A COGNITIVE LINGUISTICS APPROACH TO
EXPLAINING THE POLYSEMY OF ‘ALĀ AND FĪ
IN MODERN STANDARD ARABIC

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By

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A COGNITIVE LINGUISTICS APPROACH TO EXPLAINING THE POLYSEMY OF ‘ALĀ AND FĪ IN MODERN STANDARD ARABIC

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ABSTRACT

‘Alā ‘on’ and fī ‘in’ are two of the most polysemous Arabic prepositions. Previous accounts have varied in the range of meanings attributed to ‘alā and fī. In addition, many have viewed prepositions, including ‘alā and fī, as having minimal meaning beyond their linking function. Others explained their polysemy as being completely context-dependent. Moreover, the many meanings of ‘alā and fī have often been represented as seemingly unrelated. Hence, their polysemy has been presented as externally-given and arbitrary. With the aim of addressing these gaps, this dissertation followed a Cognitive Linguistics (CL) approach to discover the semantics of ‘alā and fī through the analysis of a large corpus.

Under CL, the Principled Polysemy Model (PPM) was used to analyze many English prepositions, explaining their polysemy as the product of cognitive conceptualizations that are rooted in embodied experience. According to the PPM, prepositions signify spatial relations between two entities, a focus element (Trajector) and a backgrounding element (Landmark). Also, each spatial configuration involves a functional element, i.e., the salient consequence of that configuration. Polysemy arises as a result of the consequences that become associated with a primary scene and its functional element.

Taking a CL approach, the current study analyzed the semantics of ‘alā and fī as a cognitively motivated phenomenon. The analysis pursued two primary goals. The first goal was
to precisely describe the two prepositions, distinguishing them from prepositions with similar spatial designations. The second goal was to offer a systematic, constrained account of the polysemy of the two prepositions. The analyses revealed that the functional elements of ‘alā and fī, support and containment respectively, played a ubiquitous role in both (1) defining the preposition in relation to other spatial descriptors and (2) explaining the semantic range of meanings that the prepositions expressed. Moreover, the analyses revealed that ‘alā and fī exhibited a case of inter-lexical polysemy, by which the two prepositions are each associated with a state sense; however, the two types of states differed in significant ways that are traceable to salient conceptualizations of support and containment scenes.
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# Table of Contents

**Chapter 1 Introduction**

1.1 Corpus and Methodology ................................................................. 1

1.2 Theoretical Frameworks ................................................................. 9

1.2.1 Basic tenets of Cognitive Linguistics ............................................. 10

1.2.1.1 Language is a symbolic structure ............................................ 12

1.2.1.2 Meaning is conceptual in nature .............................................. 13

1.2.1.3 Language is grounded in embodied experience ........................... 15

1.2.1.4 All linguistic units (or at least almost all) are polysemous ............ 18

1.2.1.5 Spatial scenes in Cognitive Linguistics ............................ 20

1.2.2 The Principled Polysemy Model .................................................. 23

**Chapter 2 Cognitive Linguistics Analysis of the Semantics of ‘alā** .......................... 30

2.1 ‘Alā in Previous Literature ................................................................ 30

2.2 Cognitive Linguistic Analysis of ‘alā .................................................. 48

2.2.1 The primary sense of ‘alā. ............................................................. 48

2.2.1.1 Finding the primary sense ....................................................... 48

2.2.1.2 Describing the primary sense ............................................... 71

2.2.1.3 The primary sense in the corpus ........................................... 75

2.2.2 The extended senses of ‘alā. ......................................................... 81

2.2.2.1 Non-cluster senses ............................................................... 84

2.2.2.2 The vertical elevation cluster ............................................... 115

2.2.2.3 The proximity cluster ......................................................... 124

2.3 Conclusion ..................................................................................... 129

**Chapter 3 Cognitive Linguistics Analysis of the Semantics of fī** .......................... 130

3.1 fī in Previous Literature ................................................................. 131

3.2 Cognitive Linguistic Analysis of fī .................................................. 150

3.2.1 The primary sense of fī ............................................................. 150

3.2.1.1 Finding the primary sense ....................................................... 150

3.2.1.2 Describing the primary sense .............................................. 167
3.2.1.3 The primary sense in the corpus ................................................................. 172
3.2.2 The extended senses of \( \tilde{f} \) ................................................................. 177
  3.2.2.1 The location cluster ................................................................................. 180
  3.2.2.2 The segmentation cluster ..................................................................... 191
  3.2.2.3 Non-cluster senses ............................................................................... 200
3.3 Conclusion ........................................................................................................ 220

CHAPTER 4 CONCLUSION ................................................................................... 221
4.1 Arabic Prepositional Polysemy: Findings, Implications, and Limitations ........ 222
4.2 Prepositional Inter-lexical Polysemy: Findings and Implications ................. 230
4.3 Verb-preposition Collocations and Meaning Contribution ........................... 239
  4.3.1 Meaning contribution based on verb argument structure ....................... 240
  4.3.2 Meaning contribution based on contrastive verb-preposition collocations ........................................................................................................... 247
  4.3.3 Meaning contribution based on verb-preposition semantic unity ............... 251

APPENDICES ........................................................................................................ 258
  Appendix A Works and Number of Words that Make up the Modern Literature Corpus ..... 258
  Appendix B Python Code Used to Extract Random Lines from a File with Right-to-Left Characters ........................................................................................................... 260

REFERENCES ...................................................................................................... 261
LIST OF FIGURES

Figure 1.1 The semantic network for over, reproduced from Tyler & Evans (2003) .................. 25
Figure 2.1 A summary of the semantics of the Arabic prepositions, from Lentzner (1977)....... 38
Figure 2.2 The bird on the branch..................................................................................... 64
Figure 2.3 The proto-scene for ‘alā ............................................................................... 72
Figure 2.4 The semantic network for ‘alā ............................................................................. 82
Figure 2.5 The covering sense .......................................................................................... 86
Figure 2.6 The examining sense ........................................................................................ 89
Figure 2.7 The focus of attention sense ........................................................................... 94
Figure 2.8 The intended contact sense ............................................................................ 97
Figure 2.9 The oriented trajector sense ....................................................................... 101
Figure 2.10 The activity sense ......................................................................................... 105
Figure 2.11 The medium sense ...................................................................................... 107
Figure 2.12 The state sense ............................................................................................. 109
Figure 2.13 The manner sense ......................................................................................... 113
Figure 2.14 The control sense .......................................................................................... 116
Figure 2.15 The preference sense ..................................................................................... 120
Figure 2.16 The responsibility sense .............................................................................. 121
Figure 2.17 The conditional sense ................................................................................... 123
Figure 2.18 The spatial proximity sense ......................................................................... 126
Figure 2.19 The temporal proximity sense ..................................................................... 128
Figure 3.1 The proto-scene of fī .................................................................................... 168
Figure 3.2 The pear in the bowl, based on Herskovits (1986) .................................................. 171
Figure 3.3 The semantic network for $fi$ .................................................................................. 178
Figure 3.4 The in-situ sense ...................................................................................................... 181
Figure 3.5 The activity sense .................................................................................................... 186
Figure 3.6 The state sense ........................................................................................................ 189
Figure 3.7 The medium sense .................................................................................................. 190
Figure 3.8 Adapted from Langacker’s (1987) discussion of a virtual boundary ...................... 192
Figure 3.9 The shape as boundary sense .................................................................................. 193
Figure 3.10 The manner sense ................................................................................................ 197
Figure 3.11 The blockage sense ............................................................................................... 199
Figure 3.12 The perceptual accessibility sense ........................................................................ 202
Figure 3.13 The temporal containment sense .......................................................................... 207
Figure 3.14 The repetition sense ............................................................................................. 212
Figure 3.15 The container as target sense ................................................................................ 216
Figure 3.16 The conceptual target sense .................................................................................. 219
LIST OF TABLES

Table 2.1 Division of the vertical dimension in Arabic................................................................. 58
**LIST OF ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
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<td>Dual</td>
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<td>Jussive</td>
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<td>LM</td>
<td>Landmark</td>
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<td>NEG</td>
<td>Negation marker</td>
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<td>PASS</td>
<td>Passive</td>
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<td>Plural</td>
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<tr>
<td>PPM</td>
<td>The Principled Polysemy Model</td>
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<tr>
<td>Q</td>
<td>Yes/no interrogative particle</td>
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<tr>
<td>SBJV</td>
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<td>SG</td>
<td>Singular</td>
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<tr>
<td>TR</td>
<td>Trajector</td>
</tr>
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</table>

xiii
The transcriptions used in this dissertation, including descriptions of manner and place of articulation for each symbol, are adopted from Clive Holes’s *Modern Arabic* (1995), except for two transcription symbols. The voiced velar fricative, corresponding to Arabic (غ) is transcribed in this paper as (ɣ) instead of (ġ), and the glottal stop, corresponding to Arabic (ء), is transcribed here as (ʔ) instead of (ʔ).

<table>
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<td>Voiced alveolar nasal</td>
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<td>نـبـ</td>
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<td>Voiced emphatic interdental fricative</td>
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<td>ظـةـ</td>
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<td>Voiceless dental stop</td>
<td>t</td>
<td>تـدـ</td>
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<td>Voiced dental stop</td>
<td>d</td>
<td>دـمـ</td>
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<td>Voiceless velarized dental stop</td>
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<td>طـمـ</td>
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<tr>
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<td>High front, unrounded short vowel</td>
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<tr>
<td>High back, rounded short vowel</td>
<td>َ</td>
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CHAPTER 1 INTRODUCTION

The Arabic language has been extensively studied for centuries. From ancient prescriptive treatises dated as early as the eighth century to recent applications of modern-day linguistic theory, Arabic has been the focus of research belonging to different schools of linguistic thought. However, despite 1000 years of linguistic analyses, the meanings of Arabic prepositions remain mysterious and largely uninvestigated.

Recently, researchers in cognitive linguistics, cognitive psychology, and comparable inter-disciplinary fields have unraveled long-standing mysteries that surrounded the human mind and uncovered numerous links between language and cognition. With the innovations in such fields, linguistic investigations of prepositions became the focus of intriguing attempting to explain the complex phenomenon of their multiple meanings. However, despite the advancements in explaining prepositional polysemy, Arabic linguists remained focused on grammar in the form of inflectional morphology and on linguistic units with obvious lexical weight belonging to the classes of nouns and verbs. Except for few accounts, the multiplicity and complexity of meanings associated with Arabic prepositions have been mostly treated as a form of monosemy and hence arbitrary and far from systematic.

Cognitive Linguistics (henceforth CL) have recognized that the meanings of many linguistic units which were traditionally seen as arbitrary are motivated and explainable in systematic ways. With its commitment to principles that adopt a view involving the role of human cognition in constructing meaning, CL has advanced linguistic understandings of the many-to-one meaning-to-form mappings displayed by prepositions and spatial particles and have delivered illuminating explanations of the polysemy of these small units.
CL is committed to explaining linguistic meaning in terms of general cognitive processes. This stance includes analyzing meaning, not solely as the cumulative sum of compositional meaning in an utterance, but as the interactive, amalgamated product of both linguistic composition and conceptual knowledge (e.g., Gibbs, 1996, 2006; Taylor, 2002; Tyler, 2012; Tyler & Evans, 2001, 2003; Evans, 2006, 2009, 2010). According to CL, interpretations of even the simplest utterances involve—in addition to correspondences between linguistic items and their immediate meaning—the cognitive employment of our knowledge of objects, animate entities, humans as intentional beings with certain cognitive and physical capacities, and the world in which we exist.

CL views that language use reflects the human embodied experience of the world. Take, for example, how we experience the concept of containment. Visualize, for example:

[A] child in a red dress who watches her mother put cookies into a jar. The child then takes the lid off of the jar and looks inside to search for the cookies. She reaches into the jar, reaches down into the cookies to find a particular cookie near the bottom, grasps the cookie (so that the cookie is now in her hand), and takes it out. She wraps the cookie in a napkin. She walks with the cookie through a door into another room, where she is picked up in her mother’s arms and put into a high chair. She watches the mother pour milk into a glass. She then dunks her cookie into the milk (which is itself contained in the glass), and puts the cookie into her mouth. (Dewell, 2005, p. 371-372)

Starting early in life, we are surrounded by countless entities that resemble containers and encounter endless experiences of containment, some of which are obvious, typical containers
while others are less typical. Based on such recurrent experiences, we form schematic representation of containers and containment scenes, called an image-schema. Prepositions represent symbolic references to image-schemas that are structured around repeated embodied experiences. Hence, to understand what ‘in’ means is to understand the CONTAINMENT image-schema it symbolizes: an entity that is located interior to another and within its boundaries as well as a set of salient consequences that result from this spatial relation. Image-schemas representing scenes described by prepositions (and other spatial markers) are analyzed as a relationship between two entities in a Figure-Ground relation (also known as Trajector (TR)-Landmark (LM)). Under a CL approach, prepositional polysemy flows from the particular TR-LM configuration represented by the preposition and the consequences it holds for humans based on their prior interactions with entities in the particular TR-LM configuration, i.e., the specific function that this configuration serves, also known as the functional element.

Following the CL approach, specifically-the Model of Principled Polysemy (henceforth PPM) (Tyler & Evans, 2001, 2003), the polysemy of prepositions and similar particles is but a motivated phenomenon by which these linguistic units have been systematically extended (see also Mahpeykar, 2014; Mahpeykar & Tyler, 2015, for applications of this model to the polysemy of verbs and phrasal verbs). According to the PPM, prepositional polysemy is explained in terms of radial semantic networks clustering around a central meaning (the primary sense) from which other meanings extend in conceptually-motivated ways related to image-schemas. One of the aims of my dissertation is to move the study of Arabic prepositions forward by examining the polysemy of two prominent Arabic prepositions and explaining it in light of CL.

The PPM was first introduced to analyze the polysemous nature of English prepositions and spatial particles. During the 15 years that followed the introduction of this groundbreaking
model, the PPM has been extensively applied to almost all the English prepositions (e.g., Evans & Tyler, 2004a, 2004b; Hoemann, 2014; Tyler & Evans, 2001, 2003, 2004a), and it has been put to the challenge, by its authors, to investigate its potential universality by applying it to the study of spatial particles in other languages. Ever since, this model has been extended to analyze spatial particles in many languages such as Bulgarian (Tchizmarova, 2006), Farsi (Mahpeykar & Tyler, 2011), German (Liamkina 2007), Korean (Kang, 2012), Polish (Knas, 2006), Russian (Shakhova & Tyler, 2010), Spanish (Kissling, Tyler, Warren, & Negrete, 2018), and Vietnamese (Ho, working paper, as cited in Kang, 2012) (See also Tyler & Evans, 2004b; Tyler, Mueller, & Ho, 2010a; Tyler, Ho, & Mueller, 2011, for applications of this model to inform second language teaching material design, and quasi-experimental research). Where analysis of Arabic prepositions is concerned, very little published research applying CL exists. This dissertation addresses this gap by undertaking a corpus-based analysis of the polysemy of two frequently occurring Arabic prepositions which follows the guidelines posited by Tyler and Evans (e.g., 2003). Inspired by CL, my goal is to illuminate the link between human cognition and the complex semantics of Arabic prepositions in Modern Standard Arabic (MSA).

Like English prepositions, Arabic prepositions are polysemous. However, Arabic prepositions and particles—as I mentioned above—were not the focus of much attention for a long time, a direction that reflected the view that these units were not worthy of primary analysis. In some cases, prepositions were seen as carrying minimal meaning, if any at all, beyond their purpose to locate entities in space. For example, many classical grammars defined prepositions and particles as not having meaning in themselves but owing meaning to other parts of the utterance (e.g., Zajjäjī, 1984; Ibn ‘Aqīl, 1987). Even when prepositions were addressed, often by a commitment to their belonging to the linguistic system, the multiplicity of meanings they
expressed were not adequately explained. Their multifaceted ability of expression has been taken for granted under the assumption of their being malleable to the context they appear in. Thus, their complex semantics has been considered context dependent and hence externally-given. Under CL theory, all linguistic units are understood as meaningful designations, including units as small as grammatical morphemes and as complex as sentence constructions. In this dissertation, I demonstrate that Arabic prepositions are meaningful units and that—contrary to a prevailing assumption that their meanings are dependent on readings imposed by context—prepositions are semantically contentful and necessitate that the semantics of the utterance be compatible with their own semantics.

The polysemy of Arabic prepositions has not been recognized beyond what corresponds to Arabic-Arabic dictionary listings, merely enumerated and complemented by example sentences (Esseesy, 2010). Arabic grammars—in their cataloging of the different meanings of a given preposition—have not made any statements regarding the relationship between one entry and another in the list, an approach that represents all meanings as equal and does not assume any relationships between them. To give them credit, these accounts almost always started their description of a given preposition with a basic spatial meaning occurring first such as وعاء wiʿā ‘container’ for the preposition في fī meaning ‘in’ and الاستعلاء al-istiʿlā‘ ‘superposition’ for the preposition على ‘alā meaning ‘on’. However, based on the representation of these accounts, it is not clear whether meanings beyond the spatial meaning were seen as extensions of it or whether they were considered contextual variations of a monosemous origin.

Another area that has been neglected in treatments of Arabic prepositions and which pertains to prepositional polysemy is how the different meanings associated with a preposition arise. This issue is two-fold. For one, previous grammars have shied away from answering the
question of how prepositions might possibly have come to have so many meanings. Given the way these meanings were presented as mere lists, they appear to be random with no rationale to explain their relatedness or how they might arise. The second part of this issue pertains to the number of senses identified for each preposition. In their description of prepositions, previous grammars did not explain the approach by which a distinct meaning is recognized. In the absence of any defining criteria, it was not clear what counted as a distinct meaning and what did not, which led to the discrepancy in the number and semantic spectrum of meanings assigned to each preposition.

Considering the above background about Arabic prepositions, several, central strands of information remain inadequately explained, or for some parts totally missing. To summarize them, first, Arabic prepositions were generally seen as void of meaning, often malleable to interpretations imposed by context. Second, previous accounts made no statements about the primary sense in terms of where and how a preposition gets its exact definition and in terms of its status in relation to other senses. The rationale for identifying the primary sense is almost always absent. Third, prepositions are often considered interchangeable with other prepositions. Their definitions lack accurate descriptions of where the similarities end and how two prepositions can be distinguished from each other. Fourth, treatments of their multiple meanings did not explain how the distinct meanings arise, nor did they articulate a process by which an extended sense could be identified. In my current treatment of two of the most polysemous Arabic prepositions, I demonstrate that the PPM—though originally focused on the analysis of English prepositions—provides answers to the multiple gaps in previous research on Arabic prepositions.
Informed by tenets of CL, the PPM posits several guidelines that—when implemented—provide corroborating evidence for defining the primary sense of a preposition in terms of a TR-LM, precisely describing its spatial designations and distinguishing it from other prepositions that might seem synonymous in certain, limited cases. Moreover, the PPM recognizes the status of the primary sense as central to the meaning extension, i.e., it is the sense from which other senses arise. The PPM addresses how meaning gets extended through cognitive processes, and therefore presents systematic links between the senses in a network of organized, connected meanings, i.e., a semantic network. Extended meanings are thus viewed and explained as motivated and related. In addition, the PPM provides guidelines for recognizing the distinct senses. This makes the process of describing a given semantic network less subjective and more methodologically constrained.

In light of this background, it is my goal in this dissertation to fill the gap in previous treatments of Arabic prepositions by (1) analyzing the semantic network of two “of the most polysemous and polyfunctional Arabic prepositions” (Esseesy, 2010, p. 167), ‘alā and fī; (2) precisely describing their central semantics; and (3) explaining how they have come to possess the spectrum of meanings they exhibit in relation to their central meanings and in cognitively motivated ways. To accomplish this task, I implement the analytical tools posited by the PPM, which—despite its application to many languages—has not been utilized for analyzing the Arabic prepositions.

In light of the above introduction, my dissertation sets out to accomplish the following research goals:
1. Implement the principles of CL, as a theory that recognizes the role of human conceptualization and experientially embodied basis, to explain the phenomenon of Arabic prepositional polysemy.

2. Add to the rich research on PPM, by applying it to Arabic, a typologically different language, and the first Semitic language to be analyzed using this model.

3. Methodologically propose semantic networks for the two Arabic prepositions of support and containment, ‘alā (on) and fī (in) respectively, explain the motivations behind their extended sense, and motivate the specific senses through a corpus analysis.

Hence, the analyses presented here provide semantic networks representing the meanings exhibited by the two prepositions, distinguishing between their primary meanings and extended senses. The analyses of these two prepositions are based on a set of data extracted from the Arabic Corpus Tool.¹

The rest of the dissertation is structured as follows: The remainder of this chapter covers the theoretical background and relevant principles which are foundational to the analyses presented later. I start by describing the corpus from which tokens were extracted and the extraction methodology used. Next, I discuss the PPM in addition to a set of relevant CL principles and tenets. Chapter 2 presents the analysis and the semantic network of the preposition ‘alā, and Chapter 3 presents a parallel analysis of the preposition fī. Finally, Chapter 4 concludes this dissertation with a summary of important findings and discusses some of the limitations that call for future research.

¹ More about the corpus and the specific data set can be found in the next section.
1.1 Corpus and Methodology

The analyses in this dissertation are based on datasets that are extracted from the
ArabiCorpus, a corpus that is compiled and maintained by Brigham Young University, USA.
This Arabic corpus consists of approximately 30 million words and can be accessed at
http://arabicorpus.byu.edu. ArabiCorpus is composed of five subcorpora dedicated to the
following genres: Pre-modern Arabic, Newspapers, Modern Literature, Nonfiction, and Egyptian
Colloquial Arabic. The corpus distinguishes between Egyptian Colloquial Arabic and other
subcorpora such as Modern Literature and Newspapers that are presumably written solely in
Modern Standard Arabic. However, it is noted on their website that the Modern Literature and
Newspapers subcorpora contain some colloquial content. Hence, while some modern literary
works are written entirely in MSA, it is not at all surprising that many will contain a certain
amount of colloquial dialect.

The tokens considered for analyses in the current work are extracted from the subcorpora
dedicated to Modern Literature. As of February 2012, the ‘Modern Literature’ corpus has
1,026,171 words. As the name suggests, the Modern Literature corpus is composed of modern
literary works, primarily novels. These novels are written by authors representing the following
countries: Egypt, Palestine, Algeria, Saudi Arabia, Sudan, Syria, and Lebanon. Currently about
half of the material in the Modern Literature corpus is from Egypt, about a fourth from Algeria,
and lesser amounts from the rest of the countries. Most of the literary works are written
completely in MSA, but some works are intertwined with colloquial dialogues. Only few works
under the Modern Literature subcorpora are written entirely in colloquial dialects, such as Taxi.
For the complete list of works represented in the Modern Literature corpora, see Appendix A. It
is important to note here that the tokens considered for analysis in this dissertation are limited to
MSA examples. Any colloquial examples that might have occurred in the randomly selected corpus lines were eliminated from the analysis.

The polysemy analyses presented in Chapters 2 and 3 are based on extracted samples of randomly selected instances of occurrence, 1800 for fī and 1350 for ʿalā. See Appendix B for the extraction code used to randomly select the concordance lines considered in the current analyses. Representative MSA example sentences are presented throughout under my analyses of the two prepositions.

1.2 Theoretical Frameworks

1.2.1 Basic tenets of Cognitive Linguistics

The purpose of this section is to introduce my reader to some of the main commitments of CL and the principles under which it operates. However, since providing a comprehensive account of CL is beyond the limited scope of this dissertation, I will focus on concepts that are fundamental to the analyses that I present in the core of this dissertation.

CL is a theory of language which draws on findings from multiple disciplines. It was first introduced in the 1970’s and has been since gaining momentum and recognition. Today, CL is a well-recognized theory that has generated a substantial amount of research, mostly (though not solely) in the areas of cognitive semantics (e.g., Fauconnier, 1994; Fauconnier & Turner, 2002; Johnson, 1987; Lakoff, 1987; Lakoff & Johnson, 1980, 1999; Sweetser, 1990; Talmy, 2000), cognitive grammar (e.g., Langacker, 1987, 1991; 2002; 1999; Talmy, 2000), and construction grammar (e.g., Goldberg, 1995), in addition to other areas that share mutual ground with language and cognition such as language acquisition (e.g., Ellis, 1999) and historical linguistics (especially grammaticalization) (e.g., Heine, 1997; Hopper & Traugott, 2003;
Traugott & Dasher, 2002). In addition to covering a broad territory of theoretical ground, CL has recently revolutionized the fields of second language research and pedagogy, where applications of this theory have been utilized to inform analyses used in both non-traditional second-language instruction (e.g., Bielak & Pawlak, 2013; Kermer, 2016; Tyler, 2012; Wong, Zhao, & MacWhinney, 2018) and Second Language Acquisition (SLA) experimental research (e.g., Tyler, Jan, & Huang, 2018).

One of the fundamental commitments underlying the CL approach to language is the Cognitive Commitment (Lakoff, 1990). It is the commitment to providing a linguistic characterization that considers the role of human cognition and the knowledge acquired about cognition from other fields such as cognitive and developmental psychology, neuroscience, philosophy, and anthropology. Hence, cognitive linguists are committed to the view that an accurate, insightful account of the human language system should be in light of what is known about the human cognitive systems:

CL is committed to the position that language is best understood as a reflection of multiple, interacting cognitive processes and a representation of cognition being crucially shaped by the particular nature of the human body, including our perceptual system, and our interactions with the world (Tyler, 2012, p. 36).

Following the Cognitive Commitment, meaning is seen as constructed under the influence of human conceptualization, that is, aspects of our cognition shape how we use and interpret language. Given this commitment, several basic principles underlie the CL approach adopted in this dissertation. I discuss these principles next.
1.2.1.1 Language is a symbolic structure

The main function of language is to communicate, and communication requires making references to internal thoughts and ideas and to the external surrounding. To serve this function, language represents a **symbolic structure** made up of **symbolic units** (Langacker, 2008). Accordingly, CL views all linguistic units (morphemes, words, and grammatical constructions) as **form-meaning** pairings, each of which constitutes a **symbolic assembly** consisting of a form pole and a semantic pole (Langacker, 2008). A form can be the phonological form, an orthographic representation, or even a signed word using sign language; a meaning is the conventional semantic content linked to that form as used by speakers of a speech community. For example, when an English speaker utters the word *head*, represented by the phonological form [hɛd], she does not refer to a specific instance of the body part. Rather, *head* can be linked to a rich conceptual image, allowing the language user to draw from a range of meanings and employ the word in a variety of uses, ranging from senses that describe the body part and extending to uses that include other meanings that are associated with the form *head* such as a department head, a head of lettuce or even the head of a syntactic structure. Thus, words such as *head* do not refer to actual objects in the physical world; instead, they are prompts for an ideal meaning drawn from a concept that exists in the mind of the language speaker. Hence, the semantic structure where much linguistic meaning is generated can be equated with the conceptual structure which is built around symbolic representations.

Given the symbolic thesis, every aspect of language (including both the grammar and lexicon) is meaningful regardless of its size. Such a unit can be as short as the English present tense marking in *tells*, the definite article *the*, a word such as the noun *book*, or even a complete sentence such as *Raneem baked Layan a cake*. Each of these units signals a conventional
meaning. For example, the present-tense marking signifies the meaning ‘here and now’ (Tyler, 2012), the word book signifies a binding of a printed form, and the construction *Raneem baked Layan a cake* together with the lexicon in it signifies an INTENDED CAUSE-TO-RECEIVE sense, that is, *Raneem* baked the cake with the intention of causing *Layan* to receive it (e.g., see Goldberg, 1995, for a discussion of the transfer sense associated with the ditransitive construction).

The significance of this symbolic thesis to the analysis of language in general and prepositions, in particular, lies in recognizing that every linguistic form, including prepositions, prompts for a meaning pole. Moreover, the meaning pole is a complex conceptual representation. Prepositions (like other linguistic forms) represent symbolic units that are linked to rich concepts.

### 1.2.1.2 Meaning is conceptual in nature

I have argued that linguistic forms are symbolic units in form-meaning pairings, and that meaning is accessed from a structure of rich concepts. It follows that when a linguistic unit prompts for a meaning, it does not describe the world as it exists in objective reality. It describes meaning as it is structured in human conceptualization. After all, we can only access the world through our perceptual systems; our understanding of the world is mediated through our particular bodies, including our particular perceptual systems. Accordingly, meaning arises as the result of input from our interactions with the world. Every physical interaction involves sensory-perceptual information that is recorded and integrated towards a meaningful conceptualization of the interaction. Hence, to access meaning is to access the conceptual structure that was originally created by our perception. Therefore, a linguistic expression does not reference the physical world as it exists nor does it draw meaning independently of the human conceptualization. What it references is an interpretation of the world as it resides in our
conceptual system, a projected reality (Jackendoff, 1983). This is not to suggest that this interpretation is divorced from reality. Rather, while signaling a referent in the real world, it is a subjective representation of the world. This representation is dynamic in the sense that repeated experiences with the world will correspond to repeated instances of input being recorded over and over again. The result is a rich body of knowledge termed an image-schema.

**Image-schemas** are abstract conceptual representations that arise from our experience of the world. They are the result of recurrent patterns of kinesthetic and perceptory input from interactions with our surroundings (e.g., Lakoff, 1987; Johnson, 1987). For example, as we interact with our surroundings, repeated experiences with containers and surfaces will give rise to image-schemas like CONTAINMENT and SUPPORT respectively. Image-schemas, while being abstract, rudimentary concepts, are complex in the sense that they capture multiple elements and consequences that are part of a given scene. A CONTAINMENT image-schema, for instance, is structured around several elements: an interior, a boundary, and an exterior. These elements are recorded conceptually when containment-related experiences are encountered. Moreover, these elements give rise to an array of consequences that we associate with containment experiences over time. Evans and Green (2006) illustrate this idea nicely:

Imagine a cup of coffee in your hand. If you move the cup slowly up and down, or from side to side, you expect the coffee to move with it. This is because a consequence of containment, given that it is defined by boundaries, is that it constrains the location of any entity within these boundaries. In other words, the cup exerts force-dynamic control over the coffee…but this kind of knowledge, which we take for granted, is acquired as a consequence of our interaction with our physical environment (p. 183).
The development of image-schema theory—first proposed by cognitive linguists and cognitive semanticists like Johnson (1987) and Lakoff (1990) among others—is now well-supported by research on developmental psychology and related cognitive sciences. Jean Mandler, a renowned cognitive psychologist who focuses on early developmental psychology, describes the formation of an image-schema as a redescription of spatial experience via perceptual analysis; this redescription is mapped into a schematic conceptualization (1992, p. 591). Mandler reviews, on several occasions (e.g., 1988, 1992, 2005, 2008), research that asserts this conceptual capacity in preverbal infants. At a very young age of few months old, infants have been shown to react to experimental stimuli in a manner that indicates an abstract understanding of spatial concepts like CONTACT, SUPPORT, and CONTAINMENT among other image-schemas (e.g., Aguiar & Baillargeon, 1998; Baillargeon, Needham, & DeVos, 1992; Smitsman, Dejonckheere, & De Wit, 2009).

This finding, that image-schemas are fundamental for a child’s conceptual development, is seconded by the pervasiveness of image-schemas reflected in the human language system as a whole. The ubiquity of image-schema projections in language attests to the embodiment of language as well as cognition.

1.2.1.3 Language is grounded in embodied experience

I mentioned earlier that we access the world through our perceptual-sensory systems, that is, we experience the world as it is mediated by our physiological and neurological structure. It follows that the human experience is embodied. To explain what it means to have an embodied cognition, let us take as an example the influence of our visual system on our experience of the world. Given the specific structure of our visual apparatus, we are only capable of seeing certain waves of color in the presence of light, and infrared waves are not one of them. Hence, we have
no visual access to our surrounding within the infrared range. As such, our experience of
darkness (and hence the concept of it) is the outcome of our limited visual capacity. Not being
able to see in dark surroundings and our vision being dependent on the presence of light have
certain consequences for us in terms of how we conceptualize darkness versus light. Some of
these consequences pertain to not being able to see and thus having little knowledge of our
surrounding. Just like our experience of darkness is mediated by the limitations (or capacities) of
our visual system, our conceptualization of darkness is mediated by the input from this
experience. Recurrent patterns of this type of experience inform why we have the particular
concepts of darkness and light that we have. But what if our visual apparatus were capable of
vision in the absence of light as if equipped with infrared receptors or night-vision devices? In
this hypothetical case, our conceptualization of darkness would have been completely different if
not absent in the first place. This entails that our **cognition is embodied.**

Recall my discussion of the conceptual nature of language in the previous section. I
mentioned that to access meaning (and hence language) is to access concepts. Given that our
conceptualization of the world is based on our embodied experience of the world, it follows that
**language is also embodied.** Let us go back to our embodied concepts of darkness and light.
Not only do we rely on these concepts to navigate our environment. Our embodied experience
of darkness and light is translated into a **LIGHT-DARK image-schema** (e.g., Lakoff & Johnson,
1980) which, in turn, is reflected in our language use in utterances such as *I am in the dark when
it comes to this theory* where we metaphorically refer to lack of knowledge as being in a dark
place.

Contrary to traditional views, from a CL perspective, metaphorical expressions like the
above are not limited to being rhetorical tools to enhance literary texts. Like image-schemas,
metaphors are displays of the conceptual nature of language and proof of the pervasiveness of embodiment in linguistic expression. Conceptual metaphors are defined as cross-domain mappings, from a concrete source domain (i.e., the domain from which the concept is borrowed to explain another) onto an abstract target domain (i.e., the domain to be described) (Johnson, 1987; Lakoff, 1987). For example, Lakoff and Johnson (1980) use the following examples among others to illustrate the conceptual metaphor LOVE IS A JOURNEY:

(1.1) I don’t think this relation is going anywhere.
(1.2) We’ll just have to go our separate ways.

Lakoff and Johnson explain that the systematic aspect of metaphors is a reflection of the systematicity of conceptual structure. The structure behind the conceptual metaphor LOVE IS A JOURNEY is apparent in the systematic patterns of mappings from concrete source concepts (i.e., JOURNEY, TRAVELERS, ROUTE) onto abstract target concepts (i.e., LOVE RELATIONSHIP, LOVERS, EVENT). Lakoff and Johnson further emphasize that, like image-schemas, conceptual metaphors are grounded in embodied experience. For example, they argue that metaphors apparent in expressions such as We are in love represent projections of the embodied image-schema CONTAINMENT whereby the spatial, bodily-based aspects of containment are mapped onto the abstract domain of being in a certain state such as love, giving rise to the conceptual metaphor STATES ARE LOCATIONS.

The experiential basis for language and metaphor has been further amplified by Grady (1997) in his theory of primary metaphors. Grady explains that primary metaphors are based on two separate phenomena, which are frequently observed as occurring together. Take, for
example, the primary metaphor more is up apparent in sentences like The prices went up. This primary metaphor is motivated by an experiential correlation between quantity and vertical elevation, in which case increase in elevation often correlates with an increase in quantity. Think an increase of water (amount) and rising level of verticality of the liquid in a glass. As such, an experiential correlation is a conceptual association between two basic, experientially-based concepts (Grady, 1997).

The experientially grounded cognitive processes discussed in this section, image-schema, metaphor, and experiential correlation, are all examples of prevalent phenomena in language. Their prevalence points to the existence of patterns that underlie human language. These patterns provide evidence that asserts the embodied nature of cognition. Furthermore, they assert that an embodied conceptual structure underpins language. Most importantly, these experientially based cognitive processes, along with many others, motivate the process of meaning extension and give rise to the polysemy associated with most linguistic units.

1.2.1.4 All linguistic units (or at least almost all) are polysemous

Polysemy is generally the phenomenon by which a given lexical unit exhibits several interrelated meanings. Traditionally, polysemy was viewed as a phenomenon that is limited to the lexicon; however, cognitive linguists observed patterns of polysemy beyond the lexicon, for example, in morphology (e.g., the polysemy of the bounded morpheme -er in teacher, toaster, bestseller (Evans & Green, 2006, p. 36)) and in syntax (e.g., the polysemy of constructions; see Goldberg (1992, 1995, 1997)). Hence, the CL view of polysemy holds that it generalizes across both the grammar and the lexicon and that units of language regardless of their size can exhibit degrees of polysemy.
Cognitive linguists with their commitment to the cognitive thesis advocate that polysemy is the product of the conceptual nature of language, and they seek to explain it in light of conceptual and cognitive processes. Under this assumption, cognitive linguists posit that words exhibit polysemous meanings in a manner that reflects the conceptual semantic structure. According to this view, polysemous words are conceptual categories organized around a central prototype (Lakoff, 1987). Within these conceptual categories, the radial branches or clusters of meanings are extensions of the central meaning; however, they are viewed as distinct from the central meaning. This view is in contrast with the monosemous view of word meaning adopted in traditional approaches. While traditional approaches recognized the polysemy phenomenon, they viewed it as being a surface feature. According to their view, a given word possesses a single underspecified meaning, and the range of additional meanings a word displays is the outcome of contextual information filled in by context. (Ruhl, 1989).

Cognitive linguists, namely cognitive semanticists, reject the monosemy approach and advocate a polysemous view of language. However, one drawback to their accounts of polysemy concerned the mechanisms by which they analyzed, which have raised a certain amount of controversy in the field. One debate that has occupied the CL literature for some time is the ‘over’ debate. In Lakoff’s (1987) analysis of the polysemy of the English preposition over, he proposed proliferation of meanings for over that mounted up to several dozen distinct senses. Moreover, his definition of the central meaning for over appeared to encode fine-grained details (see Tyler & Evans, 2003, for a criticism of this analysis), such as the dimensions of the landmark. Lakoff’s approach was criticized for its overly granular analysis, referred to as the full specification model. Lakoff’s overly specified senses appeared to obscure the role of context and low-level inferencing in meaning interpretation. In a sense, Lakoff’s analysis was the
opposite of the monosemy approach I discussed earlier. The criticism surrounding Lakoff’s account (e.g., Sandra & Rice, 1995) warned against the polysemy fallacy (Sandra, 1998) where the amount of polysemy supposedly exhibited by a lexical unit is exploded. The result of this criticism was a call for a methodological approach to polysemy that can minimize the analyst’s subjective intuition and yield principled analysis. The call for a methodologically constrained model of analysis was answered by Tyler and Evans (2001, 2003, 2004a) who proposed the Model of Principled Polysemy (PPM) to fill this gap. In their book *The Semantics of English Prepositions*, they introduced the benefits offered by their model and illustrated its application to a methodologically replicable analysis of *over*. The final section of this chapter discusses the PPM in some detail. The PPM like many cognitive semantic theories utilizes concepts from Gestalt psychology and other interdisciplinary fields, some of which warrant discussion before I turn to the model itself. Recall that one of the guiding principles of CL is its integration of cognitive tools from related sciences that lend themselves to the cognitive view and hence analysis of language. The concepts I will explain in the coming section are especially relevant to (but not limited to) a cognitively-situated description of spatial language. Therefore, they are due for introduction prior to discussing the model.

### 1.2.1.5 Spatial scenes in Cognitive Linguistics

Expressions that refer to the spatial world are ubiquitously present in language. After all, our existence and evolution are based on the space surrounding us. We use spatial description to locate entities in space, to narrate a story, or give directions. The centrality of space to the human language and cognition is reflected in the attention that cognitive linguists and cognitive psychologists among others dedicate to the study of space-related concepts.
CL as an enterprise with a cognitive commitment has adopted tools from other cognitively-oriented approaches like Gestalt psychology and has utilized them to inform linguistic analysis of space. The relevance of Gestalt psychology concepts to CL comes from its alignment with what has been discovered about the human mind and hence its usefulness to a theory of the interplay between language and cognition. Gestalt psychology was first developed at the end of the nineteenth century, and it is mainly concerned with explaining unconscious perceptual processes that make it possible to construct holistic impressions referred to as gestalts from incomplete perceptual input (e.g., Katz, 1979). A Gestalt principle that lends itself to CL spatial analysis is the principle of figure-ground segregation.

Humans do not perceive the physical world and objects in that world in terms of a flat visual array. We perceive the spatial world as an organization of figure-ground relations. Perceptually, the object with a definable contour is perceived as prominent and hence the figure. On the other hand, the ground is the entity that is not in focus and hence is perceived as a background. This perceptually-grounded segregation of figure and ground is mirrored in the structure of linguistic expression. When we use language to describe space, we give prominence to the figure which is usually the smaller, movable entity, and we locate it in terms of a background element, or the ground, which the larger, static entity. For example, in the sentence *The book is on the table*, the *book* represents the figure which is the element being located and the *table* the ground which is the locating element. Figure-ground distinctions are another example of a systematic pattern in language that echoes the systematicity of perception. In CL, the distinction between the figure and ground is paralleled by the terms **Trajector (TR)** and **Landmark (LM)**. Langacker (2008) explains that the terms TR and LM are representations of the asymmetry created by giving prominence to an entity in relation to another. According to
Langacker (2008), reversing the TR-LM alignment when describing a spatial scene is a mechanism by which we change construal, where construal refers to the ability to view and hence describe a scene in more than way:

An expression’s meaning is not just the conceptual content it evokes—equally important is how that content is construed. As part of its conventional semantic value, every symbolic structure construes its content in a certain fashion….In viewing a scene, what we actually see depends on how closely we examine it, what we choose to look at, which elements we pay most attention to, and where we view it from. The corresponding labels I will use, for broad classes of construal phenomena, are specificity, focusing, prominence, and perspective. (p. 55)

One way of changing construal is by reversing the TR and LM assignment, i.e., foregrounding one entity and backgrounding the other (e.g. *The river under the bridge* versus *The bridge over the river*). Another way of changing construal is by changing the point from which the scene is being viewed, referred to as the vantage point. Scenes can be viewed from more than one vantage point. For example, a scene can be viewed from an off-stage vantage point. That is, the construer is external to the spatial scene. In other cases, the construer would be part of the scene, and hence the scene would be construed from an on-stage vantage point. In some cases, the change of the vantage point associated with a spatial expression can give rise to an extended sense. For example, Tyler and Evans (2003) explain that the default vantage point in the proto-scene associated with the preposition *in* is an off-stage (i.e., external) vantage point: *The cat is in the box*. They further argue that an on-stage vantage point motivates a cluster of extended meanings associated with *in*, one of which is the perceptual accessibility sense in sentences like:
(1.3) I have him in sight

(1.4) I stayed (with)in earshot of baby Max’s cry

In addition to the above concepts, the **functional element** is a fundamental component in the description of any spatial scene. A functional element is part of the schematic representation of a spatial particle. The functional element is the salient interactive element in a given spatial relation. To explain, as we interact with entities in particular spatial relations, we construe the configuration of entities as having certain functions or consequences. These meaningful consequences and functions are referred to as the ‘functional element’ (Tyler & Evans, 2003; see also Vandeloise, 1991, 1994 for the term ‘functional concepts’ and Herskovits, 1986, 1988 for the term ‘functional salience’). Vandeloise (1991) explains that, when we use prepositions to describe spatial scenes, the decision as to which preposition to employ does not solely rely on how the two objects are organized in spatial geometry. Rather, functional concepts of the objects involved are fundamentally at play (Vandeloise, 1991, 1994, 2005; Coventry, 1999; Feist & Gentner, 2003, 2007). Containment and support are examples of these functions and will be discussed in detail under my analyses of the two Arabic prepositions ‘alā and fī.

