PVDSC: A Case Study of Zero-Copula in the Arabic Sentence
Nadia Hamzah Kareem, University of Al- Qadisiya, Iraq and Chilukuri Bhuvaneswar, Osmania University, Hyderabad, India

Abstract

According to Wikipedia, “The term equative is used in linguistics to refer to constructions where two entities are equated with each other...The term equative is also sometimes applied to comparative-like constructions in which the degrees compared are identical rather than distinct. ...Equatives equate the referents of the two expressions on either side of the copular verb. Neither is a predicate of the other.” Interestingly, different languages exhibit different choices with reference to equative constructions. For example, equative sentences in English are not possible without a copula in such sentences as: You (f.) [are] my friend; *You my friend; Nadia is her - *Nadia her; whereas in Arabic it is quite possible: أنتي صديقتي anti Sadiiqat-ii; ناديةهيNadia-unhiya. However, in Karin Ryding (2000), any sentence without a verb is considered an equational sentence: الطريق طويل"al-tariiq-tawlil-un" ‘The road long’ = The road (is) long. Here, there is no equating but predicating with an attribute without a copula.

In this paper, an attempt has been made to discuss the notions of equative, equational and non-copular sentences in Arabic with many examples of nouns, predicate adjectives, pronouns or prepositional phrases which comment or predicate. Comparison and contrast with a few other languages such as English, and Telugu is made in order to bring about the variation in the cognition of action in terms of the copula and zero-copula. Finally, these variations are motivated from the Principle of Variable Dispositional Social Cognition (PVDSC) of Ka:rmik Linguistic Theory which states that “As you are, so you think; as you think, so you speak” (Folklore Definition) or “Disposition qualifies cognition in its variety-range-depth (VRD) of conceptualization-patterning and structuring-substantiation(C-P&S-S)” (Cognitive Linguistic Definition). A brief reference is made to traditional and modern theories to show why they cannot account for this variation in a causal perspective.

Key words: PVDSC, equational, zero-copula, Arabic, English, Telugu, ka:rmik Linguistic Theory, Disposition

I. INTRODUCTION

Equational sentences are a special type of sentences that need to be motivated using a different type of analysis and structure. A mere formal linguistic analysis can only point out the absent feature of tense in Arabic but not why the absence
in past tense and negation take place. Therefore, there is a need to motivate the causality of such phenomena which is not possible in forma-functional-cognitive linguistic theories without recourse to dispositional choices as is done in the Ka:rmik Linguistic Theory (KLT).

In this paper, such an attempt has been made describe the salient features of equational sentences in Arabic and they are motivated dispositional, socio-cognitive linguistically using the KLT model.

1.1. Aims and Objectives
The aim of this paper is to describe the equational sentences in Arabic and the objective is to motivate them using the KLT procedure.

1.2. Materials and Methods

1.3. Research Question
Are equational sentences elliptical constructions emerging out as a special type of sentences in Arabic?

1.4. Hypothesis
It is hypothesized that equational sentences are a product of ta:masik cognition of lingual action by variable dispositional cognition (PVDSC) of the Arabic speaking community in their creation of the sentence in the syntactic system.

1.5. Scope and Limitation of the Study
The scope of the study is equational sentences in Arabic and is limited to the analysis of the structure of Arabic equational sentences only.

II. LITERATURE REVIEW

In this literature review, the review of past and present works has been made; the research gap pointed out and a solution is proposed in the light of KLT to motivate Arabic equational sentences.

2.1.1. Traditional Understanding of the Arabic Sentence
In traditional grammars, Arabic sentences are divided into Nominal and Verbal Sentences. This classification is made on the understanding of whether sentences start with a noun or verb but not on whether they have a verb or not in their structure. As a result, they have jumal ismiyya ‘nominal sentences’ and jumal fi’liya ‘verbal sentences’ (Karin Ryding 2000: 58).

2. 1. 2. Modern understanding of the Arabic Sentence
According to the modern understanding based on western theories of language, a different distinction is used: ‘whether or not the sentence contains a verb’. (Karin Ryding ibid.). Based on this distinction, sentences without verbs are called equational sentences according to the English terminology. According to Abboud and McCarus (1983, Part I: 102), “Arabic sentences are of two types, those with verbs, called verbal sentences, and those not containing verbs, called equational sentences”.

