Space and Events

Space and Events:

Spatial PPs and Motion VPs

By

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ABSTRACT

This book studies the internal syntax and semantics of spatial PPs, i.e. phrases headed by words such as (in English) *in, on, at, above, in front of, from, out of, through, around,* etc. as well as their role and contribution in motion events when combined with different motion verbs. I argue that these adpositions as used in spatial relationships are Relators. They relate entities, positions or events to specific entities or positions. For example, *in/on/at* relate a Figure to specific Spaces with reference to a Ground. Thus I refer to them as Place Relators. As to the elements *to/from/through*, I refer to them as Path Relators. They relate the Figure to specific points in a path domain.

Based on the way I view these elements, the minimum P projection I propose is [Rel_{PATH}P [Rel_{PLACE}P]]. Furthermore, adapting ideas of Svenonius (2010), I decompose Rel_{PLACE}P into [Rel_{PLACE}P [AxPartP [KP]]]. The scope of the materials is extended to analyse equivalent elements in Kurdish and Arabic for which no full descriptions are available. The P projection proposed provides a better understanding of spatial adpositions in these languages. On the one hand, it helps distinguish the elements that belong to the P category in e.g. Arabic, which has true and semi adpositions. On the other hand, Kurdish data show that there is more to the P projection proposed through suggesting another functional head, namely PLACE.

Furthermore, I investigate the role of spatial PPs in motion events when combined with different motion verbs. Following Ramchand's (2008) first-phase syntax of verbs and based on the availability of a Res feature, I divide motion verbs into two classes: [Proc] and [Proc, Res] verbs. The occurrence of different spatial PPs with these two types of motion verbs is closely examined and discussed in the second half of the book. It is shown that there are two types of events expressed by such combinations: Process and (resultative) Transition. Process events can be expressed by [Proc] Vs and different spatial PPs. The PP in such an event structure mostly defines the location of the activity. Transition events can be expressed lexically by [Proc, Res] Vs in general. The spatial PP in such lexical Transition events does not contribute much to the event structure either, except for PPs

headed by Ps such as *in/on/behind/to/into*, which can represent the culmination (upper bound) of the BECOME event involved in Transition events.

Further I show that resultative Transition events can also be expressed syntactically by [Proc] Vs combined with specific spatial PPs that denote an end point (a culmination), such as English *into/onto*-phrases. In Kurdish and Arabic, the presence of a bounded GoalRelP headed by an adposition meaning 'to' and a lexicalised AxPart is crucial to give rise to a resultative Transition event with a [Proc] V. In such cases, since the PPs can suggest a culmination in the event structure, the combination suggests a Transition event that involves a BECOME event. Syntactically I present this BECOME event as a null Res element.

ACKNOWLEDGEMENTS

بـــــسم الله الرحمـــن الرحيـــــــم
In The Name Of Allah, The Beneficent, The Merciful
الحمـــد لله رب العالميـــــن
Praise Be To Allah, The Lord Of The Worlds
(Qur'an, surat al-Fatiḥah: verses 1-2)

Writing a book is a tough journey, but during this journey, we have the chance to meet people without whom this journey would be even tougher. Hereby, I would like to thank them sincerely. Above all, I am sincerely grateful to two people: William van der Wurff and Anders Holmberg, my PhD supervisors. I cannot thank them enough for their continuous support and guidance. They were always there to listen and discuss my ideas, showing a genuine interest. This always inspired and encouraged me to work harder and come up with more ideas.