**1.2.2 The Principled Polysemy Model**

Informed by principles and tenets of CL, Tyler and Evans (2001, 2003, 2004a) proposed their groundbreaking Principled Polysemy Model to answer the call for a methodologically constrained model of polysemy. They utilized their model to explain the polysemy of a set of English prepositions. According to them, prepositions are highly polysemous linguistic units albeit the nature of their multiple meanings is not arbitrary. They posit that the seemingly
arbitrary multiple interpretations associated with a single preposition are motivated in principled ways.

The PPM proposed thorough guidelines that could resolve the existing controversy concerning prepositional polysemy, including which of the many senses associated with a preposition qualified (and by what measures) as a primary sense in contrast to extended meanings. In addition to providing precise definitions of prepositional relationships for many of the English prepositions and particles, it also contrasted prepositions by highlighting similarities and differences among seemingly synonymous ones. Thus, the fine-grained analyses of English prepositions that this model has provided draw a holistic picture of space as it is divided by the various prepositions. (See Tyler & Evans, 2003, for their explanation of how some of the English prepositions divide up the vertical space).

The PPM (Tyler & Evans, 2001, 2003) draws on the concept of embodied meaning discussed earlier in this chapter, the notion that meaning is conceptually formulated based on recurring patterns of experience. Tyler and Evans explain that everyday encounters of highly frequent spatial configurations give rise to the “imagistic, schematic representations” (Tyler & Evans, 2001, p. 725) that language users draw on to interpret the meaning of a preposition when they conceive objects in comparable configurations. The PPM also provides an answer to the question of how the extended senses of a preposition arise. Tyler and Evans (2001) contend that language users assign a variety of meanings to a single lexical item, warranted that the inference relationship can be extrapolated. As such, the prototypical, conceptual representation of a preposition (termed as the proto-scene and represented as holding a unique configuration between two objects: a trajector (TR) and a landmark (LM)) gets extended and new meanings are created. Language users will creatively use prepositions and other linguistic items in new
situations as long as they believe their interlocutors can successfully interpret the intended meaning and make the right inferences. Recurring uses of the new meanings can result in their conventionalization and substantiation as distinct but related instances of the proto-scene through a process of “pragmatic strengthening” (Tyler & Evans, 2001, p. 744–745).

In addition to explaining how the meaning of a preposition gets extended to other meanings, Tyler and Evans (2003) also elucidate methodologically constrained principles that can be used to (1) analyze the network of meanings associated with a preposition and (2) identify the central meaning. Integrating this information in a holistic model, they present prepositional polysemy in the form a semantic network, with the primary sense in the center of a radial extension of nodes representing the clusters of extended meanings. See Figure 1.1 below for their representation of the polysemy network for the English preposition over.

![Figure 1.1 The semantic network for over, reproduced from Tyler & Evans (2003)](image-url)
Identifying the primary sense for a given preposition methodologically has been an area of controversy and a major gap in the field of study pertaining to prepositions. According to the PPM, the primary sense of a given preposition or spatial particle, which represents a unique TR-LM configuration along with a functional element, is one from which all the other senses are originally derived. According to the methodology suggested by Tyler and Evans (2003), the primary sense will conform to most, if not all, of the following guidelines.

The first guideline posits that the primary sense will have traces of its earliest attested meaning, based on etymological evidence. This guideline was proposed by Tyler and Evans (2003) based on the vast amount of evidence (see Sweetser, 1990, for example) which demonstrated that—even in their most grammaticalized forms—words often exhibit vestiges of their historical meaning. That is prepositions code for a basic spatial relationship. In most cases, this relationship does not change over time, and very often the preposition will continue to code for that same spatial meaning.

The second guideline for describing the primary sense relies on the predominance of the primary sense in the semantic network. That is, “the meaning components [in the proto-scene] are most frequent in other distinct senses” (Tyler and Evans, 2001, p. 734). This means that the unique relationship that holds between the TR and the LM for the primary sense will be present in the majority of the remaining senses’ representations. To give an example, Tyler and Evans (2003) note that the semantic network of the English preposition over included fifteen distinct senses for the preposition, out of which eight involved a TR being higher than the LM. Based on this evidence, they posit that the meaning of being higher than that they proposed for over clearly predominates in the network.
The third guideline towards describing the primary sense draws on its use in composite forms. According to Tyler and Evans (2003), the way a spatial particle combines with other linguistic units in the language (as in phrasal verbs, for instance) to generate meaning serves as another type of evidence towards establishing the primary sense. In English, spatial particles participate in two kinds of composite forms: compound forms (as in *overhead*) and verb-particle forms (as in *go over*). Tyler and Evans explain that several senses could possibly participate in composite forms, but not all the senses in the semantic network take part in such compounds. Participation in composite forms on its own is not enough to use as proof for the primary sense; however, a sense’s inability to participate in composite units is an indication that it is not likely to be the primary sense.

The fourth guideline posited to delineate the primary sense comes from its relations to other spatial particles. That is, the primary sense should contribute to distinguishing the polysemy network of one spatial particle from those of other particles in a given language. Tyler and Evans advocate that, based on the spatial territory that each spatial particle describes, particles “appear to form compositional sets that divide up various spatial dimensions.” (2003, p, 48). For example, the English spatial particles *above, over, under, and below* form a compositional set amongst which the vertical dimension is divided (see Tyler & Evans, 2003, Chapter 5 for a detailed discussion of the contrasts among these particles).

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2 Although Tyler and Evans’s book (2003) is titled *The semantics of English prepositions*, their analysis includes both prepositions and particles. Tyler and Evans use the generic label ‘spatial particles’ to refer to both types of linguistic forms (p. 62). Their analysis also includes ‘adpreps’ (e.g., *The movie is over*) and ‘particle prefixes’ (e.g., *overflow* and *overhead*) (my emphasis) (p.62). Following their methodology, I will use the label ‘spatial particle’ when referring to their guidelines and analysis. However, the analysis presented in this dissertation focuses on two Arabic prepositions unless Arabic particles are otherwise mentioned or specified.
The fifth and last guidelines for describing the primary sense of a spatial particles concerns its grammatical predictions, i.e., the derivability of extended senses from the primary sense. Based on this guideline, the assumption is that the different senses can be directly traceable to the primary sense of the spatial particle or (if not) to another sense that is derived from the primary sense. That is, the relation between the primary sense and the other distinct senses in the network can be traced back to the proto-scene. Another way of thinking about this is by considering that the primary sense has a ‘sanctioning’ property (Langacker, 1987). The notion of a sanctioning property assumes that speakers will use a linguistic item creatively, yet they will use it only in a manner where the listener can deduce the intended meaning through contextual clues. Over time, the new meaning will become entrenched through pragmatic strengthening.

In addition to proposing guidelines for describing the primary sense, the PPM also provides principles that can be used to distinguish distinct senses from the primary sense without being overly detailed. The first principle for recognizing a distinct sense suggests that the proposed sense must include an additional meaning that is not present in the proto-scene or in other senses. This additional aspect of meaning could be in the form of a different TR-LM configuration or a different, non-spatial meaning. The second principle posits that there must be identifiable examples where the new sense can be understood as context independent, i.e., the new sense must not be a mere inference from the context it appeared in. In other words, the extended senses should represent meanings that are entrenched in the semantic memory of the language speaker.

In sum, the PPM is a procedural, methodologically-controlled model of semantic extension. It recognizes the dynamicity of language in explaining the polysemy of spatial
particles. More importantly, this model is structured around the role of human cognitive processes and embodied experience in meaning formation. The commitment to the thesis of embodied cognition that this model adheres to makes it suitable for the analysis of spatial description which is—in essence—description of how we view and interact with the physical world around us. Given these advantages over traditional approaches to polysemy, the next two chapters hope to elucidate the analysis of the two highly-frequent Arabic prepositions, ‘alā and fī.
CHAPTER 2 COGNITIVE LINGUISTICS ANALYSIS OF THE SEMANTICS OF ‘ALĀ

Informed by the tenets of the Principled Polysemy Model (Tyler & Evans, 2001, 2003), this chapter provides a motivated cognitive analysis of the meanings associated with ‘alā based on a sample corpus of 1350 concordance lines extracted from the Modern Literature corpus, a section of corpora under the ArabiCorpus.³

As mentioned in an earlier chapter, the Principled Polysemy Model posits important guidelines for both identifying the primary sense for a preposition and for distinguishing the distinct, extended senses. These guidelines are revisited in the following sections as I present the analysis, discussing how the tenets of this model explain the motivation for the array of meanings exhibited by ‘alā. In doing so, my goal is to explain the relationship between the primary sense and the other senses by emphasizing a link between them being motivated, radial extensions. Also, this chapter defines the specifics of the spatial scene denoted by ‘alā in relation to those of other spatial particles of elevation, thus situating and distinguishing the spatial realm covered by this preposition, with the goal of providing a fuller, systematic description of its semantics. In the next section, I start with a review of ‘alā in previous literature; next, I present my analysis of ‘alā informed by the PPM.

2.1 ‘Alā in Previous Literature

Early Arabic grammar accounts of ‘alā as well as modern and recent accounts might not have disputed over this preposition as an expression of a vertical relation of elevation; however, the exclusive nature of this relation has not been specifically explained nor distinguished in

³ A search performed on the ArabiCorpus interactive website yielded approximately 13,500 concordance lines with the Arabic preposition ‘alā.
relation to other Arabic particles denoting vertical elevation. For example, the classical reference *Lisān al-‘Arab* by Ibn Manzūr (1970) lists the following examples as synonymous prompts denoting the scenario of being on the roof.

(2.1) 
\[
\text{kuntu 'ala s-ṣāḥi} \\
\text{was.1SG on the-roof} \\
\text{I was on the roof}
\]

(2.2) 
\[
\text{kuntu 'a'la s-ṣāḥi} \\
\text{was.1SG up the-roof} \\
\text{I was atop the roof}
\]

Another issue with previous accounts of prepositions such as ‘alā is that the array of meanings encompassed by the preposition are almost always either underspecified, overspecified, or unjustified. Take, for example, the definition of the Arabic preposition ‘alā in one of the classical Arabic dictionaries such as *Mu'jam Al-Hurūf wa-al-Zurūf* [Dictionary of particles and adverbials] (Qumayr, 1973).\(^4\) This reference is by no means representative of all analyses of Arabic prepositions among scholars of Arabic, but it serves as an example that represents the persisting reliance of dictionaries on classical grammars. In this reference, Qumayr assigns ‘alā ten distinct meanings, six of which define ‘alā as synonymous with other prepositions.\(^5\) These ten meanings are complimented by minimal elaboration (if any) and are followed by one example for each. For purpose of illustrating the inadequacy of such accounts, I present below

\(^4\) Names of references are transcribed following the American Library Association/United States Library of Congress protocols for the Romanization of Arabic, which is conventionally used in library catalogues.

\(^5\) Although Qumayr (1973) lists nine meanings, his ninth category is in fact comprised of two different meanings, making a total of ten meanings.
the ten meanings as they appear in Qumayr’s dictionary. The transcriptions, translations, and
glosses are my own.

Meaning 1: \textit{al-isti’lā} ‘to be elevated/higher than/in superior position.’ This is the
basic meaning of ‘\textit{alā}’ that almost every Arabic grammarian first refers to when discussing this
preposition. In their labeling of this meaning, they use the word \textit{al-isti’lā} which means
being in a higher position.\footnote{The word \textit{al-isti’lā} is derived from the trilateral root \textit{\textsf{w-l-r}}. This is the same stem from which the
verb \textit{\textsf{\textit{alā}}} ‘to be high/exalted’ is derived. This verb has the same phonological representation as the
preposition \textit{\textsf{\textit{alā}}}, yet they differ in terms of how the final long vowel is represented orthographically.} Qumayr (1973), for example, lists this meaning first and notes that
‘being higher than’ could be either ‘true’ (meaning physical) or figurative. He lists the following
two examples for the two (spatial and non-spatial) meanings of being in a superior position:

\begin{enumerate}
\item [2.3] \begin{tabular}{ll}
\textit{zaydun ‘ala s-saṭḥī} & \tabularnewline Zayd & on the-roof
\end{tabular}
Zayd is on the roof

\item [2.4] \begin{tabular}{ll}
\textit{la-hū ‘alay-yā daynun} & \tabularnewline for-him & on-me debt
\end{tabular}
I am indebted to him
\end{enumerate}

The first of these two examples depicts a physical spatial relation by which a person is on the
roof while the latter refers to the meaning whereby the speaker is burdened by a debt. Clearly,
these are two different meanings; however, most Arab grammarians inherited this obsolete
definition of the preposition for centuries and copied it without considering the difference in
meaning.
Meaning II: \( \text{al-} \text{idrāk} \) ‘redress.’ This is the second meaning among the meanings listed for ‘\( \text{alā} \)’ in Mu’jam Al-Hurūf \( \text{wa-al-Zurūf} \) [Dictionary of Particles and Adverbials].

\[
\text{‘alā ‘anna qurba \( \text{d-dāri} \) laysa bi -nāfī ‘in on that nearness the-home be not.MSG with-use}
\]

However, nearness of homes is useless

إذا كان من تهواء ليس بذي ود

\[
\text{‘idā kāna man tahlā hu laysa bi-dī wūdīn}
\]

Meaning III: \( \text{aš-ṣarṭīyya} \) ‘conditionality.’

أعطاني ألف دينار على أن أمنحه بقصيدة

\[
\text{‘a ‘tā-nī ‘alṭā dīnārin ‘alā ‘an amdaḥa-hu bi-qāṣidatin}
\]

Meaning IV: \( \text{al-kayfiyya} \) ‘manner.’

الأمر على خلاف ما ترى

\[
\text{al-‘amru ‘alā xilāfi mā tarā the-matter on disagreement what 2MSG.see.IP}F
\]

The matter is different than what you think
Meaning V: الظرفية: \( a\-\delta\-\text{arfiyya} \) ‘circumstantiality’

كان ذلك على عهد مأمون
\( k\-\text{āna} \ \delta\-\text{ālika} \ ‘al\-\text{ā} ‘\text{ahadi} \ ma\-\text{mūnin} \)
were.3MSG that on era Ma’moon
It was during Mamoon’s rule

Meaning VI: التعليل: \( at\-\text{ta‘līl} \) ‘causality/justification’ [meaning \( \text{ل-} li\) ‘for/to’]. Qumayr (1973) notes that when ‘\( al\-\text{ā} \) is used to mean causality, it is synonymous with the bound preposition \( li\)- which canonically corresponds to the English preposition ‘for’.

صاحبتك على أنك وفي
\( š\-\text{āhabtu} \ -ka \ ‘al\-\text{ā} ‘\text{anna-ka} wafiyun \)
befriended.1SG-you.MSG on that-you loyal
I befriended you for you are loyal

Meaning VII: المصاحبة: \( al\-\text{muśāhaba} \) ‘accompaniment’ [meaning \( \text{ma’a} \ ‘\text{with/by’}]. Qumayr (1973) describes this meaning as equivalent to the preposition \( \text{مع} \ ma\-\text{a} \) which generally corresponds to the English preposition ‘with.’ For this meaning, he provides the following example:

تزوج على كبر سنه
\( t\-\text{azawwaja} \ ‘al\-\text{ā} kibari sinni-hi \)
mixed.3MSG on largeness age-his
He married despite his old age
Meaning VIII: \(al-wāsiṭa\) ‘intermediary’ [with the meaning of \( bi\) ‘with/by/in’]

\[
\text{سُرَ على اسم الله}
\]
\[
\text{sir} \quad \text{‘alā} \quad \text{ismi l-lahi}
\]
w\. IMP.2MSG on name God
Go in the name of God

\[
\text{انتصرنا على يدي الأمير}
\]
\[
\text{intaṣār-nā} \quad \text{‘alā} \quad \text{yadayi l-’amīri}
\]
tru\. 1PL on hand.DU the-prince
We triumphed by the hands of the prince

As can be seen from the translations, this meaning generally corresponds to the meaning of the English preposition \( in\).

Meaning IX: Qumayr lists this meaning as including two synonyms grouped under it: with the meaning of \( an\) ‘about’ or the meaning of \( ilā\) ‘to’. The way Qumayr puts it, this meaning of \( ‘alā\) seems to correspond with two other prepositions. Qumayr does not explain why he groups these two meanings under one category.

\[
\text{رضىت عليه}
\]
\[
\text{radī-tu} \quad \text{‘alay-hi}
\]
was pleased.1SG on -him
I was pleased with him

\[
\text{دخلت عليه}
\]
\[
\text{daxal-tu} \quad \text{‘alay-hi}
\]
entered.1SG on –him
I dropped in on him

As can be seen from this last meaning category, the definition of \( ‘alā\) is further complicated by not justifying the grouping criteria that informed it. As such, the relations among
the different meanings are inexplicable. This problem prevails with other dictionary accounts including current ones (see, for example, Zohairy, 2008). Furthermore, the above categorization relies on circular definitions where the preposition ‘alā is explained in terms of two other prepositions: “meaning عن ‘an (about/away from) or إلى ‘ilā (to)”. Another more general issue with the above account pertains to the absence of systematic hierarchy among the list of meanings. While this account recognizes many of the important meanings associated with ‘alā, it does not distinguish primary versus extended meanings.

The problem extends to some modern bilingual dictionaries where the definition of ‘alā is augmented with English translations that are intended to aid Arabic second/foreign language learners. In these dictionaries, the canonical meaning of the preposition is not distinguished from the extended meanings, either among the Arabic meanings or among the English translations. For example, some of the translations provided for ‘alā in the Dictionary of Function Words in Arabic (2008) are: on, upon, on top of, above, over, at, by, etc. Similar to what we saw in the classical Arabic-Arabic dictionary, this more recent Arabic-English resource does not make any claims about the primary meaning for ‘alā, but rather implies—through serial listing of meanings—an undifferentiated relationship between approximately 37 English meanings presented as equivalents. This approach when defining prepositions in general and ‘alā, in particular, creates a case where it is not clear—especially for the second language learner—which of the given meanings depicts the primary spatial relationship that this preposition describes or what is the intrinsic functionality that this preposition exclusively describes. Moreover, labeling this single Arabic preposition as sharing the same semantics with a wide range of English prepositions gives the impression that the meanings associated with ‘alā are highly arbitrary, a baffling issue for most second language learners.
In contrast to classical Arabic accounts, many western scholars have studied and analyzed the category of Arabic prepositions. One of the prominent works in the field is Lentzner’s (1977) dissertation which focuses on generative semantics and the structural rules that the Arabic prepositions follow based on corpus data from a single MSA novel. Where ‘alā is concerned, Lentzner contends that “[t]o formalize the spatial locative nature of ‘alā, it is possible to use … the semantic component COINCIDE, stipulating that the noun object be something which has the attribute SURFACE” (p. 65). This semantic description of ‘alā might not be far from accurately describing the importance of contact (as in coinciding with a surface) to the meaning of ‘alā. However, Lentzner’s use of the semantic component COINCIDE is not exclusive to ‘alā. According to her, the semantic component that describes the meaning of fī is also COINCIDE or COINCIDE with an INTERIOR when its object has an interior feature. In fact, following her analysis, the semantic component COINCIDE is present in the description of eight out of the nine Arabic prepositions. Figure 2.1 below shows Lentzner’s summary of the semantic components for the Arabic prepositions she analyzed.
Lentzner (1977) acknowledges that 'alā conveys a temporal meaning in addition to its spatial meaning. Regarding the remaining senses that 'alā expresses beyond the spatio-temporal meanings, Lentzner notes that it is difficult to provide semantic structures for all the semantic-syntactic combinations that 'alā can occur in, but she highlights some of the prominent meanings which she terms as abstract senses. The abstract senses she recognizes are the NECESSITY, the FOR THE SAKE OF, and the AGAINST senses as she labels them. She notes that the “meaning of
necessity” is a very specific meaning to ‘alā and is associated with the structure where ‘alā is followed by a subject pronoun plus the particle ‘an ‘that’ and a subjunctive verb as in the following example (Lentzner’s translations; transcriptions and glosses are mine):

(2.15)

‘alay-nā ‘an na‘ūda ‘ilā juḏūri-nā
on-us that 1PL.return.IPFV to roots -our
We must return to our roots

She suggests that this meaning of necessity possibly came to exist as an abbreviated form of the below expression (where the modal verb يجِب yajibu meaning ‘must’ was dropped):

(2.16)

yajibu ‘alā fulānin ‘an
must.IPFV on someone that
It is necessary that someone

The second abstract sense that she describes is the FOR THE SAKE OF sense which she suggests is evident when ‘alā combines with intransitive verbs that mean empathy or sympathy such as cry, feel anxious, fear, and stay awake. Lentzner (1977) views this type of function as one that “embodies a concept separate from the nuclear predicate [that is the meaning of the verb], adding an external argument [thus the extra meaning of] FOR THE SAKE OF” (p. 178). That is, ‘alā predicates a relationship between the nuclear predication and the argument.

The third abstract sense that Lentzner (1977) discusses is one that is apparent when ‘alā combines with verbs that denote aggressive expressions as in actions or feelings which are directed against someone or something. Some of these verbs are be rough, raid, rebel, and
triumph. She assigns this sense the semantic component AGAINST. Lentzner (1977) notes that the two meanings, which she glossed as FOR THE SAKE OF and AGAINST seem to be opposites, and she suggests that to be able to explain why ‘alā takes two contradictory meanings, we must think of those meanings “as two sides of one coin” (p.179). Lentzner further argues that in these verb-preposition constructions, the lion’s share of the meaning stems from the verb:

The difference in ‘alā’s apparent meanings lies not in the preposition itself, but in the verbs with which it is used…. The meaning difference is thus lexicalized in the verbs with ‘alā acting as a linking between them and the object toward which the action or feeling is focused. To embody this broad concept, I propose having ‘alā represent the underlying predicate FOCUS. This broadened concept of ‘alā can be seen to function in most instances of the listed verbs-preposition idioms. Those that lexicalize neither empathy or aggression can be seen as making statements FOCUSED on a particular activity (p. 180).

However, this statement rather proposes a very schematic meaning of FOCUS. The above statement is problematic for two reasons. First, it rids the preposition of meaning by suggesting that the meaning contribution is the verb’s not the preposition’s. Second, it does not make it clear when to consider certain denotations as a new sense instead of considering it another example of the same sense. Tyler and Evans (2003) proposed methodologically controlled guidelines to determine when to consider a meaning as a new sense as will be discussed later in this chapter.

Lentzner’s (1977) account of ‘alā–while addressing new meanings that were never addressed in previous sources such as the FOCUS meaning–remains lacking on more than one level. First, the number of senses or semantic components that this account discusses is limited
in comparison to the array of meanings that were identified for ‘alā in other sources, both
classical and modern. Moreover, none of the meanings discussed seems to be justified as related
to ‘alā or motivated by any of its other meanings. Instead, ‘alā is assigned a very schematic
meaning of locating and in many cases the new meaning denotations are considered as belonging
solely to verb collocation. Ideally, we would want a full description of the semantics of ‘alā to
inform the range of meanings that ‘alā expresses. More importantly, a satisfactory description of
the semantics of ‘alā must be able to account for the meaning profile that makes it possible for
‘alā to describe semantic relations that are as varied as the ones discussed.

In a more recent publication, Ryding (2005) adopted a minimally tripartite categorization
of meaning for ‘alā, giving it three types of uses: spatial, temporal, and figurative.⁷ Intended as
a grammar reference, this source is more limited in its description of the number of senses and in
its elaboration on the senses listed; it lists more examples and fewer explanations about the three
categories. Below are some of the examples she lists under each of the three meanings
(transcriptions, glosses, and translations are mine):

Meaning I: Spatial meaning

(2.17) على الباسمة

‘ala 1 -yābisati
    on    the-land
    on land

⁷ Ryding, Karin is the same person as Lentzner, Karin Ryding.
Meaning II: Temporal meaning:

‘alā madā yawmayni
on duration day.DU
for a duration of two days

بعد ثلاثة أيام على وقوع الزلزال
ba’da θalāθati ‘ayyamin ‘alā wuqū‘i z -zilzāli
after three day.PL on incidence the -earthquake
after three days of the earthquake incident

Meaning III: Figurative meaning

‘alā mā ‘aḏunnu
on what 1SG.think.IPFV
according to what I think (in my opinion)

‘alā ‘asāsin yayri ‘unṣuriyyin
on basis not racist
on a non-racist basis

Ryding (2005) notes that the figurative category includes a spectrum of meanings that stretch from being a “reflection of the spatiotemporal concepts” to others that are more “abstract” (p.
but she does not discuss the relatedness of figurative meanings to the spatiotemporal meaning. The only description she provides is regarding the different, English, equivalent terms. There is one meaning that she specifically dedicates a subdivision to. She labels it as meaning “up to; incumbent upon; must; have to”, and she explains that it is used to express a meaning of a “required or expected action” (p. 382). Below are two of the examples she lists under this meaning (Translations, transcriptions, and glosses are mine):

(2.24)

على الدولة أن تقوم بدورها

‘ala d-dawlati ‘an taqīma bi-dawri-hā

on the-state to stand with-role-her

It is up to the state to perform its role

(2.25)

على أن نبدأ من الصفر

‘alay-na ‘an nabda’a mina ṣ-ṣifri

on-us to 1PL.start.IPFV from the-zero

We have start from scratch

While relatively recent, Ryding’s (2005) grammar reference book is less elaborative than her dissertation. As a general grammar reference and given its broad scope, this resource does not delve into the detailed range of senses associated with ‘alā.

In contrast to the previous studies, the most recent and notable account of Arabic prepositions is Esseesy’s (2010) diachronic analysis of the complete set of Arabic prepositions and adverbials. In his analysis of these particles, Esseesy addresses the role of Cognitive Linguistics in meaning extension and evolution over time. He analyzed ‘alā—among other prepositions—in terms of its grammaticalization, and he identified a range of meanings for this preposition, mainly in the form of meaning clusters. The first cluster he describes is the locative cluster. This cluster mostly concerns physical spatial relations in which the two entities involved
are physical objects. He provides the following example for this meaning (Esseesy’s translations and glosses; transcriptions are mine):

وعباد الرحمن الذين يمشون على الأرض هوناً (2.26)
wa-ibādu r-raḥmānī llaḏīna yamṣūna ‘alā al-‘arḍi hawnan
and worshiper.PL the-merciful who.MPL walk.IPFV on the-land gently
And the worshippers of the Merciful who walk gently on the earth (Quran, 25: 63)

Esseesy recognizes that support marks the relationship expressed by ‘alā and that it has been the central meaning for it since early Quranic uses. According to him, physical relationships provide transitions to other uses where non-physical meanings can be easily deduced, as in the example he brings from Quran (Esseesy’s translations and glosses; transcriptions are mine):

لمسجد أسس على النقوى (2.27)
la-masjidun ‘ussisa ‘alā t-taqwā
for-mosque founded.PASS.3MSG on the-piety
For a mosque founded on piety (Quran, 8:108)

He notes that the mosque as a physical entity can be portrayed in a sense where a non-physical foundation such as religious adherence provides basis and guidance to believers and their religious establishments.

Another meaning that Esseesy (2010) posits for ‘alā is the meaning of contiguity to a location as in the following examples (Esseesy’s translations and glosses; transcriptions are mine):
fa-ʾinna-hu lam wāqifan ʿala l-bābi
so-that-he not 3MSG.still.JSV standing on the-door
So he was still standing at the door

wa-lam yaftaḥ la-hu ʿahdun fa-ṭaraqa l-bāba
and-not 3MSG.open.JSV to-him someone so-knocked.3MSG the-door
but no one opened it, so he knocked on the door

In this example, ‘alā describes a meaning of closeness rather than support. Esseesy further explains that by means of metonymy this shift in meaning is further explicated to senses where the TR is part of the LM as in describing the wrinkles on someone’s face (Esseesy’s translations and glosses; transcriptions are mine):

‘ašbahu bi-najmin sinimāʾiyyin muta'alliqin lawla t-tajāʾīdu lattī
similar in-star cinematic bright if not the-wrinkle.PL which.FSG
He would resemble a bright movie star had it not been for the wrinkles which

tarakat-ḥa l-ḥayātu ʿš-ṣāxibatu ʿalā wajhi-ḥi
left.3FSG-it the-life the-tumultuous on face-his
a tumultuous life have left on his face

The second cluster Esseesy (2010) discusses is the temporal cluster. He explains that by means of metaphoric extension, ‘alā is used to describe temporal relations, specifically when collocating with words that denote time such as ʿhīn ‘time’ as in the following example (Esseesy’s translations and glosses; transcriptions are mine):
And he entered the city at a time when its people were unaware (Quran 28, 15)

Over time, pragmatic strengthening led the collocation ‘on a time of inattention’ (where ‘alā combines with the word حين ‘time’ and غفلة ‘inattention’) to mean surprise by implicature. Further pragmatic strengthening of the surprise meaning has led to the use of this collocation as a linking unit showing contrast between two events. Esseesy uses the following example for this meaning (Esseesy’s translations and glosses; transcriptions are mine):

He notes that this linking function is evidence that ‘alā has witnessed grammaticalization beyond the temporal meaning where it came to describe subjective stance.

The third cluster that Esseesy (2010) describes is the conditional/concessive cluster, where ‘alā collocates with the complementizer أن ‘anna ‘that’; together they mean afterthought or retraction as in the following example:
So and so shall not enter paradise for his ill deeds;

علي أنه لا يبيان من رحمة الله
‘alā ‘anna-hu lā yay’asu min raḥmati l-lāhi
on that-he not 3MSG.despair.IPFV from mercy the-God
nevertheless, he should not give up hope in God’s mercy

This concessive meaning became more frequent in more recent sources, though as a conditional meaning. Esseesy contends that when ‘alā’s conditional sense occurs with verbs expressing obligation, an inference meaning conditionality becomes apparent where the meaning of obligation shifts through reanalysis from the verb to the clause following ‘alā:

I cried, however, crying has not been beneficial

In addition to the above linking collocation, Esseesy discusses several other collocations in which ‘alā has come to serve as a linking or transition device.

Of all the works surveyed, Esseesy’s (2010) account is by far the most informative source that depicts a picture of the relatedness of the multiple meanings associated with ‘alā. He acknowledges that human cognitive processes such as embodied experience and metaphor along with meaning reanalysis and pragmatic strengthening play a role in the semantic extension and meaning evolution of ‘alā. However, Esseesy’s account, being dedicated to the grammaticalization of the preposition, does not explore the full range of meanings depicted by contemporary ‘alā. While the current analysis in this dissertation is in line with Esseesy’s, it has
a slightly different focus. This dissertation differs in being synchronic in nature and thus focusing on MSA. Hence, my goal in the next section is to discuss the variety of meanings that ‘alā expresses and explain how the PPM informs their systematicity and relatedness.

2.2 Cognitive Linguistic Analysis of ‘alā

Following the tenets of the PPM, this section provides CL analysis of the meanings associated with ‘alā, starting with a discussion of its central, primary sense followed by the range of senses beyond the central meaning.

2.2.1 The primary sense of ‘alā

2.2.1.1 Finding the primary sense

The PPM suggests five sources of information that could guide the linguist in establishing the primary sense for a given preposition: (1) the etymology of the preposition or its earliest attested meaning, (2) predominance in the semantic network, (3) its use in composite forms, (4) its use in relation to other spatial particles, and (5) its grammatical predictions. In the following subsections, I will discuss each of these factors in relation to the primary sense that I posit of ‘alā.

2.2.1.1.1 Origins of ‘alā.

The first step that can be utilized in accurately describing the primary sense for a given preposition is to trace it back to its earliest attested meaning. This guideline was posited by Tyler and Evans (2003) based on the vast amount of evidence (see Sweetser, 1990, for example) which demonstrated that—even in their most grammaticalized forms—words often exhibit vestiges of their historical meaning. That is, prepositions code for a basic spatial relationship. In most
cases, this relationship does not change over time, and very often the preposition will continue to code for that same spatial meaning. The current section discusses the historical origins of ‘alā in some detail, shedding light on its earliest meaning and showing how it is related to present-day meaning.

Etymological sources trace ‘alā to a Semitic root meaning ‘on’ or ‘upon’ (e.g., Gray, 1971). Canonically, ‘on’/’upon’ conveys a meaning of two entities (a focus entity and a background or locating entity) being in a particular spatial relationship in which the focus entity is higher than and in contact with the background or locating entity. Hence, such sources point towards the direction that an element of contact is inherent in the etymological origin of ‘alā. According to sources that link ‘alā to elevation with contact, ‘alā is connected to a hypothetical Proto-Semitic root ‘alāj (Gray’s transcriptions) that means ‘on, upon’ (Gray, 1971, p. 74). This position is synchronically bolstered by the Hebrew sister preposition ‘al, meaning ‘upon’ (Hardy, 2014). Also, in favor of this meaning of superposition with contact is Beeston (2006) who suggests that ‘alā is possibly derived from a ‘fossilized’ origin meaning ‘top of’ (p. 78). This view continued to prevail not only in etymological sources but also in some of the early extant accounts of Arabic. For example, Sībawayh (1988), an eighth century scholar of Arabic and the author of one of the earliest descriptive accounts of Arabic grammar, did not treat ‘alā as a preposition, but rather considered it an adverbial because it behaved more like a substantive (meaning ‘top of’) than a preposition. Esseesy (2010) asserts this etymological history. In his grammaticalization account that traced the diachronic change of ‘alā as well as other Arabic prepositions and particles, Esseesy posits that the preposition ‘alā underwent metaphorical extension, evolving from a motion verb source عل (also pronounced ‘alā) that meant ‘rise,
elevated, to be high’ to a static, locational particle علىَ (the preposition ‘alā) meaning ‘on, above, upon’. 

This etymological evidence is in line with the meaning of الاستعلاء alisti’lā ‘superposition’ described by Arabic grammarians in classical grammar accounts. It is also consistent with the meaning delineated by ‘alā in Quran since its earlier recorded uses, meaning on/upon. ‘Alā continues to prompt for this meaning in today’s standard variety MSA as well as in diverse colloquial dialects.

2.2.1.1.2 Predominance in the semantic network.

The second guideline for determining the primary sense of a preposition focuses on its predominance in the semantic network. This means that the unique relationship that holds between the TR and the LM for the primary sense will be present in the majority of the remaining senses’ representations. To give an example, Tyler and Evans (2003) note that the semantic network of the English preposition over included fifteen distinct senses for the preposition, out of which eight involved a TR being higher than the LM. Based on this evidence, they posit that the meaning of being higher than that they proposed for over clearly predominates in the network.

A close examination of the relationship between the primary sense (discussed at length in section 2.2.1) and the meanings that ‘alā exhibits can help implement the predominance guideline. I propose that the primary sense that represents ‘alā describes a TR located higher

8 It is worth noting that both forms still exist in today’s Arabic, albeit the final long vowel is represented orthographically different in each form: prepositional ‘alā is represented as على whereas the verb form, though pronounced the same, is represented as علا.
Based on the analysis presented later in this chapter, the preposition ‘alā has fifteen distinct meanings besides the primary sense. Out of these fifteen meanings, eleven derive from the TR being located higher than the LM (Covering, Examining, Focus, Intended Contact, Oriented TR, Activity, Medium, Preference, Control, Responsibility, and Conditional). The relationship between the primary sense, particularly the meaning of elevation, and the extended senses will be discussed in detail under the designated senses.

2.2.1.1.3 Use in composite forms.

According to Tyler and Evans (2003), the way a spatial particle combines with other linguistic units in the language (as in phrasal verbs, for instance) to generate meaning serves as another type of evidence towards establishing the primary sense. In English, spatial particles participate in two kinds of composite forms: compound forms (as in overhead) and verb-particle forms (as in go over). Tyler and Evans explain that several senses could possibly participate in composite form, but not all the senses in the semantic network take part in such compounds. Participation in composite forms on its own is not enough to use as proof for the primary sense; however, a sense’s inability to participate in composite units is an indication that it is not likely to be the primary sense.

In Arabic, prepositions mostly combine with verbs to form verb-preposition combinations traditionally referred to as verb-preposition idioms or prepositional verbs (Esseesy, 2010; Lentzner, 1977). They also collocate with nouns or other particles to form bi-morphemic

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9 Implementing this guideline depends on having some preliminary analysis including an exploratory proposal for the proto-scene. See, for example, Tyler and Evans’s (2003) analysis of the English preposition ‘before’ (p. 165).
compounds that often act as discourse markers. Each of these composite forms will be discussed below.

It is worth noting here that Arabic prepositions do not generally participate in compounding of the type seen in English prefixing as in ‘overhead’ or ‘overpass’. However, there are few examples where Arabic particles participated in compounds in the form of loan translations, as in the case of فوق fawqa ‘above/over’ participating in the compound adjective فوق banafsajyyah ‘ultraviolet’ and تحت الحمراء tahta l-ḥamrā‘ ‘infrared’. The rare occurrence of compounding in Arabic (known as نحت naḥt) is due to the 1953 conservative ruling aimed at preserving the identity of the Arabic language, which dictates that (1) compounds are only permitted to provide Arabic alternatives for Western scientific terms and that (2) such Arabic compounds are to remain transparent (Versteegh, 2014).

Examining the verb-preposition forms that ‘الا‘ participated in, it was found that ‘الا‘ collocated with verbs to describe scenes whose meanings were centered around being higher than and involving contact and/or support. For example, some of the ‘الا-verb collocations found in the corpus were:

\[
\begin{align*}
\text{وقف على... (2.34)} & \quad \text{waqafa} \quad \text{‘الا} \\
& \quad \text{stood.3MSG on} \\
& \quad \text{He stood on...}
\end{align*}
\]

\[
\begin{align*}
\text{وقع على... (2.35)} & \quad \text{wqa’a} \quad \text{‘الا} \\
& \quad \text{fell.3MSG on} \\
& \quad \text{He fell on...}
\end{align*}
\]
Some of these verbs along with ‘alā designated a meaning of intended contact as in (2.35) and (2.36) versus stationary contact as in (2.34). The fact that the meaning of intended contact is prevalent in Arabic misled some grammars (Prochazka, 1993, 1995 as cited in Esseesy, 2010) to claim that ‘alā was only used to describe scenes that involve movement.

In some other combinations, the meaning denoted by the composite form involving ‘alā designated a meaning of focusing one’s attention when the verb involved a meaning component of attention as in the following examples:

(2.37)…

\[
\text{ijtāla‘a (} \text{\‘alā)}
\]

rise to emerge.3MSG on
He had a look at…

(2.38)…

\[
\text{‘atalla (} \text{\‘alā)}
\]

looked from above.3MSG on
He looked over…

It is worth noting that the meanings denoted by these verbs collocating with ‘alā include in their semantics a meaning of the TR starting from or being in a higher place, which is compatible with the meaning of elevation associated with ‘alā. However, the collocation between the verb نظر naḍara ‘looked’ and ‘alā in (2.39) is semantically unacceptable due to the incompatibility between vision (that is not limited to the vertical axis) and the proto-scene of vertical elevation associated with ‘alā:
On the other hand, the collocation in (2.40) (literally meaning ‘threw a glance on’) is felicitous because the sense of elevation that is part of the semantics of the verb ‘القى ‘threw’ is compatible with the prototypical higher than scenario denoted by ‘الى’.

Also, the collocation in (2.41) below is equally acceptable since the preposition ‘إلى ‘to’ designates the target of vision regardless of direction.

As can be seen from the foregoing examples, the verb-preposition composite forms that ‘الى participates in indicate that the semantic components of elevation, contact, and support are all parts of the semantics of this preposition and together they make up its proto-scene.

The second type of composite forms that ‘الى participates in are of the type preposition-noun as in (2.42)–(2.44) or preposition-particle as (2.45) below:
I did not say anything at all
In the above example, the collocation literally corresponding to the translation ‘on liberation’ has come to mean ‘at all’. In this sense, the meaning contributed by ‘alā is relevant to its central meaning of contact where the phrase means construal along lines of the English phrase ‘on the extreme end’ to indicate absoluteness or ‘at all’ as the translation reflects.