2. 1. 3. KLT Understanding of the Equational Sentence
According to Bhuvaneswar (2004), equational sentences emerged a posteriori after the verbal sentences have undergone the process of elision in their historical evolution. The causality for such a change is attributed to ta:masik dispositional reaction to verbal sentences in the context of their usage. He argues that if it were not so, why is it that in Telugu, the verbless affirmative sentence “va:du ra:mudu” ‘He Rama’ is not “va:du ra:mudu aunu ‘He Rama is = He is Rama’ “ but “va:du ra:mudu ka:du ‘He Rama is not’ = ‘He is not Rama’” is as it is. In a similar way, by transduction of Telugu with Arabic, there is no specific distinctive verb like ka:na in Arabic to indicate the past of the equational sentence: “kaan-a l-Tariq-u Tawiil-an ‘The road was long’” vs “al-Tariq-u Tawiil-un ‘The road (is) long’” – yakunu ‘is’ is not used. However, in Telugu, it is: “(a:) rodd-u vedalpuga unde:di/undenu’ ‘(That) road was (long-being/long)’” vs “rodd-u (vedalpuga undi/ vedalpu) ‘(The) road long/ is being (like) long’”. ‘undi = is’ is in the present tense sense with or without ‘undi’: roddu vedalpu or roddu vedalpuga undi. Therefore, the other form “rodd-u vedalpu” can be taken as an ellipted sentence formed by deleting ‘-ga undi ‘like/being is’ in informal usage.

2. 2-3. Research Gap and Solution
The causality of equational sentences has not been definitively motivated and in this paper such an attempt has been made in the KLT model of analysis.
III. The Equational Sentence in Arabic: A KLT Analysis

In this section, the equational sentence in Arabic is described and motivated in the Standard Procedure of Ka:rmik Linguistic Theory which has five stages: 1. Data Collection; 2. Patterning and Structuring; 3. Concepts and principles; 4. Systemic Network and Its Dispositionalization; 5. Ka:rmik Linguistic Motivation.
3.1. DATA COLLECTION OF EQUATIONAL SENTENCES IN ARABIC
The data collected for the purpose of this research is taken mainly from Karin Ryding’s *A Reference Grammar of MODERN STANDARD ARABIC* (2000) and the internet resources on zero copula, equational sentences, and sentence in Arabic and other languages. Owing to space constraints, they are not separately listed but are discussed in the Stage 2: Patterning and Structuring as they are analyzed into patterns.

3.2. PATTERNING AND STRUCTURING
According to Wikipedia, **Zero copula** is a linguistic phenomenon whereby the subject is joined to the predicate without overt marking of this relationship (like the copula ‘to be’ in English). One can distinguish languages that simply do not have a copula and languages that have a copula that is optional in some contexts.

Many languages exhibit this in some contexts, including Telugu, Japanese, Russian, Arabic, and American Sign Language.

Dropping the copula is also found, to a lesser extent, in English and many other languages, used most frequently in rhetoric, casual speech, and headlines, the writing style used in newspaper headlines. Sometimes, these omissions cause unintended syntactic ambiguity.

3.2.1. Equational Sentences in Arabic
The zero copula in equational sentences is highly productive and its structure in equational sentences is discussed below.

According to Karin Ryding (2000: 59-63), there are 15 major types of equational sentences in MSA. The following abbreviations are used:

- ‘N’ Noun;
- ‘NP’ Noun Phrase;
- ‘Adj’ Adjective;
- ‘AP’ Adjective Phrase;
- ‘P’ Pronoun;
- ‘DP’ Demonstrative Pronoun;
- ‘PP’ Prepositional Phrase.

They are listed as follows:


3.3. CONCEPTS AND PRINCIPLES
From an analysis of the patterns and structures as given in Stage 2: Patterning and Structuring, we can derive the following important concepts and principles.
3. 3. 1. Concept of Deletion of a Variable (DV): Deletion of the Verb in Equational Sentences

Quirk, et al (1985: 884-889) identify five criteria to find out whether a sentence is elliptical or not. They are briefly put as follows: 1. Recoverability: ‘The ellipted words are precisely recoverable; 2. Grammatically defective: The ellipted words are grammatically ‘defective’; 3. Grammaticality Recovery by Insertion: The insertion of the missing words results in a grammatical sentence (with the same meaning as the original sentence); 4. Missing Word Textual Recoverbaility; 5. Presence in the Exact Form in the Text. Among these characteristics, 1, 2, 3 are important for us to establish whether equational sentences are elliptical or naturally formed from a linguistic perspective.

