

Grammatical Relations in Standard Arabic: A Cognitive Perspective⁽¹⁾

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Abstract:

Cognitive grammar promotes the idea that grammar is not a set of formal rules that one should learn, but it also interacts with our cognitive faculties that access human cognition. Examples of these rules are the grammatical relations, subject, trajector and landmark, figure and ground, direct object and indirect object. In addition to their outer form, i.e. the grammatical structures in which they are arranged at any level of organisation, they have got an internal structure and internal interpretation that are mentally schematised. To see how the Arabic language internally portrays and mentally schematises these basic grammatical relations, the current paper falls back on Langacker (1987; 1991;2008;and 2009) and Talmy (2000). Throughout the application of these theories, it has been noticed that Arabic exhibits the four topicality factors—semantic role, empathy hierarchy, definiteness, and figure/ground organisation— to show which participant can be chosen as subject, trajector, or figure, and also which participant is favoured to be structured as direct object, indirect object, landmark or ground.

العلاقات النحوية في اللغة العربية الفصحى من منظور ادراكي

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الملخص:-

تدعم نظرية النحو الإدراكي الفكرة القائلة بأن النحو ليس مجرد مجموعة قواعد قابلة للتعلم، بل انه يتداخل مع ملكاتنا الإدراكية التي تلج الإدراك البشري. من الامثلة على تلك القواعد العلاقات النحوية، والفاعل، والمسار، والمعلم، والصورة والخلفية، والمفعول به المباشر والمفعول به غير المباشر. بالاضافة الى مبانيها الخارجية، اي التراكيب النحوية التي تنتظم حولها في اي مستوى، فإن لها تركيباً داخلياً وتأويلاً داخلياً والذي يتمثل ذهنياً. ولمعرفة كيف ان اللغة العربية تصوّر ذهنياً تلك العلاقات النحوية، تعتمد هذه الورقة البحثية على نظريات لانغكر (١٩٨٧:١٩٩١؛ ٢٠٠٨؛ ٢٠٠٩) وتالمي (٢٠٠٠). ومن خلال تطبيق نظريتهما، لوحظ ان اللغة العربية تظهر عوامل الموضوعية الاربعة وهي - الدور الدلالي، والتسلسل الهرمي لمواقع المشاركين، والتعريفية، وترتيب الصورة والخلفية - لتعكس اياً من المشاركين يتم اختياره بوصفه فاعلاً، او مساراً، او صورة وكذلك لتعكس اياً من المشاركين يفضل ان يكون مفعولاً به مباشراً، او مفعولاً به غير مباشر، او معلماً، او خلفية.

1.Introduction

The seminal work of Ronald Langacker (1987 V1 and 1991 V2) marked the insightful and inspiring beginning of Cognitive Grammar (henceforth CG) . CG first emerged under the rubric of Space Grammar. The oft-noted point that must be taken under advisement is that CG was neither derived from other theories of grammar nor is it close to any of them (Langacker 1981; 1982; and 2007).

CG looks at language as part of human cognition, and it interacts with other cognitive faculties: these are perception, attention, and memory. In CG, the meaning of a linguistic expression resides in the way we observe a situation alternatively—a phenomenon that is dubbed construal. Moreover, the cognitive approach to grammar describes language in terms of three structures: the phonological structure, which aims at describing language in its perceptible forms as they are connected via symbolic relations; the semantic structure, which describes the conceptual content of words as their meanings are inherited in the mind of interlocutor; and the symbolic relations that looks into the interaction between the phonologic and the semantic structures (Langacker (2002); Taylor (2002); and Radden and Dirven (2007).

There are different approaches to cognitive grammar, of which are Langacker (1987; and 1991) and Talmy's (2000) two volumes under the rubric of conceptual structuring systems and typology and process in concept structuring. Constructional approaches to cognitive grammar are only four:Goldberg's (1995) argument structure; Croft's (2001) radical construction

grammar, Bergen's and Chang 's (2005) embodied construction grammar, and Steels' (2011) fluid construction grammar.

2. Basic Grammatical Relations

The first basic grammatical relation is termed subject. Cognitive salience is the characteristic feature of subjects. One kind of this cognitive salience is topicality—a phenomenon whose factors line up by their degree of objective. Topicality has four objective factors. The first objective factor is the semantic role of an entity; how this entity participates in the event. The second objective factor is the empathy hierarchy (a participant's location). The third factor is definiteness, which is considered subjective because it has nothing to do with the inherent nature of a participant but with its highly intrinsic property. The fourth objective factor is the figure/ground organisation (Langacker, 1991).

The second basic grammatical relation is the direct object. The object, like the subject which is the first-most prominent participant at the clausal level, is the second-most prominent participant. Further, the four cases of topicality, semantic role, empathy, definiteness, and figure/ground organisation, are applied to object (Langacker, 1991).

The third basic grammatical relation is the indirect object. Indirect object stands for the verbal complements that behave as object-like. Indirect objects are commonly identified as nominals, participating in what is dubbed Dative Shift alternation in which a to-object moves to occupy an immediate post-verbal position and loses the preposition. CG, accordingly,

defines an indirect object as the active experiencer in the target domain(Langacker, 1991).

In relation to the flow of energy, as far as the indirect object is concerned, two domains are distinguished: the source domain, which comprises agent and instrument, and the target domain, which constitutes the theme and an extra-thematic experiencer. An agent and an instrument both transfer energy to another participant; therefore, they are alike—and unlike a theme or experiencer. This distinction is made between active and passive participants. An active participant is the participant that serves as the original source of energy and initiates an interaction. The agent, within the source domain, is the active participant. The experiencer, within the target domain, is initiative, since it generates the cognitive activity by which an internal representation is performed or mental contact is entrenched. Finally, the inherent cognitive salience of agent and the "makes them the unmarked choices to be coded as focal participants" (Langacker, 1991:327).

The asymmetry of trajector and landmark is essential with respect to relational predications and governs the universal subject/object distinction. Trajector is defined as the figure in relational profile; other entities that are salient in nature are defined landmarks (Langacker, 1987) .