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ABBREVIATIONS

1	First person
2	Second person
3	Third person
ACC	Accusative case
AxPart	Axial Part
ASP	Aspect
DEF	Definite article
DU	Dual
EZ	Ezafe marker
F	Feminine
GEN	Genitive case
IA	Iraqi Arabic
INDF	Indefinite article
Init	Initiation
IMP	Imperative
K	Case
M	Masculine
MSA	Modern Standard Arabic
NOM	Nominative case
P	Preposition
PC	Pronominal clitic
PL	Plural
POSS	Possessive
PRE	Preverbal element
Proc	Process
PRS	Present
PST	Past
Rel	Relator
Res	Result
SG	Singular
V	Verb
Ø	No corresponding element

KEY TO SYMBOLS USED IN TRANSLITERATION OF KURDISH DATA[1]

Consonants:

Kurdish alphabet	Symbol	Phonetic description
ئ	’	glottal stop
ب	b	voiced bilabial stop
پ	p	voiceless bilabial stop
ت	t	voiceless alveolar stop
ج	j	voiced alveopalatal affricate
چ	ch	voiceless alveopalatal affricate
ح	ḥ	voiceless pharyngeal fricative
خ	kh	voiceless uvular fricative
د	d	voiced alveolar stop
ر	r	voiced alveolar flap
ڕ	ř	voiced alveolar trill
ز	z	voiced alveolar fricative
ژ	zh	voiced postalveolar fricative
س	s	voiceless alveolar fricative
ش	sh	voiceless postalveolar fricative
ع	‘	voiced pharyngeal fricative
غ	gh	voiced uvular fricative
ف	f	voiceless labiodental fricative
ق	q	voiceless uvular stop
ک	k	voiceless velar stop
گ	g	voiced velar stop

[1] Since this is a grammatical study, I transliterate the data of Kurdish and Arabic. However, to give the readers unfamiliar with Kurdish and Arabic the ability to pronounce the words accurately, I try to vocalize the vowels as well. For this purpose, I use the Romanisation system of the American Library Association, which is accessible via http://www.loc.gov/catdir/cpso/romanization/arabic.pdf. The phonetic description given is according to the International Phonetic Alphabet (IPA) Unicode chart, which is available via http://westonruter.github.io/ipa-chart/keyboard/.

ل	l	voiced alveolar lateral approximant
ڵ	ł	voiced velarized lateral
م	m	voiced bilabial nasal
ن	n	voiced alveolar nasal
ھ	h	voiceless glottal fricative
و	w	voiced labio-velar approximant
ي	y	voiced palatal approximant

Vowels:

ه	a	mid central unrounded
ا/ئا	ā	open back unrounded
و	u	close central rounded
وو	ū	close back rounded
ۆ	o	close-mid back rounded
ێ	e	close-mid front unrounded
-	i	close central unrounded
ی	ī	close front unrounded

KEY TO SYMBOLS USED IN TRANSLITERATION OF ARABIC DATA[2]

Consonants:

Arabic alphabet	Symbol	Phonetic description
ء	’	glottal stop
ب	b	voiced bilabial stop
ت	t	voiceless alveolar stop
ث	th	voiceless dental fricative
ج	j	voiced alveopalatal affricate
ح	ḥ	voiceless pharyngeal fricative
خ	kh	voiceless uvular fricative
د	d	voiced alveolar stop
ذ	dh	voiced dental fricative
ر	r	voiced alveolar trill
ز	z	voiced alveolar fricative
س	s	voiceless alveolar fricative
ش	sh	voiceless postalveolar fricative
ص	ṣ	voiceless pharyngealized fricative
ض	ḍ	voiced pharyngealized stop
ط	ṭ	voiceless pharyngealized stop
ظ	ẓ	voiced pharyngealized fricative
ع	‘	voiced pharyngeal fricative
غ	gh	voiced uvular fricative
ف	f	voiceless labiodental fricative
ق	q	voiceless uvular stop
ك	k	voiceless velar stop
ل	l	voiced alveolar lateral approximant
م	m	voiced bilabial nasal
ن	n	voiced alveolar nasal

[2] The symbols listed under Arabic are the same in Iraqi Arabic, but in the latter, there are a few other phonemes, such as [g] (voiced velar stop) represented as ‘g’, [ʧ] (voiceless alveopalatal affricate) represented as ‘ch’, [o] (close-mid back rounded) represented as ‘o’, and [e] (close-mid front unrounded) represented as ‘e’.