In KLT, there is the Principle of Exploration of Contextual Variables (P EV) in which there are the Principle of Productive Extension of Variables (P PEC), Principle of Creation of New Variables (P CNV), Principle of Deletion of Variables (P DV) as sub-principles.

According to Bhuvaneswar (personal communication), “It is interesting to observe in language change that a particular pattern which is dispositional creatively formed is not permanently fixed – of course, it must be fixed for a
relatively very long period of time for it to remain a communicative system. However, depending on the svabhavam of the individuals in the language community, additions, deletions, modifications may take place relatively slowly or quickly in a historical linguistic change of a language. One such change in syntax is deletion by elision as observed in the zero copula in equational sentences. Here, reduction is dispositional, not functional."

In his discussion on Telugu equational sentences, Bhuvaneswar (2004) points out WHY and HOW ellipsis occurs by showing alternative ways of saying the same sentence with its ellipsis: roḍḍu podavuga undi ‘The road is long’ and roḍḍu podavu ‘The road long’ (see the Literature Review). In this ellipsis, the dispositional creativity of Telugu speakers triggered a vivartam of podavuga (podavu ‘long’; -ga ‘as’ or ‘like’) as an adverb into an adjective for the sake of economy and more informality. From that view, he argues that there are two options in the formation of the equational sentence:

1. the original affirmative sentence also might have a verb which was later on abandoned for brevity (economy) and compactness, for avoiding monotony by repeating the same thing. In addition, it might be due to laziness or informality without affecting clarity. Such a process involves dispositional gradual evolution;

2. The original affirmative sentence must have been formed instantaneously by automaticity in its creation. In his case also, dispositional creativity flashes the new insight and so ellipsis occurs. Whatever be the case, the result is a consequence of the cause of elision for brevity. Let us see which seems more plausible by examining the 15 patterns given in Karin Ryding (2000: 59-63).

1. Subject/Topic – (Copula) – Complement Constructions in Arabic

In all the 7 constructions listed in Ryding (2000: 59-63), both the subject (S) and the predicate (P) are in the NOMINATIVE CASE. Generally, the order is SP but sometimes it can be PS. In English, it is of the type:

(1) SVC: Krishna (is/was/will be) a student (N)/kind (Adj.)

In such type of constructions in English, the copula cannot be removed:

(2) *SC: *Krishna a student (N)/kind (Adj.)

However, there are many languages in which such deletion is possible. Arabic is one such language. This is a point of variation (contrast) between Arabic and English. On the other hand, when there is an explicit subject or object, there should be a verb as given in the following examples where ambassador and Karim are explicitly stated:

(3) ‘a:d-a l-safi:ru fataH-a kari:m-un fam-a-hu

returned the ambassador opened Karim mouth his

‘The ambassador returned’ ‘Karim opened his mouth.’

Suppose we delete the verb, the meaning is incomplete: Who did what (returned/opened his mouth) is not given. This is crucial for understanding the
meaning completely: The ambassador ....?; Karim.....? Hence, there is a functional necessity for retaining the verb and so it is there – if the context provides that meaning, then it can be omitted: Who returned? The Ambassador (returned) without any loss of meaning. So, the subject and verb form a structural unit called *jumla* in Arabic which should be sustained.

On the other hand, let us look at the following sentences with the structure
1. N/A (4); 2. NP/A (5); 3. P/A (6); 4. P/N (7); 5. DP/N or N/NP (8); 6. DP/A (9)
7. N/N (10); 8. N/PP (11) - the serial number of the sentence is shown in brackets.

(4) al-tari:q-u tawi:l-un (5) qaSr-u l-malik-i daxm-un (6). huwa dhakkiyy-un
the road long palace (of) king huge he intelligent

(7) ‘anti sadi:qat-ti (8) ha:dha daftar- i: (9) ha:dha: jadi:d-un
you (f) friend my this notebook my this new

(10) zawjat-i: tabi:bat-un (11) al-sala:m-u ‘alay- kum
wife my a doctor peace upon you

Christianity and Islam source their one
‘Christianity and Islam, their source (is) one.’ =
‘Christianity and Islam [are from] one source.’

