Ritter, Elizabeth & Rosen, Sara Thomas. 1997. The function of have. *Lingua* 101(3–4). 295–321. DOI: https://doi.org/10.1016/S0024-3841(96)00024-1

Rizzi, Luigi. 1986. Null Objects in Italian and the Theory of pro. *Linguistic Inquiry* 17(3). 501–557. Retrieved from http://www.jstor.org/stable/4178501.

Rooryck, Johan & Vanden Wyngaerd, Guido. 2007. The Syntax of Spatial Anaphora. *Nordlyd* 34(2). DOI: https://doi.org/10.7557/12.112

Rooryck, Johan. 1996. Prepositions and minimalist case marking. In Höskuldur Thráinsson & Samuel Epstein & Steve Peter (eds.), *Studies in Comparative Germanic Syntax.*, Vol. 2, 226–256. Dordrecht: Kluwer.

Rooryck, Johan. 2022. Reconsidering inalienable possession with definite determiners in French. *Isogloss. Open Journal of Romance Linguistics* 8(1). 1–34. DOI: https://doi.org/10.5565/rev/isogloss.233

Rosenbach, Anette. 2008. Animacy and grammatical variation: Findings from English genitive variation. *Lingua* 118(2). 151–171. DOI: https://doi.org/10.1016/j.lingua.2007.02.002

Rothstein, Susan. 1999. Fine-grained structure in the eventuality domain: the semantics of Predicative Adjective Phrases and BE. *Natural Language Semantics* 7(4). 347–420. DOI: https://doi.org/10.1023/A:1008397810024

Rothstein, Susan. 2000. *Predicates and Their Subjects*. Springer Netherlands.

Rothstein, Susan. 2004. *Predicates and Their Subjects*. Dordrecht: Springer Netherlands.

Roussou, Anna & Tsimpli, Ianthi-Maria. 2006. On Greek VSO again! *Journal of Linguistics* 42(2). 317–354. DOI: https://doi.org/DOI: 10.1017/S0022226706003914

Roussou, Anna. 2000. On the left periphery: Modal particles and complementizers. *Journal of Greek Linguistics* 1(1). 65–94. DOI: https://doi.org/https://doi.org/10.1075/jgl.1.05rou

Roussou, Anna. 2009. In the mood for control. *Lingua* 119(12). 1811–1836. DOI: https://doi.org/10.1016/j.lingua.2008.11.010

Roy, Isabelle. 2013. *Nonverbal Predication*. Oxford: Oxford University Press.

Sabbagh, Joseph. 2009. Existential sentences in Tagalog. *Natural Language & Linguistic Theory* 27(4). 675–719. DOI: https://doi.org/10.1007/s11049-009-9083-3

Sæbø, Kjell Johan. 2009. Possession and pertinence: the meaning of have. *Natural Language Semantics* 17(4). 369–397. DOI: https://doi.org/10.1007/s11050-009-9047-5

Safir, Kenneth. 1982. *Syntactic chains and the definiteness effect*. MIT dissertation.

Safir, Kenneth. 1987. What explains the definiteness effect. In Eric J. Reuland & Alice G.B. ter Meulen (eds.), *The representation of (in) definiteness*, 71–97. Cambrisge, MA: MIT Press.

Sag, Ivan A. & Baldwin, Timothy & Bond, Francis & Copestake, Ann & Flickinger, Dan. 2002. Multiword Expressions: A Pain in the Neck for NLP. In Alexander Gelbukh (ed.), *Computational Linguistics and Intelligent Text Processing. CICLing 2002. Lecture Notes in Computer Science*, 1–15. Berlin, Heidelberg: Springer. DOI: https://doi.org/10.1007/3-540-45715-1_1

Sag, Ivan A. & Pollard, Carl. 1994. *Head-driven phrase structure grammar*. Stanford: CSLI Publications.

Schäfer, Florian. 2008. *The syntax of (anti-) causatives External arguments in change-of-state contexts. External arguments in change-of-state contexts*. Amsterdam: John Benjamins.

Schäfer, Florian. 2022. Transitive anticausatives. Paper presented at NELS 52. Available at: https://www.researchgate.net/publication/360425322_Transitive_anticausatives.

Seiler, Hansjakob. 1983. *Possession: as an operational dimension of language*. Tubingen: Gunter Narr Verlag, Language Universals Series, 2.