In another example, ‘alā collocated with the word حين hīn ‘duration of time’ indicating temporality, although the overall meaning of the collocation generally corresponds to English ‘while’ or ‘whereas’. Here, the compositional meaning of the collocation is more apparent, with ‘alā designating the meaning of locating an event (as in meaning the temporal ‘contact’ or coinciding between two events) while another lasted for a duration (as designated by the word حين hīn ‘duration of time’). With the meanings of the two units combined, the composite form came to mean ‘while’:

\[
\text{الفرحة أنورا وشروق في حيهم (2.44)}
\]

واشرقت أنوار الأفراح في حيهم

wa’asraqat ‘anwāru l-‘arfāhi fī hayyi -him

and rose.3FSG light.PL the-celebration.PL in neighborhood-their

And the lights of celebrations shone in their neighborhood

على حين غرقت الحارة في ظلمتها المألوفة

‘alā ḥīn yariqat l-ḥāratu fī ḍulmati-ha l- ma’lūfati

on duration sank.3FSG the-district in darkness-her the-familiar

while the rest of the district sank in darkness as usual

\[10\text{ In this case, the two events could be considered in terms of the following TR–LM relation: The TR-like, focus event occurs in the first clause whereas the LM-like, locating event (lasting for a duration of time) occurs in the second clause (e.g., see Talmy, 2000, for figure–ground generalizations in complex sentences).}\]
In a third example, ‘alā collocated with the word wašaki designating a meaning of ‘imminence’ where the collocational meaning corresponded to the English meaning ‘about to’ as in something being on the verge of happening:

أشعر أنني على وشك أن أتعرض في وجهه
’aš’uru ‘anna-nī ‘alā wašaki ‘an ‘anfajira fi wajhi-hi
1SG.feel.IPFV that-I on imminence to 1SG.explode.SBJV in face-his
I feel that I am about to explode in his face

In most of the above examples, the meaning of the collocation appears to be conceptually recoverable, and the primary sense of ‘alā seems to be at the transparent end of the spectrum of meanings. However, in some cases, the composite form has reached a highly grammaticalized state and has become idiomatic to such an extent, that the rationale for the synchronic meaning is not clear. This was the case when ‘alā collocated with particles as in the collocation على أنَّ ‘alā ‘anna literally meaning ‘on that’ in the following example from the corpus:

مداه البيضاء ليستلم الصندوق، على أنَّ
madda yada-hu l-baydā’a li- yastalima s-suundūqa ‘alā ‘anna
extended.3MSG hand-his the-white to-3MSG.receive.SBJV the- box on that
He extended his hand to receive the box although

الذي افزعه، هو فكرة غريبة فارقة إلى ذهن
llađī ‘afza’a -hu huwa fikratun zarbatun qafazat ‘ilā ìihni-hi
what frightened.3MSG-him it idea strange jumped.3FSG to mind-his
what frightened him was a strange idea that jumped to his mind

Here, the collocation introduces unexpected circumstances, as though meaning ‘however’ or ‘although’.

The two types of composite forms discussed here, prepositional verbs and prepositional compounds, converge in providing evidence for the primary sense. The prepositional verbs
seemed to have in common a prevailing component of higher than and in some instances, contact/support. Similarly, the prepositional compounds reflect meanings that are still compositionally recoverable at least in most cases.

Tyler and Evans (2003) used the guideline of use in composite forms to refute previous claims about the primary sense for English over. With a lot of controversy about the primary sense for over, this step served as a scrutinizing tool towards asserting over’s proto-scene. In the case of ‘alā, there seems to be a general agreement among previous grammars on the primary sense. Still, corroborating evidence from this guideline and the remaining ones asserts this consensus methodologically.

2.2.1.1.4 Relations to other spatial particles.

The third guideline to establish the primary sense advocates that the proto-scene for a given spatial particle should distinguish it from other particles. This is based on the spatial territory that each particle describes. According to this relational guideline, spatial particles form clusters of compositional sets amongst which the description of spatial dimension is relatively distributed. For example, the English spatial particles above, over, under, and below form a compositional set amongst which the vertical dimension is divided (see Tyler & Evans, 2003, Chapter 5 for a detailed discussion of the contrasts among these particles).

Following this guideline, the primary sense of ‘alā should allow us to distinguish it from other Arabic prepositions and particles. Also, examining other Arabic spatial particles that occupy the vertical space can provide further evidence towards confirming this distinction. In other words, this guideline will help distinguish ‘alā from other spatial descriptors with similar meanings of verticality, specifically the particle fawqa ‘over/above’. It is worth noting that the prepositions and particles that occupy the vertical space in Arabic are أَعْلَى, أَلَّا، فوق fawqa, على
‘alā, التحت tahta, and أسفل ‘asfala. See Table 2.1 below.

Table 2.1

Division of the vertical dimension in Arabic

<table>
<thead>
<tr>
<th>Arabic</th>
<th>Transliteration</th>
<th>Approximate Meaning in English</th>
</tr>
</thead>
<tbody>
<tr>
<td>أعلى</td>
<td>‘a’lā</td>
<td>At the top of</td>
</tr>
<tr>
<td>فوق</td>
<td>fawqa</td>
<td>Over/above</td>
</tr>
<tr>
<td>على</td>
<td>‘alā</td>
<td>On</td>
</tr>
<tr>
<td>تحت</td>
<td>tahta</td>
<td>Under</td>
</tr>
<tr>
<td>أسفل</td>
<td>‘asfala</td>
<td>Below/beneath</td>
</tr>
</tbody>
</table>

On the positive side of the vertical axis, Arabic uses ‘alā ‘on’, fawqa ‘above, over’, and ‘a’lā ‘above’ to denote increase on the vertical axis. On the negative side of the vertical axis, it uses tahta ‘under, below’ and ‘asfala ‘below, beneath’ to denote decrease on the vertical axis.

‘Alā and fawqa share the meaning component ‘higher than’, hence the similar meanings in the near minimal pairs (2.46)–(2.47) and (2.48)–(2.49) from the corpus. In these pairs, ‘alā and fawqa seem to be synonymous in indicating a meaning of sitting on the bed in (2.46)–(2.47) and lying on the ground in (2.48)–(2.49):

jahāsa ‘alā sarī-rī-hi
sat.3MSG on bed-his
He sat on his bed

jahāsa ka-l-‘ādati fawqa sarī-rī-hi
sat.3MSG like-the-habit above bed-his
He sat on his bed as usual
Although in these examples 'alā and fawqa seem to be describing identical spatial scenes, this is not to be taken as evidence that the two prepositions are absolutely interchangeable. 'Alā and fawqa are distinguishable in their semantic denotations of space. While the two can describe spatial scenes of elevation, they differ in terms of their functional elements. 'Alā has the functional element of contact and support whereas fawqa has the function of being within potential reach. It is true that some of the examples employing fawqa above describe scenarios that include contact despite it being a function exclusive to 'alā; however, there is an explanation to this apparent synonymy, which I will attend to later in this section. But my priority here is to tease apart the difference between 'alā and fawqa.

I argue that fawqa in its proto-scene describes a spatial configuration that does not require contact and has the function of being within influence. This can be further explained if we look at scenes where being within potential influence can have significant consequences. Consider the following possible minimal pair.¹¹

¹¹ Possible examples are not corpus examples but are sentences that I use to demonstrate important analysis. These examples are always evaluated by a number of native speakers for their acceptability.
In the first sentence, (2.50), the head being above water is understood in contrast to being under water. This is informed by our embodied experience of what keeping one’s head above water means in terms of having access to air and being able to breathe versus having one’s head under water which has converse consequences such as air deprivation and the possibility of drowning. These meanings are compatible with the functional element of being within potential reach or influence. The potential influence of being close to water and possibly under it matches the meaning that fawqa delineates. On the other hand, the second sentence, (2.51), which translates as ‘his head is on the water’ would be interpreted as meaning his head is in contact with the water or is supported by water as though in a scenario where someone is swimming then she rests her head on the water. Consider also the following examples: Sentence (2.52) is from the corpus while (2.53) is a possible sentence:

(2.52)

‘ala l-kawmati lāfitatun kabīratun
on the-pile sign large
On the pile is a large sign

In (2.52), the use of ‘alā delineates that the sign is in contact with the pile, probably resting on it.
In (2.53), the sign could be in contact, but it does not have to. For instance, it could be on a pole inserted in the pile or it could be on a wall behind the pile or hanging from a post. Thus, with ‘alā, the designated meaning must include support and contact. On the other hand, with fawqa, contact is not required. This explains why ‘alā participates in scenes where the LM is part of the TR to indicate which surface is in contact (and is participating in the support dynamics), but fawqa does not. Consider the following pair of sentences (example (2.54) is from the corpus but (2.55) is not):

(2.54)

السَّلَقَةَ عَلَى ظَهْرِهِ

lay.3MSG on back-his

He lay on his back

(2.55)

السَّلَقَةَ فِوقَ ظَهْرِهِ

lay.3MSG over back-his

??He lay over his back

In (2.54), the person lay on his own back. The contact between his back and the surface on which he is resting and the implied support resulting from contact are all meanings that are present in this sentence. The meaning of lying on one’s own back is emphasized by the fact that the referent of the pronoun in ‘his back’ must be the subject pronoun in ‘he lay’ given the absence of another referent. Consider the following possible sentence with a hypothetical scenario, for purpose of illustrating:
Although the camel’s back is hunched, the traveler could lie on his back in a supine position, i.e., the traveler’s back is in contact and is providing support. The second reading would be that although the camel’s back is hunched, the traveler managed to lie on it, i.e., the camel’s back is the referent of ‘his back’. Note that ‘his’ could refer to the camel which has masculine grammatical gender in Arabic. Now, consider the same sentence but with the use of \textit{fawqa}:

The use of \textit{fawqa} is only compatible with the reading that means the traveler is atop another entity but not with the reading of being supported by it. So the designated meaning in (2.57)
must be one designating the ability to lie on the back of the camel despite its arch. Only ‘alā is compatible with a reflexive meaning where the TR is conveyed as resting on one of its sides because it is congruent with support: It means that the TR’s surface that is in contact with the LM is participating in the support relation (see the oriented trajeceotor sense for a detailed discussion of this meaning).

So far, I have demonstrated that ‘alā can participate in what resembles a reflexive sense (i.e., the TR occupies both the roles of the TR and the LM) but fawqa does not. This is because the orientation of being on one of an entity’s many surfaces or body parts requires contact which is compatible with ‘alā but not with fawqa. Another difference between ‘alā and fawqa is that with fawqa the relationship between the TR and LM has to be a vertical relation. We said earlier that ‘alā in its most canonical representation designates a higher than relation with the functional element of support. Support can still be true in different orientations, breaking free from the vertical axis as will be discussed under the primary sense. Consider the following possible sentences:

الصورة على الحائط (2.58)
ας-ςαρατυ ‘αλα l-’hā’iti
the-picture on the-wall
The picture on the wall

الصورة فوق الحائط?? (2.59)
ας-ςαρατυ fawqa l-’hā’iti
the-picture above the-wall
??The picture above the wall

In (2.58), the frame on the wall is not in a vertical relation. On the other hand, (2.59) seems semantically strange because fawqa is only acceptable in a vertical relation. For (2.59) to be
acceptable, the sentence would have to describe a bizarre situation where the picture frame is placed on top of an incomplete or a short dividing wall. Consider also the following possible minimal pair of sentences:

\begin{align*}
\text{الغصن على الغصن (2.60) } \\
\text{al-'usfūru 'ala l-yusni} \\
\text{the-bird on the-branch} \\
\text{The bird on the branch}
\end{align*}

\begin{align*}
\text{الفص فوق الغصن (2.61) } \\
\text{al-'usfūru fawqa l-yuṣni} \\
\text{the-bird above the-branch} \\
\text{The bird above the branch}
\end{align*}

‘alā with its functional element of support can denote varying spatial orientations as long as support is present. Therefore, (2.60) could describe a spatial situation where the bird is in a vertical relation with a horizontal branch (as in Figure 2.2.A), but it could also describe a bird that is horizontally oriented to the branch, meaning the bird would be holding onto a vertical branch (as in Figure 2.2.B). In addition, it could even describe a bird hanging vertically lower, i.e., below a horizontal branch (as in Figure 2.2.C). With fawqa in (2.61), the only possible scenario is one where the bird is above the branch, that is vertically higher than the branch.

\begin{figure}[h]
\centering
\includegraphics[width=0.8\textwidth]{fig22.png}
\caption{The bird on the branch}
\end{figure}
I now return to the earlier sentences with apparent synonymy between ‘alā and fawqa, repeated here as (2.62) to (2.65):

I now return to the earlier sentences with apparent synonymy between ‘alā and fawqa, repeated here as (2.62) to (2.65):

(2.62) jalasa ‘alā sarīri-hi
sat.3MSG on bed-his
He sat on his bed

(2.63) jalasa ka- l-‘ādati fawqa sarīri-hi
sat.3MSG like-the-habit above bed-his
He sat on his bed as usual

(2.64) fa-stalqat ‘alā l-’ardi qurba ‘ahadi l-buyūti
then-lay.3MSG on the-ground near one the-house.PL
Then she lay down on the ground near one of the houses

(2.65) istalqaytu fawqa l-’ardi l-xaqrā‘i taḥta daw‘i l-gamari
lay.1SG above the-ground the-green under light the-moon
I lay above the grassy ground under the moonlight

In these corpus examples, ‘alā and fawqa appear to be interchangeable, especially when they are used to describe what appear to be identical spatial scenes. But examining the fuller contexts that these prepositional phrases occurred in can be the key to asserting the distinguishability of two. Let us consider collocations comprising of fawqa + the entity ‘bed’. When fawqa collocated with sarīr ‘bed’ in the corpus, it was mostly in scenarios in which the focus is not on support, suggesting minimal or no contact (not in actual geometry though but by implicature) as in the following examples:
(2.66)

أطَفَّوْرُ السَّرِيرِ

‘affū fawqa sarīrī

1SG.float.IPFV above bed-my

I am floating over my bed

(2.67)

يَرْتَعْشُ السَّرِيرُ فَوْقَ

yarta‘išu fawqa s-sarīrī

2MSG.shiver.IPFV above the-bed

He is shivering above the bed

Note that in the above examples, fawqa appears to be interchangeable with ‘alā in its ability to collocate with the surface sarīr ‘bed’. However, considering the meanings contributed by the collocating verbs in these scenarios, it can be seen why fawqa was the preposition of choice.

In (2.66), the verb أطَفَّوْرُ ‘float’ means minimal resistance against weight, thus suggesting minimal support (and contact) by implicature. Similarly, the verb يَرْتَعْشُ yarta‘išu ‘shake/shiver’ in (2.67) suggests intermittent contact. Together with fawqa, the linguistic prompts seem to convey a sense of contactless elevation by implicature.

There were other examples in the corpus where fawqa collocated with bed, but the collocation differed in that it designated vertical elevation inclusive of contact as in the following:

(2.68)

وَهُوَ يَتمَّدُدُ عَلَى الأَرْضِ فَوْقَ السَّرِيرِ

wa-huwa yatamaddadu ‘ala l-ardī jiwarā s-sarīrī d-da‘eqi

and-he 3MSG.lie.IPFV on the-floor near the-bed the-narrow

And he is lying on the floor near the narrow bed.

لَقَدْ أُمِرَتْ هِيَ فَوْقَ السَّرِيرِ

laqad ’amara-ha ‘an tanama hiya fawqa s-sarīrī

already commanded.3MSG-her that 3FSG.sleep.IPFV her above the-bed

He had ordered her to sleep above the bed
And he sat above the bed as usual, dangling his feet.

One might ask the question of what makes it semantically felicitous to use *fawqa* as a preposition that denotes contactless elevation when describing what seems to be proximal elevation that includes contact and support as in sitting and sleeping. I argue that the answer to this question depends on the speaker’s construal. As I established in Chapter 1, a given spatial scene can be construed in more than one way. It is true that the spatial scenes in (2.68) and (2.69) are scenes of proximal elevation inclusive of contact and support. However, they are construed in contrast to the situation of being on the floor in the second clause. In (2.68), the male figure decided to sleep on the floor while he ordered the female character to sleep *fawqa* the bed; in (2.69), the male character sat *fawqa* the bed with his feet down for Zahra, the female character who fell to the ground to take his shoes off. In both scenarios, the context makes salient the distance between being above the bed and off it. I argue that *fawqa* has an extended meaning of contrastive elevation. In this sense that *fawqa* expresses, the significance of elevation is not measured in terms of metrical distance or geometrical space; it is rather dependent upon the construer’s perception of the distance between the TR and LM as salient in certain ways. The elevation denoted by the overall linguistic prompts (comprised of the two clauses) scenes in (2.68) and (2.69) is not significant in terms of support or contact with the surface or in terms of being within influence, but rather in terms of the TR’s primacy and the
privileged position of being in a higher place which is salient even if raised by few inches. It is 
noteworthy to mention that the collocation including \textit{fawqa} plus \textit{sarīr} `bed’ occurred in the 
corpus a total of 8 times whereas `\textit{alā} plus \textit{sarīr} `bed’ occurred a total of 134 times. This 
indicates that \textit{fawqa} is not primarily compatible with contact with a surface in its proto-typical 
sense unless the increase in verticality was significant in contrast to decrease of it where this 
surface is concerned. Put differently, \textit{fawqa} does not require contact but allows for it to denote 
salient elevation, hence the semantic acceptability of the prompts with \textit{fawqa} when describing 
`sitting above the bed’ and `sleeping above the bed’ in (2.68) and (2.69).

The significance of salient elevation is also apparent when we consider the collocations 
with the word `\textit{ard} `ground/floor’ a LM that human TR’s are often `\textit{alā} rather than \textit{fawqa} (unless 
in specific scenarios as in flying, for example). Let us look at a fuller context for this word 
collocating with \textit{fawqa}:

(2.70)

\begin{verbatim}
'adwa'un xafifatun tamba'iθ min al-yurafi l-mahfūrati light.PL thin 2FSG.emit.IPFV from-the-room.PL the-dug Dim lights emitted from the rooms dug

bi-l-'ardî wa - l - yurafi l-mutabā'idati \textit{fawqa} l-'ardî by-the-ground and-the-room.PL scattered above the-ground in the ground and the rooms scattered above the ground
\end{verbatim}

(2.71)

\begin{verbatim}
wa-lam yakun ra'su 'arafatin ya'lū \textit{fawqa} l-'ardî and-not 3MSG.be.JSV head 'Arafah rise above the-ground And Arafah’s head was barely a span above ground

'illa bi-šibrin ḥīna qāla min jawfi l-ḥufrati except by-span when 3MSG.said from inside the-pit when he said from inside the pit
\end{verbatim}
As for my heart, it was fluttering high, and I felt

أنى أسير على ارتفاع خمسة سنتمترات فوق الأرض

that-I 1SG.walk.IPFV on elevation five centimeter.PL above the-ground

that I was walking five centimeters above ground

In (2.70) and (2.71), being above ground is salient in relation to being below the ground. In (2.72), the speaker feels as though he is walking at a 5-cm elevation above ground. In this scenario, being above ground is lexicalized as being proximal, a meaning that would have appeared semantically contradictory if the semantics of *fawqa* were not compatible with proximity. Yet, it is completely acceptable given the saliency of an imaginary scene where humans could walk in the air, even if it were few centimeters above the ground.

Not all the linguistic prompts with *'alā* and *fawqa* were distinguishable in their denotations of space. There were indeed some scenarios where *'alā* and *fawqa* were interchangeable. Consider the following example from the corpus:

أعطته تفاحة وجلست تنظر إليه صامتة

*’aṭat n - hu tuffāḥatān wa-jalasat tanḏuru ‘ilay-hi šāmitatan* gave.3FSG-him apple and-sat.3FSG 3FSG.look.IPFV to-him silent
She gave him an apple and sat looking at him silently.

أخذهما معه إلى البيت...

*’axaḍa -hā ma’-hu ‘ila l-bayti* took.3MSG-it with-him to-the-house
He took it with him home.

وضعها جوار السرير ونام.

*waḍ’a -hā jiwāra-hu fawqa s-sārīr wa-nāma* put.3MSG-it near-him above the-bed and-slept.3MSG
He put it next to him above the bed and slept.
The above excerpt describes a scene where an apple is placed on the bed and stays on the bed until it gets rotten. The spatial scene is one of contact and support, but it is lexicalized using the particle fawqa. In this case, fawqa is replaceable with ‘alā with no apparent change in meaning or construal. Tyler and Evans (2003) explain that it is indeed possible that two particles can in certain contexts be interchangeable due to an overlap in their ‘semantic continuums’ (p. 78). The overlap between ‘alā and fawqa in their description of a higher than relation make this interchangeability possible in this particular scene. In other scenes with more specific spatial properties and functions, it might not be possible to use the two particles interchangeably as we saw in some of the earlier contrastive pairs. In overlapping situations, the speaker’s choice plays a role in which particle is used to describe the scene; “the speaker may deem that it is communicatively sufficient to identify an entity by indicating that it is higher than a second, locating entity, in which case the speaker’s communicative needs can be met by either form” (Tyler & Evans, 2003, p. 114).

2.2.1.1.5 Grammatical predictions.

This guideline to determining the proto-scene of a preposition pertains to the derivability of extended senses from the primary sense. Based on this guideline, the assumption is that the different senses can be directly traceable to the primary sense of the preposition or (if not) to another sense that is derived from the primary sense, i.e., that the relation between the primary sense and the other distinct senses in the network can be traced back to the proto-scene. Another
way of thinking about this is by considering that the primary sense has a ‘sanctioning’ property (Langacker, 1987). The notion of a sanctioning property assumes that speakers will use a linguistic item creatively, yet they will use it only in a manner where the listener can deduce the intended meaning through contextual clues. Over time, the new meaning will become entrenched through pragmatic strengthening. Under my discussion of the extended senses, I will show in detail how each of these meanings is traceable to the primary sense. Furthermore, I will provide examples of contexts and sentences that possibly give rise to the particular sense and that are linked to the primary sense.

So far, the five guidelines discussed above–while focusing on ‘alā–helped better understand the spatial designations that ‘alā is capable of in its primary sense based on selected pieces of linguistic evidence. Now, I turn to describing how this primary sense is depicted in MSA through the data. I start by describing what this primary sense means in terms of the proto-scene and the functional element. Next, I discuss the significance of the functional element of support in human embodied experience and early concept formation. Then, I move to discussing the extended senses found in the corpus and how they are sanctioned by the primary sense.

2.2.1.2 Describing the primary sense

Based on the converging evidence discussed above, it can be established that ‘alā describes a primary sense that denotes a TR located higher than the LM (I use ‘elevation’ as a shorthand for this spatial configuration) with a functional element of support and contact. Elevation is the general orientation of the two objects in the spatial relation, and support (which subsumes contact) is the functional element that distinguishes ‘alā from other Arabic particles of elevation as has been discussed earlier. As noted in Chapter 1, CL research concerned with the semantics of prepositions and particles uses schematic representations called the proto-scene to
diagram the organization of the two entities in the spatial relation in its most prototypical scenario. In the next section, I will turn to discussing the proto-scene that ‘alā primarily describes.

2.2.1.2.1 The proto-scene.

‘Alā has a proto-scene that describes a spatial configuration in which the TR is located higher than and in contact with the LM. With contact between the TR and LM, the functional, interactive element that is most salient is support (and contact). Figure 2.3 diagrams a schematic representation of this proto-scene. The diagram captures the spatial relationship designated by ‘alā, represented by the contiguous vertical configuration holding between the two shaded shapes: the small sphere representing the TR and the large square representing the LM. Note that in addition to depicting the vertical relationship between the two entities, the diagram also depicts the functional element of support, represented as the white arrows on LM’s surface, delineating resistance against the weight of the TR.

Figure 2.3 The proto-scene for ‘alā
2.2.1.2.2 The functional element.

Support as a function is a very salient, universal, and basic concept (basic in the sense that it is fundamental to other conceptualizations). The concept of support is one that forms pre-linguistically (See Mandler, 1992, for a review) as an outcome of our human embodied experience with our surroundings beginning with our earliest encounters with the force dynamics of contact with surfaces and gravity. The experiential basis for support explains why support-related concept formation is one of the earliest that infants develop (e.g., Baillargeon, 1993, 1995; Baillargeon, Devos, & Graber, 1989; Baillargeon, Needham, & DeVos, 1992; Baillargeon & Hanko-Summers, 1990; see also Mandler, 1992, for a review of early concept formation of containment and support). Infants can have highly advanced intuitions about objects in support relations. Some of these intuitions pertain to discriminating between what constitutes and what does not constitute support (e.g., Baillargeon & Hanko-Summers, 1990; Baillargeon et al., 1992; Needham & Baillargeon, 1993). For example, it has been shown that infants as young as three months have already learned that objects fall when released in midair, and by 4.5 months they appear to recognize that contact between two objects is necessary for a support relation (Needham & Baillargeon, 1993). At 6.5 months, infants can recognize how much contact is needed between objects and their supports, so they will stare longer at two objects in a support relation when only 15% of the base of the top object is resting on the supporting platform (Baillargeon et al., 1992). Infants also develop sensitivity to the effects of gravity on objects in a stable versus non-stable support relationship (Dan, Omori, & Tomiyasu, 2000); they can

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12 Research looking at infants’ judgments of certain concepts or constructs, as in most of the studies listed in this section, uses a differential looking paradigm in which infants are hypothesized to look significantly or reliably longer at scenarios that are odd, or interestingly different from an established norm in the designated study.
distinguish whether the object will fall down or not based on the relative position of the supported object and hence recognize the most balanced position to defy gravity. When shown stable, unstable, and impossible events, infants 10 to 13 month-old looked significantly longer at the unstable and impossible events than at the stable event (Dan et al., 2000). Also, at the age of 10 months, infants looked longer at a support relation in which it was difficult to predict whether the box would fall down or remain supported (Dan, Omori, & Tomiyasu, 2001).

Surfaces especially receive importance and saliency as key components in support relations. When we are on surfaces, such as the ground, we are aware of the pull of gravity and the need to balance against it to walk. In fact, some of the earliest reflexes in infant development, in addition to sucking and grasping, are related to sitting up, standing, stepping, aligning the body to gravity and support surfaces (Cronin & Mandich, 2015). From a young age, infants perceive a relationship between surfaces and their bodies while learning how to roll over, sit, and stand up. As they learn to stand up and their feet encounter surfaces, they conceive of even, firm surfaces as helping their bodies remain upright. On the other hand, infants perceive that corrugated, shaky, or inclined surfaces or holes in the ground will correlate with falling. By means of experiential correlations between flat, smooth surfaces and our ability to stay upright while walking (and in contrast with tilted or ridged surfaces correlating with falling down), we form concepts of physical support provided by surfaces we coincide on (Berger, Chan, & Adolph, 2014; Cronin & Mandich, 2015).

Not only is support prominent in early encounters with our surroundings, but it forms a significant part of our everyday life. We are surrounded by stacked objects and entities that are in vertical spatial relations. With objects in vertical organizations everywhere, it is inevitable that they form prominent scenes that we refer to and interact with; hence, they continue to impact
our perception of the world and accordingly our linguistic choices. Tyler and Evans (2003) illustrate this idea by drawing on an everyday interaction with basic objects in our surroundings such as a cup of coffee and a table. They explain that the consequences of gravity on a small object like the coffee cup mean that we can place the cup on a larger object like the table that will support it and prevent it from falling to the ground whereas if we let go of the cup midair, gravity would cause it to fall and break, rendering it non-functioning. As simplistic as it might sound, what most language users might not be aware of is that similar aspects of functionality inform how we choose to describe and hence lexicalize spatial scenes that describe support relations.

The functional element of support, along with support-related concepts can inform why the Arabic preposition of support, ‘alā, is employed to describe certain spatial scenes, not others. The next section will demonstrate how this functional element of support figures in ‘alā’s primary sense and how manifestations of the functional element can allow the expression of support using ‘alā even in non-vertical geometry. The functional element also figures in meaning extension processes as will be elaborated under the extended senses.

2.2.1.3 The primary sense in the corpus

The primary sense of ‘alā is captured in the data through a multitude of examples that depict various types of vertical, support scenes. Some of the prominent examples described the recurrent scene of walking, emphasizing surfaces that provide support for our natural human motion:
ورحت أمتي علي الرصيف (2.74)
\[
\text{wa-ruhtag 'amshi 'ala r-rafi} \\
\text{and-went.1SG 1SG.walk.IPV on the-side walk}
\]
And I went walking on the side walk

كنت أريد أن أمتي علي صفحة الماء (2.75)
\[
kuntu 'uridu 'an 'amshi 'ala safhati l-mahi \\
\text{was.1SG 1SG.want.IPV that 1SG.walk.IPV on surface the-water}
\]
I wanted to walk on the water surface

In (2.74), the sidewalk is a surface that provides support for the person walking; in (2.75), the speaker wishes that the water surface provided support for him/her to walk on. Support scenes are not only present in motion scenes like the above ones, but they are also present in everyday encounters of static relations between objects and surfaces. Consider the following sentence that describes a room with books scattered on different kinds of surfaces, such as the bed, the desk, and the floor, another example of a recurrent scene from our everyday life:

نظر حوله لحجرتي، للكتاب الدراسية المتناثرة على السرير (2.76)
\[
\text{na'dara hawla-hu li-ujrat-i li-l-kutubi l-mutanathirati 'ala s-sari} \\
\text{looked.3MSG around-him to-room-my to-the-book.PL the-scattered on the-bed}
\]
He looked around him, at my room, at the scattered books on the bed,

وعلى المكتبة وفي أماكن معينة على الأرض وابتسام
\[
w-a-la l-maktaba wa-fi 'makhina mu'aayanin 'ala l-'ardi wa-abtasa \\
\text{and-on the-desk and-in place.PL specific on the-ground and-smiled.3MSG}
\]
and on the desk, and in certain places on the floor, and he smiled

With support being central to the semantics of 'alâ, this meaning is very prominent in the corpus and is present in an abundance of examples. Other examples of physical support relations are boxes stacked on a shelf or a child on her mother’s arm:
And on the shelves of the store, small boxes

Meanings of support can be expressed metaphorically in our regular conversations. Metaphorical extensions of support meanings are evident in English phrases like *I stand on firm/solid ground*, meaning having a strong position (not denoting a spatial meaning), and *He based his discussion on solid arguments*. Arabic speakers employ the same kind of metaphor when they talk about ideas, literary works, and arguments. According to Grady (1997), Primary metaphors such as *THEORIES ARE ERECT PHYSICAL STRUCTURES* can be systematically and coherently reflected in our linguistic expressions when we talk about mental products involving thought and reasoning.\(^\text{13}\) The domain of physical structures (such as buildings) serves as a source domain from which we borrow concepts (such as foundations) to explain and refer to abstract entities (such as theories). Although Grady’s analysis of this metaphor was originally based on conceptual mappings that are prominent in English, this metaphor among many others is also prominent in Arabic. For an example from the corpus, consider the following sentences:

\[\text{وما الفكرة التي أسست عليها عملك الروائي؟ (2.79)}\]

**wa-ma l-fikru latī 'ssasta 'alay-hā 'amala-ka r-riwa'i**

and-what the-idea which.FSG based.2MSG on-it work-your the-literary

And what is the idea that you based your literary work on?
In (2.79), the literary work (TR) is based on an idea (LM) that provides foundation and support for this conceptual product. In this example, both the TR and the LM are non-physical entities, and the support relationship between them is non-spatial. In (2.80), while the palace (TR) and sound bases (LM) are both physical entities, this sentence can also be interpreted as non-spatial where by means of metonymy the palace means the governing system, and the intended meaning would be that the ruling system needs to be assessed to be based on a solid basis. As can be seen, ‘alā is used to convey a metaphorical meaning of support as well as spatial scenes of support. Support in the metaphorical sense used here draws on the salient experiential correlation between functionality and verticality (or the metaphor VIABILITY IS ERECTNESS): when we are in an upright, erect posture, we are aware, alert, and in a functional state whereas when we are down, we are not (for example, when we fall or sleep).

In the above spatial scenes (2.74)–(2.78), support relations were exclusively vertical in nature, i.e., the TR and LM were in a vertical organization. However, this does not mean that support relations cannot be manifested in other spatial configurations. There are several different ways in which an object can support another. Support is the force that protects an entity from falling, carries its weight, and defies the force of gravity on it. It is this understanding of the concept of support that makes it viable to describe an object such an apple that is fixed to the wall by some adhesive by saying the apple on the wall whereas the same utterance would be considered less accurate if the apple was held against the wall by someone (Herskovits, 1986). It
is the minimal yet sufficient contiguity between the apple’s surface and the surface of the wall that support is conceptualized.

In many support relations, the amount of surface can vary. For example, a book resting on the edge of the table can remain supported by the table as long as the center of the weight is in contact with the table’s surface. In other instances, to prevent an object from falling, less surface or contact is necessary as in many of the spatial scenes around us such as a handbag hanging by the handle on the back of a chair, a coat on a hanger, or a picture on a wall. The following examples show some of these support relations in the corpus:

(2.81) On the wall, a big picture of Mr. President of the Republic (of Egypt)

(2.82) When you pray, you must put your right hand on your left hand

(2.83) And in a corner, rifles are hanging on the wall

(2.84) One fly standing on the nose of the traffic officer
What the support relations above have in common is that they depict images of TRs resisting gravity with the help of a supporting LMs.

‘alā can be used in support relations where the TR is a surface change such as a smile, a facial expression, or even wrinkles. This is true in both Arabic and English; we fittingly associate smiles with the English preposition on and correspondingly ‘ibtisāmāt (smiles) with the Arabic preposition ‘alā. Consider the following example from the corpus:

أين الملابس الجميلة.. أين الابتسامة على وجهك؟ (2.85)
‘aynā l-malābisu l-jamīlatu ‘aynā l-ibtisāmatu ‘alā wajhi-ki
where the-clothes the-beautiful where the-smile on face-your
Where are the beautiful clothes.. Where is the smile on your face?

It is as though we identify of a facial expression as an entity that comes in contact with the face and we construe of the face as providing support for this entity, be it a smile or a facial expression. For example, (2.86) below describes the look of shock as an entity that comes in contact the speaker’s expressions. Similarly, in (2.87), the speaker is trying to understand the change that has occurred in Siham’s walking manner.

لاحتوظ وقتها آثار الصدمة على ملامحي (2.86)
lāhaḍa waqta-ha ‘ādhāra ṣ-sadmati ‘alā malāmiḥ -ī
noticed.3MSG time-her trace.PL the-shock on feature.PL-my
He noticed at the time the traces of shock on my facial features

شيء ما جد على مشاهدة سهام في السنة الأخيرة (2.87)
šay’un ma jadda ‘alā mašyati sihāmin fi s-sanati l-‘axīrati
something that occurred.3MSG on walk Siham in the-year the-last
Something has occurred on Siham’s manner of walking during the past year
Herskovits (1986) explains that support can be compatible with scenarios when an entity is considered “a separate relief, something that appears as if it were “stuck” (her emphasis) on the rest of the object and the rest of the object offered a surface of support” (p. 144).

2.2.2 The extended senses of ‘alā

To this point, I have demonstrated using several sample sentences from the corpus how the functional element of support can explain meanings that are central to the description of ‘alā in its primary sense. Now, I turn to discussing the semantic network of extended senses denoted by ‘alā. Figure 2.4 represents the proposed semantic network, with the primary sense as the central point from which the extended senses radiate. This radial network depicts some senses as extending directly from the primary sense while others cluster around under a unifying motivation which is a key part of the proto-scene.
These motivations can be explained by the nature of the higher-than relation together with the functional element associated with 'alā, as well as other consequences that arise from force dynamics between the two entities in contact. To start, let us consider the element of contact that is inherent in any physical support relation. As argued before, when two entities are in a supporter-supported relation, a degree of contact is unquestionably entailed. In many of the scenarios described using 'alā, contact can play a dominant role in giving rise to certain meanings. For example, when two vertically organized entities are in contact, the upper entity will cover some or all the surface area of the lower entity. As such, covering becomes an important consequence of

Figure 2.4 The semantic network for ‘alā
our interaction with entities in vertical relations, as will be discussed under the covering sense. Another consequence of interacting with salient surfaces is that our relationship with these surfaces can be emphasized when we construe ourselves as the TRs in the higher than position looking down at examinable LMs, hence giving rise to the examining sense. Moreover, we are often in a higher-than organization, close to surfaces like tables and desks. While these surfaces provide support for our upper extremities to rest on and possibly for tools, utensils or devices that we handle they also provide support—in the process—for related activities such as eating or writing. Similar scenarios give rise to the activity sense associated with ‘alā as will be discussed under the designated sense. Also, think of specific surfaces that provide a platform for specific activities such as a piano to play on or a stove top to cook on. As contact with certain surfaces gives rise to the activity sense, specific surfaces become associated with specific activities for which they become sole carriers, hence the medium sense. Interestingly, ‘alā’s association with meanings revolving around activity informs the meaning extension even in abstract cases as in the state sense. I argue that the significance of contact with certain surfaces and its implicating meanings such as activity is one reason why the state sense of ‘alā is limited to temporary active states (I discuss another state sense that associated with fi under the designated chapter and I discuss the distinction between the two state senses, ‘alā’s and fi’s, under the section on inter-lexical polysemy in Chapter 4).

Some of the senses associated with ‘alā are motivated by consequences pertaining to the type of TR in the vertical relation. For example, ‘alā prompts for the intended contact sense in the presence of a TR that is mobile. In instances where ‘alā mediates a relation between a TR with significant asymmetry, the oriented trajector sense arises. The vertical elevation cluster with its
senses of Control, Preference, Conditionality, and Responsibility is motivated by experiential basis that are related to being in a higher position as will be discussed under these senses.

I mentioned earlier the two guidelines that can be used to distinguish distinct senses from the primary sense. First, the proposed sense must include some additional meaning that is not present in the proto-scene or in other sense. This additional aspect of meaning could in the form of a different TR-LM configuration or a different, non-spatial meaning. Second, there must be identifiable examples where the new sense can be understood as context independent, i.e., the new sense must not be a mere inference from the context it appeared in. In the coming sections, these guidelines will be discussed under each of the various senses while arguing for their distinction from the primary sense.

2.2.2.1 Non-cluster senses

2.2.2.1.1 The covering sense.

In the proto-scene proposed for ‘alā, the TR and LM were in the canonical ‘higher than’ configuration, so the TR is on top of the LM, and the construer is construing the scene from an off-stage vantage point, i.e., as though a theatre spectator. Recall that Tyler and Evans (2003) propose that a distinct sense must carry additional meaning that is not present in the primary sense, such as including a non-spatial meaning or a different spatial organization between the TR and LM than that seen in the proto-scene. I will show in this section that spatial scenes depicting ‘alā’s covering meaning bear two differences from the proto-scene: (1) the TR is larger (or conceived to be larger) than the LM and (2) the viewer is taking an on-stage vantage point.

There are many scenarios in real life where the TR is larger or perceived to be larger than the LM. The following sentences from the corpus exemplify some of these scenarios:
In both (2.88) and (2.89), recurrent scenes that are part of our everyday encounters such as a tablecloth over a table or a bedsheet over a bed result in the covering sense being very salient, especially with the different proportions between the TR and the LM, i.e., with the TR having a surface that is conceptually larger than that of the LM. Additionally, in our regular interactions with these LMs in our surrounding, such as tables and beds, they are usually lower than us, and we are often viewing them from a higher point of view. In our construal of these entities, we are no longer off stage as observers; instead, we would be construing the scene on stage. This shift in vantage point from an off-stage view in the proto-scene to an on-stage view in the above examples give rise to the covering sense we associate with ‘alā. This spatial organization which depicts the covering sense is diagrammed in Figure 2.5. In this diagram, the eye icon represents the construer’s vantage point, and the long oval shape represents the TR which—given the vantage point—appears to cover the LM represented by the square shape.
As the covering meaning becomes entrenched via pragmatic strengthening, it becomes instantiated in semantic memory as an independent sense. Tyler and Evans (2003) explain that when a meaning component becomes instantiated as a distinct sense over time, there will be examples that exhibit this meaning independent of the original spatial configuration that gave rise to it. Evidence for the covering sense associated with ‘alā comes from examples such as the following sentences from the corpus:

النقاب على وجهها (2.90)

\[
\text{an-niqābu ‘alā wajhi-ha}
\]

the-veil on face-her
The veil on her face

ارتدت روبا حريريا على فم النوم (2.91)

\[
\text{irtadat rawban ḥarīriyyan ‘alā qamīsi n-nawmi}
\]

wore.3FSG robe silk on gown the-sleep
She wore a silk robe over her the night gown

In (2.90), we see an example where the spatial organization holding between the face and the veil is no longer in the typical ‘higher than’ relation depicted in the proto-scene that I proposed for ‘alā. If ‘alā did not exhibit a distinct covering meaning, the sentence would have been
semantically anomalous given that the TR and LM are not in ‘higher than’ relation, and the
particles of choice to describe the relation between the TR and LM would have been ‘in front of’, for example.

(2.92)

\[\text{ان-نِقَابُ} \ 'أَمَام} \ wajhi-hā
\text{the- veil} \ \text{in front of} \ \text{face-her}
\]

The veil in front of her face

This is also true in (2.91). The particle حول ‘around’ would have been semantically
acceptable given the surrounding nature of the robe over the nightgown. Consider:

(2.93)

\[\text{إرتدت روًبَا حَريِّيْان} \ ḥawla qamīṣi} \ n-nawmi
\text{wore.3FSG robe} \ \text{around gown} \ \text{the-sleep}
\]

She wore a silk robe around her the night gown

However, in both scenarios, ‘الَّذِي’ is more compatible because it is the only particle designating
contact between the TR and the LM, which results in covering the LM from the construer’s view
under the specific vantage point. This asserts that the covering meaning is not filled in by
context and that rather ‘الَّذِي’ has a covering sense that is distinct from the original ‘higher than’
relation. If the covering meaning were derived from context as an outcome of our knowledge of
gowns and veils, Arabic language speakers would have simply used particles that describe the
specific spatial configuration between the TR and LM as in (2.92) and (2.93), and the same
implicature of covering would have been instantiated. Instead, Arabic speakers will agree that
these sentences are semantically anomalous.
There are, on the other hand, situations where the covering implicature can be derived from context and is context dependent. Consider the following sentence from the corpus:

وجدنا جنودً...وفي أيديهم دروعهم الخشبية، (2.94)

We found soldiers. And in their hands were wooden armors,

The immediate meaning is that the helmet is in contact with the head. Based on our knowledge of helmets and that they are worn on heads, we understand that the head is covered as a consequence of the contact between its inner surface and the head. In this sentence, the covering meaning could be considered an implicature that is constructed online and is construed as a result of our conceptual knowledge, but it is not necessarily a distinct meaning. This is evident by the similar spatial configuration of the TR, the helmet, being atop the LM, the head.

Note, that this spatial organization is commensurate with that in the proto-scene and the off-stage vantage point, thus, it does not present a new spatial configuration that is distinct in any way.

Nevertheless, this sentence represents an example of a bridging context (Evans & Wilkins, 2000). The interpretation of this example could either be the central sense which is indicating the location of the helmets on the heads of soldiers, or it could indicate covering. Bridging examples exhibit contexts that support the extra implicature meaning, in this case, the meaning of covering.
2.2.2.1.2 The examining sense.

In the proto-scene, I argued that the ‘higher-than’ relation is construed from an off-stage vantage point, i.e., the construer is viewing the scene externally. Also, I have established that a scene can be construed in more than one way and that change in vantage point can result in change of conceptualization. I will argue here that shift in vantage point plays an important role in giving rise to the examining sense. Specifically, in the examining sense, the vantage point is equated with the TR because it is internal to it, and the TR’s vision is directed downwards at the LM.