ه/ة	h	voiceless glottal fricative
و	w	voiced labio-velar approximant
ي	y	voiced palatal approximant

Vowels

◌َ	a	open front unrounded lax
ا◌َ	ā	open front unrounded tense
◌ُ	u	close back rounded lax
و◌ُ	ū	close back rounded tense
◌ِ	i	close front unrounded lax
ى◌ِ	ī	close front unrounded tense

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This book is concerned with the syntax and semantics of spatial adpositions internally and externally. On the internal level, I examine the syntactic and semantic properties and function of the elements inside phrases headed by these adpositions in a spatial relationship. On the external level, I study the role of spatial PPs in motion events, in particular when they occur with two types of motion verbs ([Proc(ess)] Vs and [Proc, Res(ult)] Vs). The main idea that is argued for is that the lexical semantics of spatial adpositions are directly reflected or mapped in syntax at both the internal level (cf. e.g. Svenonius 2008, 2010) and external level (cf. e.g. Ramchand 2008; Gehrke 2008). While detailed accounts of relevant literature will be provided in each chapter separately, for the purpose of setting the scene, in this chapter I introduce the main issues that motivated this choice of topic, the contribution of this study to the syntax and semantics of spatial PPs, and the general theory assumed.

The chapter is structured as follows. In section 1.2, I provide some brief background about spatial adpositions. In section 1.3, I present the main issues dealt with in the book and the proposals made. I then lay down the position of this book within the theoretical framework adopted in this book in section 1.4. This includes the cartographic approach assumed in the analyses, the syntax-semantics interface, and the lexicon-syntax relation. Finally, in section 1.5, I explain how the book is organised.

1.2 Background: Spatial Adpositions

Firstly, in general, adpositions have been defined as "grammatical tools which mark the relationship between two parts of a sentence" (Hagège

2010: 1).[1] In a spatial relationship, these two parts are referred to as the Figure and the Ground.[2] The Figure is the entity whose position is determined with reference to the Ground, which can be another entity or a location. For example, in (1) X stands for the Figure, while Y represents the Ground:

(1) a. X is in/on/at Y.
b. X walked to/from/through Y.

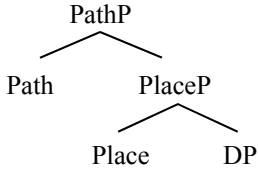
Usually, the pattern in (1a) is referred to as a locative relation, because the Figure's position is determined on the basis of another location in a static relation and a static verb is used. Concrete examples are: *the cat is on the dictionary*; *Tahir sits in the garden*, etc. In contrast, the pattern in (1b) suggests a directional relation, because a path notion is involved, and a motion verb is used. Examples of such a relation are: *the cat ran to the door*; *Tahir walked through the tunnel*, etc.

Spatial adpositions have attracted the attention of many linguists and researchers over the last two decades. Special focus has been given to their internal syntax and semantics (e.g. Jackendoff 1983, 1990; Wunderlich 1991; Nam 1995, 1996; Fong 1997, 2001; van Riemsdijk & Huybregts 2002; Zwarts 2005, 2008a, 2008b; Kracht 2002, 2008; Koopman 2000, 2010; den Dikken 2010; Svenonius 2008, 2010; Pantcheva 2011; Romeu 2013, 2014). In addition, the effect and interpretation of spatial adpositions in event structure or VP structure have been considered in several studies (e.g. Folli & Ramchand 2005; Son 2006; Pantcheva 2007; Fábregas 2007; Gehrke 2008; Ramchand 2008; Romeu 2014).[3]