The trajector/landmark asymmetry is broadly applicable to the subject/object distinction, where the subject and the object (nominals) need to be spelt out overtly. By contrast, the trajector/landmark alignment applies to the internal structure of relational predications, at any level of arrangement. Trajector

and landmark are often relational rather than nominal that need not to be spelt out overtly (Langacker, 1987) .

The trajector (tr for short) is the most prominent entity in a profiled relationship, which is constructed as being located, evaluated, or described. The trajector, impressionistically speaking, is characterised as the primary focus. The landmark (lm for short) is characterised as the secondary focus within a profiled relationship (Langacker, 2008). In (2009), Langacker accounted for the possibilities of alternations in trajector/landmark alignment, how the actor can be defocused, and the structure of non-participant trajectors.

In a single clause, the Figure is an entity that is movable or conceptually movable. Its path, site, or orientation is understood as changeable. The Ground is defined as a reference entity. It has a stationary setting with respect to a reference frame by which the path, the cite, or the orientation of the Figure is characterised. In a complex sentence, the Figure is seen as an event where its location in time is realised as variable, and the Ground as a reference event (Talmy, 2000).

Talmy (2000) identified five basic principles of figure/ ground organisation:

1. Sequencing Principle

Between two events in a temporal sequence, the unmarked linguistic expression treats the Ground as an event with a reference point and the Figure as an event that requires reference.

2. Cause-Result Principle

In this principle, the unmarked linguistic expression for a causal relation between two events looks at the Figure as the resulting event and the Ground as the causing event.

3. Inclusion Principle

This principle conceives the Figure as the main clause's contained event and the Ground as a temporally containing event in the subordinate clause.

4. Contingency Principle

The Ground acts as a second event in the subordinate clause with respect to the Figure in the main clause that acts as the second event that is contingent or dependent on the Ground.

5. Substitution Principle

The Ground acts as expected but nonconcurring event in the subordinate clause and in relation to the Figure, which acts as unexpected event in the main clause.

A single clause is capable of showing the complexity in the semantics of one Figure/Ground relationship, which is entrenched within a second one, in this regard some nominals within that clause have dual functions.

3. Arabic Basic Grammatical Relations

This section concentrates on the applicability of CG to the basic grammatical relations in standard Arabic, starting from the subject, through the figure/ground organisation and trajector/landmark alignment, and ending up with the indirect object.

3.1 Subject

The subject in standard Arabic is characterised by cognitive salience. One facet of cognitive salience is what is dubbed topicality. Topicality in Arabic exhibits four factors. The first

objective factor is the semantic role of an entity, which expresses how entities participate in the event, and the second objective factor is empathy, through which entities are located. These two objective factors are seen in the following Arabic examples.

1. طاردني الاسد.

The lion chased me.

2. طوردت من جانب الاسد.

I was chased by the lion.

3. طاردت الاسد.

I chased the lion.

4. ?? طورد الاسد بواسطتي.

The lion was chased by me.

Because the most agentive participant is selected as subject, the active sentences are quite natural. The analogous passive constructions are not equally propitious. In (2), the subject choice pertains to the empathy hierarchy. Because the subject is less agentive in (4), it ranks lower than the other participants.

The third objective factor is definiteness, which is considered subjective because it has nothing to do with the inherent nature of a participant but with its highly intrinsic property.

5. ? الصداع الهوسي يبتلي نسرين.

Hypnic headaches plagues Nasreen.

6. ? حوض سباحة في منزل نسرين.

A swimming pool is in Nasreen's house.

7. ابتليت نسرين بالصداع الهوسي.

Nasreen is plagued with hypnic headaches.

8. هناك حوض سباحة في بيت نسرين.

There is a swimming pool in Nasreen's house.

Sentences in (5) and (6) seem awkward and must be avoided because the subject in (5), الصداع الهوسي, and the subject in (6), حوض سباحة, have a tendency to be definite. Thus, a natural path, which has a starting point that singles out the speaker-hearer direct attention to a particular instance t_i of the given type, is defined by the hierarch definite > specific definite > non-specific indefinite. The fourth subjective factor of topicality will be discussed in details in the following sections.

3.2 Figure and Ground in a Single Clause

A Figure is a movable or conceptually movable participant in a single clause, while a Ground stands in contrast to a Figure in that it is a stationary participant. The implicit pronoun هو in (9) and (10) functions as the Figure, and الاريكة and النافذة function as the Ground. The second clause is diagrammed in Fig. (1).

9. تمدد فوق الاريكة (www.arabicorpus.com)

He lay on the couch.

10. سقط من النافذة (www.arabicorpus.com)

He fell of the window.

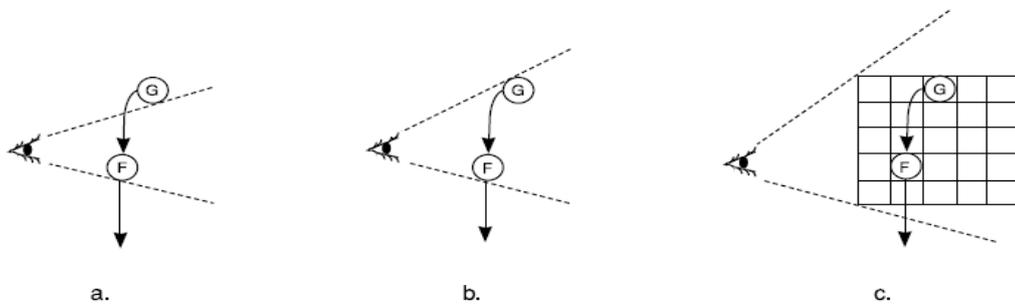


Figure (1) adopted from Talmy (2002: 312)

In (a), an observer or a conceiver sees only the Figure, in (b) the conceiver sees both the Figure and the Ground, and in (c) the conceiver knows which entity is stationary and which one is movable.

The Figure or the Ground are , in some cases, "multiplicity of points", "a linear extent", "an area, or a volume".