Humans are often in configurations where they are physically in an elevated position themselves, in relation to other entities in their surroundings, as in being on top of a hill, a house roof, or even a tree. Here is an example from the corpus.
This spatial scene describes an important relationship between being in a high position and the ability to examine our surrounding. The agent in this spatial scene is standing on a cliff, which gives him visual access to the space below the mountain as well as the horizon. It is true that the spatial scene of standing on a cliff does not designate an examining sense of itself and that standing on a cliff remains an example of the proto-scene in terms of the configuration between the TR and the LM. However, one of the consequences of being in an elevated position relates to having better access to view and examine entities below us. Humans construe that mounting to a high place will correlate with a better point of view. I argue that the experiential correlation between elevation and better viewing motivates the examining sense as in the second clause of the above sentence. The use of ‘alā to participate in a meaning of examining is collocated with lexical items that designated looking or viewing from a higher stance such as اطلع ittala ‘rise to view’ and ألقى نظرة ‘alqā naḏratan ‘throw a glance’ among other expressions. Certainly, these lexicalizations are compatible with ‘alā’s meaning of elevation since they carry a meaning of elevation, too. In addition, with the element of looking being part of their semantics, the spatial scene becomes distinct from the proto-scene, as they become prompts that—along with ‘alā—give rise to the implicature of examining. Here, the TR is equated with the internal vantage-point of the agent, and the LM is the object being examined. Following this reasoning, the diagram in
Figure 2.6 represents this relation, including the vantage point of the examiner. In this scenario, the function of being in contact with a surface is established via a conceptualization of vision towards the object directly below as a type of conceptual involvement between the TR’s vantage-point and LM. This is comprehensible especially that SEEING IS TOUCHING has been identified as an experientially-based, primary metaphor (Grady, 1997).

Although the original configuration between the vantage point and the LM is vertical in the scenes that give rise to this meaning, as we saw in the cliff example, the examining sense does not need to present in the typical ‘higher-than’ configuration. Consider the following examples:

(2.96) اریدت أن أفترج على وجهات المحلات
\[ \text{‘urūdu } \text{‘an } \text{‘atafarraja } \text{‘alā wājiḥāti } l-	ext{mahallāti} \]
1SG.want.IPFV that 1SG.watch.IPFV on front window.PL the-store.PL
I want to go window-shopping

(2.97) وعندما ألقي نظرة أخيرة على نفسه في المرآة
\[ \text{wa-‘inda-mā } \text{‘alqā } \text{nafratan } \text{‘axīratan } \text{‘alā nafṣī-hi fi } l-	ext{mir’ati} \]
and at-that threw.3MSG look final on self-his in the-mirror
And when he glanced at himself in the mirror one last time,

\[ \text{kāna yabdū anīqan jiddan} \]
was.3MSG 3MSG.appear.IPFV elegant very
he looked very elegant

In (2.96), looking at shop’s windows (or window shopping) does not represent a vertical, ‘higher-than’ relation but is rather horizontal, yet it utilizes the vertical preposition ‘alā. This is evidence that the notion of examination became entrenched as an independent meaning associated with ‘alā. Thus, ‘alā is used to describe examining scenes even when the original context that gave rise to the meaning no longer holds. Also, looking at one’s self in the mirror

91
in (2.97) is another scenario where the examining scene is not from a higher-than stance (although it could be), despite the literal meaning ‘throw a glance on his image’ which is originally vertical. Prompts describing scenes such as looking at one’s image in the mirror also provide a second line of evidence towards asserting the that the examining sense is established as a distinct meaning in the network. Looking at one’s image in the mirror is commonly with the purpose of checking one’s looks for affirmation of beauty and inspecting one’s image. Such a scenario provides context for the invited inference of examining and inspection. I mentioned earlier that the examining sense must have initially started meaning ‘looking from a higher position’. As similar scenes are pragmatically strengthened through repeated use, the prompt ‘ألقى نظرة على’ alqā naqratan ‘alā ‘throw a glance on’ came to mean examination and inspection at a level of thorough conceptual involvement not limited to casual visual contact as the individual words might independently prompt for. Below is another example from the corpus that demonstrates the meaning of thoroughly examining:

أريد أن أطلع على الكتاب (2.98)

I want to look at the book

أريد أن أطلع على الكتاب

I want to look at the book

الذي طرد بسببه أذهمن

which was expelled because of Adham

This sentence represents an example of the conventionalized use of ‘الذاء’ where the verb-preposition collocation came to mean conceptual examination.

Even more interestingly, the examining meaning while originally including a human agent whose internal vantage point corresponds to the TR, Arabic has developed instances where
the examining sense is used in the absence of a human viewer. Instead, the ‘higher-than’ place from which the human agent is looking is used to indicate the vantage-point. For an example, consider the following two sentences from the corpus. In the first sentence, (2.99), the looking is physically from a higher place by a human viewer; in the second sentence, (2.100), the high place is overlooking the LM.

وكان للسطح سور قصير أشت برأسى فوقه (2.99)
wa-kāna li-s-saṭḥi sūrun qaṣīrun ‘ašubbu bi-ra’s-ī fawqa-hu
and-was.3MSG for-the-roof wall short 1SG.raise.IPFV with-head-my over-it
And the roof had a short wall that I raised my head above

لكي أطل على حديقة كثيفة مستطيلة الشكل (2.100)
li-kay ‘uṭilla ‘alā ḥadīqatin kaḥfīfatī s-sakli
for-that look on garden thick rectangular the-shape
to be able to look at a dense garden with a rectangular shape

فكان كثيرا ما يصطحبها لشرب الكاكاو الساخن (2.100)
fa-kāna kalīran mā yastaḥibu -hā li-ṣurbi l-kākwī s-sāxini
so-was.3MSG a lot that 3MSG.invite.IPFV-to-drinking the-cocoa the-hot
So he used to often take her to drink hot cocoa

في جيراديللي الذي يطل على سجن الكاتراز الشهير (2.100)
fī girādillī allaḏi yuṭillu ‘alā sijni l-kaṭrāzi š-shāhīri
in Ghirardelli which.MSG looks on prison Alcatraz the-famous
in Ghirardelli which overlooked the famous Alcatraz prison

2.2.2.1.3 The focus of attention sense.

The focus of attention sense arises as an extension of the examining sense discussed in the previous section. I mentioned there that the examining meaning resulted from a combination of the stance of TR being in a higher position coupled with downward vision designated by the internal vantage point of the construer in the high position. I argue that the focus of attention sense draws on an extra component, the element of proximity between the TR and LM.
There are certain configurations where human TRs are higher than entities but not in a manner that gives them a broader view. Rather, they are in positions where they are proximal to the LM in a manner that their vision is focused on it. Consider this sentence from the corpus:

\[ \text{انحنى على الأوراق وسجل شيئا بعناية} \]

\[ in\text{hanā} \ 'ala \ l\text{-}'awrāq \ wa-sajjala \ šay'an \ bi-'ināyat} \]

bent.3MSG on the-paper.PL and-recorded.3MSG something with-care

He bent over the papers and recorded something carefully.

While this scene does not particularly designate a meaning of focus of attention in itself, it represents a recurrent scenario that gives rise to the focus-of-attention sense. In the spatial configuration in (2.101), the agent is bent over some papers to record important information. A pivotal and natural consequence of being in this configuration is that the agent is proximal to LM and that his vision is zoomed in on the document below her. This human embodied experience of bending over results in restricting the field of vision to a certain extent to the objects directly below us, specifically given the structure of the human body and the eyes being part of our front-
facing head. Also, when humans intentionally bend their upper body over entities in their surroundings, it is usually to engage with these entities purposefully. Some of the prompts that provided context for this configuration are verbs such as انكب inkabba ‘inclined on’ and عكف ‘akafa ‘bent’. Below are some examples that represent the focus of attention sense from the corpus:

(2.102)

And she has exceptional intelligence and a legendary ability

(2.103)

He overcame his griefs and focused on work

(2.104)

He focused on solving the problems

The focus of attention sense is illustrated in Figure 2.7 which is like that of the examining sense in the previous section in that the TR and LM are in a vertical relation and the eye icon is internal to the TR, denoting an on-stage vantage point. The difference here is that the LM is bolded to indicate that it is in focus. Note that, in these examples, describing the original spatial scene that gave rise to the focus sense is no longer the intended meaning. In these scenarios, the TR is not
focusing its attention on a physical LM, and the meaning is no longer spatial. Instead, the salient meaning is the involvement process that results from focusing on the LM.

The meaning of focusing one’s attention on physical objects is metaphorically extended to describe emotional stance over targets of our passions which could be physical objects or human beings. For example, in (2.105) the son has his worries for the mother who in turn is grieving over her newborn. Other emotional states are like pouring one’s mercy or anger over a person as exemplified in (2.106) or crying over a dear person as in (2.107).

(2.105) ما إن سمعت بتحليل ابنها
mā-‘in sami‘at bi-tahlīli ibni-hā
since heared.3FSG with-analysis son-her
As soon as she heard his son’s explanation

وخوفه على الأم من الحزن على ولدها
wa-xawfi-hi ‘ala l-‘ummī min al-ḥuzni ‘alā wali-di-hā
and-fear-his on-the-mother from-the-sorrow on new born-her
and his fear over the mother grieving over her son

(2.106) أشعر أبي والحنق على أبي
‘aš‘uru bi-š-šafaqati ‘alā ‘ummī wa-l-ḥunqi ‘alā ‘ab -ī
1SG.feel.IPFV with-the-mercy on mother-my and-the-anger on father-my
I feel merciful for my mom and angry at my dad

(2.107) علينا أن نكف عن البكاء على رانيا
‘alay-nā ‘an nakuffa ‘an al-bukā’i ‘alā raniyah
on -us that 1PL.stop.IPFV that the-crying on Rania
We have to stop crying over Rania

2.2.2.1.4 The intended contact sense.

The meaning of intended contact is motivated by the functional element of contact. I mentioned in my description of the proto-scene that ‘alā represents a TR and a LM in a ‘higher-
than’ organization and that the functional element in ‘alā’s spatial scene is support and contact. I also established the TR is the smaller mobile entity and the LM is the larger stationary entity in the spatial relation. For two objects to reach the state of being in a vertical relation with the function of contact, often the TR is assumed to have started elsewhere and undergone a motion whose path ended on top of the LM. Conceptual knowledge of the mobility of the TR gives rise to the meaning of intended contact. Figure 2.8 illustrates this sense, with the arrow pointing at the targeted surface where the TR ends in contact with the LM.

![Figure 2.8 The intended contact sense](image)

Generally, as Lentzner (1977) contends, “the quality of being motional or locational is inherent in the preposition” (p. 19). Although Vandeloise (1991) suggests that support prepositions like on can in some instances focus on the movement leading to the contact between two entities involved, Arabic ‘alā is not a motional preposition. However, by implicature, contact suggests that a motion preceded the contact and that the goal of this motion is the point or surface where the TR ends on the LM. This background knowledge forms the basis for an invited inference by which we construe LMs as the destinations for TRs. This type of invited inference is mutual to Arabic and English. English native speakers will construe of attacks or war targeting a certain opponent using the preposition on as in the war on terror or the attack on Pearl Harbor. Similarly, Arabic speakers will construe of scenarios like war on Yugoslavia and
Greece as in (2.108), his breath on my face as in (2.109), and the lady’s knocks on the door as in (2.110) using the preposition ‘alā.

It is important to note that the three scenarios in (2.108), (2.109), and (2.110) vary in terms of conforming to verticality. In (2.108), the air raid (TR) on Belgrade (LM) is necessarily vertical whereas in (2.109), the breath of air (TR) touching the female’s face (LM) could be either vertical or horizontal. Finally, in (2.110), the knock (TR) on the door (LM) is not vertical but rather horizontal. Still, all the three scenes are felicitously lexicalized using ‘alā. This is evidence that the meaning of intended contact has been reanalyzed as being a distinct scene from...
the original scene that sanctioned it, and it has been entrenched via pragmatic strengthening as an independent meaning.

2.2.2.1.5 *The oriented trajector sense.*

I mentioned under the intended contact sense, that it was motivated by ‘alā’s proto-scene, with the functional element of contact as a key factor in the meaning extension. The current sense is similarly motivated by contact but also emphasizes support, with focus being on the TR as I will explain below. Also, in my discussion of ways of construing a scene, I mentioned that zooming in or out on the elements in a spatial scene will result in different construal of the same scene. Humans are capable of focusing on one entity while choosing to background the other entity in the spatial scene. I argue here that the oriented trajector sense arises as a result of focusing on the TR’s salient surface that is in contact with and supported by the LM.

In the oriented trajector sense, both support and contact are involved. Evans (2010) asserts that English *on* conveys more than one parameter as part of its conceptual representation, which are contact and support. He argues that in some instances one of these parameters is emphasized while in other cases both meanings are at play.

The oriented trajector sense that ‘alā takes—which English *on* also seems to express—arises as a consequence of the interaction between the elements of contact and support as well as the saliency of certain surfaces. Consider the following example from the corpus:

(2.111) ﻋﻠﻰ ﻣﺴﺠﺎة ﺷﺎھﺪ ظﮭﺮھﺎ

*watched.3MSG* the-turtle supine on back-her

He saw the turtle supine on its back
In (2.111), ‘alā denotes a prominent meaning of support, yet the TR’s surface that is in contact (the turtle’s back), receives saliency over the LM. In fact, this spatial scene does not make explicit mention of the LM at all.

In many cases, our conceptualization of a spatial scene is more concerned with the TR. Instead of locating the TR relevant to the LM, we focus on one part of the TR, the salient surface in contact. In this type of construal, the LM is not significant as a supporter; rather, the TR’s surface that is resisting gravity is most relevant. This type of construal is often germane when we are referring to entities that have salient surfaces, as in entities with front-back or top-bottom asymmetry, or even any other part-to-whole surface structure where surface saliency is key. Figure 2.9 captures the top-bottom-asymmetrical TR in relation to the LM. The asymmetry of the TR is indicated by the ‘This Side Up’ arrows on the TR. The LM is not explicit; thus, it is not in focus as indicated by the dotted line and lack of shading.

The oriented trajector sense is especially important when we describe contact and support scenes involving our bodies. As human beings with front-back orientation, having our faculties of perception in the front of our bodies has significant consequences for us. The direction we are facing is often associated with many positive associations some of which are safety and being able to see and predict, and the direction behind our back is associated with negative connotations such as being vulnerable and less knowledgeable about what is happening in our environment. Along the same lines, the orientation of lying down in a supine position has entirely different sets of consequences from that of lying prone with one’s face to the ground in terms of vulnerability, vision, etc. Motivated by such consequences, support relations are extended to designate a meaning of orientation when describing a body in reference to one of its parts. We construe of this part as participating in the support relation and thus refer to it as
supporting us. Just like we construe our feet as supporting us when we stand on them, we also rest on our elbows, sit on our bottoms, and lie down on our backs.

Consider, for example, the following sentences from the corpus:

\[
\text{\textit{TR \quad LM}}
\]

**Figure 2.9 The oriented trajector sense**

In (2.112), the victim of the push fell on a surface, possibly the floor. However, the construer chose to zoom in on the part of the victim’s body that came in contact with the floor. Also, in (2.113), the agent turned over to sleep on his side, probably from a supine position. Here, the construer chose to focus on the side on which the person is resting. What is relevant to the construer is the change of position that the agent underwent; the supporting surface is not salient since it is constant in the two physical orientations. In both scenes, what is salient is the side of
the TR that is coming in contact with the supporter. On the other hand, the supporter, which is the bed in this case, is either not significant or is a given.

2.2.2.1.6 The activity sense.

When two objects are in a contiguous relation, the contact between their surfaces can lead to many different consequences. One of the dynamic consequences of contact is the tight correlation between contact and activity. Consider the following scenarios which—I argue—give rise to the activity sense.

In this example, contact with a surface like that of a small fire or a stove top will bring a pot of tea to a boil. Scenes like this one give rise to the tight correlation between contact and activity. Moreover, one of the important outcomes of this basic scene in human experience is that the fire as a surface also provides a platform for the activity of preparing food. Hence, there is an experiential correlation between co-location with certain surfaces (or places) and activity.\(^{14}\) In the following example, the agent is preparing tea over a small fire; hence, the activity of preparing tea is contingent upon being close to the fire:

\(^{14}\) Lakoff & Johnson (1999) posit that this correlation motivates the primary metaphor Action Is Being In A Location.
Such sentences provide bridging contexts that give rise to the activity sense. In these examples, the spatial configuration between the teapot (or the agent preparing it) and the fire is still consistent with ‘alā’s proto-scene, i.e., that the TR and LM are in the canonical vertical relation. The functional element of contact and support is also present. However, evidence asserting that the activity sense is a distinct sense comes from examples where the TR-LM configuration is no longer vertical. Indeed, ‘alā was used in examples describing spatial scenes that are not necessarily vertical, as in the case of human agents interacting with specific types of surfaces such as tables, desks, and even desktop computers and laptops. Consider the following examples from the corpus:

1. She sat with him at the dining table and she warmed up food for him.

2. It was confirmed to him that he was their boss.

3. He writes the letter on the computer.

Tables and desks are examples of surfaces that we can be co-located with for a specific
function or activity; for example, we gather at dining tables for a meal, we sit at desks to work, and we engage with our computers for work or entertainment. The meaning of activity is triggered by the interaction that exists between convenient surfaces (LMs) that allow functional interaction and utilization for animate, intentional figures like humans (TRs). We construe surfaces (and key objects that bear resemblance to these surfaces, like a computer) as platforms providing support for our bodies or the tasks we are performing. This is possibly one of the reasons that makes ‘alā more suitable as a preposition for this sense than say fawqa (above, over) or ‘inda (at). ‘Alā and the support relation it denotes express an important consequence coming from the force dynamics between the supporter and the supported. The nature of the interaction between the two, where one is exerting force and the other is resisting it, makes it more expressive of the elements of interaction and engagement we perceive between our bodies and work surfaces. A preposition that expresses contactless elevation (such as fawqa ‘above’) or one of mere co-location (such as ‘inda ‘at/near’) is not sufficient to express the level of involvement that ‘alā embodies. This explains the reason that the following spatial scenes are semantically anomalous:

(2.119)
jalasa fawqa ṭ-ṭawilati
sat.3MSG above the-table
He sat above the table

(2.120)
jalasa ‘inda ṭ-ṭawilati
sat.3MSG near the-table
He sat near the table

The sentence with fawqa would mean physically sitting on top of the surface of the table. If the spatial scene of sitting at the table were not motivated by the activity meaning stemming
from contact and support but were the result of being higher than these surfaces, *fawqa* would have developed the meaning of activity instead. After all, we sit higher than tables and stand higher than stovetops, and *fawqa* has a meaning of being higher than other entities. However, *fawqa*’s contactless meaning of elevation is not consistent with for this meaning extension. Likewise, the sentence with *‘inda* would mean a bizarre configuration where the person would be sitting near the table but not at the table. Why might not mere co-location denoted by *inda* develop into an activity meaning instead of *‘alā*? It is because *‘alā*’s functional element of supporting an activity is key for this meaning extension in Arabic, which makes this function exclusive for *‘alā* (although it is worth noting that English does use ‘at’ to convey activity as in ‘hard at work’). Figure 2.10 represents the TR-LM organization that gives rise to the activity sense: The LM is a particular type of surface that—when the TR comes in contact with it—becomes a platform for the specific activity.

![Figure 2.10 The activity sense](image)

It is worth noting that in some colloquial dialects of Arabic, *‘alā* became the preposition speakers use to describe interactions with other types of ‘surfaces’ or interactive modern technology ‘platforms’ such as *Play Station, Nintendo*, and *X-Box*. For instance, speakers of several colloquial dialects would say:
Firas is on the PlayStation since the morning.

Note that the meaning of activity associated with 'alā developed from describing vertical relations similar to that of a teapot on a stovetop (or the action of preparing it) to describing a person at his desk, on the phone, or on a gaming platform. As we have seen with other senses, it has become unrestricted to verticality. This is evidence supporting the existence of the activity sense as a separate meaning in the semantic network.

2.2.2.1.7 The medium sense.

In the previous section, I discussed the activity sense associated with 'alā. I mentioned that one of the experiential correlations that make the activity sense possible is the tight relation between activities and the surfaces that provide support for them. The medium sense is an extension of the activity sense. It arises as an outcome for activities being dependent on certain instruments or inventions which become exclusive mediums for these activities.

In this meaning 'alā mediates a carrier relationship where the TR is conveyed as being carried by the LM. Specifically, certain horizontal surfaces are conceived as carriers while considered supporters. A tray is one example. Consider the following sentence from the corpus:

Trays have almost flat surfaces and are used to serve or transport entities we place on them. An important consequence of this scene is that the tray or platter as a surface will transport objects.
placed on it. Move the tray and the objects will move with it. Note that the above sentence does not in itself represent an example of the medium sense, but it gives rise to it, as I argue here. Figure 2.11 represents the medium sense with the TR being carried by the LM. The hand diagram represents the mobility of the LM.

![Figure 2.11 The medium sense](image)

It is conceivable that ‘alā is suitable to lexicalize the medium sense when surfaces function as carriers as in the following examples from the corpus. In these examples, the instruments (LMs) providing a medium for the TRs are paper, a TV screen, and the screen of a mobile phone. In (2.123), paper is the medium on which ink is presented; in (2.124), the actor is seen on the TV screen; and in (2.125), the caller’s number appears on the screen of a cellphone.

(2.123) حبر على ورق
hibrun ‘alā waraqin
ink on paper.PL
Ink on paper

(2.124) الممثل على شاشة التلفاز
al-mumāθūlu ‘alā šāšati t -tilfāzi
the-actor on screen the-television
The actor on the screen of the TV

(2.125) رقمه على شاشة الجوال
raqamu-hu ‘alā šāšati l -jawwali
number-his on screen the-mobile
His number on the screen of my cell phone
Traditional surfaces like walls and paper can carry writings. Note in these cases, the TR (the ink) is not separable from LM (the surface to which it is applied). Likewise, many of the modern technological devices that can transfer information are construed in Arabic as surfaces that carry information, specifically visual information such as text and images. These uses are different from the proto-scene in at least two ways. First, note that none of these devices are used in a ‘higher than’ configuration. Secondly, the relationship being mediated is not strictly between a separable physical entity (TR) and a LM providing physical support. Arabic speakers will routinely use ‘alā to describe utilization of these devices as mediums. This suggests that this sense is instantiated in the semantic network as an independent sense.

Further evidence for the medium sense being entrenched as an independent sense in semantic memory comes from the fact that ‘alā is used to designate a medium meaning even with carriers or devices that do not resemble surfaces. In other words, the use of ‘alā to denote the medium sense is no longer limited to devices that have surfaces. Consider the use of the support preposition ‘alā to lexicalize the situation of hearing someone’s voice on the phone:

\[
\text{جاء صوته على الهاتف (2.126)}
\]

\[
jā'a \quad \text{sawtu-hu} \quad \text{‘alā} \quad l\text{-hātifi}
\]

- came.3MSG voice-his on the-phone

His voice came on the phone

Hence, ‘alā can be associated with the medium sense in the absence of the context that gave rise to it, i.e., in the absence of both verticality and surfaces. Consider another possible example that provides additional evidence for the entrenched use of ‘alā to describe a medium meaning:
The file on the flash drive

This is a clear example of the independence of the medium meaning and its semantic felicitousness in the absence of the contexts that initially gave rise to it, i.e., in the absence of surface denotations.

2.2.2.1.8 The state sense

The state sense is another abstract sense that is associated with Arabic ‘alā. It is the sense whereby ‘alā denotes a meaning of the TR being in a particular state.

For example, in (2.128), the speaker uses the expression ‘alā safar to describe his being ‘on’ a temporary state of traveling. Tyler and Evans (2003) had argued that the primary metaphor
STATE ARE LOCATIONS (Grady, 1997; Lakoff & Johnson, 1999) explained how the meaning of being in a certain state got associated with spatial prepositions. According to that argument, as a consequence of experiential correlation between repeatedly being in a certain location and by association being in a certain state that is closely tied to this location, the state meaning arises (Evans & Tyler, 2004a; Tyler & Evans, 2003). Tyler and Evans (2003) illustrated this notion of association between locations and states using the example of an infant experiencing emotions of love and security when held in a caregiver’s lap versus feelings of loneliness when left in a dark room at night. However, this assumption although persuasive is lacking in some regard. While the primary metaphor STATES ARE LOCATIONS explains how locations and some particles become associated with states, it does not suffice to inform why certain states become associated with certain spatial particles, not others (Evans, 2010). Indeed, the primary metaphor sheds light on how the spatio-physical lexicalization becomes a reference for the socio-physical state, but the nuanced state meaning that a spatial particle conveys is closely tied to meanings and consequences that are specific to the core meaning of the particle. English on seems to denote states that express temporary, also active situation such as on alert and on a diet as opposed to routine, ordinary situations (Tyler & Evans; 2003; Evans, 2010). This is related to the central element of contact associated with on. Evans (2010) terms it as functional actioning where functionality or activity is an outcome of contact: “when a TR comes into contact with a particular surface, [it] becomes functional” (p. 242). In many of the spatial scenes that we encounter, contact has the consequence of an action taking place. Evans points to the salient English expression turn on and notes that the contact facilitated by an electrical switch or plug

15 Fī also designates a state meaning albeit a different type of state than that denoted by ‘alā. See the analysis chapter on fī’s polysemy network.
16 The same consequence motivates the activity sense associated with ‘alā, as discussed earlier.
translates into electrical activity (hence, he glosses this sense as the **active state** meaning). I suggest that even a more basic experience can explain this sense, specifically the correlation between an entity coming in contact with heat or fire and the resulting activity, reaction, or change. English speakers using *on* and Arabic speakers using ‘*alā* employ the preposition of support and contact to construe a meaning of temporary, active states. The following sentences from the corpus are examples where Arabic ‘*alā* lexicalizes this type of state. In (2.129), the TR (He) is described as being in a state of disagreement with his uncle; in (2.130) the speaker, the TR, is in a state of hurriedness.

\[
\text{إنّه على خلاف مع عمه (2.129)} \\
\text{‘*inna-hu ‘*alā xilāfin ma’a ‘ammi -hi} \\
\text{that-he *on disagreement with uncle-his} \\
\text{He is in disagreement with his uncle}
\]

\[
\text{هل أنت على عجل؟ (2.130)} \\
\text{hal ‘anta ‘*alā ‘*ajalin} \\
\text{Q you.MSG *on hurry} \\
\text{Are you in a hurry?}
\]

Evans (2010) identified only one state meaning for English *on*, which he glossed as [**active state**]. However, Arabic ‘*alā* expresses—in addition to active states—another state meaning that is distinguishable from the temporary state meaning. Arabic native speakers use ‘*alā* to convey the state of being supported by (or lacking) evidence. Consider the examples below.

\[
\text{انا على صواب (2.131)} \\
\text{‘*anā ‘*alā sawābin} \\
\text{I *on correct} \\
\text{I am right’}
\]
In the example sentences (2.131)–(2.135), the human TR is represented as being supported by evidence or proof and ‘alā is mediating this relationship. As surfaces provide support for objects that rest on them, evidence can provide support for opinions. The state sense of ‘alā appears in constructions where a nominal such as a noun or a pronoun is followed by the prepositional phrase.

The use of ‘alā to delineate a state sense, a relation between a TR and a non-physical LM, provides evidence of the entrenchment of this type of use in permanent memory. In other words, spatial scenes of co-location which originally gave rise to the state sense are not required to sanction this use of ‘alā.
2.2.1.9 The manner sense.

Another abstract sense associated with ‘alā is one that denotes manner. This sense can be explained by our perception of surfaces that we coincide with and the functional element of support that we associate with surfaces. While we perceive that being on flat surfaces correlates with our ability to walk without falling, we also associate these surfaces with the function of defining our movement in terms of direction when we are on paths or tracks. Also, the smoothness or flatness of our paths will correlate with our progression along the path. A rough or steep track will slow us down or require us to exert more effort. Experientially, we also understand that when one object is atop of another, moving the lower object will essentially move the top object with it, in the same direction and with the same speed or manner. These recurrent daily scenes form schematic images that are present in support relations and motivate the extension of such relations to manner denotations. The following sentences use ‘alā to convey a manner, describing the action or the process indicated by the verb. In (2.136), the transporting of the uncle is done in a speedy manner; in (2.137), Ahmad is speaking in a reluctant manner. This meaning accompanies ‘alā in constructions that are made of a verb phrase followed by the prepositional phrase of ‘alā and a noun.
So my uncle, Ahmad, was transported in a hurry in the ambulance.

Then Ahmad said in reluctance and frustration:

It is worth noting here that, in (2.136), the corresponding English translations draws on the extended ‘state’ sense of *in*. This example is one of many that demonstrate a case where Arabic and English differ in how they lexicalize certain meanings. An English equivalent of the of above sentence would be *I am/We are in a hurry*. Another way to express the same meaning would be by using the adverb *hurriedly* to describe the transporting of the uncle.

Similarly, (2.138) is another example that uses a ‘state’ meaning in the case of English whereas a ‘manner’ meaning is expressed in Arabic using *‘alā*.

The manner meaning denoted by the prepositional phrase in (2.138) can be expressed alternatively in Arabic using the active participle in the accusative case (that is, with the adverbial function) as in saying:
This alternative way of expressing the shyness that characterized the act of going down in the sentence further demonstrates that indeed the manner reading is consistent with the use of ‘alā.

Some other collocations where ‘alā plus the following noun indicate manner are على مهل ‘alā mahlin (meaning ‘slowly’, literally on slow), and على عجل ‘alā ‘ajalin ‘in a hurry’. These manner denotations differ from the state sense associated with ‘alā.

2.2.2.2 The vertical elevation cluster

This cluster of senses is motivated by the notion of the TR being vertically elevated. Each of the four senses discussed here, although related, focuses on a different aspect of elevation that is related to human conceptualization of increased verticality, although none of these senses designates a spatial relation.

2.2.2.2.1 The control sense.

The control sense is an abstract non-spatial meaning, but its motivation comes from consequences pertaining to the spatial configuration seen in a typical proto-scene, namely the force dynamics between the TR and the LM in a support relation. From the LM’s perspective, the TR in the higher position has power (by means of its weight) over the LM. The pull of gravity complemented with the higher-than position grants the TR the advantage of control.

Figure 2.14 represents this sense, with the TR and the LM taking the default configuration as in the proto-scene. Here, the difference in this diagram lies in the small arrows extending from the TR to represent the TR’s control over the LM.
The control sense has significant prevalence in human conceptualization and is strongly rooted in embodied experience. Humans understand that their heads (which are the top parts of their bodies) hold the controlling perceptual organs and the brain. They conceptualize entities in a higher position to possess greater power over entities in a lower position. When one object is on top of another, the higher entity could control the lower one by means of weight. For example, we put heavy objects such as a paperweight on top of a paper or a rock on picnic mat to keep the lower object from moving. Grady (1997) advocates that while (specifically) the effect of gravity puts the higher TR in a power position over the lower LM, the saliency of the force of gravity as a power along the vertical axis gives prevalence to the more general up-down distinction, both in conceptualization and linguistic encoding (p. 262). The significance of verticality and up-down distinctions motivates primary metaphors such as CONTROL IS UP (Lakoff & Jonson, 1980), alternatively referred to as the BEING IN CONTROL IS BEING ABOVE (Grady, 1997). These and many other primary metaphors (see, for example, the STATUS IS UP metaphor (Sweetser, 1995 as cited in Grady, 1997)) are based in experiential correlations between being in an elevated position and having greater control over lower entities (Grady, 1997). These significant correlates motivate our use of ‘alā to denote the control sense. The following examples illustrate this meaning:
لم يبق ببابك جند، (2.140)

*lam yabqa bi-bābi-ka jundun*

not 3MSG.remain.JSV by-door-your soldier.PL

No more soldiers remain at your door,

فما عدت أميرًا على أحد

*fa -mā ‘udta ‘amīran ‘alā ‘ahadin*

since-not remained.3MSG prince on someone

for you are no longer a prince on anyone

In the above example, the use of ‘alā is congruent with the meaning of control which a prince, the TR, can have over the soldiers, the LM (although the speaker is informing the prince of the loss of his power as a ruler as evidenced by the guards leaving their appointed duties). The control sense associated with ‘alā does not have to be limited to physical control. Strong emotions can be perceived as metaphorically controlling individuals who are experiencing them. For example, in (2.141), the character is controlled and driven by emotions of anger and rage:

(2.141)

*كان يسيطر عليها غضب جامح*

*kāna yusayīrū ‘alay-hā yadabun jāmiḥun*

was.3MSG 3MSG.control.IPFV on-her anger wild

She was controlled by wild anger

In Arabic, this meaning of control is specific to ‘alā which indicates that Arabic construal requires support to express a control meaning. *fawqa*, for example, could describe a sense of salient elevation as in (2.142) denoting meanings such as being beyond or above the ordinary:
On the other hand, ‘alā possesses this control meaning because the force dynamics that result from contact and support include exerted power as an important consequence. Compare to English on in *She is on top of payroll situation* and contrast with English over in *She has a strong power over me*. In English, the up-down distinction motivates the power meanings associated with *over*. In both Arabic and English, the more concepts of support and gravity motivate the control sense associated with ‘alā and on.

*2.2.2.2 The preference sense.*

The preference sense is another abstract sense that extends from human perception of higher entities being better and superior. Humans often construe an increased vertically as being privileged and hence favored. This construal is experientially based and is motivated by scenarios where an increase in height is correlated with favorable situations. Consider, for example, a stack of objects and the correlation between the number of objects and the height of the stack: the more objects are stacked, the higher the stack becomes. Relying on similar experientially embodied relations, we lexicalize preferable situations by referring to them as scenarios of increased verticality. Sentences such as the following reflect our conceptualization of this correlation:

She obtained the highest grades in that semester.
In (2.143), while grades are quantified in terms of numbers to indicate more quantity, we conceptualize them in terms of height to delineate excellence and distinction. Similarly, we would construe of a person with the best performance as being the top entity when we say in English *He graduated at the top of his class*. Thus, increase in height is perceived as a positive, preferred state. Height is also associated with privilege; hence, a certain social class can be referred to as the *raqiya* ‘the high class’. These positive correlates in experience give rise to the preference sense associated with ‘*alā*, as in the following examples from the corpus:

(2.144)

\[
\text{'inna-ḥā tufāddilu l-ʾijtimāʿa bi-šadīqati-ḥā l-jadīdati that-she 3FSG.prefer.IPFV the-gathering with-friend-her the-new} \\
\text{She prefers to meet up with her new girl-friend.}
\]

(2.145)

\[
\text{'idānn ṣanta tufāddilu \textit{'ṭālyā ʿalā \textit{'ingiltrā so you 2MSG.prefer.IPFV Italy on England} \textit{So you prefer Italy over England}}}
\]

(2.146)

\[
\text{wa-ṣ-ṣadiqu lā yuxfī sirran \textit{ʿan ṣadiqi-ḥi and-the-friend not 3MSG.hide.IPFV secret from friend-his}} \textit{And a friend does not keep a secret for his friend}}
\]

\[
\text{wā- yūθiru -ḥu ʿalā nafṣi-hi and-3MSG.favor.IPFV-him on self-his} \textit{and favors him over himself}}
\]
Figure 2.15 diagrams the preference sense. Note that the TR and the LM are in the default higher than configuration we saw in the proto-scene. However, contact is not significant here; instead, what is significant is the raised status of the TR indicated by the arrow pointing upward.\footnote{This sense has stimulated discussion concerning how much of the meaning of ‘preference’ is contributed by the preposition and how much is contributed by the verb (such as فضل faddala ‘prefer’). This issue is addressed in the concluding chapter.}

\begin{figure}[h]
\centering
\includegraphics[width=0.3\textwidth]{figure2_15}
\caption{The preference sense}
\end{figure}

2.2.2.2.3 The responsibility sense.

The third abstract sense under the elevation cluster is the responsibility sense. This sense also has a representation that is consistent with that of the proto-scene, with the TR and LM being in the default higher than configuration. But more specifically, the scene that possibly gives rise to this sense relates to the LM bearing the weight of the TR.

A salient consequence of a support relation pertains to the impact of gravity on the entities involved, and hence their having weight. When two entities are stacked in a vertical
relation, the lower entity bears the weight of the top entity. Scenes such as the following motivate the meaning of responsibility:

\[
\text{وَأَنَا كَمَن يَحْمِل عَلَى ظُهُورِ كِسَّا بَلَانٍ (2.147)}
\]

\[
w\text{ānā} \quad k\text{-m\text{-n} yahmilu} \quad \text{‘alā} \quad \text{dāhri-hi} \quad \text{kīsa} \quad \text{ballānîn}
\]

and- I like-who 3MSG.carry.IPFV on back-his bag thorny burnet
And I am like someone carrying on his back a bag of thorny burnet

\[
\text{وَالحمَل ثقيلٌ عَلَيْهَا (2.148)}
\]

\[
w\text{al-hīmlu} \quad \thetaaqīlun \quad \text{‘alay-ha}
\]

and-the-burden heavy on-her
And the burden is heavy on her

\[
\text{وَكَانَتَا تُحْمِلُ جَبَلًا وَأَقَارِبً} ّا جَمِيعًا (2.148)
\]

\[
w\text{ka-‘anna-ha} \quad \text{taḥmilu} \quad \text{jabalān} \quad w\text{a-‘aqāriba-hā} \quad \text{jamī’an}
\]

and-like-that-her 3FSG.carry.IPFV mountain and-relative.PL-her all
as if she were carrying a mountain and all of her relatives

In (2.147), the speaker describes an emotional burden that feels as if carrying a sack of thorny plants; in (2.148), the female character is bearing the responsibility of her family which feels like a heavy burden. Metaphorically, weights that bear their heaviness on us are translated into emotional burdens or social obligations. The force of gravity or the weight of the object is similar to the emotional or social pressures that weigh us down.

![Image](TR.png)

**Figure 2.16 The responsibility sense**
Figure 2.16 represents the responsibility sense. Note the vertical relation between the TR and the LM. But more importantly, the TR’s shape as a weight unit denotes that the weight of the TR is pressing down on the LM.

Just like actual weights form physical burdens on our bodies, so do responsibilities as non-physical weights. For example, in (2.149) below, the speaker pronounces his obligation to be grateful expressed by the use of ‘alā:

\[
\text{'alā -yya 'an 'aškura haḏihi l-furṣata ū-ṭayyibata} \\
on-me that 1SG.thank.IPFV this the-chance the-good I ought to thank you for this good opportunity,
\]

\[
\text{fa-qad kuntu 'awaddu 'an 'uqābila - ka} \\
\text{so-had was.1SG 1SG.want.IPFV that 1SG.meet.IPFV-you for I have wanted to meet you}
\]

It is worth noting that the responsibility sense serves as a deontic modal. Probably, it has evolved from constructions consisting of the verb \(\text{wajaba 'must'}\) expressing a deontic meaning of necessity and the preposition \(\text{'alā', as in the following example from the corpus:}

\[
\text{yajibu 'alay-ka 'an tulabbī kullā mā 'aṭlubu -hu fawran must on-you that 2SG.fulfill.IPFV everything that 1SG.ask.IPFV-it immediately You must do everything I ask you immediately}
\]

Later, this collocation evolved into a shorter form where ‘alā exclusively came to designate the deontic modal meaning in the absence of the deontic verb that we saw in (2.149) above.
The responsibility sense is also evident in English uses of *on*. Consider sentences like *Drinks are on me* for a physical sense of responsibility and *This assignment is a burden on my back* for a metaphorical one.

2.2.2.2.4 The conditional sense.

In the conditional sense, the LM is grayed out to denote that it is not present yet; accordingly, the presence of the TR is contingent on the fulfillment of the LM (see Figure 2.17). Conditionality is one of the senses identified by traditional grammar accounts. The meaning of conditionality can be explained and motivated by the human conceptualization of objects in a vertical support relation. For two entities to be vertically stacked on top of each other, the top object must have a supporter to rest on. The conditional sense is based on this conceptualization where a proposal is contingent on the fulfillment of a condition for it to exist. This is not so different from saying *I will go with you on the condition that you buy me lunch.*

Figure 2.17 The conditional sense
The following example uses ‘alā to express this conditional meaning:

\[ f-\text{attafaqnā} \ 'a\text{-yyān} 'a\text{lā} l-'i\text{ḥtifāli} bi-hā ma'an fī l-\text{junfwāzi} \]

So we also agreed it together in the Junfwaz (name of a place)

\[ 'a\text{lā} 'a\text{n} \ n\text{ukmila} \ s-\text{sahrata fī bayti l-xawāji} \]

on (the condition) that we continue in the western man’s house

In the corpus, this sense was seen in two types of collocations:

على أن نكمل السهرة في بيت الخواجا

‘alā ‘a\text{n} ‘on that’

and

على شرط أن

‘alā šarṭi ‘an ‘on the condition that’; however, the shorter form with the preposition and the complementizer was more frequent in the corpus compared to the longer form. This suggests that the short form is entrenched as a distinct sense in the semantic network associated with ‘alā.

2.2.2.3 The proximity cluster

2.2.2.3.1 The spatial proximity sense.

In the proto-scene I proposed for ‘alā, the TR and LM were in the canonical ‘higher-than’ relation with contact between the two and support as the functional element. In the spatial proximity sense, the contact between the TR and LM is more salient. Under this sense, contact is an enabler for experiencing the effect of the LM. Consider the following sentence from the corpus which illustrates a scene that possibly gives rise to the spatial proximity sense:
People are on the edge of fire and the do not burn.

Here, being higher than and on the edge of a high place has the consequence of experiencing the influence of the lower surrounding. In (2.152), the people standing on the cliff are supported by it, yet they can also feel the heat emitting from the fire below. Hence, experiencing the influence of the of the heat only arises when being proximal to it.

Similarly, being on the beach or sitting by a lakeside or a river bank is understood as corresponding to physically experiencing the surrounding as in possibly touching the water, being able to watch the fish and other creatures swimming in the water, or even playing by throwing rocks in the water; see, for example, sentence (2.153) from the corpus. Proximity to the edge or surround of a LM will often translate into being able to interact with the LM in some sort.