[1] I use the term adposition to refer to all adpositional forms (prepositions, postpositions and circumpositions); where necessary, I use the more precise terms.
[2] The terms Figure and Ground are adopted from Talmy (1975). Other terms for Figure and Ground are Theme and Reference object (Zwarts 1997) or Trajector and Landmark, common in the cognitive tradition (Lakoff 1987; Langacker 1987).
[3] I refrain from discussing the thorny issue of the categorisation of adpositions, i.e. whether they are lexical or functional elements. For example, den Dikken (2010) and Svenonius (2010) classify adpositions as lexical elements due to their parallel syntactic and semantic configuration to nouns, verbs and adjectives. A contrary view is taken by Grimshaw (1991, 2000) and Baker (2003), who argue that adpositions are functional elements, similar to determiners, inflections and complementisers. Yet another, in-between, view is that of Emonds (1985) and van Riemsdijk (1990, 1998), who classify adpositions as semi-lexical elements, admitting both lexical and functional properties to them. I will follow the third,

The syntactic structure of spatial P(repositional) P(hrase)s is generally argued to be composed of two layers: Place and Path (Jackendoff 1983, 1990, 1996). This structure is obviously driven by the semantic distinction between place and path adpositional elements. Moreover, there is a universal assumption that the Path layer embeds the Place layer, allowing the latter to be adjacent to the DP complement (van Riemsdijk 1990; van Riemsdijk & Huybregts 2002; Koopman 2000, 2010; Kracht 2002, 2008; Svenonius 2010; den Dikken 2010; Noonan 2010). This is clearly observed when a place and path adposition co-occur, such as *from behind the door* vs. **behind from the door*. Thus, the minimal internal syntactic structure of a spatial PP cross-linguistically, as assumed in most of the above studies, is as in (2):

(2)



Each of the Path and Place projections can be further decomposed into several functional heads (see e.g. Svenonius 2010; Terzi 2010; Noonan 2010; Pantcheva 2011).

1.3 The Main Issues and Proposals

The data focused on in this book are derived from English (a Germanic language), Central Kurdish (an Indo-Iranian language), Modern Standard Arabic (MSA) and Iraqi Arabic (IA) (a Semitic language).[4] Kurdish is a

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'mixed', analysis and regard adpositions as semi-lexical categories; this will not affect the syntactic or semantic discussion of adpositions that follows.

[4] The set of spatial adpositions examined across English, Kurdish and Arabic is by no means exhaustive. However, I include the most common ones. The examples of English are cited from the British National Corpus (BNC), while those of Kurdish and IA, for which no corpora exist, are made up. Where there could be any doubt, the grammaticality of the examples was checked with other native speakers. Those of MSA are cited from the arabiCorpus. The arabiCorpus is developed and maintained at Brigham Young University. It includes data of five main categories: Newspapers, Modern Literature, Nonfiction, Egyptian Colloquial and Premodern. At the time of writing, the total number of words in the whole corpus is 173,600,000. The corpus can be accessed freely through this link: http://arabicorpus.byu.edu.

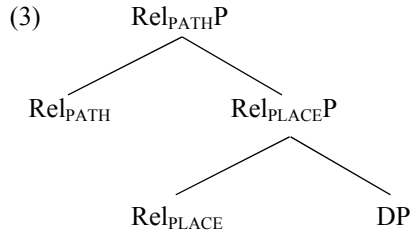
member of the Indo-Iranian group of languages. It has several dialects, the two main ones being Kurmanji (spoken by Kurds in Iraq, Syria, Turkey, Armenia and Azerbaijan), and Sorani (spoken by Kurds in Iraq and Iran). In this book, I focus on the Sorani dialect spoken in Iraq, which is usually referred to as a written form of Central Kurdish (for an overview of Kurdish linguistics, see Haig & Matras 2002; Haig & Öpengin 2014). The two varieties of Arabic used are MSA and IA, which both belong to the Semitic family of languages. MSA is that variety of Arabic which is commonly used in the modern Arab world in writing, education and media (see Holes 2004; Ryding 2005, 2014). As for the data from the Iraqi Arabic dialect, they are based on the Arabic variety spoken in Baghdad, Iraq. The choice of these languages is based on the fact that they are typologically very different, which provides a wide ranging set of data to investigate the topics in this book. As English has been examined in a large amount of literature, it provides a good platform to start with in the discussion and application of the ideas proposed. As for Kurdish and Arabic, these languages are under-researched in several grammatical aspects, specifically in the syntax and semantics of spatial PPs. Insights from these languages provide interesting materials, which can be expected to further enrich our understanding of spatial adpositions and motion events.