11. ملاً الماء الخزان

Water filled the tank.

12. تدفق الشلال على جانبي الجبل

The waterfall flowed on the sides of the mountain.

Sometimes the Figure and the Ground are in a locational event in which they are stationary:

13. يقع الميناء قرب الضفة الغربية

The port(F) is near the West Bank(G).

14. الضفة الغربية تقع الميناء.

The West Bank (F) is near the port(G).

The sentences are nonsynonymous because of the differentiability by which their nominals determine the semantic functions of the volatile and fluctuating point and reference point.

15. يقع الميناء والضفة الغربية بالقرب من بعضهما البعض ?

The west bank and the port (F₁&F₂) are near each other (G₁&G₂).

An otherwise symmetrical relation بالقرب is one method in reversing the nominals in sentences to feature the roles Figure and Ground in a location. The same method is applied to an asymmetrical relation.

16. الكأس فوق المنضدة

The cup is on the table.

17. المنضدة تحت الكأس?

The table is under the cup.

The functions of the Figure and Ground stretch out to some nonphysical situations , i.e. situations that include relational states behaving homologously with the preceding physical ones.

18. يشبهها

He resembles her.

19. تشبهه

She resembles him.

The second name functions as a reference point and the first name has a variability whose value is under consideration . The asymmetry discussed earlier is pinpointed by picking objects with offbeat abilities to function as a reference point.

20. يشبه اخي كريما

My brother (F) resembles Kareem(G).

21. يشبهه كريم اخي?

?Kareem (F) resembles my brother(G).

In a motion sentence like (22), there is a change of relational state:

22. نشأت لتشبهه ونشأ ليشبهها

She grew up to resemble him and he grew up to resemble her.

3.3 Figure and Ground in a Complex Sentence

In the previous section, the Figure and the Ground have been seen as two conflicting and contrasting participants that are bunched up in a single clause. Here, these tow participants are structured differently in that they are congregated and organised in a complex sentence. In temporal structures, the semantic

categories, the Figure and Ground, are seen in the following complex sentence.

23. انفجر ضاحكا بعد ما رآها.

He burst out laughing after he saw her.

The sentence assigns a Ground reading to the her-seeing event— it sets it up as reference point— and assigns a Figure interpretation to the burst-out laughing event.

Moreover, the sentence consists of a main clause and a dependent clause with a subordinating conjunction. Syntactically, it is derived from a deeper construction of a different form. This form is shown in a surface structure that is composed of two nominalized clauses, an occurrence verb, and a subordinating preposition, as in:

24. بعد رؤيته لها حدث انفجاره ضاحكا.

His bursting out laughing (F) occurred after his seeing of her (G).

25. رؤيته لها حدثت قبل انفجاره ضاحكا.

His seeing her occurred before his bursting out of laughing.

In all three sentences, the subject(-like) constituent serves as Figure and the object (-like) serves as Ground.

For the second event in the relation, as the following sentences reveal, it is necessary for the occupation of the extent of time to be bounded at both ends because the second clause, which specifies an event, is not bounded at either end, as in:

26. كانت تعمل في السفارة في الوقت الذي كان والدها في / * كان والدها ميتا. امريكا

She was working at the Embassy the time her father was in America/* her father was dead.

If the two clauses are reversed, the first event in the relation need not to be bounded at both ends.

27. كان والدها في امريكا/ ميتا في الوقت الذي كانت تعمل في السفارة

Her father was in America/dead the time she was working at the Embassy.



Figure (2) adopted from Talmy (2002: 324)

3.3.1 Temporal Sequence (with causality)

28. غادرنا بعد وصوله/ بعد ان وصل

We left after his arrival / after he had arrived.

29. وصل قبل مغادرتنا/ قبل ان غادرنا

He arrived before our departure / before we had departed.

*He arrived to-the-occasioning-of-(the-decision-of) our staying home.

3.3.2 Temporal Inclusion

30. كانت لديه مشكلة عويصة اثناء انتخابه / بينما كان منتخبا

He had a serious problem during his election / while he was elected.

*He was elected through-a-period-containing a serious problem.

3.3.3 Contingency

31. كان يتأوه اثناء رقوده في المستشفى / طوال الوقت الذي رقد فيه في المستشفى
المستشفى/ بينما كان راقدا في المستشفى

He wailed during his stay in hospital./ the whole time he stayed in hospital./ while he stayed in hospital.

*He stayed (during _{INV} his wailing/ while _{INV} he stayed.)

3.3.4.Substitution

32. انه يلهو بدلا من/ عوضا عن ان يدرس

He is playing instead of / rather than studying.

*He is not studying *in-replacement-by* toying.

3.4 Principles

Principles are five. They are discussed in the following section with respect to standard Arabic.

3.4.1 Sequence Principle

In a temporal sequence, the unmarked linguistic expression between two events assigns the Ground as a reference-point even, while the Figure a required-reference event. This is seen in (33).

33. a. وصل؛ غادرنا بالرغم من وصوله

He arrived; we left despite of his arriving.

[= وصوله] وصل؛ غادرنا بالرغم من

b. حطمت المنضدة بالضرب عليها بشيء

She marred the table by acting on it with something.

[بالضرب عليها بشيء] حطمت المنضدة

c. رميت الكرة اسفل التل

I threw the ball down the hill.

[انا MOVED الكرة اسفل التل عن طريق رميها =]

3.4.2 Cause-Result Principle

Here, between two events, the unmarked linguistic expression of a causal relation marks the Figure as the resulting event while the Ground as the causing event.

34. [رحلت] OCCUR AT [رقد] [THE END OF]

a. [رحلت] END AT [رقد]

b. [رحلت] EXTEND TO [رقد]

These two sentences give rise to the roughly alternative surface sentences:

35. a. انتهى بقاءه عندما غادرت.

His stay ended when she had gone.

b. بقي حتى غادرت.

He stayed (continued staying) until she had gone.