Based on the understanding that contact allows for interaction, the spatial proximity sense is represented with a TR and LM that appear to be within proximal influence (See Figure 2.18).
The shadow surrounding the TR and the LM represents the influence the two entities have on each other.

Below are some of the examples that represent the spatial proximity sense in the corpus:

(2.154)

fa-lam 'almah siwa šābban 'ašbaha 'alā 'iddati 'amtārin minnī
so-not 1SG.noticeJSV except young man became.3MSG on few meter.PL from-me
All I could see was a young man who became few meters away from me

(2.155)

wa-ḥašadat 'almānyā 'alā hudūdi yuyuslāfyā
and-gathered.3FSG Germany on border.PL Yugoslavia
And Germany packed (forces) on the borders of Yugoslavia

(2.156)

lam 'a'ud ʻataraddadu ʻala l-quṣṭanṭîniyyati
not 1SG.repeat.JSV 1SG.return.IPFV on Constantinople
I am not as frequently visiting Constantinople

(2.157)

wa-daxalat 'alā sa'diyatin dāra-hā
and-entered.3FSG on Sa’diyyah house-her
And she entered on Sa’diyyah who was in her room
While I argue that vertical orientations must have originally motivated uses of spatial proximity, the actual examples of spatial proximity as seen in examples (2.154)–(2.157) are not vertical in nature. As I mentioned in other occasions, the fact that the scenario at hand presents a scene that is different from the proto-scene provides evidence for the independence of this sense in semantic memory. To elaborate this point further, let us consider the following sentence designating spatial proximity:

\[
\text{kānat} \quad \text{‘ala} \quad \text{l-bābi}
\]

\[\text{was.3FSG on the-door}\]

She was at the door

Clearly, the meaning presented in this example is no longer a meaning of support. It is true that this use of ‘alā, though distinct from support, can be motivated by our perception of support and related consequences; however, being ‘alā-l-bāb (at the door) does not signify that the door is providing support for the designated person nor does it mean that the door is resisting the force of gravity on the person and protecting her from falling. Moreover, it does not suggest that the person is in contiguity with the door as in leaning on it for instance.

2.2.2.3.2 The temporal proximity sense.

The temporal proximity sense is similar to the spatial proximity sense, except it designates temporal contact rather than spatial one. The influences discussed under the spatial proximity sense above and the notion of contact allowing for interaction are still evident here. However, the designated meaning under the temporal proximity sense is that the TR and LM coincided temporally. The representation in Figure 2.19 captures this meaning by diagraming the TR and LM with radiating shadow surrounding them as in the spatial proximity sense.
However, here, the two entities coincide in the presence of a timeline, indicating the temporal meaning.

![Figure 2.19 The temporal proximity sense](image)

The meaning of coinciding with a surface attributed with ‘alā is extended to the domain of time. As Talmy (e.g., 2000) argues, for humans, time and space are homologous. Thus, in many instances in many languages, expression of the spatial domain is extended to the temporal domain. The following examples from the corpus exemplify the temporal proximity sense:

أنت سيد، حتى على عهد الرعي كنت سيداً

\[ 'anta \ sayyidun \ hatta \ 'alā \ 'ahdi \ r-ra’yi \ kunta \ sayyedan \]  

you.MSG master even on era shepherding were.MSG mater  
You are a master; even during the times you were a shepherd, you were a master

فعلي أيامه كانت النساء ممنوعات من السفر

\[ fa-'alā \ 'ayyāmi-hi \ kānati \ n-nisā’u \ mamnū’ātin \ mina \ s-safari \]  

so-on day.PL-his was.3FSG the-woman.PL forbidden from the-travel  
So on his days, women were not allowed to travel
In (2.159), the speaker is yielding the addressee a master, even during the days he used to work in shepherding; in (2.160), women were not allowed to travel in the old times where a person lived.

2.3 Conclusion

In this chapter, I have presented a detailed analysis of the semantics of the Arabic preposition ‘alā. I have utilized the guidelines of the Principled Polysemy Model posited by Tyler and Evans (2001, 2003) for describing both the central proto-scene and the extended meanings associated with ‘alā. I have proposed that the range of meanings exhibited by ‘alā can be unified by cognitively-motivated explanations, and that recurring dimensions of human experience play an important role in meaning extension. It was found that consequences pertaining to contact and support are crucially key to describing the seemingly variable meanings. Moreover, relying on the role of the functional element, it was possible to describe ‘alā more fully and precisely, distinguishing it from other particles with which it shares the semantics of elevation such as fawqa ‘above/over’.
CHAPTER 3 COGNITIVE LINGUISTICS ANALYSIS OF THE SEMANTICS OF FĪ

The Arabic preposition fī canonically corresponds to the English preposition of containment in. While English in has been extensively analyzed (for example, Dirven, 1993; Evans, 2010, 2015; Evans & Tyler, 2004a; Feist, 2000; Hawkins, 1988; Herskovits, 1986, 1988; Lindstromberg, 1998; Quirk, Greenbaum, Leech, & Svartvik, 1985; Tyler & Evans, 2003; Wierzbicka, 1993), Arabic fī did not receive equal attention as a preposition of containment. Previous accounts looking at fī have analyzed it among other Arabic prepositions, mostly in pursuit of providing holistic, formalist grammatical description of its syntactic and semantic attributes, often shedding light on the multitude of meanings it takes. What remains absent are studies focusing on its polysemy and the tight relation between the concept of containment and the systematic, multiple meaning extensions fī exhibits. In this chapter, I consider the previous literature on fī, reviewing the range of meanings it has been assigned. Following the review, I propose that the answer to the salad bowl of meanings that fī exhibits is to understand them as thematically related to its central meaning وعاء wiʿā ‘container’. Guided by the tenets of the Principled Polysemy Model (PPM) (Evans & Tyler, 2004a, 2004b; Tyler & Evans, 2001, 2003, 2004a)–which views linguistic polysemy as a motivated, systematic process of meaning extension–this chapter provides methodological cognitive analysis of the meanings associated with fī, based on a sample corpus of 1800 concordance lines extracted from the Modern Literature corpus, a section of corpora under the ArabiCorpus.¹⁸

In this chapter, I follow the same steps that I utilized in my analysis of ‘alā. I will start by reviewing fī in previous literature followed by employing the PPM to (1) identify the primary

¹⁸ A search performed on the ArabiCorpus interactive website yielded approximately 18,000 concordance lines with the Arabic preposition fī.
sense for *fī*, (2) identify the array of extended senses that make up the semantic network, and (3) discuss the motivations that give rise to the meaning extensions based on human embodied experience and conceptualization. Ultimately, my goal is to demonstrate the link between the primary sense and the remaining senses as connected to and motivated by the central meaning of containment associated with *fī*. Also, while discussing guidelines such as the use of the preposition in composite form and relations to other spatial particles, I will shed light on the specific spatial relation designated by *fī* and distinguish it from those that might seem overlapping in meaning.

### 3.1 *Fī* in Previous Literature

Since the earliest Arabic grammar accounts, *fī* has been described as possessing the semantic component *wi‘ā* ‘container’ (Sībawayh, 1988, Volume 4, p. 226). Thus, it is not debatable that *fī* canonically expresses a meaning related to containment. However, the literature describing its semantics has been lacking when it comes to the spectrum of meanings *fī* expresses. Some accounts assigned *fī* as few as seven meanings (e.g., Qumayr, 1973) while others overanalyzed it and attributed it with as many as 20 meanings (Baalbaki & Baalbaki, 2007). In either case, the detailed polysemy of *fī* as portrayed in previous grammar has not been analyzed using systematic methodology nor explained by any motivation. Examination of previous grammar accounts will illustrate these areas of controversy. I review here the same sources that I reviewed under my discussion of the Arabic preposition *‘alā* to present my reader with a comparable account. To start with, one of the classical Arabic dictionaries (Qumayr, 1973) assigns *fī* seven distinct meanings, three of which describe *fī* in terms of synonymy with other prepositions. The seven meanings do not go beyond being mere listings with no
elaboration except for one example sentence for each meaning. Below are the seven meanings as they appear in Qumayr’s dictionary. The transcriptions, translations, and glosses are my own.

Meaning I: ad-darfıyya li-l-makān wa z zamān ‘locative and temporal circumstantiality.’ This is the first meaning that Qumayr (1973) lists for fī. Interestingly, classical grammars and dictionaries have always followed the tradition of starting their cataloging of meanings with the canonical meaning for the preposition without making any statement about its centrality to the other meanings. While containment is the primary meaning associated with fī in many of the classical accounts (for example, Sībawayh, 1988), it is not clear why Qumayr (1973) chose not to use it to label fī’s first meaning. Below are the two examples that Qumayr lists under this meaning (transcriptions, glosses, and translations are mine):

(3.1) 

زاید فی الدار
zaydun fī d-dārī
Zayd in the-house
Zayd is home.

(3.2) 

ساتنی فی پسع سنین
sa-θūrī fī biḍī sinīna
will-1SG.become rich.IPFV in few year.PL
I will be rich in few years.

Interestingly, Qumayr—following a long tradition that goes back to classical treaties—implicitly equates the spatial and temporal senses associated with fī by grouping them under one category but no explanation is provided for this classification. We have discussed previously how dictionaries and grammar accounts tend to list the primary meaning first. Accordingly, this

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19 Some accounts, on the other hand, seem to equate wā‘ā ‘container’ with locative. For example, Zajjājī (1984) included both labels in his first listing of meanings for fī.
suggests that Qumayr and similar treatments of \( \text{fī} \) view the temporal sense to be part of the primary sense.

Meaning II: الالتئیل \( \text{at-ta’lil} \) ‘justification/causation.’ This is the second sense Qumayr (1973) associated with \( \text{fī} \). This sense has a very specific and distinct meaning; it is used to denote a sense of punishment for what might otherwise seem a trivial reason, such as the case of a person being executed for stealing or losing a cow (female camel) as in the following sole example that Qumayr lists.

\[
\text{qutila kulaybun fī nāqatin}
\]

called.PASS.3MSG Kulayb in cow
Kulayb was killed for (stealing/losing) a cow.

However, this sense is rarely used in MSA. Often, in this type of use, the delineated meaning is that the misconduct received a harsh punishment despite it being trivial.

Meaning III: المصاحبة \( \text{al-musāhaba} \) ‘accompaniment’ (meaning ‘with’). The third meaning, as Qumayr (1973) describes it, is a meaning of being together with. I argue that it is, in fact, a meaning of being surrounded with, which is an extension of the meaning of containment as I will illustrate in my discussion of meaning extensions later in this chapter. Qumayr uses the following example to demonstrate this meaning:

\[
\text{xaraja l-’amīru fī mawkibin ḥāfilin}
\]
exited.3MSG the-prince in procession festive
The prince went out in a festive procession
Meaning IV: الِ-َإِسْتِلَاءَ ‘superposition’ (meaning ‘on’). The fourth meaning in this dictionary source is described as synonymous with the support preposition ‘الاَّلَاَ، as in the following single example by Qumayr (1973):

صلبهم في جذوع النخل (3.5)

\[\text{salaba} \quad -\text{hum} \quad \text{fī} \quad \text{juðū’i} \quad \text{n-naxli}\]

\[\text{crucified.3MSG-them} \quad \text{in} \quad \text{trunk.PL} \quad \text{the-palm tree.PL}\]

He crucified them on the trunks of palm trees

Describing one preposition in terms of another is a common yet problematic approach often used in traditional sources and grammars. Identifying one preposition in terms of another is seen with almost every existing preposition in Arabic. This approach is problematic because it is almost always unexplained why the chosen preposition replaced another. In addition to its reliance on circularity, another issue with this approach pertains to assuming the synonymy of many particles and prepositions, which fails to identify their unique semantic designations.

Meaning V: المَقَايِسَةَ ‘comparison.’

ما علمنا في بحره إلا قطرة (3.6)

\[\text{mā} \quad ‘\text{alimnā} \quad \text{fī} \quad \text{baḥri-hi} \quad ‘\text{illa qaṭratan}\]

\[\text{NEG knew.1PL} \quad \text{in} \quad \text{sea-his} \quad \text{except} \quad \text{drop}\]

We only know a drop in his sea of knowledge

Meaning VI: Meaning إلى الِاَلَاَ ‘to.’ This is another instance where this source describes في as meaning another preposition. According to Qumayr (1973), the use of في in this sense is synonymous with the preposition إلى الِاَلَاَ (generally corresponding to the English preposition to in denoting a goal/target meaning). Qumayr lists the following example under this sense:
Meaning VII: 

الضرب في الحساب: $\textit{ad-darb fī l-hisāb}^{'}$ ‘multiplication in math.’ In this type of use, $fī$ is used to denote the mathematical operation of multiplying a number by another; this corresponds to the use of $\textit{by}$ in the mathematical expression $\textit{four by five}$, as in the following example:

$\text{four in five twenty}$

This sense is also very specific. In fact, most of the senses in this account of $fī$ are very specific as in the punishment sense, the comparison sense, and the use to denote multiplication. On the other hand, the primary sense is very broad as we saw in the first meaning where spatial and temporal location are equated. Even more problematic, the link between the primary meaning and the other distinct meanings is not explained, which might suggest assuming no connection between these senses and the primary meaning.

Older Arabic dictionaries such as the above do not differ much from more recent dictionaries in that they are limited to the simple listing of definitions coupled with example sentences as we saw earlier. This tradition is also followed in bilingual dictionaries. For instance, Zuhayri (2008) lists 16 glosses for $fī$ while Baalbaki and Baalbaki (2007) give it 20 glosses.
Classical accounts and dictionaries (both classical and modern) have not attempted to explain the prepositions beyond drawing on samples of use. In contrast, relatively modern grammar theorists have attempted to delve into explaining the semantics of the prepositions with some detail. This is especially apparent with western accounts of Arabic grammar. Driven by evolution in the field of linguistics in general, these accounts investigated the applicability of new linguistic theory to Arabic. Amongst modern grammar accounts, Lentzner’s dissertation (1977) is a very prominent work in that it breaks away from the traditions followed by Arabic grammarians for centuries. Basing her work on a single MSA source, Lentzner analyzed the complete set of Arabic prepositions utilizing the linguistic framework of generative semantics. In her dissertation, she discussed the morphological and syntactic categorizing criteria for prepositions in Arabic (e.g., number of letters in a stem, structural combinatory rules, etc.), and she highlighted both the spatiotemporal uses of the prepositions as well as what she termed abstract uses, i.e., uses beyond the physical spatial or temporal meanings.

In her description of *fi*, Lentzner (1977) notes the classical distinction of two types of use for *fi*, to refer to “actual time and place” (p. 51) as in (3.9) and “figurative time and place” (p. 52) as in (3.10) (Lentzner’s translations; transcriptions and glosses are mine):

(3.9) زيد في المسجد
*zaidun fi al-masjid*
Zayd in the-mosque
Zayd is in the mosque

(3.10) السعادة في راحة البال
*as-sa‘ādatu fī rāḥati l-bālī*
the-happiness in repose the-mind
Happiness is in the repose of the soul
She describes *fi* as corresponding to either of the two English prepositions ‘in’ or ‘at’.

According to her, Arabic *fi* can prompt for a meaning of being on the interior of a place as well as conveying a broader, non-specific locative meaning. She contends that the object of the preposition is “a determining factor in the semantic interpretation assigned to *fi*” (p. 54). For example, she notes that when *fi* combines with the object *street* which has no interior, a broader locative meaning is assumed; she uses the following example for this point:

(3.11)

```
yatajawwalu fi š-šawārī’i
3MSG.roam.IPFV in the-street.PL
He walks about in the streets
```

She continues that phrases such as *in the hospital, in the ministry, and in the house*—although “enclosures of various sorts,…it is not clear in Arabic (or in English) whether the sense of *fi* in these sentences means ‘inside of’ or ‘located in the environment of’ (e.g., in the parking lot, at the front door, in the backyard, etc.)” (p. 55). She mentions that while the hospital has the semantic meaning interior, “the surface structure is ambiguous” (p. 56). Lentzner contends that “it may be more accurate to state that the existence of the element interior in the semantic structure of the noun-object of *fi* allows *fi* to be optionally specified as ‘locative interior’” (p. 65). Hence, Lentzner’s approach suggests that the semantics of the noun following *fi* governs the interpretation that this preposition receives.

Taking this approach, Lentzner (1977) assigns *fi* a very general semantic interpretation of a broad locative, to equally account for both possible meanings: being on the interior and being generally in a location. In light of this argument, she proposes for *fi* “a basic semantic component which will be broad enough to cover the sense of ‘nonspecific locative’ and which
may be further specified as ‘locative interior’ when the semantic structure of the predication as a whole demands it” (p. 55). For that, she uses the term COINCIDE, explaining that *fi* gets “optionally specified” to mean locative interior when the semantics of its object has an INTERIOR meaning element (p. 56), or as she puts it, when the object of the preposition “demands it” (p. 55).

Another meaning she observes for *fi* is when it corresponds to English ‘on’. According to her, this sense is evident when the prepositional object of *fi* is an entity that is construed as a surface in a given context by the English speaker, but not the Arabic speaker. Some of the examples she lists for this sense are (Lentzner’s translations; transcriptions and glosses are mine):

(3.12) اﻟﻘﻢ ﻓﻲ اﻟﻘﻤﺔ

*al-qimmatu *fi l-’ufiqi*

the-summit in the-horizon

The peak appears on the horizon

(3.13) إﻟﯿﮭﺎ اﻟﻄﺮﯾﻖ ﻓﻲ ﻧﻔﺴﮫ وﺟﺪ

*wajada* nafsahu *fi* t-ṭarīqi ‘ilayhā

found.3MSG self-him in the-road to-her

He found himself on the way to it

(3.14) ﻓﻲ ﻣﻨﺎﻫﺞ اﻟﺠﺮاﺣ

*fi* jasadī-ha l-kaḍīru *mina* l-jirāhi

in body-her the-numerous of the-wound.PL

Her body had many wounds on it.

Regarding the temporal uses of *fi*, Lentzner (1977) notes that while “English …[speakers] use several prepositions to describe location in time (in 1963, on Tuesday, at 4:00), Arabic uses
only \(fi\)” (p. 59). As such, she assigns temporal \(fi\) the meaning COINCIDE, and suggests that the punctual/durative nature of the objects combining with \(fi\) give rise to whether \(fi\) gets a punctual or durative meaning. This broad temporal description echoes with her non-specific spatial description of \(fi\) labeled with the semantics COINCIDE.

Also, in her discussion of temporal uses of \(fi\), she addresses the meaning ‘per/for each’ as in the following example from her dissertation (Lentzner’s translation; transcriptions and glosses are mine):

\[
\begin{align*}
\text{لا يكلف أكثر من خمس ليرات في اليوم (15)} \\
\text{not 3MSG.cost.IPFV more of five lira.PL in the-day}
\end{align*}
\]

It doesn’t cost more than five liras a day

Although Lentzner discusses this last usage under temporal meanings of \(fi\), this sense is not limited to temporal uses. It is seen in other non-temporal references, as in the following example from the corpus:

\[
\begin{align*}
\text{الحق أنه بريء مائة في المائة (16)} \\
\text{the-truth that-he innocent hundred in the-hundred}
\end{align*}
\]

The truth is that he is innocent one hundred per cent.

This use is a conventionalized use of \(fi\) where it has come to serve lexicalizing the percentile mathematical function in Arabic.

In addition to the spatial and temporal meanings of \(fi\), Lentzner (1977) classifies tokens that denote neither spatial nor temporal uses to be examples of figurative, abstract uses:
Where their use does not reflect openly the spatiotemporal construct, where their semantic structure is transformed or modified in some way so that a relation between physical reality and the abstract concept they represent is not directly evident (p. 114).

Lentzner acknowledges that *fi* like other prepositions demonstrates instances of expressing non-spatiotemporal relational meanings; however, she limits her discussion of these instances to interpreting what they might correspond to in English. For example, she notes that in an example like the following, *fi* is used to mean *about* (Lentzner’s translation; transcriptions and glosses are mine):

(Lentzner’s translation; transcriptions and glosses are mine):

\[
\text{بحث معهم في شؤون الأمن (3.17)}
\]

bahaθ-a ma‘a-hum fī šu‘ūn-i l-‘amni
searched.3MSG with-them in matter.PL the-security
He discussed with them in the affairs of security

Lentzner’s (1977) work on the Arabic prepositions is one of the earliest to provide formal analysis of the Arabic prepositions and attempts to systematically describe the meaning of these polysemous linguistic items. She rightly describes the polysemous nature of prepositions as owing to processes of human cognition:

The plurality of senses encoded in prepositions … illustrate that they are extremely powerful symbols of relational patterns of human reality…. It is possible that these relational patterns reflect fundamental properties of the processes of perception and cognition, and that ultimate semantic components underlie the apparent polysemy (p. 108).
While her explanation appears to be consistent with CL motivations, she contends that the answer to the apparent polysemy of prepositions lies in an interaction between a very general meaning denoted by the prepositional relation and specifications provided by the lexical items involved in the relation. Unfortunately, Lentzner does not ground her analysis in specific cognitive processes or embodiment involved in meaning variation in further detail.

In sum, Lentzner’s (1977) account of  사람이 is more elaborate in its treatment of the Arabic prepositions when compared to previous Arabic grammars who gave prepositions less consideration. However, this account has its limitations. First, Lentzner assigned most of the prepositions, including  사람이, the semantic component COINCIDE, in essence agreeing with accounts that describe these units as void of meaning. After all, coinciding with a location is a very broad semantic definition that will be consistent with the semantics of all the prepositions, given their basic function: to locate entities in space. Secondly, the issue with the meaning of coinciding with a place is further complicated when containment is seen as a contribution of the prepositional object rather than the spatial configuration represented by the preposition itself. Lentzner’s view that  사람이 can equally mean English ‘on’ or ‘at’ is problematic, not because  사람이 does not correspond to these two in particular translations but because of the rationale she posits to explain the variation. As she puts it, the semantics of the noun following  사람이 is a determining factor when it comes to  사람이’s ability to express the meaning INTERIOR; whether the noun has interior or not will correspond with  사람이’s meaning ‘on’ or ‘at’ respectively. This suggests that  사람이 malleably adapts to the semantics of the noun that follows it. However, I will argue that the spatial configuration denoted by  사람이 involves containment, and the determining factor in preposition-noun combinatory possibilities depends on whether the noun can be construed as
having an interior or not, but not on whether the *noun* has an interior or not. Construal enables us to conceptualize streets as though they are bounded LMs.

In a more recent publication—a grammar reference book—Ryding (2005) states that *fī* “may translate as ‘at’, ‘in’, or ‘on’ depending on the context” (p. 375). She lists five meanings for *fī*: a spatial meaning, a temporal meaning, an abstract/figurative meaning, a meaning where it acts as a manner adverbial, and meaning ‘per’. Below are some of the examples she lists under each of these meanings (Ryding’s translations; transcriptions and glosses are mine).

Meaning I: Spatial meaning. Under this category, Ryding (2005) lists examples of *fī* that correspond to the English translations *in, at,* and *on:*

(3.18)  
jalasū  *fī* maqḥā ‘ala  r-raṣīfī  
sat.MPL  *in* café on the-sidewalk  
They sat in a café on the sidewalk

(3.19)  
ḵālīd  *fī* mustaʿṣū l-malik xālid  
in hospital the-king khaled  
At the King Khalid Hospital

(3.20)  
ištu  *fī*  t-ṭābiqi l-ʿulwiyyi  
lived.1SG  *in* the-floor the-upper  
I lived on the top floor

Meaning II: Temporal meaning. Ryding (2005) divides this meaning category into punctual senses as in (3.21) & (3.22) and durative senses as in (3.23) & (3.24):
 Meaning III: Abstract/Figurative meaning. Under this category, Ryding (2005) notes that the locative meaning of *fī* extends to nouns and noun phrases beyond the physical ones. She provides several examples some of which are the following:

(3.21) في هذه المناسبة

*fī* haḍīthī l-munāsabatī

*in* this the-occasion

On this occasion

(3.22) في ختام الفصل الصيفي

*fī* xitāmī l-fāshlī ṣ-ṣayfīyyī

*in* closure the-season the-summer

At the close of the summer season

(3.23) في حرب الخليج

*fī* ḥarbī l-xalījī

*in* war the-gulf

In (during) Gulf War

(3.24) في غضون دقائق

*fī* yuḍūnī daqā‘īq

*in* folds minute.PL

[With]in minutes

(3.25) في مجال الزراعة

*fī* majālī l-zīrā‘ati

*in* area the-agriculture

In the field of agriculture.

(3.26) في زيارة لفرنسا

*fī* ziyāratīn l-faransa

*in* visit to-France

On a visit to France.
Meaning IV: As a manner adverbial.

\( \text{في شكل غريب} \)  
\( \text{\textit{fi}} \text{  \text{\textit{saklin}} \text{  \textit{yar\text{"}{i}bin}}} \)  
\( \text{in} \text{ shape} \text{ strange} \)  
\( \text{In a strange way} \)

Meaning V: Meaning ‘per’.

\( \text{خمس مرات في اليوم} \)  
\( \text{xamsa} \text{ marr\text{"}{a}tin} \text{  \textit{fi} \text{ l-yawmi}} \)  
\( \text{five} \text{ time.PL in the-day} \)  
\( \text{Five times a day/per day.} \)

A quick look at this grammar reference is sufficient to show that Ryding’s (2005) cataloging of \( \text{\textit{fi}} \) (and the Arabic prepositions in general) is lacking in terms of the number of senses it discusses under a given preposition and in terms of the minimal explanations that accompany the different meaning groups. Recent accounts like this one as well as older, more traditional treaties have remained rigid in their treatment of these linguistic units, failing to (1) address the full range of meanings a preposition expresses and (2) explain the systematicity of meaning extensions.

In a most recent account of Arabic prepositions, Esseesy (2010) has addressed the issue of how meaning extensions arise, drawing on notions from CL and recognizing the systematicity in prepositional polysemy. Concerned with the grammaticalization of Arabic prepositions, Esseesy tracked the diachronic change that the complete set of prepositions and particles underwent, highlighting their etymological origin and their progression from early classical periods to modern day Arabic.
Following the grammaticalization pattern of *fī*, Esseesy (2010) identified a range of meanings for this preposition, mainly in the form of meaning clusters. The first cluster he described is the locative cluster, which concerns physical spatial relations where the two objects involved, the TR and LM, are physical objects and are spatially situated. Under this cluster, he discusses the role of human conceptualization in the gradual change in the usage of *fī* from describing configurations of full containment to configurations where no sense of containment in its canonical sense is present. For full inclusion, he uses the following example which illustrates a meaning of confinement and limitation of movement, a meaning that is immediately related to containment (Esseesy’s translations; glosses and transcriptions are mine):

النص في الحبس (3.29)

\[ al-liṣṣu \ fī \ l-ḥabsi \]

the-thief in the-prison

The thief is in prison

Esseesy then explains that *fī* can be used to describe partial inclusion as in the following example; he notes that this is possible since–by metonymy–the stem of the flower is contained in the vase:

الوردة في الفازة (3.30)

\[ al-wardatu \ fī \ l-fāzati \]

the-flower in the-vase

The flower is in the vase

As for non-containment scenes, Esseesy uses the following example, noting that *fī* can be generalized to merely describe a TR’s orientation in relation to a LM, i.e., in the absence of any kind of containment:
In his discussion of the spatial cluster of *fī*, Esseesy (2010) tackles three other senses that were never recognized in previous accounts, starting with the early Medieval treaties of Arabic and continuing until modern day accounts. The first of these senses is the one denoting “existential state” (p. 171) (Esseesy’s translations and glosses; transcriptions are mine):

Rather, they are playing in doubt’ (Quran 44, 9)

The second sense Esseesy discusses is the in-situ sense, which refers to meaning denotations where the TR is in the LM for a given duration of time.

He is the one who forms you in the womb (Quran 3, 6)

The third sense is the Spatial arrangement as boundary. In this sense, *fī* has progressed from describing spatial scenes where the LM is an actual object with boundaries such as a surrounding circle to a scenario where the intended meaning is that of the TR as a multiplex forming a shape.
People gathered around him in a big circle

Esseesy notes that the cognitive process allowing for this type of use is metaphoric in nature, but
does not discuss the underlying metaphor that motivates it.

Beyond the spatial senses above, Esseesy (2010) also describes several uses for fi:
Temporal, Emotional/Mental state, and Reflexive. Discussing temporal uses, Esseesy notes that
fi can be used in the temporal sense with a range of temporal units such as days, months, years,
stages of life, etc. He also notes that fi has evolved to include describing the beginning or onset
of an event in addition to the primary temporal use of describing periods of time (p. 173). For
example, in (3.35), fi indicates that the arrival is taking place within the time period ‘beginning
of September. In (3.36), fi only marks the start of the struggle (Esseesy’s translations and
glosses; transcriptions are mine):

(3.35) ایلول بِدِیة فِی باریس إلی یحضّر قد
ASP 3MSG come.IPFV to Paris in beginning September
He may come to Paris in the beginning of September

(3.36) بِالاحراج تشعّر تُمادِیر تَعاسِر ۱–۱۹۱۱
in beginning the-matter was.3FSG Tumadir 3FSG feel.IPFV with-the-embarrassed
At the beginning, Tumadir felt embarrassed

With regard to fi designating emotional/mental states, Esseesy (2010) explains that
metaphoric extensions from the physical domain to the emotional/psychological domain allow fi
to refer to emotional or mental states as though they were bounded containers (Esseesy’s translations and glosses; transcriptions are mine).

(3.37) 
wa- bātā fi qalaqin ‘aḏīmin
and-spent overnight.3MSG in anxiety great
and he spent the night in extreme anxiety

(3.38) 
faj’at-tān qāla fi ḥudū’in wa- ḥiqatin lā ba’sa
suddenly said.3MSG in calmness and-confidence no objection
Suddenly he said calmly and in confidence, no objection

In terms of fī’s reflexive sense, Esseesy (2010) explains that this sense occurs when fī collocates with the word نفس nafs ‘self’, as in an “internal dialogue” (p. 176). Below is one of the examples he uses for this sense (Esseesy’s translations and glosses; transcriptions are mine):

(3.39) 
tafakkartu fī nafs-ī ’amra l- jāriyati
contemplated.1SG in self-my matter the-slave girl
I contemplated the matter of the slave girl

(3.40) 
′āyyu ḥiqdin ′ahmilu -hu fī nafs-ī ′alā nafs-ī
which malice 1SG.carry.IPFV-it in self-my on self-my
What malice do I bear in myself against myself

In his description of this sense, Esseesy (2010) references Tyler and Evans’s (2003) description of the reflexive sense for the English preposition in. However, the two seem to differ in some way. In the Arabic reflexive sense with fī, the TR seems to occupy the speaker’s or someone’s self, the LM; hence, the LM in fī’s reflexive sense always involves the word self.
Also, the TR and LM are not the same entity; for instance, in (3.40), the TR is the malice that the speaker finds in himself, the LM. In contrast, the English reflexive sense with in describes situations where TR and LM are the same entity and where the LM is covertly understood. Consider the following examples from Tyler and Evans:

(3.41) The walls of the sandcastle fell in

(3.42) The house caved in

By far, Esseesy’s account (2010) presents the most illuminating analyses of \( f\ddot{i} \)’s meanings. Among many advantages, his analyses have the asset of being based in cognitive semantics (e.g., Jackendoff, 1983; Langacker, 1987; Taylor, 1995), using established cognitive processes such as metaphor (e.g., Gibbs, 1999; Heine, Claudi, & Hünnemeyer, 1991a, 1991b; Lakoff, 1987; Sweetser, 1990), metonymy (e.g., Lakoff & Johnson, 1980), and construal (e.g., Langacker, 1987) to follow the grammaticalization of the Arabic prepositions and explain the evolution of key clusters of meanings around each member in the prepositional class including \( f\ddot{i} \). Hence, the current analysis is in line with Esseesy’s, although taking a different scope where I focus on the semantic network of \( f\ddot{i} \) synchronically.

Where the meanings of \( f\ddot{i} \) are concerned, Esseesy (2010) acknowledges that \( f\ddot{i} \) has come to possess “a large set of distinct but interrelated meanings” (p. 169). Esseesy addresses some of the main meaning clusters associated with \( f\ddot{i} \), which are consistent with my analysis. However, with his study being mainly dedicated to the diachronic change of the preposition, he does not zoom in on the full network of meanings associated with \( f\ddot{i} \). He clearly states that his focus is on the clusters that are relevant to the grammaticalization of \( f\ddot{i} \) (p. 169). Also, since his account is
one that focuses on grammaticalization, he considers a variety of sources for his analysis of the Arabic prepositions and \( f \). These sources ranged from very classical texts to modern day varieties of Arabic. In the following sections, I will take Esseesy’s work as a point of departure, proposing a more detailed analysis of the semantic network associated with \( f \) and focusing on uses seen in MSA.

### 3.2 Cognitive Linguistic Analysis of \( f \)

Following the tenets of the PPM, this section offers a CL analysis of the meanings associated with \( f \). I start with a discussion of \( f \)’s central, primary sense. Next, I discuss the range of senses I identified beyond the central meaning.

#### 3.2.1 The primary sense of \( f \)

##### 3.2.1.1 Finding the primary sense

As I discussed in an earlier chapter, the PPM utilizes five sources of information towards identifying the primary sense of preposition: (1) the etymology of the preposition or its earliest attested meaning, (2) predominance in the semantic network, (3) its use in composite forms, (4) its use in relation to other particles, and (5) its grammatical predictions. In the following subsections, I will discuss how each of these guidelines contributes to a better understanding of the primary sense associated with \( f \).

I argue that the primary sense of \( f \) describes a spatial configuration of a TR located interior to and within the boundaries of a LM, and that the salient functional element in this configuration is containment. These two central components of describing \( f \), the proto-scene with the functional element, will be discussed in detail later (see section 3.2.1.2.1 on the proto-scene and section 3.2.1.2.2 on the functional element). In the next section, I will discuss the first
of the four guidelines mentioned here; following that, I will progress through the rest of the guidelines, building my argument towards the primary sense I briefly noted here for \( \textit{fī} \).

However, under my next discussion of the etymology of \( \textit{fī} \), I refer to containment as a meaning associated with \( \textit{fī} \), mainly in my rendering of how \( \textit{fī} \) was primarily described in previous sources. This is not to be taken as a discrepancy in my description of the primary sense of this preposition.

3.2.1.1.1 \textit{Origins of \textit{fī}.}

I established earlier that the first guideline towards accurately describing the primary sense of a preposition is to trace it back to its earliest recorded meaning. The current section discusses the etymology of \( \textit{fī} \) in some detail, demonstrating how it relates to its present-day meaning and the primary sense I detail later.

Generally, Arabic \( \textit{fī} \) has always designated a central meaning of an entity being located interior to another since its earliest attested uses in the classical, religious text \textit{Quran} and classical Arabic in general. In addition, the function of containment has accompanied its definition since the earliest accounts attempted to describe its meaning. Early Arabic grammarians (e.g., Zajjājī; 1984; Sībawayh, 1988) assigned \( \textit{fī} \) the meaning \( \textit{wi‘ā}\) ‘container’, recognizing containment to be a component related to this preposition.

Tracing the etymology of \( \textit{fī} \) back to older ancestors reveals that more than one hypothesis exists, all of which relate the present-day preposition to the meaning ‘container’ that early grammars used. These hypotheses differed in their position with regard to the suggested route of evolution that this preposition followed. For example, Lipinski (1997) suggests that Arabic \( \textit{fī} \) is simply the devoiced variant (*\( \textit{pi}> \textit{fī} \)) (Lipinski’s transcriptions) of the Semitic preposition \( b- \).
According to Lipinski, this is attested by the similar semantic range that *bi*-(in, at, on, and by) has in West Semitic and South Arabic languages (p.461).\(^{20}\)

Another strand of etymological sources traced *fī* to the human body part ‘mouth’ one way or another. One hypothesis suggests that *fī* is the grammaticalized form of the lexical item *fū* ‘mouth. According to this theory, *fī* is suggested to have etymologically originated from the Arabic word * luật* *fū* ‘mouth’ (Esseesy, 2010). Existing in classical Arabic and still extant in MSA (see Esseesy, 2010, for the detailed, formal grammaticalization account of *fī*), the word *fū* shows inflection for case-marking by the change in its long vowel to *fā* in the accusative case and *fī* in the genitive case, the latter of which bears identical phonological representation to the preposition. Along the same line, Rubin (2005) hypothesizes that *fī* is very likely derived from the Proto-Semitic substantive *pV- meaning ‘mouth’. Esseesy (2010) explains that a preposition evolving from a body part into a spatial particle is an often-observed progression, i.e., the human body (e.g., Heine, 1995, 1997; Heine, Claudi, and Hunnemeyer, 1991a, 1991b; Svoru, 1993) has been shown to be a cross-linguistically prolific donor domain from which particles evolve.

Another hypothesis that relates *fī* to the body part ‘mouth’, but also the meaning of an entity located interior to another, suggests that the preposition is a reduced form of the older Semitic collocation *bi-fī*, a phrase that meant ‘in the mouth’ (Brockelmann, 1966, as cited in Esseesy, 2010). This is a very likely grammaticalization route; it is a common path of evolution in Semitic languages whereby a collocation of an older, primary preposition followed by a noun is reduced to only the noun serving as a preposition on its own (Esseesy, 2010). This theory seems to be favored as the most likely origin of the preposition *fī* by many linguists (e.g., Cantarino, 1975; Lentzner, 1977; A. Zeldes, personal communication, May 11, 2015).

\(^{20}\) In MSA, *bi-* has the meaning of *with, by, at*, and sometimes *in* (especially in colloquial dialects).
Despite the different hypotheses, a containment-related meaning prevails in the history of this preposition, whether it is a devoiced alternative of the *bi-* ‘in, at’ or a fully grammaticalized form of the human body part *fū* ‘mouth’. In either case, the meaning of a TR being located within the boundaries of a LM is central to the origin of *fī* having its roots in prepositions that also meant ‘in, at’.

3.2.1.1.2 Predominance in the semantic network.

According to the PPM, the second guideline for determining the primary sense of a preposition focuses on the TR-LM configurational relationship (depicted by the proto-scene) and the extent to which this relationship prevails in the rest of the meanings in the semantic network. To be able to implement this guideline, it is necessary to examine each of the extended senses and see how they trace back to the central meaning. Under my discussion of the central sense, I argue that *fī* describes a primary scene representing a TR located within the boundaries of the LM and that the functional element in the spatial relation described by *fī* is containment. In light of my analysis of the extended meanings presented later in this chapter, *fī* was found to delineate eleven distinct senses besides the primary sense. Out of these eleven senses, eight are based on either a scene where a TR is located in a bounded LM (which are the in-situ sense, the activity sense, the state sense, the medium sense, the temporal sense, and the sense of perceptual accessibility) or a scene where the TR ends up within the boundaries of the LM (which are the container as target sense and the conceptual target sense). This reflects the prominence of the primary sense in the network. As for the specific relationship between the primary sense and the extended senses, namely how the proto-scene gives rise to these extended meanings, will be discussed in detail under the motivations for each sense.
3.2.1.1.3 Use in composite forms.

As I discussed in Chapter 1, this guideline refers to the combinatory ability of the spatial particle to combine with other linguistic units such as verbs (as in phrasal verbs, e.g., *bend over*). According to Tyler and Evans (2003), a sense’s inability to join in a composite form provides evidence that it is not likely to be the central sense. Examination of the composite forms that *fī* participated in, in the corpus, yielded two types of composite forms: verb-preposition forms (as in prepositional verbs) and preposition-noun/preposition-particle forms that mostly function as discourse markers.

Some of the preposition-noun/preposition-particle forms that *fī* participated in were the following:

(3.43) في الحقيقة.. أنا أكره هذا المكان..

*ﬁ l-ḥaqiqati ‘anā ‘akrahu hāda l-makān*

in the-reality I 1SG.hate.IPFV this.MSG the-place

The truth is, I hate this place

(3.44) في الواقع، لم أكن أملك القوة (43)

*ﬁ l-wāqi‘i lam ‘akun ‘amliku l-quwwata*

in the-reality not 1SG.be.JSV 1SG.possess.IPFV the-strength

In reality, I did not possess the power

ولا الرغبة في مقاومته

wa-la r-raybata fi muqāwamati-hi

and-not the-desire in resisting -him

nor the desire to resist him

(3.45) كانت تحصل في المقابل على كل ما تحتاجه (3.45)

*kānat tahṣulu *fi l-muqābili ‘alā kulli mā tahṭāju -hu*

was.3FSG 3FSG.obtain.IPFV in the-return on every what 3FSG.need.IPFV-it

She used to get, in return, everything that she needed
Generally, the above *fī* collocations remain true to their compositional meaning. To explain, the LMs *al-haqīqa* ‘reality’ and *al-muqābil* ‘return’ are abstract concepts, and hence expressions such as those meaning ‘in reality’ and ‘in return’ are considered metaphorical extensions of the primary sense. In this regard, the meaning denoted by *fī* in the above phrases is relatively transparent and is consistent with the central meaning of containment it describes.

As for verb-preposition composite forms, a close look at their combinations showed that *fī* participated in forms whose meanings designated a physical target. For example, some of the composite forms found in the corpus were:

(3.46) 

.wrapper

```
حَدَقَ في
haddaqa fī
gazed.3MSG in
He gazed at …
```

These forms were used in corpus examples such as:

(3.48) 

.wrapper

```
ظل عبده مستلقما صامتا يحدق في السقف
ūlla ʿabdu mustalqīyan šāmitan yuḥḍīqu fī s-saqfi
remained.3MSG Abdu lying down silent 3MSG.stare.IPFV in the-ceiling
Abdu remained lying down, staring at the ceiling
```

(3.47) 

.wrapper

```
بتَسَقَ في
baṣaqa fī
spit.3MSG in
He spit on …
```
He felt an urging desire to yell at my face,

to spit in my face.

Another category of verbs that \( fi \) collocated with included examples where the verb and preposition delineated involvement with a conceptual target. In these composite forms, the meaning of the collective form meant ‘studied’ or ‘discussed’, as in the following collocations:

Studied/considered …

Discussed/studied …

Some of the corpus examples that these forms appeared in were:

Inviting all the towns to send delegations to a meeting,
Verily, there is a big difference between the political theatre and theatre the-politicizing not space now for-the-search in-it and the politicizing theatre, but there is no time to delve into it now.