Within the internal syntactic and semantic studies of spatial adpositions, such as the English *in/on/above/to/from/through*, nothing in these studies sheds lights on the precise function of these elements in a spatial relationship. The general assumption made or followed in the literature is that spatial adpositions denote a relationship (see e.g. Nam 1995, 1996; Fong 1997, 2001; Zwarts 2005, 2008a, 2008b; Svenonius 2010; Pantcheva 2011). Denoting a relationship is not a function, *per se*, but a general definition used to describe spatial adpositions. Thus, this imprecise description implies a gap in the literature with regard to our understanding of the role of spatial adpositions. Accordingly, this book intends to provide a more precise function of spatial adpositions. This will be based on a syntactic-semantic analysis that maps the components involved in the semantics of spatial adpositions and their representation in the syntactic structure.

I propose that spatial adpositions are Relators in a specific spatial domain. More precisely, I propose that elements such as the English *in/on/above* are Relators in a place domain, while elements such as *to/from/through* are Relators in a path domain. Elements like *in/on/above* relate a Figure to a specific Space with reference to a Ground, and I refer to them as Place

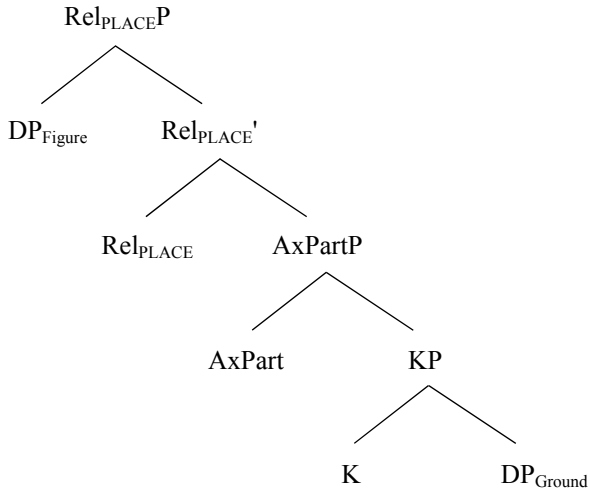
Relators and represent them as Rel_{PLACE} in the syntactic structures. As for the elements *to/from/through*, these relate the Figure to a specific point of a path. I refer to them as Path Relators and represent them as Rel_{PATH} in the tree structures. I adopt the widespread assumption that elements used in a path domain are higher in the structure than elements used in a place domain. Thus, following the cartographic approach, the minimal structure I propose is as in (3):

(3)



Each of these projections will be further analysed and examined in English and the other two languages, for which no previous studies exist in the literature. For example, for English, I propose the structure in (4) for the decomposition of $Rel_{PLACE}P$:

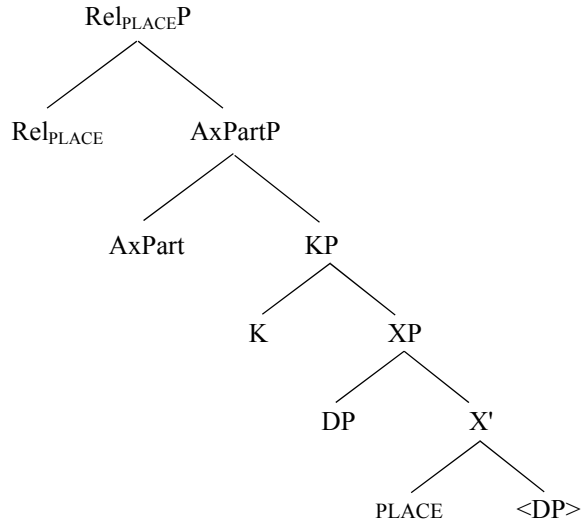
(4)