In all these sentences, there is no copula (verb). But the meaning is not affected since the verb is a verb that can be imagined or recovered from the sentence. However,

(a) the tense of the verb cannot be ascertained from the sentence. For example, in No. 7, we don’t know whether ‘she’ is still ‘my friend’ - she can be no more ‘my friend’. So there is ambiguity in the TENSE part of the sentence. If it can be resolved by making the tense explicit, then there will be no more ambiguity. In the case of (3) given above, a similar problem is resolved by making the verb retained. So, if they retain the verb here also, this problem is solved. That is exactly what they did in the case of past tense of the sentence by using *ka:n-a* in (4), (5), and (10) and changing the noun into nominative case (un-an) as follows:

(4b) ka:n-a l-tari:q-u tawi:l-an (5b) ka:n-a qaSr-u l-malik-i daxm-an
was the road long (Nom. Case) was palace king huge
‘The road was long’ ‘The king’s palace was huge’.

(b) In a similar way, negation vs affirmation contrast cannot be ascertained. This problem is solved again by keeping the negative verb ‘laysa’ and clarify the contrast between negation and affirmation.
(12) lais-a l-tariq-u tawil-an
not is the road long
‘The road is not long’

(13) laysa-at zawjat-ti tabi:bat-an
not is wife my doctor
‘My wife is not a doctor’.

(c) sometimes an existing order is changed as in the case of reversal of subject and predicate:

(14) huna: hammam-u-na: bayn-a huma: sayyidat-a:ni
Here bathroom our between them two women
‘Here [is] our bathroom’ ‘Between [the two of] them [are] two women’

Now the question arises? Why did they keep the verb for the past tense and removed it for the present tense? In general, all the verbs in Arabic are cited in the past. Probably, it means that they were accustomed to think the past as unmarked. Since they already showed the past tense, they thought that showing the present tense is redundant. Hence, for brevity and also out of laziness (ta:masik attitude (state of inertia)) – may be – they opted to elide the tense for the equational sentence in the present tense. This must have been accepted by all and therefore the present tense is no more indicated by a verb ‘yakun’. We don’t know whether yakun was used in the olden days for sure but since it is recoverable and since it is also in other languages like Telugu and Tamil, it is suggested that this elision is as a result of laziness.

3. 3. 2. Parts of Speech and Their Choice
In the formation of equational sentences, Arabic has shown productivity by using nouns, adjectives, pronouns, demonstrative pronouns, existential ‘there’, and even clauses (as shown in (12)). Hence, there is a wide exploration of variables and their dispositional choice and computation.

4. Systemic Networks and Dispositionalization of the Choices
By transduction – a term coined by Bhuvaneswar (2016) to indicate comprehensive induction across languages – we observe that equational sentences as well as their internal variations are a result of the dispositional choices made by the Arabic language community. For example, in English, there are no equational sentences in the normal sentence pattern SVC; again, within Arabic itself, negation is expressed by a negative verb and not a mere negative word.

According to the Principle of Exploration of Variables which states that “an individual/ language community (i.e., Arabic language community in this instance) dispositionally explores the variables available in the context of their living and chooses them accordingly in the construction of language”.
As he explores the variables, two possibilities arise: exploration of contextual variables and contextual exploration of variables. In the former case, the variables explored are not limited or circumscribed by the context in which they operate but extend to the context of the use of language from the US Lingual Action. In other words, the variety-range-depth of the exploration is broad. On the other hand, in the case of contextual exploration of variables, the exploration is limited to the context in which they operate and as such is generally limited to changes that can be made within the existing linguistic system.

As the community explored, it was not satisfied with the existing state of affairs in the linguistic system owing dispositional likes and dislikes and states of living (tā:masik-ra:jasik-saːtvīk) and embarked on creativity to find new ways of doing things. In that process, they created a new variable by deletion of a variable in an existing pattern. Elision belongs to that form of creativity in exploration.

(14) Equational Construction:


In the case of elision, the Arabic language community was in the Kaːrmik Field (the state of svabhaːvam in the context of living (i.e., experience of pleasure and pain of existence) of Tamas. That is why they opted for elision in the use of sentences and created a new pattern in sentence construction. By transduction, we come to understand that this new pattern creation is based on the Principle of Variable Dispositional Cognition (PVDSC) which states that “As we are so we think; as we think, so we speak” as shown in the slide given earlier.