Sifaki, Evi. 2013. VOS in Greek. *Journal of Greek Linguistics* 13(2). 239–278. DOI: https://doi.org/10.1163/15699846-13130205

Sigurdsson, Halldór Ármann. 2006. The Nom/Acc alternation in Germanic. In Jutta M Hartmann & László Molnárfi (eds.), *Comparative Studies in Germanic Syntax: From Afrikaans to Zurich German*, 13–50. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.97.03sig

Silverstein, Michael. 1976. Hierarchy of Features and Ergativity. In Robert M. W. Dixon (ed.), *Grammatical categories in Australian languages*, 112–171. Canberra: Australian Institute of Aboriginal Studies.

Sioupi, Athina. 2001a. On the semantic nature of Bare Singular NPs in Greek. In *Proceedings of the 5th International Conference on Greek Linguistics*, Vol. 2, 231–234.

Sioupi, Athina. 2001b. The distribution on object bare singulars. In *Proceedings of the 4th International Linguistics Conference on Greek Linguistics*, 292–299.

Slobin, Dan Isaac. 1985. Crosslinguistic evidence for the language-making capacity. In *The crosslinguistic study of language acquisition, Vol. 1: The data; Vol. 2: Theoretical issues.*, 1157–1256. Hillsdale, NJ, US: Lawrence Erlbaum Associates, Inc.

Snider, Neal & Zaenen, Annie. 2006. Animacy and Syntactic Structure: Fronted NPs in English. In Ronald M. Kaplan & Miriam Butt & Mary Dalrymple & Tracy Holloway King (eds.), *Intelligent Linguistic Architectures: Variations on themes*. Stanford: CSLI Publications.

Spyropoulos, Vassilios & Revithiadou, Anthi. 2008. The morphology of PAST in Greek. Paper presented at the 29th Annual Meeting of the Linguistics Division of Aristotle University of Thessaloniki, May 10-11 2008.

Spyropoulos, Vassilios & Revithiadou, Anthi. 2009. Subject chains in Greek and PF processing. In *MIT Working Papers in Linguistics 57: Proceedings of the 2007 Workshop in Greek Syntax and Semantics at MIT*, 293–309. Cambridge, MA: MIT Working Papers in Linguistics.

Spyropoulos, Vassilios & Stammatogianis, Nikolaos. 2011. *Subextraction from subjects in Greek: Things that you can think and you can say*. Paper presented at: 'Islands in contemporary linguistic theory' workshop, University of the Basque Country.

Spyropoulos, Vassilios. 1999. *Agreement relations in Greek.* University of Reading dissertation.

Spyropoulos, Vassilios. 2011. Case conflict in Greek free relatives: Case in syntax and morphology. In *Morphology and its Interfaces*, 21–55. Amsterdam: John Benjamins.

Starke, Michal. 1993. *Notes on prepositions and clause-structure.* University of Geneva dissertation.

Stassen, Leon. 2009. *Predicative Possession*. Oxford, United Kingdom: Oxford University Press.

Stowell, Tim. 1978. What was there before there was there? In *Proceedings of the 14th Regional Meeting of the Chicago Linguistic Society*, 458–471. Chicago: Chicago Linguistic Society.

Strawson, Peter Frederick. 1959. *Individuals: An Essay in Descriptive Metaphysics*. New York: Routledge.

Strawson, Peter Frederik. 1964. Identifying reference and truth-values. *Theoria* 30(2).

Sudo, Yasutada & Romoli, Jacopo. 2017. *Lifetime effects as presuppositional scalar strengthening*. UCL working papers in linguistics No. 39.

Suñer, Margarita. 1982. *Syntax and semantics of Spanish presentational sentence-types*. Washington, DC: Georgetown University Press.

Svenonius, Peter. 1994. *Dependent nexus: Subordinate predication structures in English and the Scandinavian languages*. University of California, Santa Cruz dissertation.