For Kurdish, I propose the structure in (5). The main difference between (4) and (5) is the presence of a unique element recognised phonologically in Kurdish, which is PLACE. This element is suggested based on the

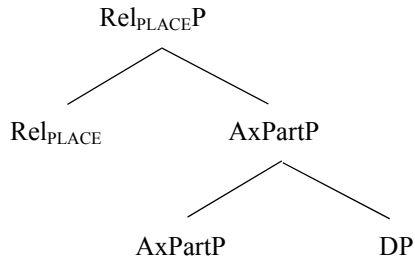
proposals in, for example, Terzi (2010), Cinque (2010) and Romeu (2014). I propose that the Kurdish-bound morphemes *-awa*, *-dā and -řā* are lexical representations of a PLACE element and that semantically they define the set of points occupied by the Ground. This is discussed in chapter 2.

(5)



And for Arabic, I propose the structure in (6) for the decomposition of Rel$_{PLACE}$P. I do not include KP in the functional hierarchy proposed for Arabic since the possessive relation that stands between the AxPart element and the DP Ground is expressed by a construct state. Therefore, I do not keep it in the structure for notational simplicity, although under the cartographic approach the K category should be present in all languages.

(6)



The role of spatial adpositions in motion events has been investigated in several studies (cf. e.g. Nam 2005; Folli & Ramchand 2005; Son 2006; Pantcheva 2007; Fábregas 2007; Tungseth 2008; Gehrke 2008). For example, Nam (2005) investigates the syntax and semantics of goal and source PPs in the event structure. In their analysis of motion events in English and Italian, Folli and Ramchand (2005) focus on two types of motion events only: the goal of motion and the resultative constructions. In Gehrke (2008), the focus is on examining the effect of goal and source PPs in the syntactic structure of specific VPs.

In these studies, several constructions with spatial PPs and motion VPs are investigated. However, the focus is on a specific set of adpositions, mainly goal and source PPs. No adequate attention is given to the role of spatial PPs headed by elements such as *past/through/across/along* in motion events. Furthermore, the languages on which the proposals have been based are limited to a small set, including English (Folli & Ramchand 2005; Ramchand 2008), Italian (Folli & Ramchand 2005), Korean (Son 2006), Bulgarian (Pantcheva 2007) and Spanish (Fábregas 2007; Romeu 2012, 2014). More interestingly, the relation between the lexical semantics or properties of spatial adpositions and their role in motion events is not examined fully in these studies.

Thus, in this book, to fill these gaps, I provide a more precise analysis of the role of spatial PPs in motion events. This will be based on data from English, Kurdish and Arabic. For the purpose of accounting for the role of PPs in motion events, I adopt Ramchand's (2008) decomposition model of verbs and classify motion verbs into two main classes: [Proc] Vs and [Proc, Res] Vs. Moreover, I provide a syntactic-semantic analysis of motion events, which is based on insights from the semantic approach in Dowty (1979) and Rothstein (2004) and the first-phase syntax of verbs in Ramchand (2008). I propose that the result event represented as ResP in Ramchand (2008) is semantically parallel to the BECOME event proposed

in Dowty (1979) and Rothstein (2004). I discuss this in chapter 4. This syntactic-semantic mapping helps provide a plausible analysis of different types of motion events, specifically the constructions that include spatial PPs.

I propose that most spatial PPs headed by (especially source- and route-denoting adpositions) modify the whole motion event, but some of them headed by, for example, *into/onto/in/under* can function as a culmination of the BECOME event involved in Transition (=Accomplishment and Achievement) events. Consequently, in some cases, the type of adposition can determine the type of event expressed. For example, using Pustejovsky's (1991) classification of events, I propose that a construction such as *walk to/from/through* suggests a Process event, while *walk into* or *go in* suggest a resultative Transition event. In Kurdish and Arabic, a resultative Transition event can be expressed by constructions that include [Proc, Res] Vs, and constructions that involve [Proc] Vs and spatial PPs that include a bounded GoalRelP element meaning 'to' and a lexicalised AxPart.