3.4. 3 Inclusion Principle

The Figure, so conceives the inclusion principle, is an event being contained in the main clause, and the Ground is a temporally containing event in the subordinate clause.

36. غادرنا بعد وصوله/ بعد ان وصل.

We left after his arrival. / after he had arrived.

3.4.4 Contingency Principle

With respect to the Figure that functions as the second event in the main clause contingent or dependent on the Ground, the Ground functions as a second event in the subordinate clause.

37. كان يتأوه اثناء رقوده في المستشفى / طوال الوقت الذي رقد فيه في المستشفى / بينما كان راقدا في المستشفى

He wailed during his stay in hospital./ the whole time he stayed in hospital./ while he stayed in hospital.

3.4. 5 Substitution Principle

The Ground, as far as substitution principle is concerned, is an expected but a nonconcurring event in the subordinate clause and with respect to the Figure, which is an unexpected event in the main clause.

38. هو يلهو بدلا من/ عوضا عن ان يدرس.

He is toying instead of / rather than studying.

3.5 Figure and Ground in Self- Referencing Event

In a self-referencing event, a clause such as (39) designates a motion event where اللاعب, as Figure, moves in relation to الكرة, as Ground. Likewise, the event exhibited by (40) is a motion event where the Figure, الكرة, moves with respect to the Ground, اللاعب.

39. تدحرج اللاعب باتجاه الكرة.

The player rolled towards the ball.

40. تدحرجت الكرة باتجاه اللاعب.

The ball rolled towards the player.

In the following complex situation that is composed of two events occurring concurrently, that is of the two entities, each, as Figure, moves in relation to other, as Ground.

41. a. اللاعب تدحرج باتجاه الكرة وتدحرجت الكرة باتجاه اللاعب.

The player rolled towards the ball and the ball rolled towards the player.

b. تدحرج اللاعب والكرة باتجاه بعضهما الاخر.

The player and the ball rolled towards each other.

c. تدحرج اللاعب والكرة معا.

The player and the ball rolled together.

This situation is conjunctive and complex. It is also analysed as a single motion event where a set of entities serving as a composite Figure, which moves in relation to a set of entities function as a composite Ground— given the symbols F' and G'. Any situation that is analysed in this way is referred to as a self-referencing Motion event.

There is a case of a Motion event that is only considered as a self-referencing Motion event and not as a conjunction of simple Motion events— a situation in which Figure objects and

Ground objects do not adhere to a definite specification to number. They are of an unknown number—they are nonnumerate. Accordingly, the objects' spatial relations are to be seen as a configuration but not bulk of simple relations between pairs of objects.

42. طففت الزوارق على الماء.

The boats floated on water.

43. طففت الزوارق في الماء.

The boats floated in water.

44. طففت الزوارق خارج الماء.

The boats floated out water.

It is high time to account for a self-referencing Motion event in which Figure objects are nondiscrete: the semantic functions performed by the whole are branded as meta-Figure and meta-ground. They are symbolised as F" and G".

45. تمددت كرة القدم لتأخذ شكلا دائريا / انسحبت كرة القدم.

The ball pulled out / The ball expanded into a round shape.

46. انكمشت كرة القدم لتأخذ شكل الانبوب / انكمشت كرة القدم.

The ball shrank in/ The ball shrank into a tube shape.

47. كرة القدم دائرية.

The ball is round.

In these examples, the motion of the nondiscrete components of كرة القدم in (46) and (47) , as composite Figure, proceed بعيدا عن each other, as composite Ground.

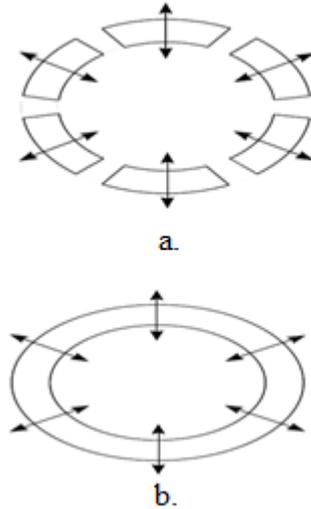


Figure (3) adopted from Talmy (2000: 332)

Accordingly, the understanding of the self-referencing locative event of (48) is only arrived at by virtue of components that are connected to each other in a configuration —as if this event were represented by عناصر كرة القدم في [حالة ترتيب] كروي— although the shape round is only applied to the meta-Figure as a whole.

The Arabic language has some predicates organised at the lexical level taking a meta-Figure to function as subject or direct object and spelling out its self-referencing Motion, as in (48).

48. تكسرت سفني (www.arabicorpus.com)

My ships broke.

59. تهشم الزجاج (www.arabicorpus.com)

Glass shattered.

50. قد انثنت اطرافه (www.arabicorpus.com)

Its limbs buckled.

ورفرت الاعلام التونسية على طول الشوارع والجادات.51

(www.arabicorpus.com)

Tunisian flags furlled up along streets and avenues.

52. تجعد الحائط في برلين (www.arabicorpus.com)

The wall crumpled in Berlin.

3.6 The Grammatical Relations of Figure and Ground

In cases other than those discussed earlier, the nominals exhibits the same semantic function, although there are certain grammatical relation changes, as in the following examples.

53. ملأ الغبار الغرفة.

Dust filled the room.

ملأ الغبار (F) الغرفة (G).

54. امتلأت الغرفة بالغبار.

The room filled with dust.

امتلئت الغرفة (G) بالغبار (F).

55. تنبعث من البيوت (F) رائحة الصابون (G) Basic:

The smell of soap suffuses through the houses.

56. البيوت (G) تنبعث منها رائحة الصابون (F) Reverse:

The houses suffuse with the smell of soap.

57. انا (A) بعثت رائحة الصابون (F) من البيوت (G) Basic:

I suffused the smell of soap through the houses.

58. انا (A) بعثت من البيوت (G) رائحة الصابون (F) Reverse:

59. جف الماء (F) من الهور (G) Basic:

Water drained from the marsh.

60. جف الهور (G) من الماء (F) Reverse:

The marsh drained of water.