Svenonius, Peter. 2004. Limits on P: filling in holes vs. falling in holes. *Nordlyd* 31(2). DOI: https://doi.org/10.7557/12.13

Svenonius, Peter. 2005. Extending the extension condition to discontinuous idioms. *Linguistic Variation Yearbook* 5. 227–263. DOI: https://doi.org/10.1075/livy.5.08sve

Svenonius, Peter. 2008. Projections of P. In Anna Asbury & Jakub Dotlaĉil & Berit Gehrke & Rick Nouwen (eds.), *Syntax and semantics of spatial P*, 63–84. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/la.120.04sve

Svenonius, Peter. 2010. Spatial P in English. In *Mapping Spatial PPs: The Cartography of Syntactic Structures*, Vol. 6. DOI: https://doi.org/10.1093/acprof:oso/9780195393675.003.0004

Szabolcsi, Anna. 1981. The possessive construction in Hungarian: a configurational category in a non-configurational language. *Acta Linguistica Academiae Scientiarum Hungaricae* 31(1/4). 261–289. Retrieved from http://www.jstor.org/stable/44310514.

Szabolcsi, Anna. 1983. The possessor that ran away from home. *The Linguistic Review* 3(1). DOI: https://doi.org/10.1515/tlir.1983.3.1.89

Szabolcsi, Anna. 1994. The Noun Phrase. In Ferenc Kiefer & Katalin E. Kiss (eds.), *The Syntactic Structure of Hungarian*, Syntax and Semantics 27.179-274. San Diego, CA: Academic Press.

Szekely, Rachel. 2015. *Truth without Predication*. London: Palgrave Macmillan. DOI: https://doi.org/10.1057/9781137483294

Talmy, Leonard. 1975. Figure and Ground in Complex Sentences. *Proceedings of the 1st Annual Meeting of the Berkeley Linguistics Society* 1. 419–430. DOI: https://doi.org/10.3765/bls.v1i0.2322

Talmy, Leonard. 1985. Lexicalization patterns: Semantic structure in lexical forms. In Timothy Shopen (ed.), *Language typology and syntactic description 3*, 57–149. Cambridge: Cambridge University Press.

Taylor, John R. 1989. Possessive genitives in English. *Linguistics* 27(4). 663–686. DOI: https://doi.org/10.1515/ling.1989.27.4.663

Teleman, Ulf & Hellberg, Staffan & Andersson, Erik. 2010. *Svenska Akademiens grammatik: 4 Satser och meningar*. Stockholm: Svenska akademien.

Tellier, Christine. 1988. *Universal Licensing: Implications for Parasitic Gap Constructions*. Montreal, Quebec: McGill University dissertation.

Tellier, Christine. 1990. Underived Nominals and the Projection Principle: Inherent Possessors. *North East Linguistics Society* 20(2). 472–486.

Tellier, Christine. 1994. The HAVE/BE alternation. Attributives in French and English. *Probus* 6(2–3). DOI: https://doi.org/10.1515/prbs.1994.6.2-3.235

Tenny, Carol L. 1987. *Grammaticalizing Aspect and Affectedness*. MIT dissertation.

Tenny, Carol L. 1995. How motion verbs are special. *Pragmatics & Cognition* 3(1). 31–73. DOI: https://doi.org/10.1075/pc.3.1.06ten

Terzi, Arhonto. 2010. Locative Prepositions and Place. In Guglielmo Cinque & Luigi Rizzi (eds.), *Mapping Spatial PPs [The Cartography of Syntactic Structures, vol.6]*, 196–224. Oxford: Oxford University Press. DOI: https://doi.org/10.1093/acprof:oso/9780195393675.003.0006

Terzi, Arhonto. 2010. On null spatial Ps and their arguments. *Catalan Journal of Linguistics* 9(1). 167-187. DOI: https://doi.org/10.5565/rev/catjl.99

Terzi, Arhonto. 2017. Complex Spatial Expressions. In *The Wiley Blackwell Companion to Syntax, Second Edition*, 1–25. Hoboken, NJ, USA: John Wiley & Sons, Inc. DOI: https://doi.org/10.1002/9781118358733.wbsyncom034

Tham, Shiao Wei. 2004. *Representing Possessive Predication: Semantic Dimensions and Pragmatic Bases*. Stanford, CA: Stanford University dissertation.

Theophanopoulou-Kontou, Dimitra. 2000. Locative adverbs and case in Greek: A diachronic approach [Greek title: Τοπικά επιρρήματα και «πτώση» στην Ελληνική: Διαχρονική προσέγγιση]. *Glossologia* 11/12. 1–40.

Thomas, Guillaume. 2012. *Temporal implicatures*. Cambridge, MA: MIT dissertation.