In sum, the main contributions of this book are the following:

- Providing a precise analysis of the function of the two main types of spatial adpositions, which are used in the place and path domain;
- Providing a fine-grained structure of spatial PPs in two understudied languages: Kurdish and Arabic;
- Providing a syntactic-semantic analysis of event structure;
- Classifying and characterising motion verbs in Kurdish and Arabic; and
- Characterising the role of different spatial PPs in motion events.

1.4 Theoretical Framework

The topics addressed in this book and the approaches followed in the analyses are in line with the theoretical framework known as the cartography programme, taken as a theory of the syntax-semantics interface as well as the lexicon-syntax interface. Below is a brief sketch.

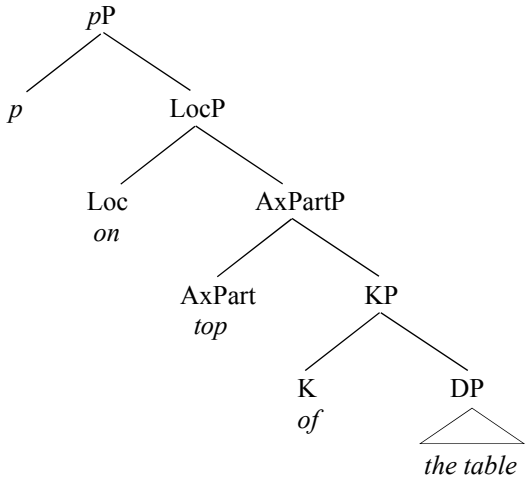
1.4.1 Cartography

Cartography is a research programme that aims at providing a precise and detailed syntactic structure of functional categories (Cinque & Rizzi 2008). The X-bar schema of Chomsky (1970, 1986) is the core structure adopted in cartographic studies. Through this schema, relations, such as head-specifier and head-complement, can be characterised precisely. A crucial proposal in cartography is that every morpheme represents one feature and projects a phrasal structure of its own. This is phrased as "one (morphosyntactic) property – one feature – one head" (Cinque & Rizzi 2008: 50). Moreover, the existence of such a functional head or phrasal projection in a language entails its existence in the structure of all other languages even if it is not present morphophonologically. This technical sequence is universal and is determined by Universal Grammar.

Cartographic studies were first developed in the late nineties and were pioneered by mainly Rizzi (1997, 2004) and Cinque (1999, 2002). However, the motivation beyond cartography can be traced back to the late eighties, with Larson's (1988) VP shell structure and Pollock's (1989) IP decomposition into TP and AgrP. In his study of complementiser phrases and the 'left periphery', Rizzi (1997) decomposes the CP into several functional projections: ForceP, TopicP, FocusP and Fin(iteness)P. More interestingly, Cinque (1999) provides evidence that Adv(erb)Ps are not adjuncts but specifiers modifying heads, which are occupied by different types of functional categories, such as Mood, Tense, Aspect and Voice. Moreover, he argues that the order displayed by adverbs in the functional hierarchy is fixed and universal cross-linguistically.

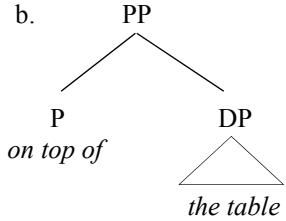
In recent years, the cartographic programme has been extended to include prepositional phrases (see e.g. van Riemsdijk 1990; Koopman 2010; den Dikken 2010; Svenonius 2010; Pantcheva 2011; Romeu 2014) and verb phrases as well (e.g. Ramchand 2008). For instance, within the prepositional case studies, a fine-grained structure is proposed to account for the internal structure of the PPs across different languages. To illustrate the difference between a cartographic analysis of a PP, such as *on top of the table*, and a non-cartographic analysis, I provide the structures in (7a-b), respectively:

(7) a.



(Adapted from Svenonius 2010: 134)

b.