61. جففت (A) الهور (G) من الماء (F) Basic:

I drained the marsh of water.

3.7 Complex Ground in a Complex Constituent

This sentence is not to be taken as having two Paths and two Grounds, since it designates an event where the Figure follows a particular Path and a particular Ground. The Path and Ground are complexly constructed.

62. تدحرج الطفل من اعلى الدرج الى الارض.

The child rolled off the stair onto the ground.

3.8 Indeterminacy of Figure/Ground Assignment

In Arabic, there syntactic formations depicting a motion event between two objects, but it is not understandable and apparent which object has the function of Figure and which one has that of Ground. It is also not apparent whether the two objects are Figures that move relative to their opposites Grounds, as in (63).

63. (www.arabicorpus.com) وضع يدا فوق يد.

He put a hand over a hand.

In (63), it is equivocal whether the implicit pronoun هو , which is attached to the stem verb يضع , moved اليد اليمنى over اليد اليسرى , moved اليد اليسرى over اليد اليمنى , or moved them together at the same time.

3.9 Trajector as Figure

In some grammatical structures, whether they are transitive or intransitive, a trajector serves as figure. In (64), the verb يقرأ in Arabic, as far as the internal structure of a predicate is concerned, is both transitive and intransitive.

64. (<https://www.almaany.com/>) قرأ الكتاب.

He read the book.

65. (www.arabicorpus.com) يقرأ القارئ.

The reader reads.

In (64) the landmark is overtly spelled out, while (65) has a schematically characterised landmark.

At the clausal level, traditionally speaking, subjects and direct objects are only nominals. Trajectors and landmarks are considerably larger in population, as in:

غادرت ليلى بسرعة قبل ان يحضر مازن الحفلة الصاخبة.66

Layla left quickly before Mazin attended the noisy party.

Despite the absence of an elaborating nominal, the verb *غادر* is marked an internal landmark. Although it has no subject and no object, the adverb *بسرعة* has a trajector and landmark. Its process is a trajector, as it is elaborated by *غادر*, and its unelaborated landmark is the predication that regions this process along a rate scale. Similarly, the adjective *صاخبة* does have a trajector and landmark: its trajector corresponds to the profile of *الحفلة*, and its landmark pertains to a scale of sound — that is not individually articulated. Finally, the clause positioned before *قبل* is its trajector, and the second clause positioned after *قبل* is its landmark.

3.10 Trajector and Landmark

Though they traditionally refer to subject/object distinction, trajector and landmark are internally structured with respect to relational predications: they are relational in that they need not to be expressed explicitly.

With respect to *tr* and *lm*, the semantic contrast between the two Arabic prepositions *فوق* and *تحت* resides in the degree of participants' prominence. *س فوق ص* specifies the location of the higher participant (the location of *س*), while *ص تحت س*

specifies the location of the lower participant (the location of ص). In both cases the other participant serves as the spatial landmark.

67. (lm) الكتاب (tr) فوق المنضدة

The book is on the table.

68. * (lm) المنضدة (tr) تحت الكتاب

The table is under the book.

69. اين المنضدة؟

Where is the table?

a. (lm) المنضدة (tr) تحت الكتاب

The table is under the book.

b.* (lm) الكتاب (tr) فوق المنضدة

The book is on the table.

In (67) الكتاب (the book) is the thing being located: it, therefore, functions as the trajector.

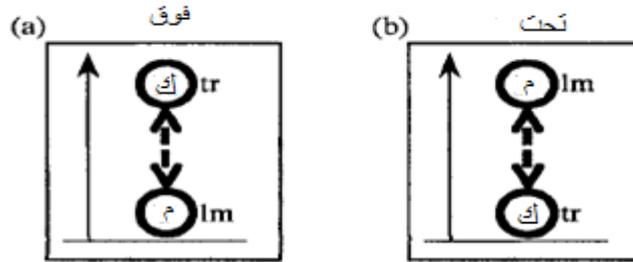


Figure (4) adopted from Langacker (2008:71)

Some relational expressions bear one focal participant, which is the primary focal participant—a trajector. Arabic verbs like *اتى* and *وصل* profile the transition of the mover along space, which has a set of locations that the mover occupies. These locations, which do not stand as focused elements, remain in the

background, although these locations back up the conception of spatial movement. Such verbs have trajector but no landmark.

70. اتي الشخص

The person comes.

71. وصل الشخص

The person arrived.

Though depicting a relationship whereby the mover occupies, successively through time, all positions defining the path, they differ in that the meaning of اتي profiles a full conception of motion event, while وصل invokes how the mover reaches the goal. It is important to note that the mover of اتي traverses the entire path.

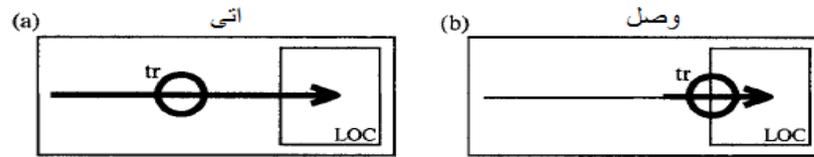


Figure (5) adopted from Langacker (2008:69)

Neither should a trajector be a mover nor should a mover be a trajector. Instead trajector and landmark are defined by virtue of focal prominence, primary and secondary. This is seen with non-motion expressions such as those in (72) and (73).

72. لدى الاطفال ام

Children have a mother.

73. لدى الام اطفال

The mother has children

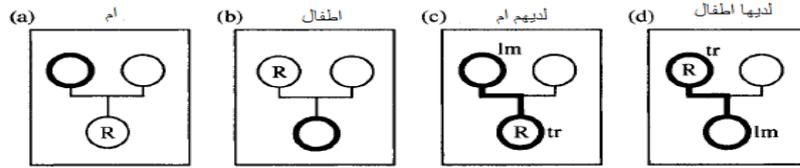


Figure (6) adopted from Langacker (2008:68)

As shown in figure (6), although (72) and (73) profile the same relationship, they are semantically distinct because of their opposite trajector/landmark alignments: (72) describes *الاطفال*, whereas (73) describes *الأم*.