Torrego, Esther. 2002. Aspect in the prepositional system of Romance. In Teresa Satterfield & Christina Tortora & Diana Cresti (eds.), *Current Issues in Romance Languages: Selected papers from the 29th Linguistic Symposium on Romance Languages (LSRL), Ann Arbor, 8–11 April 1999*, 337–357. Amsterdam: John Benjamins Publishing Company. DOI: https://doi.org/10.1075/cilt.220.23tor

Trudgill, Peter. 2003. Modern Greek dialects: A preliminary classification. *Journal of Greek Linguistics* 4(1). 45–63. DOI: https://doi.org/https://doi.org/10.1075/jgl.4.04tru

Tsedryk, Egor. 2020. Predicative possession in Belarusian, a mixed BE/HAVE language. In Jacek Witkoś & Piotr Cegłowski (eds.), *Approaches to Predicative Possession*, 80–107. London: Bloomsbury Academic. DOI: https://doi.org/10.5040/9781350062498.ch-005

Tsiakmakis, Evripidis & Borràs-Comes, Joan & Espinal, M. Teresa. 2023. On the distribution and interpretation of Voice in Greek anticausatives. *Frontiers in Psychology* 14. DOI: https://doi.org/10.3389/fpsyg.2023.1068058

Tsimpli, Ianthi-Maria. 1989. On the properties of the passive affix in Modern Greek. *UCL Working Papers in Linguistics*. DOI: https://doi.org/refwid:75045

Tsimpli, Ianthi-Maria. 2006. The acquisition of voice and transitivity alternations in Greek as native and second language. In Sharon Unsworth & Teresa Parodi & Antonella Sorace & Martha Young-Scholten (eds.), *Paths of Development in L1 and L2 acquisition: In honor of Bonnie D. Schwartz*, 15–55. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/lald.39.03tsi

Tsoulas, George. 1993. Remarks on the structure and the interpretation of *na*-clauses. *Studies in Greek Linguistics 14.* 196–207.

Tsoulas, George. 2009. On the grammar of number and mass terms in Greek. In Claire Halpert & Hartman. Jeremy & David Hill (eds.), *MIT Working Papers in Linguistics*, Vol. 57. Boston: MITWPL.

Tsouloucha, Eleni. 2017. *The semantics and pragmatics of the Modern Greek Perfect*. Utrecht University dissertation.

Tsujioka, Takae. 2002. *The Syntax of Possession in Japanese*. New York: Routledge. DOI: https://doi.org/10.4324/9781315024158

Tsunoda, Tasaku. 1985. Remarks on transitivity. *Journal of Linguistics* 21(2). 385–396. DOI: https://doi.org/10.1017/S0022226700010318

Valin, Robert D. van & LaPolla, Randy J. 1997. *Syntax*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9781139166799

van Riemsdijk, Henk. 1990. Functional prepositions. In Harm Pinskter & Inge Genee (eds.), *Unity in Diversity: Papers Presented to Simon C. Dik on his 50th Birthday*, 229–242. Berlin, Boston: Mouton De Gruyter. DOI: https://doi.org/10.1515/9783110847420.229

Vergnaud, Jean-Roger & Zubizarreta, Maria Luisa. 1992. The definitive determiner and the inalienable constructions in French and in English. *Linguistic Inquiry* 23. 595–652.

Verhaar, John W.M. 1967. *The Verb 'be' and Its Synonyms: Philosophical and Grammatical Studies*. Dordrecht: Reidel.

Verhoeven, Elisabeth. 2010. Agentivity and stativity in experiencer verbs: Implications for a typology of verb classes. *Linguistic Typology* 14(2–3). DOI: https://doi.org/10.1515/lity.2010.009

Verhoeven, Elisabeth. 2014. Thematic prominence and animacy asymmetries. Evidence from a cross-linguistic production study. *Lingua* 143. 129–161. DOI: https://doi.org/10.1016/j.lingua.2014.02.002

Vikner, Carl & Jensen, Per Anker. 2002. A Semantic Analysis of the English Genitive. Interaction of Lexical and Formal Semantics. *Studia Linguistica* 56(2). 191–226. DOI: https://doi.org/10.1111/1467-9582.00092

Vogels, Jorrig & Sonja, Zeman & Carla, Contemori & Petra, Hendriks & Franziska, Köder & Maier Emar. 2023. Editorial: Perspective taking in language. *Frontiers in Communication* 8:1160727. DOI: 10.3389/fcomm.2023.1160727

von Stechow, Armin. 1996. The different readings of *wieder* 'again': a structural account. *Journal of Semantics* 13(2). 87–138. DOI: https://doi.org/10.1093/jos/13.2.87

Vorbichler, Anton. 1971. *Die Sprache der Mamvu*. Gluckstadt: J.J. Augustin.