(Adapted from Roberts 1997: 20)

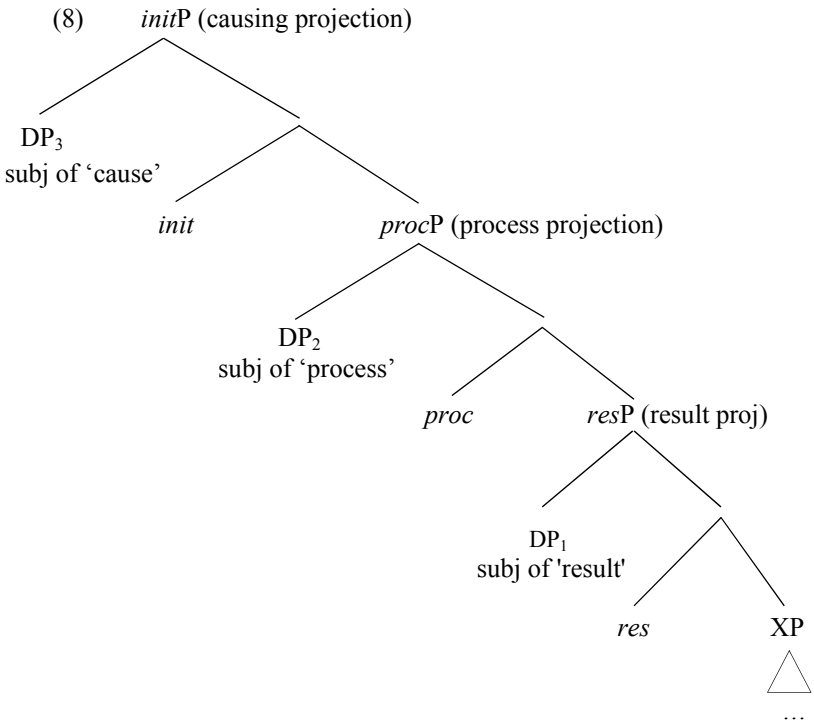
A significant advantage of the cartography programme is that it provides a better understanding of issues related to the syntax-semantics interface. For example, applying a cartographic approach in the analysis of the prepositional and verbal domains makes it possible to map the semantic structure of spatial PPs and event structure or motion VPs onto a syntactic configuration. To put it differently, a fine-grained functional structure can be used to represent the types of meanings involved in space and events, in the same order across all languages.

1.4.2 The syntax-semantics interface

The syntax-semantics interface constitutes an important level of grammar, which involves the relationship or interaction between aspects, components or rules involved in syntax and those involved in the semantics realm. The syntax-semantics interface has been argued for in several studies in literature (see e.g. Levin & Rappaport Hovav 1995; Ramchand 2008, 2011; Hackl 2013). For example, Ramchand (2008, 2011) proposes a model of event structure which provides a correlation between the syntactic structure and semantic interpretation of events. More precisely, she argues, "event structure and event participants are directly represented in syntax" (Ramchand 2008: 193).

Ramchand's (2008, 2011) model is based on first-phase syntax, according to which event structure syntax is composed of three subevents. Each of these subevents has a syntactic representation and corresponds systematically to a specific meaning. These are: a causing subevent, a process subevent, and a result subevent. The hierarchy of these three subevents is shown in (8):

(8)



(Ramchand 2008: 39)

In other words, the *init*P in (8) represents the initiation or causation state in an event structure; it introduces the external argument or the initiator or causer of an event. The *proc*P constitutes the heart of the dynamic verbal predicates and introduces the argument that undergoes a process event. The *res*P is the projection that expresses the result or final state of an event; it introduces the holder of the result. In Ramchand (2008), this event structure syntax in (8) is used as a decomposition model of V, and also used to classify verbs according to their association with the meanings represented by these three projections/subevents. Finally, for the semantic interpretation of the first-phase syntax, Ramchand (2008: 42) develops a post-Davidsonian view according to which the event is determined by the subevents or parts involved in the VP structure.

Within the spatial relationship, there is also a correlation between the