In Arabic *قبل* and *بعد* profile a relationship of temporal precedence between two events that are relational participants; but they are themselves relational expressions because they are spelled out in finite clauses, as in (74) and (75).

74. *غادر منير قبل ان تصل ليلى الى الغرفة.*

Muneer had left before Layla arrived to the room.

75. *وصلت ليلى الى الغرفة بعد ان غادر منير.*

Layla arrived to the room after Muneer had left.

Both *قبل* and *بعد* designate the same relationship: they contrast semantically in their choice of trajector and landmark.

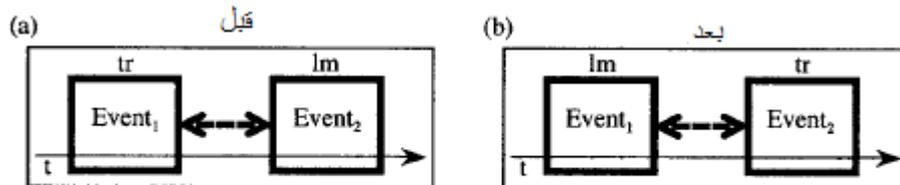


Figure (7) adopted from Langacker (2008:72)

Trajector and landmark pertain to one component of viewing arrangement, the namely vantage point. The vantage point is the actual location of the trajector and landmark. This gives the possibility to construe and observe a situation from different vantage points. This is clear in expressions such as *أمام* and *خلف*.

76. (www.arabicorpus.com) *امام تلك المدرسة جامع الازهر*

Alazhar mosque is in front of that school.

77. *خلف جامع الازهر تلك المدرسة*

That school is in front of Alazhar mosque.

These two expressions specify the trajector's location by relying on vantage point vis-a-vis the landmark. As sketched in the following figure, VP stands for the vantage point and a dashed arrow labels the viewer's line of sight.

78. a $VP_1 \dots >$ (جامع الازهر) _____ (تلك المدرسة) $< \dots VP_2$

b. VP_1 : (tr) *جامع الازهر* (lm) *امام تلك المدرسة*. (tr) *تلك المدرسة*
(lm) *خلف جامع الازهر*

c. VP_2 : (tr) *جامع* (lm) *امام جامع الازهر* (tr) *تلك المدرسة*
(lm) *خلف تلك المدرسة* (lm) *الازهر*

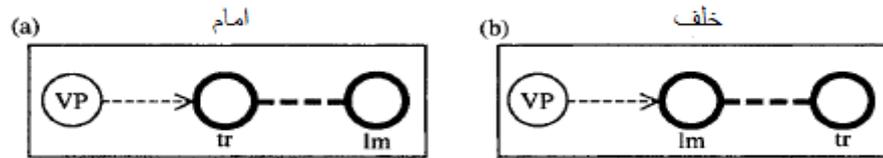


Figure (8) adopted from Langacker (2008:68)

79. *الولد في الغرفة*

The boy is in the room.

80. اعيد تأهيل داخل الغرفة.

The inside of the room is rehabilitated.

81. دخل الغرفة بتردد.

He walked in on the room hesitantly.

82. استغرق دخوله الغرفة بضع دقائق.

His entrance to the room took few minutes.

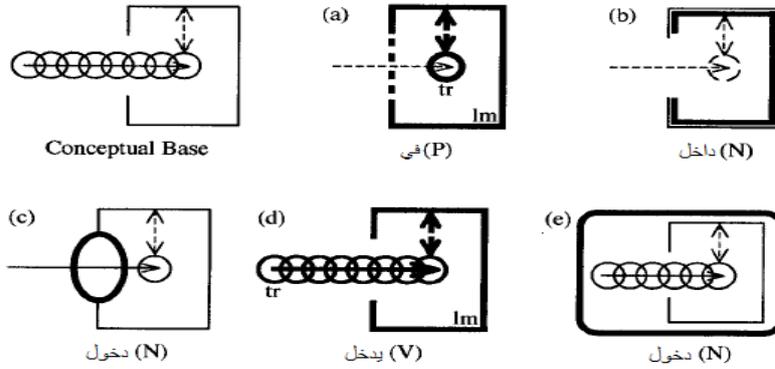


Figure (9) adopted from Langacker (2008:101)

3.11 Alternation in Trajector/Landmark

Most Arabic expressions describe the same situations by focusing on different aspects of that situation in question. As seen in the following expressions, the Arabic language describes the same situation by highlighting alternate choices of landmark, as expressed by first object nominal: they are used to describe the same situation.

83. يدرس صادق اللغة العربية لطلبة الصف الخامس.

Sadiq teaches the Arabic language to the 5th grade.

84. يدرس صادق طلاب الصف الخامس اللغة العربية.

Sadiq teaches the 5th grade students the Arabic language.

85. يدرس صادق المدرسة الثانوية.

Sadiq teaches the secondary school.

يدرس صادق الصف الخامس. 86.

Sadiq teaches the 5th class.

The oft-noted contrast between (83) and (84) spells out the choice of conferring of the trajector— the secondary focal prominence— on either to the topic of instruction or else the recipients of knowledge. Moreover, the contrast between (83) and (84) lies beyond the fact that (83) lays greater emphasis on the theme as it moves or becomes accessible to the recipient. In (84), the ditransitive construction lays greater emphasis on the situation where the recipient controls or apprehends the theme. (85) and (86) shift focal prominence to a circumstantial element—that the teaching activity is either situated with respect to the institution or its instruction levels is the most prominent component relation of the teaching activity.

3.12 Actor Defocusing

Alternate choices of trajector have drastic impact on grammatical organisation of the sentence. The archetypal example is that of an active/passive alternation.

كسرت المزهريّة. 87.

The vase was broken.

The point to note in this clause is that trajector status is conferred on a participant which would be marked as the landmark, as it is spelled out by the direct object. The nominal, instead, that expresses this same participant serves as grammatical subject due to its trajector status.