Wang, Yong & Xu, Jie. 2013. A systemic typology of existential and possessive constructions. *Functions of Language* 20(1). 1–30. DOI: https://doi.org/10.1075/fol.20.1.01wan

Ward, Gregory & Birner, Betty. 1995. Definiteness and the English Existential. *Language* 71(4). 722–742. DOI: https://doi.org/10.2307/415742

Weinert, Regina. 2013. Presentational/Existential Structures in Spoken versus Written German: *es gibt* and *sein*. *Journal of Germanic Linguistics* 25(1). 37–79. DOI: https://doi.org/10.1017/S1470542712000141

Wiese, Heike & Alexiadou, Artemis & Allen, Shanley & Bunk, Oliver & Gagarina, Natalia & Iefremenko, Kateryna & Zuban, Yulia. 2022. Heritage Speakers as Part of the Native Language Continuum. *Frontiers in Psychology* 12. DOI: https://doi.org/10.3389/fpsyg.2021.717973

Williams, Edwin. 1980. Predication. *Linguistic Inquiry* 11(1). 203–238. Retrieved from http://www.jstor.org/stable/4178153.

Williams, Edwin. 1984. There-Insertion. *Linguistic Inquiry* 15(1). 131–153. Retrieved from http://www.jstor.org/stable/4178370.

Williams, Edwin. 1985. PRO and Subject of NP. *Natural Language & Linguistic Theory* 3(3). 297–315. Retrieved from http://www.jstor.org/stable/4047531.

Williams, Edwin. 1994. *Thematic Structure in Syntax*. Cambridge, MA: The MIT Press.

Williams, Edwin. 2006. The Subject-Predicate Theory of There. *Linguistic Inquiry* 37(4). 648–651. Retrieved from http://www.jstor.org/stable/4179388.

Wood, Jim & Sigurðsson, Einar F. 2014. *Building deverbal ability adjectives in Icelandic.* University of Pennsylvania Working Papers in Linguistics 20. Available at: https://repository.upenn.edu/handle/20.500.14332/44988

Wood, Jim. 2014. Reflexive *-st* verbs in Icelandic. *Natural Language and Linguistic Theory* 32(4). DOI: https://doi.org/10.1007/s11049-014-9243-y

Wood, Jim. 2015. *Icelandic Morphosyntax and Argument Structure. Studies in Natural Language and Linguistic Theory* Vol. 90. Springer International Publishing. DOI: https://doi.org/10.1007/978-3-319-09138-9

Wood, Jim. 2017. The Accusative-Subject Generalization. *Syntax* 20(3). 249–291. DOI: https://doi.org/10.1111/synt.12138

Yadroff, Michael & Franks, Steven. 2001. The Origin of Prepositions. In Gerhild Zybatow & Uwe Junghanns & Grit Mehlhorn & Luka Szucsich (eds.), *Current Issues in Formal Slavic Linguistics*, 69–79. Frankfurt: Peter Lang.

Yadroff, Michael. 1999. *Formal Properties of Functional Categories: The Minimalist Syntax of Russian Nominal and Prepositional Expressions*. University of Indiana dissertation.

Z'graggen, J.A. 1965. Possessor-possessed relationship in the Saker language, NE-New Guinea. *Oceanic Linguistics* 4(1/2). 119–126.

Zombolou, Katerina & Alexiadou, Artemis. 2014. The canonical function of the deponent verbs in modern Greek. In Franz Rainer & Francesco Gardani & Hans Christian Luschützky & Wolfgang U. Dressler (eds.), *Morphology and Meaning: Selected papers from the 15th International Morphology Meeting,*

Vienna, February 2012, 331–344. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/cilt.327.23zom

Zombolou, Katerina. 2004. *Verbal alternations in Greek: A semantic approach*. University of Reading dissertation.

Zucchi, Alessandro. 1995. The ingredients of Definiteness and the Definiteness effect. *Natural Language Semantics* 3(1). 33–78. Retrieved from http://www.jstor.org/stable/23748802.