The above collocations denoting physical targets (in (3.46) and (3.47)) and conceptual targets (in (3.50) and (3.51)) can all be related to conceptualizations that are relevant to containers as expected destination for many entities. I argue, later in this chapter, under the container as target sense that physical and conceptual targets can be construed as containers, a conceptualization that is compatible with fī. It is important to note here that the meanings contributed by fī in the latter two examples, (3.52) and (3.53) are less transparent than those in (3.48) and (3.49), but nuances of meanings that can be traced to fī are still present.

Some of the other composite forms found in the corpus designated involvement or participation, such as:

\[\text{3.54} \]
\[\text{3.55} \]
In this category of verb-\( fî \) collocation, the object of \( fî \) (LM), often an action or activity, is construed as a container and the agent of the verb (TR) is construed as taking part in the activity.

Some of the examples in which these collocations occurred were:

\[ kānat 'ala isti'dāin li- l- musāhamati fî nafaqāti l-bayti \]
\[ ūnah was.3FSG on readiness for-the-contribution in expens.PL the-house \]
She was ready to contribute in the house expenses

\[ šābun šujā'un šāraka fî 'amalin buṭūliyin \]
\[ young man brave participated.3MSG in work.PL heroic \]
A brave young man who participated in a heroic acts

\( Fî \)'s meaning of a TR and LM in a containing configuration is also apparent in verb-\( fî \) collocations that denoted the semantics of the TR being fully immersed in or preoccupied with an activity, as in the following collocations:

\[ inhāmaka fî \]
\[ became preoccupied.3MSG in \]
He was engaged in …

\[ inxaraṭa fî \]
\[ became immersed.3MSG in \]
He was immersed in …
Below are some example sentences that demonstrate the meanings of these collocations.

3.61

*indamaja* ُ\(\text{fī}\)
became absorbed.3MSG in
He was absorbed in …

3.62

*inhamaka* ُ\(\text{fi}\) ٌ\(l-kitāba\)
became preoccupied.3MSG in the-writing
He became engaged in writing

3.63

*inxaraṭ* ُ\(\text{fi}\) ٌ\(l-‘amal\)
became immersed.3MSG in the-work
He was immersed in work

3.64

*indamaja* ُ\(\text{fi}\) ٌ\(r-raqṣī\)
became engaged.3MSG in the-dance
He was engaged in dancing

Most of these collocations demonstrate that َ\text{fī} \) participated in composite forms that designated the relevant semantics of belonging to the inner part of a LM (construed as a container) (as in helping in or participating in), being contained in a LM (as in being immersed in or engaged in), or targeting a LM that is construed as a container (as in spitting in someone’s face or staring someone in the eye). These meanings are present in the semantics of َ\text{fī} \) and are part of the make-up of its proto-scene, including the functional element. Considering the collective evidence under this guideline, along with evidence from the other guidelines of the PPM, is consistent with the classically agreed upon semantics َ\text{wi‘ā} \) ‘container’. Specific composite forms will be elaborated in more detail under my discussions of the extended senses.
Before moving to the next guideline in this section, one point warrants discussion. Relevant to the guideline of *use in composite forms* is the issue of how much meaning is contributed by the verb versus the preposition in a given composite unit. I argue that although some composite forms are less transparent than others, i.e., the meaning contributed by *fī* might appear of less weight and prominence; nevertheless, there is a degree of semantic compatibility and hence a contribution that allows for the pairing between the two units, the verb and *fī*.

To elaborate, as I discussed the composite forms in this section, I have shown a range of verb-preposition collocations. In some cases, the meaning of the preposition was relatively more transparent (as in the composite form *باصلق فَي* ‘spit into something’); in other cases, the form has been more grammaticalized, and the meaning contribution by the preposition became bleached (as in the composite form *نَاظَرْ فَي* *ناِداً فَي* meaning ‘examined’). In the latter example, the meaning contributed by *fī* appears less transparent and might suggest less meaning contribution from *fī*. O’Dowd (1988), discussed ten diagnostic tests to determine the status of the verb-preposition/particle collocation in English and hence the tightness of its semantics. For way of illustration, one of these tests is verb-substitution, by which the verb-preposition is replaced by one verb. For example, the collocation *نَاظَرْ فَي* *ناِداً فَي* meaning ‘examined’ may be substituted for by the verb *دراسَ ‘studied’*. According to O’Dowd, a verb-preposition/particle construction being substitutable with one verb attests to the inseparable semantics of the composite form, that it becomes difficult to identify the meaning contributed by each unit. Referring to the prepositional verb *ناِداً فَي* ‘looked into/examined’, Esseesy (2010) explains that:
One cannot with certainty judge which of the two elements, *yanḍuru* ‘to look’ (my transcriptions) or *ff*, is primarily responsible for the coding of the ‘studying, reviewing’ sense in this combination. However, that *ff* in these new functions establishes a collocation with another word class (i.e., verbs) in and of itself marks a functional expansion and perhaps *widening of its semantic polysemy network*. (my emphasis) (p. 180)

The view that these collocations represent expansions of the semantic network of *ff* is consistent with the CL approach that meaning extension is motivated and systematic. The sense lexicalized in *naḍara ff* is motivated by salient consequences of containment (I discuss these in detail under the conceptual target sense). One of the consequences of containment is that it gives rise to an experiential correlation between looking inside a container and discovering or learning. This correlation is evident in conceptual metaphors like *KNOWING/UNDERSTANDING IS SEEING* (C. Johnson, 1997) and its corollary *CONSIDERING IS LOOKING AT* (Grady, 1997).<sup>21</sup> This, in turn, gives rise to and motivates the meaning of studying or examining in the form of the lexicalization *looking into a container*. The scenario that gave rise to this meaning is related to the primary meaning of *ff* and extends from it, despite the inseparability of the semantics of the verb and preposition. The *KNOWING IS SEEING* metaphor and many others such as *CONSTITUENTS ARE CONTENTS*, *SETS ARE BOUNDED SPATIAL REGIONS*, *CIRCUMSTANCES ARE SURROUNDINGS*, *CIRCUMSTANCES ARE FLUIDS*, and *DEDUCIBLE INFORMATION IS CONTENTS*, to name a few, are all examples of universal conceptual metaphors that are motivated by consequences inherent in the spatial configuration of containment. Different consequences will give rise to different

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<sup>21</sup> I believe that in the case of Arabic, it would be *CONSIDERING IS LOOKING INTO*.  

161
correlations, metaphors, or metonymies that translate into extended senses that \( \text{\textit{fi}} \) can describe.

To put it differently, the extended senses that \( \text{\textit{fi}} \) represents, which are sometimes part of a verb-preposition collocation, are but manifestations and extensions of the central physical/spatial meaning of a TR being located interior to a LM and the function of containment.

3.2.1.1.4 Relations to other spatial particles.

The third guideline for determining the proto-scene posited by the PPM (Tyler & Evans, 2001, 2003), is its ability to distinguish the proto-scene of one preposition from other prepositions in the language. Thus, the primary sense of \( \text{\textit{fi}} \) should allow us to distinguish it from other Arabic prepositions.

The closest Arabic preposition to \( \text{\textit{fi}} \) is \( \text{\textit{bi}} \)- which is often glossed as ‘at, with, in, by; by means of’ (e.g., Baalbaki & Baalbaki, 2007; Ryding, 2005; Wehr, 1979). \( \text{\textit{Bi}} \)- is highly polysemous and exhibits an array of senses to the extent that it has been described as context-dependent and hence difficult to characterize in isolation (Esseesy, 2010).

One of the meanings that \( \text{\textit{bi}} \)- denotes is suggested to be synonymous with \( \text{\textit{fi}} \). This is not surprising considering that \( \text{\textit{bi}} \)- has been theorized as possibly the earliest Proto-Semitic containment preposition that first introduced \( \text{\textit{fi}} \) in the collocation meaning ‘in the mouth of’ (Brockelmann, 1966, as cited in Esseesy, 2010). Given its history in addition to its ability to describe spatial scenes that appear inter-changeable with \( \text{\textit{fi}} \) at times, \( \text{\textit{bi}} \)- is considered the most likely spatial descriptor to be confused with \( \text{\textit{fi}} \) (Esseesy, 2010). For example, let us consider possible collocations that were found in the corpus, where both \( \text{\textit{bi}} \)- and \( \text{\textit{fi}} \) could collocate with the word \textit{bayt} ‘house’:
At first glance, it would appear that the two phrases *bi-l-bayt* and *fi l-bayt* in (3.65) and (3.66) are synonymous in designating the meaning ‘interior of the house’. Thus, both prepositions can be translated as ‘in’. However, despite this apparent overlap in meaning, *fi* and *bi-* differ in important ways. In the above examples, the shared semantics between *fi* and *bi-* arise due to the spatial designations of broad location that *bi-* possesses since *bi-* designates a spatial relation where the TR and LM overlap or coincide spatially (Esseesy, 2010). To explain, the preposition *bi-* in some of its earliest attested uses, such as those in the classical text of Quran, is used in contexts where the salient meaning is that of being within the vicinity of a place rather than scenes with an interior-versus-exterior focus. For example, in Quran, *bi-* collocated with words such as *wādī* ‘valley’ and *بَكَّة Bakkata* ‘Mecca’ (initially also the name of a valley). This meaning of broad location associated with *bi-* has also been asserted by several linguists. For example, Lentzner (1977) assigned both *bi-* (and *fi*) the semantic component **COINCIDE** to describe this general locative property. Also, in a later publication that is intended as a

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22 It is important to note that in many colloquial dialects such as Levantine and Najdī, *bi-* is used to describe spatial scenes that designate a meaning of containment. Hence, cases where *bi-* is used to describe the interior location of a TR in relation to the LM *al-bayt* ‘the house’ could possibly be due to the influence of a colloquial dialect. This is not to suggest that the current example necessarily denotes interior location (see my discussion of this example).

23 But note that Lentzner argues that *fi* could be assigned the semantics **COINCIDE INTERIOR** when the LM possesses an interior.
grammar book, she describes \textit{bi-} as meaning “contiguity in its broadest sense” (Ryding, 2005, p. 367).\textsuperscript{24}

Now, let us return to the examples in (3.65) and (3.66). Out of context, the two collocations seem interchangeable. However, \textit{bi-}’s spatial meaning of being in the proximity of a LM is distinct from \textit{fi}’s meaning of the TR being interior to or within the boundaries of a LM, especially when considering \textit{fi}’s functional element. \textit{fi} is the only Arabic preposition with the functional element of containment. Considering the full context for the above collocations would assert this distinction between the two prepositions and highlight the differences in their semantics. Consider the same collocations in context below:

\textit{لم يكن أحد بالبيت أثناء الغارة} (3.67)

\textit{لَمْ يَكُنْ أَحَدٌ بِالْبُيُوتِ} َلَمْ يَكُنْ أَحَدٌ بِالْبُيُوتِ
not be someone by-the-house during the-air raid.
There was no one at the house during the air raid

\textit{فلا أجد أحدا في البيت لأعايدي عدا الشفالة} (3.68)

\textit{فَلا أَجِدُ أَحَدًا فِي الْبَيْتِ لِأَعَايِدِي عَدَا الشَّفَالَة} َفَلا أَجِدُ أَحَدًا فِي الْبَيْتِ لِأَعَايِدِي عَدَا الشَّفَالَة
so-not 1SG.find.IPFV someone in the-house to-share Eid greetings except the-maid
So I don’t find anyone in the house to share the Eid greetings with except the maid

In the example with \textit{bi-}, the designated meaning is the vague location of being in or around the house, i.e., in the whereabouts of the house. This is explainable given that the utterance refers to an air raid which has a devastating effect that will surpass the interior of the house. Consider another example in (3.69) below where \textit{bi-} collocates with \textit{bayt}. Here, also, the designated meaning is not limited to the interior parts of the house:

\textsuperscript{24} This meaning of a broad location or being in the vicinity of a place is different from the in-situ sense I discuss later in the chapter, especially in that the In-Situ meaning refers to being in a location for a default purpose (see my discussion of this sense under the extended senses of \textit{fi}).
يُقدم كل مُضار من الغارات بسرعة إلى البلدية (3.69)

kytáqaddama kullu muḍarrin mina l-yārātī bi-sur‘atī ‘ila l-baladiyyati
3MSG come forward IPFV every harmed from the-raid with-speed to the-municipality
Every person who was harmed by the air raids should reach to the municipality soon

لاستلام أدوات بناء جديدة من خشب وحديد واسمنت
l-istilāmi ‘adawāt binā ‘in jadidatin mina xašabin wa ḥadīdin wa ‘ismantin
for-receiving tool PL construction new from wood and steel and concrete
to receive new construction tools including wood, steel, and concrete

كثر إصلاح الضرر الذي وقع بيته
li-‘išlāhī ḍ-ḍarari alladī waqa’a bi-bayti-hi
for-fixing the-harm which fell 3MSG by-the-house-his
to fix the damage that happened to his house

The delineated meaning—and hence the suitability of this collocation between bi- and bayt to
describe this spatial scene—pertains to the damage that happened to the house because of the air
raid. In this case, the damage is not limited to the interior of the house. In contrast, in the
example with fī, in (3.68), the speaker cannot find someone in the house to interact with: to greet
for Eid, a Muslim holiday. Here, the meaning is simply spatial: unexpectedly, there was no one
present in the house in a time of celebration and festivity. According to this contrast, we can
posit that when the intended meaning is being within the vicinity of the house or when the
interior-exterior contrast is not the salient or in focus, bi- is acceptable. But when being interior
is more salient, fī is more suitable. Consider the following example from the corpus in (3.70),
and by way of contrast the semantically odd sentence in (3.71):

 فأر في البيت (3.70)
fa ’run fī l-bayt
mouse in the-house
A mouse in the house
In (3.70), the use of *fa'run* to describe the scene of a mouse in the house is semantically accurate since the presence of a mouse interior to a house is an undesirable situation. By contrast, in (3.71), the same expression using *bi-* is semantically anomalous since *bi-* expresses a broad location that does not make a salient distinction between the interior versus exterior aspects of a scene.

3.2.1.1.5 Grammatical predictions.

This guideline is based on the predictability of the extended senses, i.e., the traceability of the distinct senses back to the primary sense or to another sense that extends from the primary sense. In order to tackle this guideline for all the recognized senses, I will discuss their derivability from the primary sense by providing examples of contexts and sentences that possibly have given rise to the particular sense.

To this point, I have demonstrated how the five PPM guidelines can be implemented to establish the primary sense of *fa'run*. Now, I turn to describing this primary sense in detail and capturing how it is depicted in MSA through examples from the corpus. I start by describing what the primary sense means in terms of the proto-scene and the functional element. Next, I discuss the significance of the functional element of containment in human embodied experience and early concept formation. Then, I move to discussing the extended senses found in the corpus and how they are sanctioned by the primary sense.
3.2.1.2 Describing the primary sense

Based on the previous discussion, it is demonstrable that ḥī describes a primary sense that denotes a TR located on the interior of the LM with the functional element of containment. Being on the interior of an entity is the general orientation of the two objects in the spatial relation, whereas containment is the salient, interactive function that is specific to ḥī. As noted in Chapter 1, CL research concerned with the semantics of prepositions and spatial particles utilizes schematic representations called the proto-scene to capture the configuration of the two entities in the spatial relation in its most central scenario. In the next section, I will turn to discussing the proto-scene that ḥī describes.

3.2.1.2.1 The proto-scene.

Ḥī has a proto-scene that describes a spatial configuration in which the TR is located interior to the LM where the LM is a bounded entity. Following Lakoff’s (1987) and Tyler and Evan’s (2003) definition of a bounded entity, a bounded LM has three salient, structural elements: an interior, boundaries, and an exterior. With this configuration between the TR and LM, the functional, interactive element is containment. The vantage point is that of the off-stage conceptualizer. According to Langacker (2002), an off-stage vantage point is the default way of construing a scene.
Figure 3.1 diagrams a schematic image of the proto-scene. The diagram captures the spatial relationship designated by \( f{i} \). The small shaded sphere represents the TR and the bold solid lines represent the LM: the three sides represent the boundaries of the container. The dotted line designates that the TR is contained in the LM; hence, the representation also captures the functional element of containment. The section on the primary sense below will explain the proto-scene in more details using examples from the corpus.

3.2.1.2.2 The functional element.

It has been established earlier that \( f{i} \) in its prototypical sense designates the function of containment. Containment is one of the most salient and ubiquitous concepts foundational for preverbal semantics, i.e., concept formation that exists before and becomes the basis for early meaning construction (See Mandler, 1992, for a review).

The concept of containment is believed to be the earliest that infants develop, and image-schemas organized around containment and containers have been shown to be already forming during the first year of the infant’s life (e.g., Baillargeon, 1993; Hespos and Baillargeon, 2001a, for example). For example, Hespos and Baillargeon (2001b), found that infants as young as two and a half months know that containers must have openings for entities to go inside them and
that a contained entity will move with the container it is in. At five and a half months, infants know that containers are expected to have bottoms that support entities contained in them. In a study by Kolstad (1991, as cited in Mandler, 1992) infants this age were surprised when bottomless containers appeared to hold objects inside them. A little later, at six months, infants know that a wide object cannot fit inside a narrower container (Hespos & Baillargeon, 2001b). By seven and a half months, infants show that they know that a tall object is not completely occluded when lowered into a shorter container (Hespos & Baillargeon, 2001b). Before they complete their first year, 11-month-olds understand purposeful versus non-purposeful actions that can be performed with containers (Woodward & Sommerville, 2000): they distinguish between someone opening a transparent box and reaching for a toy inside from opening a similar box and then reaching for a toy that is outside the box.

The above developmental research and many more studies show that the concept of containment consists of several, concatenated image-schemas. Mandler (1992) suggests that the earliest of these containment-related image-schemas is a distinction between open versus closed states and that further learning is built on this notion. Some of the other early concepts of containment are distinguishing between moving into and out of containers.

Containment scenes are highly recurrent in our everyday lives, forming ubiquitous episodes of our early embodied experience. For example, some of the patterns that a child experiences repeatedly every day are being put in and taken out of a crib, being carried into and out of rooms and buildings, observing food being put in containers and taken out of them. Perhaps the most central embodied experience of containment that babies encounter is that of putting food into their mouths as they eat and drink. Johnson (1987) underscores the role of such embodied experience in the early conceptualization of containment. Also, Mandler (1992–
although critical of Johnson’s assumptions about bodily experience being the sole source of early containment conceptualization—agrees that infants are surrounded by countless exemplars of containers and containment scenes, all of which are perceptually analyzed into the containment image-schema:

Indeed, I would expect it to be easier to analyze the sight of milk going into and out of a cup than milk going into or out of one’s mouth. Nevertheless, however the analysis of containment gets started, one would expect the notion of food as something that is taken into the mouth to be an early conceptualization (Mandler, 1992, p. 597).

With repeated experiential encounters of containment, salient consequences become linked to containers as well as entities that resemble containers in their function. Hence, these scenes are continuously reanalyzed and mapped onto a containment schema. The developmental research discussed above illustrates some of the studied consequences that get associated with the containment function, such as contained entities moving with their containers and containers supporting the contained entity. Herskovits (1986, 1988) highlights the role of a functional element in her treatment of English in, noting that spatial geometry alone is not the basis on which we decide the meaning of a preposition. As such, the range of meanings that in encodes are not necessarily all spatial configurations where the TR is completely contained by the LM. She illustrates this point using a figure of fruits in a bowl (see Figure 3.2 below, recreated based on Herskovits, 1986). A speaker describing the spatial scene depicted in Figure 3.2 would felicitously use the utterance the pear in the bowl to refer to any of the pears whether referring to the lower fruits that are within the interior space of the bowl or the topmost fruit which is not surrounded by the sides of the bowl. Although they differ in the degree to which they are
enclosed, all the fruits undergo many of the same consequences associated with containment. A salient consequence, in this case, is that the location of the pears is contingent on the location of the bowl, and moving the bowl will consequently move the pears, too.

Figure 3.2 The pear in the bowl, based on Herskovits (1986)

The functional element is fundamental to our conceptualization of such scenes; hence, we can use a containment preposition such as *fi* to refer to scenes that might not appear to represent containers per se but have the same effects and consequences as those we see in scenes of absolute containment. In addition to the notion of the contained entities moving with the container, one of the most important consequences of containment is that containers restrict the movement of the entities contained inside them. Sinha and Jenson de López (2002) use a cup of coffee as an example. Not only does the coffee move with the cup, but the cup protects the coffee from spilling by restricting its movement. Examples of containment extend to our interaction bounded spaces of all sizes, such as rooms and buildings. A person inside a room is protected from events happening outside the room, as in a shelter of some sort. Being in a room or inside the house could represent as protection from outside atmospheres such as rain, wind, or heat, it also means being immersed in the specific atmosphere that prevails inside the living place. Not only is the person surrounded by the walls of the enclosed space but she is also
surrounded by the environment of this space as in a room being very hot or very cool. A person locked up in a dark room, will suffer the darkness and the physical and psychological effects of being inescapably in the dark. A third consequence that arises from being in closed spaces is that it restricts our knowledge of the outside world. It might be arguable that rooms, houses, and similar spaces have windows to the outside world, but a person in one room is oblivious to family conversations, interactions, and small events, happening in other quarters or spaces of the house. Consider this experience from the perspective of an infant being carried out of one room and into another or observing a caregiver walk in and out of her room, to name a few examples.

Bounded spaces have the quality (or sometimes the disadvantage) of blocking entities away from our senses. Containers with opaque sides can prevent us from knowing what is inside them. Another consequence of our embodied experience and interaction with enclosed spaces is that they are perceived as goals or the salient space where entities can be located for extended periods of time and where important activities happen. We as humans identify certain locations as goals where we spend time for extended periods of time: We are often in the workplace or in the house for most of our day or night. Our interaction with these places includes an association with the activities that take place in them; this, in turn, has the consequence of locations being associated with activities.

The above consequences will be referred to again when I discuss the different senses that \( \text{fi} \) exhibits. In the next sections, I will illustrate how the functional element of containment and its consequences are manifested in \( \text{fi} \)'s primary sense as well as meaning extension processes.

### 3.2.1.3 The primary sense in the corpus

The primary sense of \( \text{fi} \) is found in the corpus in a range of examples that describe a variety of spatial scenes, all of which share manifestations of the function of containment. The
primary sense that \( f\)ī describes is very similar to that of English *in* (as proposed by Tyler and Evans, 2003 and Lakoff, 1987) in that it canonically depicts a relation where a TR is located within the boundaries of the LM which has an interior, boundaries, and an exterior. The primary sense of \( f\)ī being a container was recognized by early grammarians as early as the eighth century, giving it the label *wi‘ā* meaning ‘container’ (Esseesy, 2010). Below are some examples that illustrate the primary meaning of containment associated with \( f\)ī in the corpus:

\[
\text{Sandwiches in white paper boxes (3.72)}
\]

\[
\text{She tried to hide the bag in the class’s safe (3.73)}
\]

\[
\text{The only key of the chest became in his pocket (3.74)}
\]

The above examples demonstrate instances where the TR is completely enclosed inside the LM: (3.72) describes a sandwich (TR) packed in a paper box (LM), (3.73) a bag (TR) hidden in a safe (LM), and (3.74) a key (TR) kept in a pocket (LM). All of these LMs represent closed spaces. Some of the other examples in the corpus included typical container as LMs, such as a bowl, for example:
And Arafah was preoccupied with mixing some ingredients and kneading them in a large clay bowl.

Her eyes were following my hand and it as it dipped the strawberry fruit in the dish of sugar

In (3.75), the ingredients (TR) are mixed in a big bowl (LM) made of clay; in (3.76), the strawberry (TR) is dipped in a dish (LM) full of sugar. What these containers have in common is an interior, an exterior, and boundaries.

Containers do not necessarily have to be closed spaces. In many cases, what is significant for the definition of a containment scene is the functional element and the consequence(s) associated with being contained. For example, Tyler and Evans (2003) explain that English *in* can be used with LMs that are not necessarily canonically bounded but can be construed as bounded. These types of uses also apply to Arabic *fī* where it can be utilized to describe spatial configurations between TRs being contained within the boundaries of LMs such as *field* and *desert*. Consider the following examples:
How can the mirage become an alternative for the cold springs in the desert?!

Tyler and Evans (2003) argue that stretches of land like a field can be conceptualized as having boundaries such as fences and gates (p. 184). Some Non-canonically bounded LMs such as a desert can also be conceptualized as containers encompassing and surrounding a given TR, the same way a container surrounds an object contained in it. In (3.77), the cold springs (TR) are contained within the boundaries of the desert (LM); in (3.78), the field is the bounded LM where Saeed’s wife visited him. Although a desert has no defined boundaries as compared to those of a field, we still perceive an interior versus exterior conceptualization of a desert and hence another reason to construe it as a bounded LM.

Similarly, locations that include geographical boundaries such as continents, countries, and cities can be construed as bounded LM and hence lexicalized in spatial relations using *fi*:

There is no justice in Egypt nor in any country in the world

لا توجد عدالة في مصر ولا في أي بلد في العالم (3.80)

Not 3FSG.exist.IPFV justice in Egypt and not in any country in the world
Geometrically flat landscape LMs can be construed as containers or using containment prepositions. In addition to being identifiable in terms of conventional boundaries—as in geographical borders for example—these LM are also perceived as having distinguishable environments that are internal to them and that set them apart from other locations. Similarly, LMs that have no physical boundaries can be construed as containers when they provide surrounding environments. For examples, unbounded entities such as open air and the sky are all LMs that are felicitously used with *fi* in the following corpus examples:

Poor thing, she thinks that nothing is more dangerous than a plane flying in the sky.

And she started jumping in the air, a jump higher than another.
represent different consequences that distinguish them as independent senses in the semantic network of \( f\). 

**3.2.2 The extended senses of \( f\)**

So far, I have illustrated using examples from the corpus how the functional element of containment plays a prominent role in explaining meanings exhibited by \( f\) in its primary sense. Now, I will turn to discussing the semantic network comprised of the extended senses found in the corpus. Figure 3.3 represents \( f\)'s semantic network, with the primary sense as the central point from which the extended senses branch. The semantic network depicts some of the senses as extending directly from the primary sense while other senses form clusters that are connected by a thematic motivation related to the primary sense.
The motivations that underlie each of the meaning extensions can be explained by consequences linked to a TR being located interior to a bounded LM and the functional element of containment. To start, one of the salient consequences of containment is that the location of the TR is contingent on that of the LM. The dependency of a TR’s location on that of a LM motivates the location cluster of senses. Part of this cluster, the medium sense arises when a LM is construed as a vehicle that carries the TR. The other senses in the location cluster are also informed by the same thematic motivation: Containers are default locations to the extent that at any given time “the contained TR can be located with surety” (Tyler & Evans, 2003, p. 186). Some of the bounded

Figure 3.3 The semantic network for \( f \)
LMs that we interact with on a daily basis are rooms, buildings, and similar structures that we (human TRs) are contained within. The surety of our location within the boundaries of these LMs gives rise to the in-situ sense where we conceptualize certain locations as the default LMs where we can be located on a regular basis. Some of these LMs would be a person’s home or workplace. With these bounded LMs being associated with certain activities that are specific to them, the activity sense becomes entrenched as an extended meaning of this type of containment scenes. Being in a bounded LM also has the consequence of experiencing an internal versus external surrounding. This surrounding consequence of containment is reflected in the state sense associated with ʃɪ, which often depicts states that are conceptualized as overwhelming or inescapable.

Another cluster of meanings that is motivated by immediate consequences of containment is the segmentation cluster. Containers and contained entities come in different shapes and sizes. Two salient consequences extend from this realization of containment. The first consequence pertains to the shape of a container. In many cases, an entity will take the shape of the container it is in, which gives rise to the shape as boundary sense and the manner sense. The second consequence relates to the size of the TR in relation to the bounded LM. A large TR, for instance, cannot fit inside a small container. In some spatial scenarios, the TR is not necessarily larger than the bounded LM but is relatively large to the extent it is obstructed or creates obstruction. This interactive consequence gives rise to the blockage sense.

Some of the other consequences of containment pertain to conceptualizations of containers as natural destinations for many entities, which gives rise to the container as target sense and the conceptual target sense.
The above motivations will be discussed in elaboration as I identify and describe each of the extended senses. Recall that there are two PPM guidelines that can be utilized to identify the distinct senses associated with a preposition. First, the designated sense must represent additional information that is not present in the proto-scene or any of the other senses in the network. The additional information might involve a different TR-LM configuration from that in the proto-scene, or the extended sense might represent a meaning that is not spatial in nature. Second, there must be clear examples where the new sense is understood in the absence of the inferencing context that initially gave rise to it. In the coming sections, these guidelines will be discussed under my argumentation for the independence of each of the extended sense.

3.2.2.1 The location cluster

The location cluster of meanings is motivated by consequences that are pertinent to the proto-scene of /f/ and its meaning of a TR being located within the boundaries of a LM. Each of the four senses discussed here (the in-situ sense, the activity sense, the state sense, and the medium sense) arises due to aspects immediately related to being within a bounded location, although none of these senses delineates spatial containment per se.

3.2.2.1.1 The in-situ sense.

Some of the significant containment experiences in our everyday life pertain to us being routinely in structures that resemble containers such as rooms and buildings. Houses, for example, are obvious containers that we remain inside, sometimes for prolonged periods of time. We go to a workplace where we spend an extended period of time, and we return home after a day’s work to rest and remain there for a significant part of the day.
One of the meanings that Arabic speakers conceptualize for *fi* (and similarly English speakers for *in*) is associated with the use of containment to describe being in a certain location for an extended period of time and for a default purpose, such as being at the school where one studies, at the workplace, or in the house at the end of the day (at home). Examples (3.84) and (3.85) show tokens of this meaning from the corpus:

(3.84)
```
الولد في المدرسة (3.84)
al-'awlādu fi l-madrasati.
the-boy.PL in the-school
The boys are at school
```

(3.85)
```
والد في العمل (3.85)
wālidāy-a fi l-'amali
parent.DU-my in the-work
My parents are at work
```

In (3.84), *the boys* (TR), are at *the school* (LM) that they regularly attend; similarly, in (3.85), *the parents* (TR) are in the location of their *work* (LM). The surety with which we are located vis-à-vis these LMs is lexicalized in the in-situ sense. To illustrate this sense, Figure 3.4 diagrams this meaning with a TR (the shaded circle) inside a LM that has the silhouette of a house.
Importantly, the use of *fi* to delineate the in-situ sense does not merely express meanings where the TR is located within the vicinity of the LM neither does it necessarily designate being on the interior of LM. Instead, it lexicalizes the default expectation of the LM as the typical place where the TR is to be located and is likely to be involved in regular activity.\(^\text{25}\) One note is in order here. For this reading of *fi* to be understood, the noun following *fi* should be in the definite form, i.e., preceded by the definite article *al-* (the).\(^\text{26}\) In fact, the construction of the noun and the definite article contributes to this sense by signaling a specific reading of the noun as the default instance. Consider the following possible sentence:

\(\text{3.86}\)

\[
\begin{align*}
xaraja & \quad 'ab -i \quad \text{mina} \quad l - 'amal \\
\text{left.3MSG} & \quad \text{father-my} \quad \text{from} \quad \text{the-work} \\
\text{My father left work}
\end{align*}
\]

\(\text{3.87}\)

\[
\begin{align*}
'anā & \quad \text{dāhibun} \quad 'ila \quad l - bayt \\
\text{I} & \quad \text{going} \quad \text{to} \quad \text{the-house} \\
\text{I am going home}
\end{align*}
\]

\(^\text{25}\) In this regard, this meaning is distinct from that of *bi-* designating broad location in the sense that the in-situ sense of *fi* designates being purposefully located whereas *bi-* in its central meaning designates being in the vicinity of a location (see my discussion of *bi-* in Section 3.2.1.1.4).

\(^\text{26}\) This is contrary to the English use of *at* to indicate a similar meaning as in *at school* and *at work* where the noun following *at* is indefinite. Notice that English users will say *I am in the office* but not *I am in the work* or *I am in the college*. The latter two utterances, while being grammatical, sound odd or non-native-like. It is argued that many such uses are conventionalized.
The LMs "العَمَل al-‘amal ‘work’ in (3.86) and البيت al-bayt ‘home’ in (3.87) designate the generic meaning of these locations to mean the default exemplar.  

Evidence asserting the status of the in-situ sense as an independent sense comes from this sense representing a salient consequence that extends from the primary sense. While the primary sense of \( f\ddot{i} \) describes canonical containment scenes with the TR being located on the interior of the LM, the in-situ sense does not emphasize this meaning. What \( f\ddot{i} \) designates in this case is a human TR being in a default location for a default purpose.

3.2.2.1.2 The activity sense.

The activity sense is another meaning associated with \( f\ddot{i} \) that arises from the experiential basis of being in a specific location. We have seen in the previous sense how being in a certain location gives rise to the in-situ sense: TRs can be habitually present in relation to default LMs for extended periods of time that their location can be determined with surety. The activity sense is based on the correlation that arises as a result of being in a certain location where locations become associated with activities.

It is very common in human experience that being in a certain place means being able to perform a certain action or be a part of a certain activity. For example, being in the house at the end of the day is often associated with rest and family time whereas being at the workplace is

\[
\begin{array}{ll}
\text{الحصان حيوان جميل} & \text{الحصان جميل} \\
al-\text{حيوان} jamīlūn & al-\text{حيوان} jamīlūn \\
\text{the-horse animal beautiful} & \text{the-horse beautiful} \\
\text{Horses are beautiful animals} & \text{The horse is beautiful}
\end{array}
\]

In this regard, the Arabic definite article is polysemous and can designate various meanings. This is a potential area for future research.
associated with completing work-related tasks. Consider the following sentence from the corpus which suitably illustrates the correlation between places and activities and serves as a bridging context that gives rise to the activity sense. Bridging contexts do not necessarily represent an example of an independent sense, but provide an example that motivates the meaning extension:

(3.88)

أصبح طبيبا مثله. يعمل معه في نفس العيادة

 résultة 3MSG doctor like-him 3MSG.work.PFV with-him in same the-clinic

He became a doctor like him, who works with him in the same clinic

In this example, the ability to practice an activity such as a profession is linked to being in the specific location, i.e., the clinic (LM) is the place of practice or location where the doctor (TR) practices medicine. Based on these recurrent experiences, we form strong associations between spatial locations and activities.

Recurring examples of this strong association lead to meaning reanalysis, and a new meaning of activity becomes entrenched in the semantic memory as a distinct meaning (Tyler & Evans, 2003). The below corpus examples illustrate this specific manifestation of fi to denote the distinct sense of activity.

(3.89)

هو عقيد في الجيش

 résultة 3MSG colonel in the-army

He is a colonel in the army

28 The same correlation motivates the metaphor AN ACTIVITY IS A CONTAINER, recognized by Lakoff and Johnson (1980, p. 69).
My mother was in a relation with a police officer, and she did not end her relation with him.

In (3.89), the colonel (TR) is in the line of work or activity associated with the military sector (LM). Likewise, in (3.90), the officer (TR) works for the police (LM). Both LMs, the army and the police are lines of work and are not simply locations where the TRs, the colonel and police officer are co-located.

To represent the activity sense, Figure 3.5 diagrams a shaded sphere, the TR, located inside a factory silhouette, the LM. However, this representation is not to suggest that the activity sense is spatial in nature. The diagramed entities are intended to represent the highly-conceptualized Activity Sense, as it is used in the examples discussed earlier. The fact that this sense is not spatial in nature emphasizes its independent realization from that of the primary sense. The new semantics denoting ‘line of work’ provide evidence asserting the distinctness of this sense and its independence in semantic memory.
3.2.2.1.3 The state sense.

As we experience repeated instances of being in certain locations correlating with certain states, we begin to conceptualize the association between states and location. For instance, an infant held in her parent’s arms will experience warmth and attention compared to possibly experiencing loneliness when left in a crib. This experiential basis has been proposed by metaphor theorists to motivate the primary metaphor STATES ARE LOCATIONS (Grady, 1997; Lakoff & Johnson, 1999). This primary metaphor, in turn, has been posited as a key motivation for using locational prepositions to refer to the non-spatial meaning of being in a certain state as in saying I am in love (e.g., Tyler & Evans, 2003). Along these lines, Esseesy (2010) argues that—through metaphoric extensions—Arabic fī is used to designate emotional states as though they were bounded containers. Similarly, Buckley (2004) suggests that the state meaning associated with fī is an abstract representation of containment, which is motivated by the metaphoric schema EMOTIONS ARE CONTAINERS.
It is true that the metaphoric proposal might generally explain why many prepositions have the proclivity to express the extended meaning of states. For example, both ‘alā and fī express a state sense. However, the metaphorical STATES ARE LOCATIONS proposal as it stands might misleadingly suggest that all prepositions that express states designate the same types of states or even designate random manifestations of states. The metaphorical explanation alone does not recognize that different prepositions express different types of states, and it does not fully describe the particulars of these states when considering a wider range of prepositions. As Evans (2009, 2010, 2015) proposed, close examinations of the state senses associated with more than one preposition will reveal distinctions between the different states expressed by different prepositions. In other words, the fine-tuned distinctions of the state sense of a given preposition are specifically invoked by and extend from the spatial configuration depicted by the preposition and the recurring consequences of TRs and LMs being in that spatial configuration. For example, Evans (2010) suggest that English in describes, among other types of states, the state of being in inescapable situations such as being in love, or in pain. Evans (2015) argues that these meaning are motivated by our understanding of the surrounding atmosphere or space within the container or LM. Tyler and Evans (2003) describe such states as “constraining the TR or posing difficulty in leaving” (p. 188). Similarly, the state sense associated with fī is conceptually connected to the core meaning of containment that fī expresses, motivated by meaning extensions such as being inescapable, spatially bounding, surrounding, etc. Recall from the previous chapter that the state sense associated with the preposition ‘alā was limited to states that are seen as temporary, active states as well as states of being (un)supported by evidence or truth. Below are examples from the corpus, illustrating the state sense that fī describes:

---

29 Also, the English prepositions in, on, and at express a state sense (Evans, 2015).
And I lived in America for eight years in extreme poverty.

Disaster.. Her husband is in a disaster

I was at the time (in happiness) as happy as a child returning home

Situations of poverty and similar circumambient, inescapable conditions are conveyed using \( \text{fî} \) in Arabic as in examples (3.91) and (3.92) where the TRs are described as being in an extreme state of poverty and a disastrous state of existence respectively. But it is not all unfortunate when it comes to surrounding, containing states. The state of being in happiness as in (3.93) is also an example where \( \text{fî} \) designates a meaning of being in a surrounding state. Figure 3.6 below captures a diagrammatic representation of the state sense where the TR, the location pin, is contained in the LM. The internal space of the container is highlighted by the grey shading, designating it as salient. The interior of the container represents the surrounding atmosphere of the LM.
3.2.2.1.4 The medium sense.

In my discussion of the medium sense associated with ‘alā in the previous chapter, I demonstrated how surfaces can be construed as carriers, hence the motivations that give rise to the medium sense associated with ‘alā. Similar motivations, yet with specific ramifications pertaining to containment, can explain the medium sense associated with fī. One of the meaningful consequences of containment is that containers can act as carriers or transporters. This conceptualization comes from our interaction with containers in everyday life. For example, we experience containers as means of carrying and transporting entities such as food items, drinks, or even belongings (as in a piece of luggage, for instance). In fact, even infants as young as two and a half months were shown to have developed the concept that entities move with the containers they are in (Hespos & Baillargeon, 2001b). To represent the medium sense, Figure 3.7 shows a TR contained within the boundaries of the LM, with a hand silhouette to represent the transportability of the TR and LM. The representation, thus, captures the contingency of the TR’s location on that of the LM.
Below are some of the corpus examples where \( \textit{fi} \) designates a medium meaning:

\( \text{كُل كلمة في خطاباتِهُ الخجلة} \ (3.94) \)

\[ \textit{kullu kalimatin \( \textit{fi} \) \( \text{xitabati-hi \ l-xajilati} \) every word in letter.PL-his the-shy} \]

Every word in his shy letters

\( \text{صوت أم كلاًثوم في أغنية الحب كده} \ (3.95) \)

\[ \textit{sawtu ummi kalbūmin \( \textit{fi} \) \( \text{'uyniyati \ l-hub kidah} \) voice Umm Kalthoom in song the-love this} \]

The voice of Umm-Kalthoom in the song \textit{This is love}

\( \text{بدأت في الكلام في التليفون} \ (3.96) \)

\[ \textit{bada'tu \( \textit{fi} \) \( \text{l-kalāmi \ fi \ t-tilifūn} \) started.1SG in the-talking in the-phone} \]

I started talking on (in) the phone

\( \text{سمعت الخبر في الراديو} \ (3.97) \)

\[ \textit{sami'tu \( \textit{l- xabara \ fi \ r-rādyo} \) heard.1SG the-piece of news in the-radio} \]

I heard the news on the radio
These examples portray a meaning where the LM is the medium through which the TR is carried or emerges. To explain, in (3.94) and (3.95) entities such as words (TR) and a singer’s voice (TR) are presented through the mediums of a letter (LM) and a song (LM), respectively. Similarly, in (3.96) the phone (LM) is the medium through which talking (TR) happens, and in (3.97), the radio (LM) is the device through which the news (TR) is broadcasted.

Note that in (3.94) and (3.95), the LMs through which the TRs are transported represent literary products. On the other hand, in the next two examples, (3.96) and (3.97), the LMs are devices such as a phone and a radio. Texts and songs are conceptualized as containers with volume; hence, they are carrying and transporting content. As technology advanced, new instruments that allowed other forms of communication were also conceptualized as containers.

3.2.2.2 The segmentation cluster

This cluster of meanings is motivated by our understanding of the relationship between bounded LM and how they divide the space into an interior versus exterior locale or how they might be further divided as they interact with TRs of various sizes. For example, think of houses as bounded LM we interact with: they are divided into rooms. The rooms, in turn, divide up the internal space buildings. This scene is repeatedly encountered with containment scenes of various sizes. Conceptualizations about bounded LMs as forming divisions and delimitations give rise to this cluster of senses: The shape as boundary sense, the manner sense, and the blockage sense.

3.2.2.2.1 The shape as boundary sense.

The shape as boundary sense is one of the meanings lexicalized using ش in Arabic. It is motivated by conceptualizations that are immediately related to our conceptualization of
bounded LMs, specifically their boundaries. The use of *fī* to describe this sense becomes meaningful when we understand the human mental representation of the concept of boundaries.