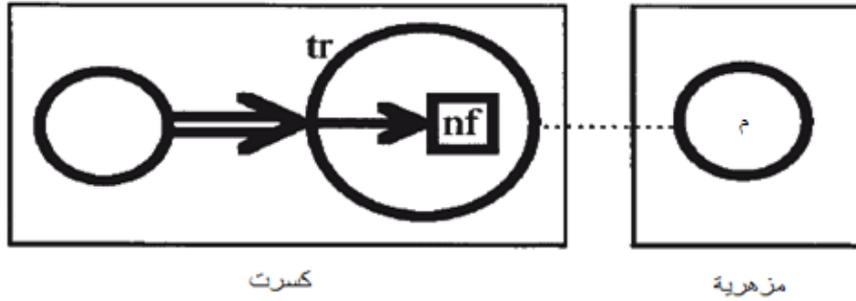


Figure (10) adopted from Langacker (2009:114)

There are a number of constructions that involve a shift in focal prominence. A familiar case is that of middle construction.

88. يقاد هذا النوع من السيارات بسهولة.

This type of cars steers easily.

89. قيد هذا النوع من السيارات بسهولة.

This type of cars steered easily.

The verb يقاد in Arabic is a transitive verb implying an agent. In this construction, the attention of primary focal prominence concentrates on the theme, letting the agent in gloom. (88) has a construction invoking a generalised agent. In (89) the agent cannot be specified.

90. a. (i) تذوقت الفاكهة (ii) الفاكهة طعمها حلو

She tasted the fruit. The fruit tastes sweetly.

b. (i) شممت المسحوق (ii) المسحوق ذو رائحة نتنة

She smelled the powder. The powder smells stinky.

c. (i) نظر في المرآة (ii) المرآة تبدو صافية

He looked on the mirror. The mirror looks clear.

d. (i) تحسست جلدها (ii) يبدو جلدها ناعما

She felt her skin. Her skin looks smooth.
 e.(i) اصغت الى صوت المطرب (ii) صوته يبدو رائعا
 She listened to the voice of the singer. His voice sounds
 pleasant.

As transitive verbs, the sensory predicates يتحسس, يشم, يتذوق, ينظر, and يصغي take a subject that integrates the role of actor and experiencer. As intransitives, they provide primary focal prominence on the stimulus, thus featuring the quality it embodies to the senses. These predicates also pertain to specific occurrences, and an experiencer is specified periphrastically (e.g. الفاكهة حلوا the fruit tasted sweet to her). These intransitive verbs are used for general statements, thus evoking a generalised experiencer. For example, الفاكهة حلوا is true for anyone who tasted that fruit.

3.13 Non Participant Trajector

In some clauses and sentences, the focal prominences are peripheral elements in nature. One facet of these peripheral elements is the entity that occupies the subject position—the one that functions as trajector—in a clause or a sentence. This entity is hard to classify as a real participant but is better to pertain to the circumstance of the interaction. Location is a non-participant trajector, as in the following examples.

91. احياء تزدهم بالوافدين الفقراء

Districts are swarming with the poor.

92. السماء تحتشد بالأوراق

The sky is crowding with papers.

93. خلت الشوارع من المارة

The streets deserted from the passersby.

94. زحفت الافعى

The snake crawled.

In all these examples, it is not the subject that acts in relation to the profiled activity, but merely the location at which it occurs: it is the poor that swarm, the papers that crowd, and the passersby that desert. The role of *احياء*, *السماء*, and *الشنوارع* is that of host to this activity. Further, the location is depicted as the source of a sensory impression constructed by the ubiquitous activity.

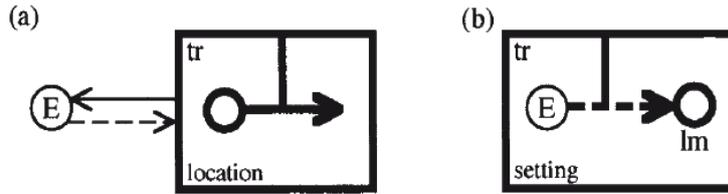


Figure (11) adopted from Langacker (2009:118)

The rectangle represents the location, and a solid arrow represents the activity as it is going inside. The location is depicted as trajector and coded as clausal subject. The actors, which are presented periphrastically, are not focal participants. The construction features the role of the location as host for this activity. Solid and dashed arrows stand for the location serving as stimulus in relation to the experiencer (E), who conceives of the location.

A setting, as another peripheral element, serves as clausal trajector. While a verb like *يخبر*, *يرى*, and *يشاهد* picks up the experiencer as its subject, the trajector is the spatial or temporal setting that hosts the experienced events that are coded by the

object nominal. These predicates evoke a generalised experiencer.

95. تعاني هذه المصارف من مشاكل عديدة. (www.arabicorpus.com)

These banks experience a lot of problems.

96. شهدت لاس فيغاس خلال [sic] الاربعينات انطلاقه عمرانية. (www.arabicorpus.com)

Las Vegas had seen the beginning of architecture during the 1940s.

97. شهدت مرحلة التسعينات بروز اهمية السياحة. (www.arabicorpus.com)

The 1990s had witnessed the importance of tourism.

98. *مشاكل عديدة عانتها هذه البنوك.

*A lot of problems were experienced by these banks.

99. *انطلاقه عمرانيه شوهدت من قبل لاس فيغاس اثناء الاربعينات.

*The beginning of architecture during the 1940s had been seen by Las Vegas.

100. * اهمية السياحة شوهدت من جانب مرحلة التسعينات.

*The importance of tourism had been witnessed by the 1990s.

3.14 Direct Object

The direct object in the Arabic language is assigned the same role of subject by virtue of focal prominence. While the subject is the first-most prominent participant at the clausal level, the direct object is the second-most prominent participant. The direct object, as a second facet of similarity, pertains to the four objective factors of topicality, semantic role, empathy, definiteness, and figure/ground organisation, that are applied to subject.

AG (Agent)

100. اصطاد الولد سمكة.

The boy caught a fish.