Once that choice of elision is made, that choice becomes the basis for further exploration. When it does so, it is called Productive Extension of Variables (PEV). According to this principle of PEV (P PEV), “an existing principle becomes productive when its VRD is extended to other aspects which are unexplored in the US LA”. In the case of equational sentences in Arabic, the language community explored further possibilities to extend the principle of elision in its scope and successfully extended the range from nouns-to-adjectives-to-pronouns-to-clauses-to-phrases by PDDC (Principle of Dispositional Discrete Computation (by Substitution)). For example, a noun is substituted by a pronoun to give a new pattern as in the case of Noun/Noun Pattern PEVly giving rise to Pronoun/Noun (see equations (4), (10) in this article). Sometimes, permutation of a pattern occurs as in the case of reversal of subject and predicate (see (13b in this article)) in PDDC. The order of its extension is not known clearly since we have not collected historical evidence for their development but it can be linear or parallel as we find in logic.
Principle of Deletion of Equational Variable (P D Eq. V)

Bhuvaneswar (2002) proposes a principle for equational sentences as “Equational sentences are formed dispositionally by elision of the verb in its VRD of CPSS.”.

3 a. The Whole Chakram

Network 3: Emergence of Meaning by Mutual Superimposition Network
D Eq. V can be illustrated using the chakram networks of KLT given in Network 3.

In 3b, we have two vertical lines R1-R2 representing the Referent; and Sy1-Sy2 representing the symbol; again, there are two horizontal lines S1-S2 representing sense; and D1-D2 representing disposition. In the case of our equational sentences in Arabic, R1-R2 line represents the normal unellipted sentence and Sy1-Sy2 represents the ellipted equational sentence. When the Arabic language [community-individual being (ji:va)] (represented by the star enclosing a triangle) is CCOAing phenomenal activity in the context of their living, their svabha:vam (represented by D1-D2 and the triangle) is in a state of tamas and this affected their cognition of the normal sentence and brought about a change in its conceptualization. As they are dominated by tamas, their ta:masik state opted for reduction of the normal sentence pattern (represented by R1-R2) and consequently they opted for elision of the verb to give rise to the equational sentence by re-cognizing it as the equational Sy1-Sy2 with the same sense (represented by S1-S2). This cogneme cognition and its realization are best captured by the standard KA:rmik Cognition Network as given below.
In the network, the individual is in the state of tāmas and his dispositional knowledge as shown in the Dispositional Quadrant I is tāmasik and as such his vāsanās are affected to be tāmasik. When he lives in the context shown by the Context Quadrant IV, the society and culture give him a world view to conduct his life. He ARIs with this world view quadrant and CCOAs his life by cognition of his activity. In that process, he uses language as a resource for the construction of his dispositional reality via lingual reality for the ultimate construction of his kārnik reality. Since his disposition is in a state of tāmas, he acts upon the normal sentence and reacts tāmasikally (by ellipting the verb) and finally interacts like that by using the ellipted form of the sentence.

When he interacts with others by interpersonal communication (IPC) and applies the same pattern, it gets transmitted at the individual level by a chain reaction or himself-to-others reaction. When the members of the society accept it and use it, it gets transmitted across the society by C IPC (collective IPC, i.e., from every individual of the the collective (as a whole) to the other individuals in the group) when they CCOA and thus becomes a norm. This process is further shown in the ICCCSA network given below.
Based on the choices made by the Arabic language community, we can draw a dispositional systemic network of choices as given below.
3.3.5. Ka:rmik Linguistic Motivation

Each community, in the context of its living, experiences life by action-reaction-interaction (ARI) according to its individual-collective svabha:vam. In that process of living, the members act-react-interact according to their svabha:vam which is a complex of their [likes and dislikes (traits)-knowledge-vasana:s (internalized) habits]. When they do so, they do so to coordinate or coordinate the coordination of action (CCOA) by languageing to fulfil their desires by constructing ka:rmik reality and experience the results of their action (karmaphalabho:gam). The Arabic language community also used Arabic to CCOA in a similar way. As they were using language as a resource for the construction of their ka:rmik reality, they acted on their language and created the new variable of equational sentences.

IV. Summary and Conclusion

In this article, 15 types of equational sentences in Arabic were described and then motivated in the KLT paradigm by using many important KLT principles such as P EV (P PEV, P CNV, P DV), PVDSC, and PDDC. The motivation of Arabic equational sentences has been done in the standard KLT procedure.

From the analysis, it has been observed that equational constructions are formed by the process of elision owing to dispositional choices made by the Arabic language speaking community.

References