Boundaries form a very salient aspect of bounded LMs. It is indeed a fact that many entities will take the shape of the container they are in, hence the shape of its boundaries. The recurrence of this scene makes it an inherent part of our conceptualization of containers and containment scenes.

Langacker (1987) emphasizes the saliency of shapes as means that impose virtual boundaries. He explains that the shapes in Figure 3.8 can all be equally taken to represent a circle although (b) and (c) are in fact a discontinuous arrangement of dashes and dots respectively. According to Langacker, the reason we describe these arrangements as circles is because the concept (and shape) of a circle is so “deeply entrenched” (p. 356) that it becomes inevitable to impose continuity on the given arrangements and view them as boundaries. Along the same lines, Tyler and Evans (2003) explain that because the shape of an object forms a crucial part of its mental representation, we sometimes refer to shapes as constituting what we perceive as boundaries. They note that a group of chairs arranged in a circle does not mean they are to be surrounded by a drawing of a circle on the floor for instance, but in fact means that we construe the objects as forming the boundary themselves.

![Figure 3.8 Adapted from Langacker’s (1987) discussion of a virtual boundary](image)
Informed by Langacker’s discussion of virtual boundaries, Figure 3.9 below represents the shape as boundary sense I describe here for *fī*. The dashed lines forming the borders of the container reflect the non-actuality of these boundaries.

![Figure 3.9 The shape as boundary sense](image)

In Arabic, *fī* is used to delineate this meaning in scenarios like *fī dāʾiratin kabīrati* ‘in a big circle’ as in the following example from the corpus:

\[
\text{waqafa} \quad r\text{-rijālu} \quad fī \quad dāʾiratin \quad kabīrati
\]

stood.3MSG the-men in circle big

The men stood in a big circle

In (3.98), the men (TR) are not contained in a physical circle (LM). They are standing in an arrangement that resembles a circle; hence, they are construed as forming the boundaries of a circle.

Esseesy (2010) discusses grammaticalization evidence that asserts the extended nature of this meaning. He explains that this meaning of *fī* could have possibly evolved from being a reference to a surrounding three-dimensional object to meaning a spatial arrangement resembling the shape of the object. To illustrate, he traced the collocation of *fī* with the word *ḥalaqa* ‘ringlet/circle’ in the ArabiCorpus data (Esseesy’s transcriptions and translation). Comparing
classical literary texts to modern ones, he notes that the classical work *Thousand and One Nights* yielded five instances of the word *ḥalaqa* as a LM, all of which meant the circular, three-dimensional object. By comparison, a similar search in the *Modern Literature* compilation of works yielded five instances, all of which were lexicalizations meaning spatial arrangements (p. 172).

Examples representing the shape as boundary sense in the corpus were not limited to a surrounding circle or ring. Examine the following examples from the corpus with collocations such as *in a queue, in a straight line*, etc.

3.99

\[wa\ kāna\ l-\ masjidu\ sākinan\ xāwiyān\]
and was.3MSG the-mosque quiet empty
And the mosque was quiet and empty,

\[qad\ tasarraba\ d-daw’u\ min\ mašābīhi\ l-\ ‘ursi\]
ASP gleamed.3MSG the-light from lantern.PL the-wedding
the light has gleamed from the wedding lanterns

\[xīlāla\ nawāfiḍi-hī\ fi\ xuṭṭīn\ mustaḍīlatin\ mina\ n-nūri\]
through window.PL its in line.PL rectangular of the-light
through its windows in rectangular lines of brightness

3.100

\[wa\ ’anā\ tarā\ -nī\ lam\ ’a’ud\ ’a’rifu\ l-\ mašya\]
and I 3MSG see.PFV-me not 1SG.rec.JSV 1SG.know.PFV the-walking
And I.. You see me as I do not know how to walk

\[’ila\ l-\ ’amāmi\ fi\ xaṭīn\ mustaqīmin\]
to the-front in straight line
forward in a straight line any longer.
For example, in (3.99) the LM is a rectangular line of light, and in (3.100) it is merely a straight line. Note that in (3.100) the TR has a linear shape rather than being contained within the boundaries of a surrounding shape such as a circle. The use of *fi* with LMs such as *line* and *queue* demonstrates the difference between representations of this sense and the proto-scene. This provides evidence that this meaning stands as an independent representation, distinct from the primary sense of containment.

3.2.2.2.2 The manner sense.

Another abstract sense that *fi* lexicalized in the corpus is the manner sense. Like the shape as a boundary sense, the manner sense arises due to motivations closely related to our conceptualization of bounded LM, namely their boundaries. I have established under my discussion of the previous sense that boundaries form a salient aspect of containment. One of the consequences that we associate with containers, and their boundaries particularly, is that an entity will often take the shape of the container it is in. Hence, one of the concepts associated with the containment image-schema is that a boundary defines the shape of a contained entity.

In this sense, *fi* described manner meanings. This sense can be explained by conceptualizations that related to the containment image-schema. One of the salient consequences of containment is that an entity will take the shape of the container it is in. This is especially true in the case of liquids, for example. If the container has a rigid, invariable shape as in a bowl or a vase, the contained entity will take that shape. If the container is flexible as in a plastic bag, for example, the contents will have a flexible shape as well. According to this experientially-based correlation, containers define the shape of the contained. The experiential correlation between the shape of the container and the shape of the entity, explain motivations
that underline the use of the containment preposition *fī* to lexicalize the manner sense. Below are some representative examples from the corpus:

1. **(3.101)**
   
   ```arabic```
   قلت في يأس والدموع في عيني، نعم أحبه
   ```english```
   I said in despair with tears in my eyes, “yes, I love him”

2. **(3.102)**
   
   ```arabic```
   سارا في صمت حتى بيت والديها
   ```english```
   They walked silently until her parents’ house

3. **(3.103)**
   
   ```arabic```
   ابتسمت في براءة.. كنت أتوقع شيئا آخر
   ```english```
   I smiled innocently.. I expected something else

The above examples show lexicalizations where *fī* plus its object define the manner of the action verb. In general, it appears that this lexicalization is possible using *fī* as long as the prepositional object can be conceptualized as a containing emotion. For example, in (3.101) the agent uttered her words in desperate manner. The desperation of the speaker is construed as though it is surrounding her words or manner of speaking. Similarly, in (3.102), the action of walking is described as being surrounded by silence, and in (3.103), the speaker’s smile has an innocent appearance. Based on our human embodied experience, we perceive that our bodies are affected by our emotions. We also conceptualize emotions as surrounding, enveloping conditions. Hence, we describe the effect of emotions on our manner of speaking, smiling, or walking using the prepositions of containment *fī*. It is worth noting that the manner denotations expressed by *fī*
in these examples is reflected in the English translation where the preposition "in" plus its
prepositional object translate into an adverb in English. Also, in some cases, the same kind of
lexicalization using "in" is possible in English as in the alternative translation for (3.102): They
walked in silence until her parents’ house. This demonstrates that this manner conceptualization
is mutual to Arabic and English and asserts the experientially embodied basis for this extended
meaning. Figure 3.10 below represents that Manner Sense. Here, the boundary of the container
(LM) is not in focus (hence the dashed line), but the shape that it imposes on the contained entity
(TR) is profiled (i.e., it is given prominence by the bold outline).

![Figure 3.10 The manner sense](image)

The manner sense has been recognized in previous accounts (e.g., Ryding, 2005). Esseesey
(2010) notes that diachronic evidence shows exponential increase in the frequency of this sense
especially in the modern literature corpus.

### 3.2.2.2.3 The blockage sense.

The blockage sense is motivated by one of the salient consequences of containment:
restriction of movement. Recall from my preview of developmental psychology studies on early
concepts of containment that infants showed surprise when (what appeared to be) bottomless
containers held their content against falling from the other end of the vessel (Kolstad, 1991 as cited in Mandler, 1992). The reason for their surprise is a conceptualization about containers, formed from multiple observations of containers in the natural environment, possessing the ability to restrain the movement of their contents.

Containers or bounded LMs are associated with TRs moving in and out of them. I have established in my discussion of TRs and LMs in Chapter 1 that a TR is usually a smaller, mobile entity whereas the LM is usually larger in size. The nature of a bounded LM means that the boundaries of a LM will create a restriction over the passage of the TR. However, experientially, we understand that an increase in the size of the TR (in relation to a bounded LM) will cause the LM to overfill as in the case of a liquid TR, for example. Alternatively, a LM will be obstructed or blocked by a large TR that is less malleable or solid. This experiential correlation explains the use of *fī*, the containment preposition, to describe obstacles and hindrances. The following example from the corpus demonstrate this meaning:

\[ \text{al-naba’u yāṣṣatun } fī \text{ ḥalq-ī} \]
the-piece of news choke in throat-my

The news were like a choke in my throat

In example (3.104), the meaning conveyed by *fī* is not simply one where the TR (the abstract entity ‘the news’) is an entity contained within the boundaries of the speaker’s throat (LM), but instead, the TR is causing constriction within LM.

Another experiential correlation that possibly motivates this sense pertains to our understanding of the relationship between bounded LMs and how they divide up space. Containers partition space, creating an interior versus exterior separation. In the blockage sense,
this separation, with the restriction of movement as part of its conceptualization, gives rise to the blockage sense. Hence, the blockage sense delineates, in addition to the division of space, restriction of movement between divisions. Consider the following example from the corpus:

\[
\text{لم أفهم، كيف بعبارة مثالي}(3.105)\\
\begin{align*}
\text{lam} & \quad \text{'afham} \\
\text{not} & \quad \text{1SG.understand.IPFV} \\
\text{how} & \quad \text{how} \\
\text{with-stupidity} & \quad \text{ideal} \\
\text{I did not understand how with absolute stupidity} \\
\end{align*}
\]

\[
\text{وقعت في فخ كل الإشارات المزورة}(3.105)\\
\begin{align*}
\text{waqa'tu} & \quad \text{fi} \\
\text{fell.1SG in} & \quad \text{trap all} \\
\text{the-sign.PL the- fake} & \quad \text{all the fake signs} \\
\end{align*}
\]

\[
\text{التي وضعها الحب في طريقي}(3.105)\\
\begin{align*}
\text{allati} & \quad \text{wada'a -ha} \\
\text{which put.3MSG-it the-love} & \quad \text{in way-my} \\
\text{the love had put in my way} & \quad \text{that love had put in my way} \\
\end{align*}
\]

To represent the blockage sense, Figure 3.11 diagrams an orientation that shows a relatively large TR, the shaded sphere, restricted by the sides of a narrow container, the LM. This schematic representation is meant to capture the meaning of restriction of movement, but it is not to suggest that a TR must be large for this reading of the sense. The meaning of constriction on
movement is entrenched as an independent sense thus the TR needs not necessarily be large for this meaning to be present. Obstacles of any size, as long as they hinder our movement, can become compatible with *fī*’s lexicalization of blockage. Below is an example from the corpus that demonstrates this meaning:

\[(3.106)\]

\[\text{kānat} \ \text{ta’abiru} \ \text{t-tilmīḍa} \ \text{muta’ātilan} \ \text{bi- la nihāyatin} \]

She considered the student to be endlessly delayed

\[\text{وَعَقِبَةَ فِي سَبِيلٍ أَيُّ فَتَاتَةَ جَمِيلَةَ} \]

and obstacle in way any girl beautiful

This example demonstrates that the blockage sense in entrenched in the semantic network of *fī* as a distinct sense. Another piece of evidence supporting the distinctness of the blockage sense is that it represents information that is not part of the proto-scene. To explain, in all the above blockage examples, the intended meaning is not that the TR is contained within the boundaries of the LM. It is a meaning of the TR being restricted or creating restriction of movement.

\[3.2.2.3 \ \text{Non-cluster Senses}\]

\[3.2.2.3.1 \ \text{The perceptual accessibility sense.}\]

The perceptual accessibility sense is motivated by consequences that are related to a human experiencer (TR) being located inside a bounded LM. However, it differs from the senses in the location cluster discussed in the previous sections in a significant way. One of the consequences of a human conceptualizer being located interior to a bounded LM, is a potential shift to an interior vantage point. Recall that in my discussion of the covering sense of *‘alā* I
demonstrated how the change in vantage point from off-state to on-state gave rise to that sense. Under the current Perceptual Accessibility Sense, I argue that taking an internal vantage point provides the spatial scene with similar motivations, i.e., important distinctions that are not part of the primary scene.

Humans can construe the same spatial scene differently by taking different vantage points. This ability to change the vantage point from which the scene is viewed plays a crucial role in meaning extension especially in containment scenes, where there is a contrast between an interior versus exterior vantage point. At the same time, many of the containers we interact with, such as rooms and buildings, represent container-like, bounded LMs that human TRs stay in. These bounded LMs possess boundaries, such as walls and other opaque, isolating structures. These boundaries, as they set an interior versus exterior space, also impose serious restrictions on our vision “unless we possess X-ray vision à la Superman” as Tyler and Evans put it (2003, p. 191). Being inside a room or a building consequently means being unable to see what is happening outside the structure we are in until we look out the window or go outside, for example. Another consequence of a human TR being inside a bounded LM is that the inner content of the LM are perceptually accessible to the experiencer. Even more, this spatial scenario makes it inevitable that the limits of our perception, such as vision, coincide with the boundaries of the encapsulating LM. It follows that we experientially correlate the extent of our perception with boundaries. This significant consequence, with its salient restraint on our sense-preceptory access, gives rise to the perceptual accessibility sense exhibited by $f\bar{i}$ in examples like (3.107) below:
In the above example, the speaker is referring to falling in love with a blonde female who happens to suitably live within sight, i.e., within reach of his vision. Here, the limit in perception, specifically in vision, is not due to being in an enclosed space but due to physiological limitations that are part of the human faculty of vision and the experiencer’s location in space (for example, being behind a high building or being on top of a roof). Figure 3.12 below represents the perceptual accessibility sense by diagraming an internal vantage point vis-à-vis the LM. In this representation, the TR corresponds to the vantage point. The arrows reaching the inner boundaries of the LM represent the limit of accessibility corresponding with these boundaries.

Figure 3.12 The perceptual accessibility sense

Interestingly, while the meaning of perceptual accessibility is motivated by having a vantage point restricted by surrounding boundaries, the intended meaning in (3.107) designates the extent to which our faculties of perception have access. Here, the meaning of bounded perceptual accessibility is existent in the absence of tangible, physical boundaries to surround our
faculties of perception. In this case, *fī* is used in the perceptual accessibility sense to construe the resultant conceptualization rather than the actual spatial scene of a TR being in a bounded LM. As such, the designated meaning is novel and extends beyond the scene that gave rise to it. This is evidence that this sense is entrenched in semantic memory as an independent sense. Further evidence asserting the distinction of this sense comes from examples where the relation between the entities involved, i.e., TR and LM, cease to be spatial in any form. Consider the following examples from the corpus:

인의 능력으로 피해를 피할 수 있었나요? (3.108)  
'ā-kāna *fī* maqdūr-ī tafādī hādīhī l-xasārah Q-was.3MSG in ability-my avoiding this the-loss  
Was it in my ability to avoid this loss?

In (3.108), the containment preposition *fī* is used to delineate the meaning ‘in my ability’. The fact that *fī* but not any other preposition is the spatial descriptor of choice to depict this relation asserts that in such examples accessibility is conceptualized as a bounded LM. If the intended meaning were not contingent on this conceptualization of containment, it would have been possible to use another preposition such as ‘*alā* with its meaning of contact. However, such a sentence would not be semantically felicitous. The containment basis for this sense explains why it is semantically acceptable with *fī* but not with ‘*alā* in collocations such as:

في متناول الجميع (3.109)  
*fī* mutanāwal l-jamī‘  
in reach everyone  
[With]in everyone’s reach
A note is in order here regarding the *fī*-collocation in (3.107) repeated here as (3.113):

In this example, the phrase مرمى بصر *marmā baṣar* ‘target/extension of vision’ collocated with *fī*. Interestingly, the same phrase also collocated with *‘alā* in the corpus. For instance, the following sentence shows an example this collocation with *‘alā*:

We remain within his sight so he might sympathize with us.
This situation, with both ‘alā and fī as possible collocations with this phrase, might be taken as evidence against the containment-motivated argument above. However, I argue that the alternative collocation is explainable in terms of the polysemy of the word مرمى marmā ‘target’. The word مرمى marmā could designate either contact or containment depending on the speaker’s construal.30 Note the following example from the corpus:

فبالإيطاليون على مرمى حجر من الإسكندرية
fa l-ʾīṭāliyūna ‘alā marmā ḥajar mina l-ʾiskandariyyah
for the-Italians on throw stone from Alexandria
For the Italians are on a stone’s throw from Alexandria

In (3.115), ‘alā collocated with مرمى حجر marmā ḥajar ‘stone’ to mean ‘on a stone’s throw’, denoting the contact established by the stone reaching a goal. This construal is consistent with the spatial proximity sense associated with ‘alā (see my discussion of this sense under the extended senses of ‘alā in the previous chapter). An alternative construal of this scene can be lexicalized as ‘within a stone’s throw’, denoting the range or field within which the stone can reach, in line with the perceptual accessibility sense discussed here. As further evidence for this argument, consider the following minimal pairs of possible collocations:

على مرمى البصر (3.116)
‘alā marmā l-ʾbaṣar
on throw’s length the-vision
On a throw’s length of vision

30 The noun مرمى marmā is the object form derived from the verb رمى ramā ‘throw’. In addition to describing the field of vision, مرمى marmā appears in collocations such as بف marma n-nīrānī to mean ‘in the line of fire’ or ‘under the field of attack’. Also, مرمى marmā means the entity goal in football, hence the phrase حارس المرمى ḥārisu marmā ‘goal keeper’.
3.2.2.3.2 The temporal containment sense.

Talmy (e.g., 2000) argues that time and space are homologous, and metaphorical extensions from the spatial domain to the temporal domain are ubiquitous (e.g., Lakoff & Johnson, 1980). The temporal sense associated with *fī* describes scenes of being contained, though temporally. Hence, meanings and consequences that are related to containment and bounded LMs will be seen in the temporal sense associated with *fī*. In this sense, an event, the TR, is construed as being temporally contained within a bounded period of time, the LM. Figure
3.13 represents this sense, where the TR is diagrammed as contained within the boundaries of a period of time, the LM. The LM is bolded against the extending time line.

![Diagram of TR and LM]

**Figure 3.13 The temporal containment sense**

In examples representing the temporal sense of \( \text{fī} \), the LM being a bounded period of time means that it is distinguishable as a unit with a beginning and end. Some of the identifiable bounded periods of time that occurred with \( \text{fī} \) in the corpus were minutes, hours, days, weeks, months, and years. Below are corpus examples for some of these temporal units:

\[
\text{fa-nazala} \quad \text{yatajawwalu} \quad \text{fī} \quad \text{waṣtī} \quad \text{l-baladi} \quad \text{fī} \quad \text{s-sā'ati} \quad \text{l-‘āširati}
\]
so-went down.3MSG 3MSG.roam.IPFV in middle the-town in the-hour the-tenth
So he went down to take a walk in the middle of the town at 10 o’clock

\[
\text{في} \text{الخامسة من} \text{صباح} \text{9} \text{أيار 1976}
\]
\( \text{fī} \) \text{l-xāmīsati} \text{min} \text{ṣābāhi} \text{9} \text{‘ayār} \text{1976}
in the-fifth from morning 9 May 1976
At 5 o’clock of the 9the of May, 1976,

\[
\text{هربت من المستشفى، في الصباح الباكر}
\]
\( \text{hārabat} \quad \text{mina} \quad \text{l-mustaʃfā} \quad \text{fī} \quad \text{s-ṣābāhi} \quad \text{l-bākir}
\)
escaped.3FSG from the-hospital in morning the-early
she escaped from the hospital in the early morning
3.122

And on a Tuesday.. I think it is a Tuesday..

I was hearing love whispers from Sally again

3.123

He changed the appearance of the room completely in one week

3.124

He studies Journalism in Cairo and finished his studies in the year of 1963

3.125

Badr was brought home carried on his friends’ shoulders

With regard to collocating with very short temporal units such as ثانية ðâniya ‘second’ and دقيقة daqîqa ‘minute’ in the corpus, these units mostly occurred with ðâ in the plural form: في ثوان ðâawânin ‘in seconds’ and في دقائق ðâ daqâ’iqa ‘in minutes’. Below are some examples from the corpus:
The matter will be over in seconds.

In minutes, they could win a horse, but they could also lose their lives in minutes.

The temporal unit دقيق ‘minute’ but not ثانية ‘second’ occurred in its singular form in collocations with من as in the following examples:

She held the glass while her legs were shaking.

She drank it all in less than a minute.

Then she drank it all in less than a minute.

Although the temporal unit ثانية ‘second’ did not occur in its singular form collocating with من, it seems that this is due to the limited size of the Modern Literature subcorpora.

Consulting other subcorpora of the ArabiCorpus compilation, such as newspapers, yielded...
several examples of \( \text{\textit{fī}} \) collocating with the temporal unit ثانية ‘second’ in the singular form in MSA uses, such as the following example:

\[
\text{في ثانية واحدة يصدر الكمبيوتر (3.130)}
\text{fī \mbox{\textit{θāniyatin}}} \text{\mbox{\textit{wāhidatin}}} \text{\mbox{\textit{yuṣdiru}}} \text{\mbox{\textit{l-\textbf{kumbyūtaru}}} in \mbox{second} \text{\mbox{\mbox{\textit{one}}} \text{\mbox{\mbox{\textit{3MSG}}} \text{\mbox{\textit{publish}}.IPFV the-computer}}} \]
\text{In one second, the computer establishes صورة مسطحة شاملة كل المحتويات في الحقيقة }
\text{ṣūratan musaṭṭahatan \mbox{\textit{šāmilatan}} \mbox{\textit{kulla \mbox{\textit{l-mu 행사}}\mbox{\textit{āti \mbox{\textit{fi \mbox{\textit{l- hakībat}}} picture flat including all the-content.PL in the-bag}}}}}
\text{a flat picture including all the contents in the bag}

3.2.2.3.3 The repetition sense.

The repetition sense is an extended sense that gets its motivations from the temporal meaning associated with \( \text{\textit{fī}} \) along with the function of containment, specifically the aspect of boundaries. We have seen in the temporal sense of \( \text{\textit{fī}} \) that it designates an event occurring within the temporal boundaries of a period of time. The repetition sense represents scenarios where an event repeatedly occurs within a given period of time. This use of \( \text{\textit{fī}} \) corresponds to English expressions denoting reoccurrence of the TR for a number of times in a given timeframe. For example,

(3.131) She makes 50 dollars a day.

(3.132) I visit my family once a week.

Below are some of the corpus examples utilizing \( \text{\textit{fī}} \) in this sense:
I need her voice to live.

I need to take it three times a day.

I rented, Esmat and I, a new apartment for twenty pounds per week.

Although Lentzner (1977) discussed this last usage under temporal meanings of *fī*, this sense is not limited to temporal uses. It is seen in other non-temporal references, as in the following example from the corpus:

The truth is that he is innocent one hundred per cent.

Evidence asserting the repetition sense comes from its use in multiplication operations in Arabic.

The following example is repeated from Qumayr’s (1977) analysis of *fī*, which I covered in the early sections of this chapter:

Four times five is twenty.
Figure 3.14 sketches a diagrammatic representation of the repetition sense. While this sense is not limited to temporal uses, it is grounded in the meaning of time as a recurring cycle. Therefore, the diagram incorporates a time line similar to the presentation of the temporal containment sense. This representation, however, captures the repetitive nature of this containment scene. Only one of the instances is bolded to indicate its representativeness for the rest of the occurrences.

3.2.2.3.4 The container as target sense.

The target sense is motivated by conceptualizations that are immediately related to containment. Containers are places where many objects end up. We understand that entities can start somewhere exterior to a container and move (or can be moved) to be inside a container. Hence, containers are perceived as natural destinations for many entities. This early conceptualization about containers gives rise to the target sense. It is true that fī is not a motional preposition, but I argue that the functional element of containment allows for the use of fī with motional scenes. This is largely because when containment (or any other schema) is conceptually coded for, it is not necessarily a still snapshot of the spatial scene. On the contrary, it is a dynamic scene that captures recurrent scenes, each of which adds details and nuances to
this rich concept. Moreover, part of this conceptualization is that we understand that TRs are smaller, mobile entities that start somewhere before they end up in larger LMs such as containers. For example, the following lines from the corpus capture the mobility of the TR and its transition to end its motion inside a container. These phrases while being very close or almost identical to the proto-scene, represent bridging contexts that give rise to the container as target sense as will be seen through further examples below.

من أين سيأتي الحليب، (3.137)

\[ \text{min 'ayna sa-yaa'i l-halibu} \]
from where will 3MSG.come.IPFV the-milk
Where would milk come from, 

وأمك لم تضع في فمها كلمة خير منذ يومين

\[ \text{wa 'ummu-ka lam tada' fi fami-ha luqmata xubzin mundu yawmayn} \]
and mother-your not 3MSG.put.IPFV in mouth-her bite bread since day.DU
with your mother not having put even a piece of bread in her mouth since two days

وأفرغ بقية الكأس في فمه(3.138)

\[ \text{wa 'afra baqiyata l-ka'si fi fami-hi} \]
and emptied.3MSG remaining the-glass in mouth-his
And he emptied the rest of the drink in his mouth

Both (3.137) and (3.138) represent highly recurrent and embodied scenes with the mouth as a body part and one of the earliest LMs involved in a container schema. This early bodily-encounter is one of the bases to the body is a container schema. Instances of such body-world experience provide bridging contexts for the lexicalization of fi in collocation with certain verbs to delineate a container as target sense. To explain, lexicalizations of this sense are not limited to ‘mouth’ as a body part and a typical container. They are extended to other body parts which vary in the degrees to which they exemplify containers as long as they can be conceptualized as
targets, such as أذن ‘ear’, عين ‘eye’, and وجه wajhun ‘face’. Below are some examples from the corpus for each of these entities:

In (3.139)–(3.141), the body parts ear, eyes, and face are targets for the actions whisper, gaze, yell, and spit, demonstrating the container as target sense. Thus, part of the conceptualization that is inherent in the container as target sense involves an animate TR, which is congruent with the target meaning.
The container as target sense is entrenched in the semantic network associated with \( f \) as a distinct sense thus allowing it to be used in scenarios independent from the contexts that originally gave rise to it. For example, \( f \) can be used to designate a target meaning with non-container-like LM. For example, compare the LMs *mouth* and *ear* from previous examples with the following examples where the LMs are *child*, *fax letter*, and *lethal spot*:

(3.142)

\[
\text{wa kānat tasruxu } f ī \ tīfli-hā}
\]

and was.3FSG 3FSG.yell.IPVF in child-her

And she was yelling at her child,

(3.143)

\[
\text{wa ka-’anna-hu huwa man yaqifu } f ī \ ūrīqi sa'ādati-ha l-'abadiyyah}
\]

and like-that-he he who 3MSG.stand.IPVF in way happiness-her the-eternal

as if he were the one standing in the way of her eternal happiness

Clearly, the mother yelling at her child in (3.142), the man staring at the faxed document in (3.143), and the female character hitting the male in a lethal point in (3.144) are no longer examples of the TR being located interior to the LM or within its boundaries. The meaning of
the TR targeting the LM represents information that is not part of the primary sense, asserting the status of this sense as a distinct semantic denotation.

Figure 3.15 illustrates this sense, with the arrow pointing at the targeted LM (the container inside which the TR ends). The TR in the initial position is not shaded to reflect that it is not emphasized, nor is the trajectory of the motion. What is emphasized, and hence bolded, is the final image captured by the TR located interior to the LM.

![Diagram of TR and LM](image)

Figure 3.15 The container as target sense

3.2.2.3.5 The conceptual target sense.

I have established that the proto-scene of *fi* consists of a TR that is located interior to the LM, and that the scene is construed from an off-stage vantage point. This means that the construer is viewing the containment relation externally. I have also noted elsewhere that many scenes can be construed from a variety of vantage points and that the difference in construal can result in the rise of new senses. I argue that the conceptual target sense associated with *fi* is motivated by a shift in vantage point from an off-stage point to an on-stage point. This shift in vantage point means that the construer is involved in the scene, and thus the vantage point
matches that of the TR. The conceptual target sense extends from this construal. Consider the following example from the corpus which illustrates how this meaning extension might arise.

\[
\text{كان ينظر في الدفتر (3.145)}
\]

\[
\begin{align*}
&\text{kāna} \quad yānūru \quad fī \quad d-\text{daftar} \\
&\text{was.3MSG 3MSG.look.IPFV in the-notebook}
\end{align*}
\]

He was looking in the notebook

In this example, \(fī\) mediates a spatial relation where the TR is directing his gaze towards a notebook, LM. Books, notebooks, and similar written forms can be conceptualized as having volume and hence as bounded LMs, which allows for this collocation with \(fī\). While this conceptualization is still consistent with the container as target sense, it gives rise to the sense of conceptual target.

Humans are intentional beings, and directing one’s gaze towards an entity is a purposeful action. As many containers are opaque, externally looking at containers will correspond to not being able to see what is located inside the container. On the other hand, looking inside the container will correspond with learning and discovering (what is in the container). Hence, a salient experiential correlation exists between looking inside containers and discovering or learning and is the basis for this extended meaning. This correlation is evident in conceptual metaphors like KNOWING/UNDERSTANDING IS SEEING (C. Johnson, 1997) and its corollary CONSIDERING IS LOOKING AT (Grady, 1997).31 Interestingly, Chris Johnson suggests, based on child corpus data, that one of the contexts that possibly give rise to an early understanding of seeing as correlating to knowing is found in recurrent parent-child linguistic exchanges such as

---

31 I believe that in the case of Arabic, it would be CONSIDERING IS LOOKING INTO.
Let’s see what’s in the box (a quintessential example of a container), for example (see MacWhinney, 1995).

This salient experiential correlation between looking inside containers with its change in viewpoint and being able to learn something new mediates the conceptual target sense.

In (3.146), the TR, a group of individuals, looked at the LM, the letters, under candlelight.

Similarly, in (3.147), the speakers seem to be blaming the agent, the TR, for not looking into the written will, the LM, which was lying less than an arm’s length away. Both sentences invite the inference that looking at the LM (would have) resulted in learning its content.

Evidence asserting the conceptual target sense as a distinct sense comes from examples such as the following:
In (3.148), the interpretation prompted for is that the groups of delegates will consider or evaluate the matter. The meaning of conceptual involvement is clear in this example whereas the meaning of physically inspecting the content is no longer apparent. Below are some of the other examples representing the conceptual target sense in the corpus.

فتحت عيني أكثر وأنا أدقق في الصوت (3.149)

\[
\text{fataḥtu ʿaynay -a ʿakṭara wa ʿanā ʿudaqqiqu ʿfī ʿs-ṣawti}
\]
opened.31SG eye-DU-my more and I 1SG.inspect.IPFV in the-voice
I opened my eyes more as I paid attention to the voice

وأسمع الاسم لأول مرة!

\[
\text{wa ʿasmaʿu l-ʿisma li-ʿawwali marrah}
\]
and 1SG.hear.IPFV the-name for-first time
and heard the name for the first time!

أنا أفكر في أولادي (3.150)

\[
\text{ʿana ʿufakkir ʿfī ʿawlād -i}
\]
I 1SG.think.IPFV in offspring.PL-my
I think of my off springs

Figure 3.16 The conceptual target sense


3.3 Conclusion

This chapter has presented a detailed polysemy network for the Arabic preposition of containment, \( f\text{"} \). I have demonstrated that unlike previous accounts, traditional and modern, the current treatment has the advantage of presenting the array of senses that \( f\text{"} \) expressed as explainable and motivated. Implementing the guidelines of the Principle Polysemy Model, it was illustrated that meaning extension is an experientially-based, conceptual process. Specifically, consequences related to a TR being located within the boundaries of a bounded LM figured primarily in \( f\text{"} \)’s meaning extension. Moreover, the saliency of containment in human experience and the functions it serves were key, defining aspects that made it possible to describe \( f\text{"} \) more accurately, differentiating its spatial territory from that of other prepositions with which \( f\text{"} \) is mistakenly considered polysemous, such as \( bi\text{-}‘\text{with/ by/at/by means of}’\).

The semantic network devised for \( f\text{"} \) included two clusters of meanings, the larger of which is the location cluster. This cluster included senses that reflected the saliency of being in certain bounded locations and the significant consequences that followed from this localization, such as being the default location regularly (as in the in-situ sense) and the tight association between locations and activities (as in the activity sense). In addition, the location cluster included the state sense. Based on conceptualizations that are specific to being located within the boundaries of a surrounding landmark, \( f\text{"} \) uniquely described states that are perceived as surrounding or difficult to escape. The analysis highlighted the role of embodied experience in giving rise to the discussed types of states as well as motivating the range of senses expressed by \( f\text{"} \).
CHAPTER 4 CONCLUSION

The current study aimed to present systematic, methodologically-informed analyses of the semantics of two prominent Arabic prepositions while situating these analyses within the landscape of Cognitive Linguistics (CL). To this end, I have examined the semantics of two prepositions, 

‘alā ‘on’ and 

fī ‘in’. Based on corpus data, I presented semantic networks for the two prepositions; the analyses were guided by the general approach of CL and the specific procedural guidelines of the Principled Polysemy Model (PPM). Compared to previous explanations of the semantics of ‘alā and fī, the current analysis has the benefit of being methodologically structured by guidelines that are based on linguistic evidence, in the form of (1) etymological origin, (2) contrastive analysis with similar prepositions, (3) participation in verb-preposition forms, (4) prevalence of meaning in the semantic network, and (5) the derivability of meanings from a central origin. The application of a methodological model to describe the central meaning (the primary sense) and the extended semantics (extended senses) of the preposition provided testable conditions that attested to the independence of each proposed extended meaning. These testable conditions required that the extended meanings represented salient, additional information that was not part of the central spatial scene and that it was not solely the product of contextual interpretations.

Illuminated by the role of human conceptualization, the ubiquity of embodied experience, and the contribution of both to meaning extension processes, the current study proposed rationales that explained meaning extensions beyond the prototypical, central sense. In doing so, there needed to exist a precise and accurate description of a central spatial scene to which the extended meanings can be conceptually linked. Hence, the current study has met two primary goals. The first goal focused on accurately describing the primary spatial scenes that ‘alā and fī
mark, distinguishing them from ostensibly similar prepositions or particles. The second goal focused on elucidating the relatedness of meanings in each of the semantic networks. In the sections to follow, I will expand on each of these accomplishments in some detail, discussing the outcomes of this study and addressing areas of limitation, as well as directions for future research.

4.1 Arabic Prepositional Polysemy: Findings, Implications, and Limitations

The prepositions ‘alā and fī are two of the most frequent and most polysemous prepositions in Arabic (Esseesy, 2010). They represent the concepts of support and containment respectively, two of the first image-schemas that form conceptually. Moreover, support and containment as functional elements have been shown to be inter-related, especially with support being part of containment scenes (e.g., Feist, 2000). In some cases, ‘alā and fī appeared to be highly similar in terms of some of the extended senses they described. The similarity was apparent in their designating the same extended State sense. Given their conceptual and linguistic inter-relatedness, and their high frequency in Arabic, ‘alā and fī presented an intriguing case of prepositional polysemy. With the purpose of explaining their rich semantics and multiple extended senses, ‘alā and fī were found to be suitable candidates for a CL-informed analysis and for testing the applicability of the PPM to Arabic prepositional polysemy.

Indeed, the current analysis revealed that the methodology proposed by Tyler and Evans (e.g., 2003), though initially devised to account for the polysemy of English prepositions, is highly replicable in other, historically unrelated languages. The tight methodology relying on synchronic linguistic evidence as well as the earliest attested use of the preposition provided a firm base for this analysis and furnished the ground for future ones. With this being said, the current account is the first formal analysis to develop fully-detailed semantic networks for a set
of Arabic prepositions. Previous accounts have defined the semantics of ‘alā and fī as abstract concepts and in the absence of a methodologically-controlled approach. In contrast, the analysis at hand described the semantics of ‘alā and fī in light of guiding principles. It described the spatial scenes delineated by the two prepositions, highlighting functional aspects of what it meant for two objects to be in a given spatial configuration in relation to what we know about the world. Hence, the analysis defined the prepositions in terms of two fundamental components. The first pertained to the spatial configuration between the entities involved, the trajector (TR) and the landmark (LM); the second concerned the function that the spatial orientation served, the functional element.

Specifically, analysis of ‘alā revealed that it described spatial scenes that designated a TR in a vertical, higher than relation to the LM. The functional component that is specific to ‘alā is that of support which subsumes contact. These two components together, the spatial configuration plus the functional component, can explain the foundation for how ‘alā can describe the range of meanings that were found to comprise its semantic network. In contrast, relying on spatial description alone (as in describing ‘alā to mean ‘higher than’ or ‘superposition’) has fallen short in explaining the polysemy of ‘alā in extended senses, such as the state sense or the temporal proximity sense. Similarly, abstracting the semantics of ‘alā to a ‘coincide’ semantic value defined it too broadly to be distinguishable from other prepositions.

The usefulness of the current analysis as informed by the dual paradigm of space and function explains meaning extensions within the network of ‘alā and differentiates it from other prepositions.

Along the same lines, applying this approach to the analysis of fī showed that it described a spatial relation of a TR being located within the boundaries of a bounded LM, with a
containment function that holds between the two entities. Conceptualizations related to boundaries and the containment function were especially significant in explaining the network of meanings that \( fi \) described. The analysis showed that, contrary to some assumptions, \( fi \) is not so flexible to be congruous with any context. Instead, it was found that \( fi \) with its containment function was compatible with scenarios where the LM was construable as an area with boundaries, a container of some sort.

Two semantic networks were identified for the two prepositions, with each meaning being conceptually explained. Providing conceptually rooted explanations was done in two ways: (1) by proposing possible spatial scenes that could have originally motivated the meaning extension and (2) by supporting such proposal by corpus sentences that represent bridging contexts. For example, the covering sense ascribed for ‘\( ala \)’ was argued to arise from the embodied consequences of a recurrent spatial scene where an opaque TR being located higher than, in contact with, and obscuring the LM in addition to a viewing arrangement involving an on-stage viewer, often located higher than the TR. This type of spatial scene is lexicalized in an abundance of corpus examples such as the following sentence repeated from Chapter 2:

\[
\text{والمفرش الدانتيلا لم يزل على المائدة} (4.1)
\]

\text{wa-l-mafrašu d-dantilla lam yazal ‘ala l-mā‘idati}
\text{and-the-cloth the-lace not 3MSG.still.JSV on the-dinning table}
\text{And the lace tablecloth was still on the table}

I noted in my discussion that scenes like the above motivate the meaning extension when the construal contains the notion of the TR obscuring the LM, which becomes entrenched as an independent sense that speakers will utilize to express a covering meaning as in (4.2) below. As such, the current analysis not only provided the rationale that motivated the covering meaning...
extension but also explained linguistic representations of this conceptualization. The use of possible bridging contexts that conceivably gave rise to the new meaning further asserts the conceptual motivations that underline meaning extension. A substantially beneficial outcome of this approach is that, unlike the traditional dictionary view of random lists, it presents meaning as a conceptual link.

Most importantly, not only did the analysis argue for scenes that gave rise to the meaning, showing the role of human conceptualization, but also convincingly demonstrated the independence of each meaning in the semantic memory. For example, the independence of the covering sense is evidenced by the change of spatial configuration and absence of the requirement of the vertically higher-than relation between the TR and LM. The TR and LM no longer need to be in a higher-than configuration for the covering meaning to hold. The non-dependence of this meaning on the higher-than scene attests to the entrenchment of this meaning in semantic memory. That is Arabic speakers associate this meaning as specifically being ex- pressible using ‘alā, yet they construe it as being different from ‘alā’s central denotations of vertical support/contact. If the covering denotations were context-generated, any higher-than relation would have sufficed to express covering, but that is not the case. For example, the particle fawq which expresses vertical elevation also, cannot replace ‘alā in the following examples representing the covering sense (repeated from Chapter 2):

النقاب على وجهها (4.2)

an-niqābu ʿalā wajhi-ha
the-veil on face-her
The veil on her face
Notice the semantic anomaly of the sentence when ‘alā is replaced with fawqa in the following sentence:

\[(4.3) \text{ an-niqābu fawqa wajhi-hā } \Rightarrow \text{The veil above her face}\]

Geometrically, fawqa could describe a general orientation where an opaque TR could conceal part or all of a LM. However, it is not utilized in Arabic to express this type of meaning, asserting this exclusive designation being associated with ‘alā. Also, replacing ‘alā in the above example with fawqa revealed that covering is not just an implicature generated by the spatial scene of positive verticality, i.e., it is not a context-generated meaning due to the TR being higher than the LM.

Notice also that not any scene with the TR intervening between the viewer and the LM is sufficient to describe a covering meaning, as can be gleaned from the semantic anomaly of the following sentences:

\[(4.4) \text{ an-niqābu 'amāma wajhi-hā } \Rightarrow \text{The veil in front of her face}\]
\[(4.5) \text{ an-niqābu bayn -i wa bayna wajhi-hā } \Rightarrow \text{The veil between me and her face}\]
While the above sentences reflect the geometrically possible description of the spatial configuration between the TR, the LM, and the construer, they also demonstrate the inadequacy of description that relies solely on spatial geometry.

The explanation provided by the current account offers thorough analysis that considers in addition to the role of spatial geometry, the saliency of the functional element. Not just any higher than relation is going to extend into a covering sense sufficiently. The functional element of contact and support plays a salient role in the development of the covering meaning. Recall that support (as well as contact) is not restricted to vertical relations. It follows then that the covering meaning is initially motivated by a higher-than relation but is firmly established by the functional element. While both ‘alā and fawqa share a canonical scene of vertical elevation, they differ in terms of their functional element. Hence, the functional element associated with ‘alā, precisely the element of contact, sanctions the suitability of this preposition to mean covering the area of the LM that is in contiguity with the TR.