PAT (Patient)

101. ذاب الثلج.

Ice melted.

102. كسرت ذراعه.

His arm broke.

PAT is the thematic role related to the active realm, where it is seen as the consequence of force-dynamic interaction. In particular, a patient stands as the polar opposite of an agent.

103. رمت الرمح ناشئات.

The young women threw the spear.

104. طاردت القطعة الكرة.

The cut chased the ball.

105. وضح الامر.

He explained the situation.

Because animacy has the ability to serve an energy source, subjects are naturally associated with the upper portion of the hierarchy. And because energy is aimed at inanimate entities, there is a natural association between objects and the lower portion of the hierarchy.

Hence it is a starting point of the hierarchy definite > specific indefinite > non specific indefinite, a subject is prototypically definite. An object is not always definite.

106. مزق احمد ورقة. (<https://ar.wikiversity.org/wiki/>)

Ahmed tore a paper.

107. اكل احمد التفاحة. (<https://www.marefa.org/>)

Ahmed ate the apple.

The semantic role descriptions—agent; action-chain head; active participant in an asymmetrical relationship; subjectively active participant—that have been adopted to analyse the subject is posited as an analogous series of schematic values for analysing the object. Hinging on the patient to action-chain tail, which is the first generalisation, both physical, abstract interactions are accommodated where the object is a mover (as in 108), or an experiencer(as in 109).

108. (a) دحرج الاطفال البرميل عبر الحقل

The boys were rolling the drum across the field.

(b) واجبرت التطورات في باكستان امس رئيس الدولة على الاستقالة
(<https://www.marefa.org/>)

Yesterday, the developments in Pakistan forced the head of the state to resign.

109. شعبان في كتابه العرب والأكراد والسنة والشيعية والشيعيين والقوميين
ارضى والعلمانيين

Shaaban's book pleased Arabs, Kurds, Sunnis, Shias , Communists, Nationalists, and Secularists.

The second generalisation requires no transmission of energy (even in an abstract sense), and the object's role is zero, as in (110).

110. ادرك المسؤولون ان الموارد المتاحة للحكومات غير كافية لتلبية الحاجات المتزايدة.
(<https://www.marefa.org/>)

Officials realised that resources available to governments are insufficient to meet the growing needs.

3.15 Indirect Object

The Arabic indirect object is verbal complements that function as objects. Indirect objects are nominals, participating in what is dubbed Dative Shift alternation in which الى/ object is

moved to take up an immediate post-verbal position and loses the preposition الى/إلى. In CG, indirect object is defined as the active experiencer in the target domain. Following this criterion, سعيد is an indirect object, while الجدار is a prepositional object.

111. اعطيت الكتاب الى سعيد.

I gave the book to Saeed.

112. الغلابيني (ج ٣ , 2003 : 12) اعطيت سعيدا الكتاب.

I gave Saeed the book.

113. الغلابيني (ج ٣ , 2003 : 12) اعطيت الكتاب سعيدا.

I gave the book to Saeed.

114. علقت اللافتة على الجدار.

I hung the sign on the wall.

115. *علقت الجدار اللافتة.

*I hung the wall the sign.

Examining these examples, there is no reason to consider سعيد a prepositional object in (112) and the direct object in (113).

Such analyses, according to Langacker (1991), are mistaken for two reasons: first, they violate the content requirement in that they distinguish between underlying and surface structure, and second, they presume an incorrect view of the indirect object. Indirect object must not be analysed as a grammatical relation as subject and direct object. Subject and object are characterised as the first-most and second-most clausal participants, and their prominence lies beyond their status as primary and secondary clausal figures. Consequently, there is some flexibility in the choice of these focal participants. Thus, the alternation in (112-115) is a consequence of coetaneous

constructions including two selections of secondary figure (mover vs. recipient). This alternation does not refer to any difference between surface and underlying structure grammatical relations or provoke a rule that derives (112-115). سعيد in (112) is a true direct object, not an indirect object masquerading as one.

This analysis also fails to account for indirect objects because an indirect object does not presuppose a direct object. Indirect objects, as an alternative account, are best described by virtue of semantic role. Considering the following figure, the sequence AG= = = >INSTR = = = TH comprises a canonical action chain, with the thematic role identified as patient, mover, or experiencer. With the thematic role identified as zero, EXPR ---- >TH dovetails to a simple perceptual or conceptual relationship where the experiencer constitutes mental contact with the theme (Langacker, 1991). This is seen in the following example.

116. رميت الرماح

I threw the spears.

This example represents a single event that incorporates both an action chain and an experiential relationship. When throwing الرماح, either I or someone watched their flight.

Another example is given in (117).

117. كسرت ساقيه

She broke his legs.

الهاء in (117) is both the patient with respect to the action chain and an experience with respect to the resultant change of state.

4. Conclusion

The cognitive turn in grammar has given the Arabic basic grammatical relations new interpretations. The Arabic subjects are salient, since they exhibit and designate the topicality factors, that is, the participation of an entity in a clause or a sentence, the location of a participant, the figure/ground organisation, and subjective nature of definiteness.

The Arabic language also boosts up the internal structure of relational predications at any level of arrangement to hinge on trajector and landmark alignment. Arabic structures the trajector as the first-most salient element and the landmark as the second-most salient element. i.e. their focus of attention varies depending on how a situation or an event is construed and is coded.

The direct object in the Arabic language is structured as the first-most prominent participant at the clausal level—its structure is similar to the subject. To structure it so, Arabic applies the four topicality factors, i.e. the semantic role, empathy, definiteness, and figure/ground organization, to assign its property of being direct.

Finally, the cognitive standpoint to grammar defines the Arabic indirect object as the active experiencer in the target domain due to its prototypicality, as it frequently accompanies verbs of perception, judgment, sensation, emotion, or mental experience. In an action chain or the energy flow, the indirect object lies downstream from the subject. Thus, it is structured as the second-most prominent participant at the clausal level.

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1-This paper is based on a Ph.D dissertation written by the first researcher and supervised by the second.

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