This type of conceptually-informed explanation provides a unique, accurate analysis that taps into conceptual motivations in unprecedented ways at least when it comes to analysis of Arabic prepositions. Furthermore, this type of analysis is supported by contrastive evidence from the language. The argument constructed around the functional element and using minimal pairs along with comparisons to the proto-scene asserted the analysis that the covering sense is (1) uniquely belonging to ‘alā’s functional element and (2) independently instantiated in the semantic network of ‘alā. As such, this meaning, like the remaining meanings in the networks, was explained in systematic ways that minimize reliance on the analyst's intuition and validate results methodologically. The result is a systematic, motivated explanation for the many meanings associated with each preposition. Compared to previous presentations, which varied
widely in the meanings assigned to ‘alā and fī, the current account provides a descriptively more accurate presentation of the many senses associated with these two prepositions.

The usefulness of the CL approach to explaining prepositional semantics can be instructive to language learners and language instructors alike. In fact, a growing line of research has been investigating the efficacy of CL-inspired explanations in the language classroom, specifically in the ESL and EFL environments. CL-informed teaching materials have been shown to yield positive effects when it comes to learning and teaching English spatial language (e.g., Tyler, 2010; Wong, Zhao, & MacWhinney, 2018). Also, the positive effects of using CL-informed materials have been demonstrated in teaching other aspects of English grammar such as the modals (Tyler, Mueller, & Ho, 2010b), clause level constructions (Tyler, 2012; Tyler, Ho, & Mueller, 2011), tense and aspect (Kermer, 2016; Bielak & Pawlak, 2013), and phrasal verbs (White, 2010; Mahpeykear, Tyler, Akiyama, & Jan, 2015). Furthermore, in a very recent publication, Tyler, Huang, and Jan (2018) have surveyed studies that have successfully applied the principles of CL to investigate aspects of language as well as language learning and teaching. The studies cover a broad range of linguistic investigations. Some of these areas include the English article system (White, 2018), English conditional constructions (Jacobsen, 2018), Spanish prepositions (Kissling, Tyler, Warren, & Negrete, 2018), English subordination and coordination (Eskildsen, 2018), to name a few. These studies utilized CL approaches to analyses of several languages such as Dutch, French, German, and Spanish, in addition to English. To my knowledge, this approach has not been tested with Arabic. The applicability of CL analyses to inform teaching and material design of Arabic grammar is a fertile area of investigation with a lot to offer. The present spatial analysis with the two semantic networks could benefit Arabic learners and classroom teachers of Arabic by better explaining the Arabic prepositions and their semantics.
The current analysis can be adapted to developing classroom teaching materials that are motivated, relatable, and embodied.

Like any study, the current analysis is not without limitations. For one, many prepositions participated in multi-word prepositional structures in the form of preposition-noun-preposition (PNP) constructions such as ʿala r-raymi min corresponding to the English discourse marker ‘despite/in spite of’. Such PNP constructions were not considered in the current analysis. The issue with such constructions is that they include two prepositions. In some cases, one preposition is constant while another is replaceable as in bi-r-raymi min ‘despite’. Complex prepositional constructions that have come to serve functional roles are highly grammaticalized, and the meanings contributed by the units involved in the PNP construction are often bleached. In theory, it might be argued that the meaning of such constructions could come from the interaction between the senses contributed by each unit in the construction. This assumption could be put to scrutiny only by looking at the semantic networks of each of the participating units and examining which of their primary or extended senses participates in the current meaning. This type of analysis has not been conducted so far and could prove challenging. However, grammaticalization analysis might be a more suitable route to examine PNP construction and how they have come possess the functional purpose they serve today (e.g., see Esseesy, 2010, Chapter 3). Such analyses are beyond the scope of the present study.

Additionally, it is possible that applying the PPM to phonologically reduced prepositional forms such as the bound forms (ــ bi- ‘by, with’), (ــ ka- ‘like, as’), and (ــ li- ‘for, to’) could also prove challenging since many of them have been grammaticalized. In their case, positing a semantic network might be more difficult, given that they developed grammatical functions and
became more functional than semantically contentful. Also, their full lexical origins might not be always traceable. However, it is possible to consider available classical texts for their earliest attested use such as Quran, for example. Tyler (personal communication, May 28, 2018) contends that the same issue exists with some English prepositions and that examining the earliest attested meaning does not necessarily mean the etymological root but earliest documented use which could also be informative. Moreover, the PPM utilizes several guidelines in addition to the guideline of earliest use. In cases where the lexical origin is not recoverable or does not hold anymore, the rest of the guidelines should be considered towards corroborative evidence.

4.2 Prepositional Inter-lexical Polysemy: Findings and Implications

As I mentioned earlier, the analyses of ‘alā and fī revealed that they both designated state meanings. I discussed this phenomenon under the pertinent senses, the state sense of ‘alā and the state sense of fī; in the earlier presentation, I further argued that they designated distinct types of states. A close examination of the kinds of states that each preposition expressed revealed that they are related to the primary sense of the preposition and that the state meaning extensions are motivated by the functional element of the pertinent preposition. This phenomenon has been termed inter-lexical polysemy (e.g., Evans, 2009, 2010, 2015).

Vyvyan Evans (e.g., 2009, 2010, 2015) has recently discussed this phenomenon as a specific case of polysemy. According to him, inter-lexical polysemy refers to the case where two different prepositions share some general semantic relatedness or have a common semantic representation, which is the state sense in this case. See the following examples from his account (2015) representing the state sense in English:
Although both prepositions have a ‘state’ meaning, the ‘state’ meanings in (a) and (b) denoted by the use of *in* and *on* are not equivalent. The distinction between the two types of states, as Evans proposes, lies in their (a) semantic selectional tendencies (what words they co-occur with) and (b) formal selectional tendencies (the constructions/word order they appear in). According to Evans (2015), the range of semantic arguments that the ‘state’ senses of *in* and *on* can take are in contrastive distribution. While *in* indicates more controlling psycho-somatic states such as love and pain, *on* indicates an active, functioning type of state such as alertness and duty. Accordingly, Evans contends that the semantic selectional tendencies reveal that the two prepositions designate different kinds of states, where *in* describes states that designate prevailing conditions while *on* describes states that designate active conditions.

Like English *on* and *in*, Arabic ‘*alā* and *fī* exhibited a similar case of inter-lexical polysemy. A close examination of their state designations showed that the two types of states associated with ‘*alā* and *fī* were distinguished given their semantic but not their structural selectional tendencies, as I will elaborate next.

The semantic selectional tendencies associated with the states expressed by ‘*alā* revealed that it described two types of states, which I glossed [active states] and [supported states]. For example, sentences (4.8)–(4.9) show that ‘*alā* described states where the experiencer is in a temporary active state, glossed [active states]. By temporary, I mean a state that can be contrasted with regular or permanent states. Indeed, the state of traveling or disagreeing with someone is not generally a long-term state.
I was travelling

He is on disagreement with his uncle

In the next set of sentences, ‘alā designates states that can be understood metaphorically as being in a support relation, where a TR is supported by evidence (LM) (either for being true or false), which I glossed [supported states]. Consider the following examples, where the intended meaning is being right (4.10), being wrong (4.11), or being sure (4.12).

I am right

She was wrong

She is confident that her daughter is feverish

These semantic selectional tendencies are immediately related to ‘alā in terms of its functional elements of contact and support. Contact with a surface can correlate with activity (see the
activity sense of ‘alā, Chapter 2, for a detailed discussion). Similarly, contact sanctions the semantic selectional tendencies that enable ‘alā to mark the meaning designating [active state] (see also the state sense of ‘alā, Chapter 2).

In the second set of sentences, the semantic selectional tendencies [supported states] do not directly relate to contact, but they do relate to support. Although not immediately transparent from the English translations, the [supported states] described by ‘alā in (4.10)–(4.12) are similar in meaning to the English verbalizations that can be exemplified by the following possible sentence, for example:

(4.13) His argument depends on facts.

As for the states associated with fi, examining the state meanings associated with this preposition showed that it designates states that are perceived as surrounding emotional states. For example, the next sentence represents the use of fi to describe the state of being happy. I gloss this type of states as representations of the [emotional state].

(4.14) كنت وقتها في سعادة طفولة تعود إلى بيتها

I was at the time (in happiness) as happy as a child returning home

Also, a second set of examples represented states that are seen not only as surrounding states but also as involuntary and inescapable such as being in a state of extreme poverty in (4.15) and being in a disastrous situation in (4.16). I will gloss these as the [socio-interpersonal state] (borrowed from Evans (2015)).
And I lived in America for eight years in extreme poverty.

Disaster.. Her husband is in a disaster.

Accordingly, semantic selectional tendencies associated with 'fi’s states can be explained in terms of surrounding emotional states as in the earlier example (4.14) representing the [emotional state] and the inescapable, involuntary states as in the latter set (4.15)–(4.16) representing the [socio-interpersonal state]. Both of these semantic selectional tendencies are intimately connected to 'fi’s proto-scene of containment. As I discussed in Chapter 3 (see my discussion of the functional element of containment), the function of containment marks several salient consequences, some of which are (1) being surrounded experientially by the atmosphere as well as physically by the boundaries of the container and (2) being located with surety. These two consequences explain the types of state that 'fi describes. In other words, the selectional semantics observed in the above sets of sentences are specific to 'fi and explainable given the containment image-schema.

These semantic selectional tendencies are similar to the ones designated by English in. For example, Evans (2010) notes that in describes states of affairs that are inescapable such as being in love, or in pain. Evans (2015) argues that these meanings are motivated by our understanding of the surrounding atmosphere or space within the container or LM.

With regard to grammatical (i.e., structural) selectional tendencies, all of the examples occurred in similar constructions. The states associated with both 'alā (in the form of [active
state] and [supported state]) and $fī$ (in the form of [emotional state] and [socio-interpersonal state]) co-occurred mostly with nominal sentences consisting of a noun(phrase) or a pronoun followed by a modifying prepositional phrase. This construction is compatible with the state sense since it expresses a stative meaning; its stative meaning corresponds to the present tense of the English copula as seen in the following examples of ‘$\text{alā}$ and $fī$ respectively, and their English translation (repeated from above):

(4.17)  
\begin{align*}
\text{‘anā} & \ ‘alā \ ‘\text{sawābin} \\
\text{I} & \ \text{on} \ \text{correct} \\
\text{I am right}
\end{align*}

(4.18)  
\begin{align*}
\text{zawju} & \ -hā \ \text{in} \ \text{disaster} \\
\text{husband} & \ -\text{her} \ \text{in} \ \text{disaster} \\
\text{Her husband is in a disaster}
\end{align*}

In some other instances, the state sense occurred with a verb-containing sentence. Nevertheless, the verbs involved were stative verbs such ‘$\text{ištu}$ ‘I lived’ in (4.15) and $\text{kutu}$ ‘I was’ in (4.8) and (4.14), hence maintaining the stative nature of the sentences.

Thus, it appears that the formal selectional tendencies associated with ‘$\text{alā}$ and $fī$ in their designations of states do not reflect significant differences. Evans (2015) notes that while a compilation of converging semantic and syntactic evidence is required, “successful application of only one of the two criteria will normally be sufficient to point to the likelihood of a distinct lexical concept” (p. 12). Nevertheless, the failure to find evidence for formal selectional restrictions raises the question of whether this is a useful analysis for prepositions.
Despite his proposal regarding the usefulness of both semantic and structural selectional tendencies, Evans (e.g., 2009, 2010, 2015) did not specifically address the issue of structural selectional tendencies in any of his multiple publications on the inter-lexical polysemy of English in and on. Based on the examples Evans discussed (in more than one account of inter-lexical polysemy (e.g., *We are in love* and *We are on red alert*), both types of states belonging to in and on co-occurred in simple clause structures consisting of a pronoun subject, a copula (which is always a variation of the verb be), and the prepositional phrase of in or on plus the prepositional object. According to his examples, the two types of states occurred in the same construction and that the structural selectional tendencies associated with the two prepositions bear no differences at least based on his examples. Moreover, it is notable that the simple copular clause structures seen with both types of English states are similar to what was observed with the Arabic states associated with ‘alā and fī. In both languages, the state denotations appeared in constructions that are compatible with a stative meaning. The commonality between both types of states in both languages, i.e., that they appear in similar constructions, speaks to the possible contribution of this construction to the state meaning.

Recall that the state meanings associated with both ‘alā and fī co-occurred in either non-verbal sentences or verbal sentences containing stative verbs, which points in the direction of constructional meaning contribution. The absence of syntactic selectional tendencies that distinguish between the states designated by ‘alā and those designated by fī, and co-occurrence of both types of states in similar clause-level structures suggests that this meaning may be compositionally constructed. That is the state meaning is formed as a result of the integration of both the lexical units (including the preposition) and the syntactic construction in which these
units appear. The semantic nature of the state denotations expressed by ‘alā and fī is coherent with the type of stative structures discussed.

The idea that the state meaning is partially contributed by the construction does not undermine the analysis presented here, nor does it undermine the role of the preposition. On the contrary, it is in line with the tenets of CL. As discussed earlier, two of the important principles of CL is that language is a system of form-meaning mapping, and that linguistic units of various complexity are meaningful. Like other types of linguistic forms, clause-level constructions represent a type of form that is connected to a conventionalized meaning. Goldberg (e.g., 1995) has argued, for example, that English constructions are meaningful and that the semantics of verbs match the prototypical meanings of the syntactic construction they appear in. I argue that the co-occurrence of Arabic state meanings in constructions with a stative nature supports the CL view that language is systematically motivated.

To summarize this section, examining the states associated with ‘alā and fī, it was found that they indeed reflected two different lexical profiles. Evidence for this distinction comes mainly from the semantic components they described. The semantic selectional tendencies observed in the states associated with ‘alā and fī above are distinguishably consistent with consequences that are specific to each preposition. ‘Alā designates the lexical concepts [active state] and [supported state] whereas fī designates the lexical concepts [emotional state] and [socio-interpersonal state]. Where the structural components of their lexical profiles were concerned, ‘alā and fī occurred in similar constructions. This is explainable given the compatibility of stative verbs/constructions with the state meanings being expressed. With this being said, the area of inter-lexical polysemy warrants further analysis to examine the shared semantics between ‘alā and fī.
The role of constructions in meaning is worth further examination and research. ArabiCorpus is not a tagged corpus, which makes it difficult to specify search terms. A tagged corpus can help search for and locate tokens based on specific search criteria such as non-verbal construction or constructions with certain types of verbs such as stative verbs. The availability of such a corpus would enable Arabic linguists to make stronger claims about the range of constructions related to particular meanings. For example, it is not certain if other types of verbs, beyond stative verbs, can participate in stative meanings. Hence, research examining the role of clause-level constructions as well as verb-preposition constructions could address the claims made here, and enable us to more elaborately consider the types of verbs that could co-occur with the stative meanings. This is not to mention the potential facilitative role of a tagged corpus in enhancing research on Arabic linguistics in general. This calls for the efforts of Arabic linguists and computational linguists to collaborate towards compiling such a corpus.

Another possible area for research that concerns inter-lexical polysemy is the potential for this type of polysemy to exist between the prepositions in the current analysis and prepositions or particles with which they share similar semantics. The prepositions ‘alā and fī have been discussed in relations to other spatial particles with which they appear to share similar semantics such as particles such as fawqa ‘above/over’ in relation to ‘alā and the preposition bi- ‘with/by/at’ in relation to fī. These two prepositions, fawqa and bi-, have been shown to be closely related to ‘alā and fī respectively (see my discussion on relations to other spatial particles in Chapter 2 and Chapter 3). For example, I discussed in Chapter 2, that fawqa, despite its unique designations, shares some semantic denotations with ‘alā, specifically the component of vertical elevation. I showed that fawqa is different as it does not require contact although it could describe spatial scenes that include contact. However, in such cases, contact would be
backgrounded, and the vertical relation would be in focus. Based on this inter-relatedness between \textit{fawqa} and ‘\textit{alā}, it is possible that the two prepositions could display some shared extended semantics in the form of inter-lexical polysemy. However, for this hypothesis to be asserted or rejected, there needs to exist analysis of the semantic network of \textit{fawqa}. Similarly, it is possible \textit{fī} and \textit{bi-} exhibit an instance of inter-lexical polysemy between some of their extended senses given their close locational denotations, although \textit{fī} denoted containment-motivated scenes (i.e., a TR being located interior to and within the boundaries of a LM) whereas \textit{bi-} denoted a more general spatial description, i.e., a TR spatially coinciding with a LM. Such analysis would require examining the full semantic network of \textit{bi-}.

This type of comparative prepositional analysis can further advance our understanding of ‘\textit{alā} and \textit{fī} in relation to other particles/prepositions. However, examining the full semantic networks for the potential prepositions/particles is beyond the scope of this dissertation.

\textbf{4.3 Verb-preposition Collocations and Meaning Contribution}

In Arabic, prepositions such as ‘\textit{alā} and \textit{fī} participate in verb-preposition collocations. Many of these collocations were present in the corpus, and some of the senses described for ‘\textit{alā} and \textit{fī} were not solely lexicalized by the target preposition. In many cases, the described meaning was lexicalized by a collocation consisting of the combination of a verb and the target preposition. Thus, an area that warrants discussion regards the meaning contributed by the two units involved in these collocations, i.e., the verb and the preposition.

There are several lines of linguistic evidence that can be considered to understand the meaning contributed by each of the two units involved in the collocation. In this section, I will discuss the types of evidence that can be used to examine the meaning contribution issue.
4.3.1 Meaning contribution based on verb argument structure

The first line of evidence comes from examining whether the preposition is required in all forms or whether the verb has the default argument built in as part of its semantics. In order to tease apart whether the preposition is required or not, a type of nominalization test can be considered. Specifically, by applying إضافة ‘idāfa ‘annexation’ to a nominalized form of the verb, we can test for the default arguments of the verb. The annexation test can be illustrated using the contrast between the verbs سكن sakana ‘resided’ and عاش ‘āša ‘lived’. Consider the following possible sentences:

(4.19) ﺳﻜﺎن ﻓﻲ ﻣﻨﺰل

\[
\text{sakana } \text{fi l-manzil}
\]
resided.3MSG in the house
He resided in the house

(4.20) ﻋﺎش ﻓﻲ ﺍﻟﻤﺎﻧﯿﺎ

\[
\text{āša } \text{fi 'almānya}
\]
lived.3MSG in Germany
He lived in Germany

A nominalized form of the verb سكن sakana ‘resided’ is the noun سكان sukānun ‘residents’. This form can possibly be annexed to the prepositional object المنزل al-manzilu ‘the house’ hence the acceptable phrase:

\[32\text{ }\text{It is important to note that the same meaning can also be expressed without fi as in:}\]

سﮑﺎن ﻣﻨﺰل ﺟﻤﯿﻌال

\[
\text{sakan manzilan jaillan}
\]
lived.3MSG house beautiful
He lived (in) a beautiful house
The fact that the nominal form سكان السكنون ‘residents’ can be annexed to the prepositional object المنزل الـ'manzili ‘the house’ reflects that the location argument is provided by the verb and is part of its semantics. Therefore, the preposition في is not required to follow the nominalized form. In contrast, using the same process with the verb عاش ‘أَاش ‘lived’ can demonstrate that it yields a semantically anomalous phrase when the preposition في is dropped:

؟؟؟

living Germany

The nominalized form معيشة المانيا does not yield a semantically felicitous phrase, and thus the following phrase must be used to designate the location of living:  

؟؟؟

living in Germany

Some of the senses described for ‘الا’ and في which were lexicalized together with a verb provide suitable examples to apply this test. Mainly, there were two senses associated with ‘الا’ (the examining sense and the preference sense) and one sense associated with في (the conceptual
that were lexicalized in the form of prepositional verbs and were not present in forms represented only by the target preposition.

Examples from the examining sense associated with ‘alā represented by the prepositional verbs tafarraja ‘alā ‘watched’, ‘alqā naāratan ‘alā ‘examined’, and ittala’a ‘alā ‘went over/examined’ raise the question of how much meaning is contributed by the verb and the preposition. Some of these examples are repeated here.

أريد أن أتفرج على واجهات المحلات
‘urīdu ʿan ‘atafarraja ‘alā wajīhāti l-maḥallāti
1SG.want(IPFV) that 1SG.watch(IPFV) on front window.PL the-store.PL
I want to go window-shopping

و عندما ألقى نظرة أخرى على نفسه في المرآة
wa-ʿinda-mā ‘alqā naāratan ‘axīratan ‘alā nafsī-hi fī l-mir’ātī
and at-that threw.3MSG look final on self-his in the-mirror
And when he glanced at himself in the mirror one last time,

كان يبدو أنني جذا
kāna yabdū ʿanīqan jiddan
was.3MSG 3MSG.appear(IPFV) elegant very
he looked very elegant

أريد أن أطلع على الكتب
‘urīdu ʿan ʿattali’a ‘ala l-kitābi
1SG.want(IPFV) that 1SG.look(IPFV) on the-book
I want to look at the book

الذي طرد بسببه آدم
llaḍī ṭurīda bi-sababi-hi ‘adhamu
which.MSG expel.PASS.3MSG with-reason-it Adham
because of which Adham was fired
To answer the question about meaning contribution, this is a suitable opportunity to use the 
إضافة 'idāfa ‘annexation’ test. Applying the ‘idāfa test to the verb تفرج على tafarraja ‘alā ‘watched’
yield the following example which is semantically infelicitous:

\[
\text{فرجة واجهات المحلات (4.27)}
\]

\[furjatu \quad wājihāti \quad l-maḥallātī\]

watching   front window.PL the-store.PL

??Watching the front windows of the stores

Also, applying the ‘idāfa test to the verb ألقى نظرة على alqā naḏratān ‘alā ‘examined’ yielded the
following phrase which is semantically infelicitous:

\[
\text{إلقاء نظرة نفسه (4.28)}
\]

\[‘ilqā’u \quad naḏari \quad naḏsi-hi\]

throwing   eye sight   self-him

??Throwing his own eye sight

Applying the test to the verb andاطلع على itṭala‘a ‘alā ‘went over/examined’ resulted in the
below phrase which is also infelicitous:

\[
\text{إطلاع الكتاب (4.29)}
\]

\[‘itṭilā‘u \quad l-kitābi\]

viewing   the-book

??Viewing the book

Note that the examining sense of ‘alā is always lexicalized by both a verb along with the
preposition ‘alā and is not found in examples that can be expressed solely by ‘alā. However, the
‘idāfa test does not seem to reflect that the presence of the preposition is contingent on the
presence of the verb. Yet, the results of the test assert that the preposition is required for this
meaning. The verbs تَفْرِجُ عَلَى taferraja ‘alā ‘watched’, أَلْقَى نَظْرَةٌ عَلَى ‘alqā naḍratan ‘alā ‘examined’, and اَطْلَعَ عَلَى ‘alā ‘went over/examined’ can occur with ‘alā but when this is the case, they do not include the object of examining as part of their semantics. Accordingly, the preposition ‘alā is essentially required for expressing the meaning of examining.

Another set of examples to test for meaning contribution comes from the preference sense associated with ‘alā. The preference sense is another instance of an extended sense that is lexicalized by both the verb and the preposition ‘alā. Some of the examples of the preference sense are repeated here.

1.ً) إذن أنت تفضل إيطاليا على إنجلترا
i’dann ‘antia tufaddilu ‘ītalyya ‘alā ‘ingiltrā
so you 2MSG.prefer.IPFV Italy on England
So you prefer Italy over England

2.ً) والصديق لا يخفى سرا عن صديقه
wa-s-ṣadiqu lā yuxfī sirran ‘an ṣadiqhi-hi
and-the-friend not 3MSG.hide.IPFV secret from friend-his
And a friend does not keep a secret for his friend

ويؤثره على نفسه
wa- yu’θiru -hu ‘alā nafshi-hi
and-3MSG.favor.IPFV-him on self-his
and favors him over himself

Note that this is a comparative construction of sorts in which both the entity being preferred and the less preferred entity are mentioned. Applying the test to the verbs expressing preference تَفْضِيلُ tufaddilu and يُؤثِرُ yu’θiru in the above sentences yielded the following results:

4.32) تفضيل إنجليزرا
tafdilu ‘ingiltrā
prefering England
Prefering England
The above phrases are semantically felicitous. However, they designate preferring or favoring an entity not the entity being dispreferred. Hence, in the absence of the prepositional phrase, only one entity is mentioned. In this construction, the entity mentioned is interpreted as the one being preferred. As such, these phrases mean the opposite of the meaning in the original examples. For example, (4.32) means that England is the preferred entity, whereas the original meaning in (4.30) is one where England is the entity that another is preferred over. This suggests that the dispreferred entity is not part of the semantics of the verb فضل faḍḍala ‘preferred’, and that the preposition ‘الا alā is required for expressing the full, comparative meaning of preference, specifically to articulate the entity that is being dispreferred.

The third set of examples to test for meaning contribution comes from the conceptual target sense associated with فی fi. The conceptual target sense was lexicalized by prepositional verbs such as نظر في naḏara fi ‘looked into’ and بحث في baḥθa fi ‘researched/studied’. Some of the examples are repeated here.

dعوة كل القرى إلى إرسال وفد لاجتماع (4.34)
\[\text{da'watu kulli l- qurā 'ilā 'irsāli wufūdin li- jtimā‘in} \]
inviting all the-town.PL to sending delegation.PL for-meeting
Inviting all the towns to send delegations to a meeting,

يعقد في المستقبل للنظر في المسألة
\[\text{yu’qadu fi l-mustaqqabi li- n- naḏari fi l-mas’alah} \]
hold.SBJV in the-future for-the-looking in the-matter
to be held in the future to look into the matter
Verily, there is a big difference between the political theatre and the theatre.

The results show that the two verbs differ in terms of passing the test of *idāfah*. The phrase with the verb *ناطِر* `looked’ yielded an infelicitous phrase, which suggests that this verb does not include a built-in argument for the objects of examining or researching. On the other hand, the verb *بحث* *بَحِثَ* `searched’ yielded a semantically acceptable phrase. Here, the nominalized form of the verb indicates a reference to the actual research conducted on the topic of the difference between two types of theatre. Hence, although the results vary in terms of whether the preposition is required or not in a certain expression, at least some of the examples representing this meaning still required the preposition for expressing the meaning of conceptual examination associated with *فِي*.

Thus, in our attempt to systematically accounted for the meanings associated with prepositions, this test provides additional evidence which teases out instances in which the...
preposition in conjunction with a particular verb (or set of verbs) expresses an extended meaning and when the semantics of a particular verb independently express the argument.

### 4.3.2 Meaning contribution based on contrastive verb-preposition collocations

As mentioned earlier, in many verb-preposition collocations, the same verb can be paired with different prepositions, giving rise to different construals. In this case, the semantic contribution of the preposition can be gleaned from the possible, contrastive verb-preposition collocational combinations. For example, the verb ´sāʿada ´helped´ can collocate with ´alā to form the collocation ´sāʿada ´alā. It can also collocate with fī to form the collocation ´sāʿada fī. The collocation of the verb and ´alā denotes a meaning of providing help that could be construed as supporting someone towards accomplishing a task or a goal whereas the collocation with the verb and fī denotes providing help in the form of contributing. I will discuss each collocation and the two different construals below.

The next two examples from the corpus represent some of the scenarios where the collocation ´sāʿada ´alā is used to construe help in the form of support. For instance, (4.38) describes an agent helping someone climb a wall by pulling him by his jacket, and (4.39) describes an agent helping someone get up. Both these scenes describe actions where the person being helped is construed as receiving support, a meaning that is consistent with ´alā’s functional element of support. The meaning of spatial support is extended to the meaning manifestations seen in this type of collocation.

(4.38)

أمسك به من سترته يساعده على الصعود

´amsaka bi –hi min sutrati-hi yusāʾidu -hu ´alā ʂ-ʂuʿūdi

held.3MSG with-him from jacket-his 3MSG help.1PFV-him on the-climbing

He held him by the jacket, to help him climb
Support does not necessarily have to be provided by an agent as in the above two examples. In (4.40) below, the scene is slightly different with support being construed in the form of an act that facilitates another: the act of reading verses from Quran is construed as having a supporting effect that facilitates better sleep. Similarly, in (4.41), the character is contemplating reasons that made it easier for her to forget a previous love, with her lover having a different religion as being the reason that helped her forget the relation. In other words, having a different religion facilitated the process of emotional recovery and provided support for it.

Is it the difference in religion that helped her forget?

The above examples with the collocation *sā‘ada ‘alā* describe scenes that are different from those described by the collocation *sā‘ada fī* as exemplified in the below examples. Here, the collocation *sā‘ada fī* describes help of the type that can be seen in the form of contribution or participation.
In the above two examples, the task being helped with can receive contribution or participation from the agent providing the help. To illustrate, (4.42) describes a scene of someone helping with the task of cooking, and (4.43) describes someone helping another shake dust off herself. These actions can be helped with in the sense that an agent can help a person by carrying out the same action with him/her. The meaning of participating in the act of helping or contributing to it is lexicalized by the preposition 
\[ \text{fī} \] in contrast to simply a meaning of help without further specification. For example, consider, by comparison, the same sentence in (4.44) in the absence of the phrase 
\[ \text{fī ʃ-ʃabxi} \] ‘in cooking’:

Here the sentence describes a person helping another. By comparison, in (4.42), the sentence describes a person helping another by participating in the same task, where the meaning of involvement or participation is denoted by the preposition 
\[ \text{fī} \].
Another contrastive set of a verb-preposition collocations is found with the verb خاف xāfa ‘to fear’. This verb collocates with the preposition ‘alā in خاف على xāfa ‘alā ‘feared for/worried about’ as in the below example from the corpus. In this example, the speaker expresses his worry over his children:

أنا خاف على أولادي
'anā 'axāfu 'alā 'awlad-ī
I fear on my children

On the other hand, when the same verb collocates with the preposition من min ‘from’, the meaning is that of fearing or being scared of an entity as in the following example from the corpus:

كان الكل يخاف من أروى
kāna l-kullu yaxāfu min 'arwā
was the-all fear from Arwa

Everyone feared Arwa

See the below example with both collocation side by side:

أنا لا أخوف من كل شيء أنا أخوف على أولادي
'anā lā 'axāfu min kulli šay’in anā 'axāfu 'alā 'awlad-ī
I am not scared of anything... I am scared on my children

Comparing the two collocations خاف على xāfa ‘alā ‘feared for’ and خاف من xāfa min ‘feared/became afraid of’ illustrates the meanings contributed by the prepositions. In the earlier collocation, ‘alā’’s prepositional object is the target of worry or fear; on the other hand, in the latter collocation with min, the prepositional object designates the source or reason of fear.
As seen from the forgoing discussion, contrastive examples with possible verb-preposition pairings demonstrate the different meanings contributed by the different prepositions: the change in preposition corresponds to change in construal. It is important to note that, in this case of verb-preposition collocations, the meaning of the collocation is highly compositional and hence inferable from the meanings denoted by the two components. Accordingly, the meaning denoted by the preposition is obvious and assertable.

### 4.3.3 Meaning contribution based on verb-preposition semantic unity

In many cases of verb-preposition collocations, the meaning contributed by each of the two units involved in the collocation is not transparent or separable. This is especially the case with verb-preposition collocations that have formed idiomatic meaning as in prepositional verbs like حصل على ḥaṣala ‘alā ‘obtained. In such a case, one test that demonstrates the semantic unity of the collocation comes from a battery of tests mentioned by O’Dowd (1988), originally designed to distinguish between English particles and prepositions (p. 15). According to this test, distinguishing verb-particle constructions (phrasal verbs) from verb-PP constructions can be demonstrated using the verb substitution test (O’Dowd, 1988, p. 15). That is, successful substitution of the verb-preposition pairing with one verb attests to the inseparable semantics of the composite form and its status as a phrasal verb. For example, the meaning of the phrasal verb turn off can be substituted with or expressed by the verb extinguish in The light was turned off; hence, The light was extinguished. Similarly, the verb substitution test can be applied to Arabic prepositional verbs to demonstrate that the two units, the verb and the preposition, can be expressed by one verb. For example, the prepositional verb حصل على ḥaṣal ‘alā ‘obtained’ can be expressed by the verb اكتسب iktasaba ‘won/obtained’. This attests to the semantic unity of the collocation as a whole and that the meanings denoted by the verb and the preposition are not
synchronously transparent or compositionally inferable. Similarly, we saw under my discussion of the prepositional verb خمُن فِی نَظَر ‘examined’ that it may be substituted for by a single unit, the verb درس دَرَاسه ‘studied’. The substitution test demonstrates the semantic unity and merger in meaning of the verb and preposition.

Even within this group of verbs, there is a degree of variability in terms of how discernable the meaning contributed by the preposition is. For example, the meaning of examining designated by the prepositional verb خمُن فِی نَظَر naθara fī could be conceptually inferred. As mentioned earlier, looking inside an entity such as a box correlates with discovering or finding (see my discussion in Section 3.2.3.3.5, Chapter 3). To some extent, the meaning contributed by the preposition fī is still recoverable. On the other hand, this is not the case with the prepositional verb حَصَل عَلی ﴿تَأَلَا ﴿‘obtained’. It is often arguable that it is not clear whether ‘تَأَلَا contributes any meaning to this prepositional verb. However, the verb حَصَل hasal in isolation no longer expresses the meaning ‘obtained’ and rather designates a different meaning which is ‘happened’. Accordingly, while ‘تَأَلَا appears to contribute to the meaning ‘obtain’, the exact contribution is not clear.

I argue that conceptual (and historical) motivation can explain the meaning of even the more ostensibly opaque cases of prepositional verbs. While in some cases, the meaning contributed by the preposition is less obvious, this does not necessarily mean that the preposition does not add to the overall meaning. Following the analyses of English phrasal verbs proposed by Mahpeykar (2014), I argue that the answer to explaining the claimed opacity of some of the Arabic prepositional verbs lies in examining the polysemy networks of the two components that make up these composite units, i.e., the verb and the preposition.
Mahpeykar (2014) analyzed 16 English phrasal verbs based on a corpus study. In her analysis, she examined the polysemy networks of both the verb and preposition participating in each phrasal verb. She found that the meanings of the prepositional verbs examined were compositionally constructed by an established meaning of the verb combining with one of the meanings of the preposition. She explained that the embodied basis of meaning that underlies verbs and prepositions informed the composite meaning, revealing that the meanings of the phrasal verbs she examined is far from arbitrary and can be systematically explained. For example, in her analysis of the phrasal verb *take over*, she explains that:

[t]his sense is … derived from the central sense [of the verb] and denotes that the TR is assuming some control or responsibility over the LM. Take indicates possession or control of an object as a result of an embodied experience of getting hold of the object. The particle denotes the extended Control Sense in which the TR exerts power and influence over the LM. In addition, the particle designates a sense of transferring the TR from the previous source of power to a new source. Thus, in this construal the particle exhibits double resonance of control and transfer from one source to another, featuring both senses. (Mahpeykar, 2014, pp. 133-134)

I believe that applying this type of analysis to the semantics of Arabic prepositional verbs can enlighten our understanding of these constructions. Let us return to the prepositional verb حصل على *ḥaṣala ‘alā ‘obtained’ as an example. The verb حصل *ḥaṣala synchronically means ‘happened’ when in isolation. At first glance it is not clear how the meaning ‘happened’ in combination with ‘alā could be contributing to the overall meaning ‘obtain’. However, the
relationship between the two and meaning contributed by ‘alā can be explained when we apply
the analysis followed by Mahpeykar (2014).

First, let us start by discussing the polysemy of the verb حصلُ ḥaṣala. While a principled
polysemy analysis of the meanings associated with this verb is preferred, I will rely on a sample
of derivative nouns and verbs that are based on the verbal root to give a picture of its meaning
spectrum. As I mentioned earlier, the verb حصلُ ḥaṣala synchronically means ‘happened’ as in
the following example from the corpus:

وعدُها ألا يخبر والدتها وأختها عما حصل (4.48)

waʿada-hā ʿalla yuxbira wālidata-hā waʿuxta-hā ʿammā ḥaṣala
promised.3MSG not 3MSG.tell.IPVF mother-her and sister-her what happened.3MSG
He promised her not to tell her mother and her sister about what happened

Also, this verb has a more complex meaning according to the classical dictionary Lisān Al-Arab
(Ibn Manẓūr, 1970). According this dictionary, the verb root حصلُ ḥaṣala is described as having
the following complex meaning:

بقي وثابت وذهب ما سواه (4.49)

baqiya wa ṣabata wa ḏahaba mā sīwā-hu
remained.3MSG and sustained.3MSG and went.3MSG what other-it
Remained and sustained while the rest was removed

I argue that this meaning is the result of an embodied experience revolving around the process of
collecting and separating grains. I further argue that this primary meaning along with the
embodied experience I am about to describe are key in understanding the meaning of the
prepositional verb being discussed. The embodied basis that will be proposed here can be
asserted given the meanings of some of the derivative words linked to the trilateral root حصلُ ḥaṣala.
$h$-$ṣ$-$l$. For example, some of these words are (1) $̱alḥaṣl$ meaning grains that fall on a threshing floor after threshing and winnowing; and (2) $̱alḥaṣl$ meaning scattered premature dates that fall from a palm tree (Ibn Manẓūr, 1970). While these forms are dated and are no longer commonly used, some of the more synchronically common derived forms are (1) the noun $a̱ḻm̱aḥṣūl$ meaning ‘harvest’ and (2) the verb $ha̱ṣṣala$ meaning collected or gathered. It can be gleaned from these derived forms that some of the meanings expressed by this verb are fell, gathered, sustained, happened, and accumulated. Specifically, the meaning fell appears to be central to this verb. This is demonstrable by their replaceability in the following sentences:

\[
\text{حصل له حادث (4.50)}
\]

\[
\begin{align*}
\text{حاسللا } & \text{ la-hu } \text{ حديثن} \\
\text{happened.3MSG for-him accident} \\
\text{An accident happened to him}
\end{align*}
\]

\[
\text{وقع له حادث (4.51)}
\]

\[
\begin{align*}
\text{وقا } & \text{ la-hu } \text{ حديثن} \\
\text{fell.3MSG for-him accident} \\
\text{An accident fell upon him}
\end{align*}
\]

The above spectrum of meanings associated with the form $ha̱ṣṣala$ tells the story of embodied semantics, which can explain the composite meaning of the prepositional verb $حصل على $ $haṣṣala$ ‘alā. The meaning of $حصل على $ revolves around harvest and grains and describes how grain was gathered and separated before the existence of machinery. Until relatively recently, threshing or removing the grain of wheat or barley from the stalk was done on a flat area of hard dirt or rock where grain could be knocked off the stalk either by hand, by stomping on it by feet, or by driving cattle over it. To separate the grains further, winnowing, i.e., separating the mixed-
up pile of grain and husk, was done by picking up the threshed crop with a farmer’s fork and throwing it up into the air. As a result, the wind would blow the light pieces of the stalk to the side. The end result is a scene where the grains fall to the hard, threshing ground (the verb meaning ‘fall’ is central to this scene) and gradually accumulates on the hard, threshing ground (the action is grounded in this location through the meaning contributed by ʿalā) with the stalk blown off to the side. It is only when the entire process is completed that the farmer ‘obtains’ the clean grain.

This embodied experience suggests that the meaning of the collocation حصل على hasala ʿalā is motivated by the semantics of the verb and the preposition, together meaning to accumulate on a surface. With the meaning of the verb primarily describing a process of collecting and accumulating, the preposition represents the meaning component of a surface on which the process is completed. There can be no successful process of threshing without a threshing surface. Hence, a key component in this spatial scene is the LM or surface which provides support for the activity.

Generally, the issue of prepositional verbs has received a lot of attention in English, and several tests have been suggested to differentiate between prepositions and particles and to evaluate the semantic and syntactic tightness between the verb and the preposition. The issue remains understudied when it comes to Arabic. The absence of semantic and syntactic tests that could screen for the verb-preposition unity in prepositional verbs versus verb-PP structures and that are specific to Arabic calls for attention and warrants future research.

In a final note to sum this chapter, it can be said that while the analysis presented in this dissertation described the detailed polysemy of ʿalā and fī in unprecedented ways, a significant amount of research is still warranted before the entire territory occupied by Arabic spatial
expressions is said to be fully explored. The rest of the Arabic prepositions and particles are yet to be explained in motivated ways.
Appendix A

- List of works and number of words that make up the Modern Literature corpus:

  - رائحة البحر: 38,485 words
  - مدبولي: 40,042 words
  - لا أحد ينام في الاسكندرية: 98,580 words
  - عمارة يعقوبيان: 55,191 words
  - شيكاجو: 77,026 words
  - تاكمي: 28,391 words
  - ميرامير: 35,579 words
  - الكرنك: 13,742 words
  - صدى النسيان: 6,276 words
  - أصداء السيرة الذاتية: 11,542 words
  - أولاد حارتنا: 104,684 words
  - ذاكرة الجسد: 71,065 words
  - عابر سرير: 53,925 words
  - فوضى الحواس: 57,418 words
  - بنات الرياض: 56,173 words
  - الولي الطاهر يعود إلى مقامه الزكي: 19,271 words
  - الولي الطاهر يرفع يديه بالدعاء: 19,957 words
  - الحوات والقصر: 26,756 words
  - عرس الزين: 16,283 words
تراثها زعفران: إدوار الخرات with 20,475 words
الشيخوخة وقصص أخرى: بطيفة الزياث with 19,556 words
قصص ليحيي حقي: بحبي حفي with 9,409 words
مملكة الغرباء: إلياس خوري with 19,790 words
أم سعد: غسان كنفاني with 6,623 words
عادل إلى حيفا: غسان كنفاني with 11,326 words
مسرحية الباب: غسان كنفاني with 9,263 words
سر الحياة: نجاة حالو with 11,211 words
معامرة رأس المملوك جابر: سعد الله نونس with 17,659 words
لا تقع عينيك يا أوديب: نميم صانب with 7,607 words
ختم لذاكرة بالشع الأحمر: غادة الاسم with 4,070 words
أولادنا في لندن: علي سالم with 16,865 words
حيث لا تسقط الأمطار: أمجد ناصر with 41,931
Appendix B

- The Python code used to extract random lines from a file with right-to-left characters:

```python
from random import shuffle
import sys
import codecs

number_of_lines = int(sys.argv[1])
lines = codecs.open(sys.argv[2], encoding='utf-16').readlines()

#lines = text.split("\n")

shuffle(lines)
lines = lines[:number_of_lines]
lines = "\n".join(lines)

codecs.open("random_lines.txt", mode="w", encoding='utf-16').write(lines)
```
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