THE IMPLICATIONS OF ANIMAL METAPHORS FOR SYNTACTIC AGREEMENT IN ARABIC

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Summary: Animal metaphor as a mapping process between two domains is closely connected to the conceptual system. Syntactic agreement is also associated with the conceptual system as it is triggered by certain features with values that are determined within the conceptual system. This paper investigates the interaction between animal metaphors and agreement in Arabic. The metaphorical reading of an animal name is manifested at the level of syntax. Taking this into consideration, the paper argues that an animal metaphor is a hybrid lexical item which is composed of a lexical core represented by the animal name and a bundle of features consistent with a human name.

1. Introduction

The issue of subject-verb agreement in Arabic has constituted a popular topic of discussion and analysis within the developing framework of Chomsky's work. It has been subject to extensive research. In particular, most of the literature has focused on the relation between different agreement patterns shown by the verb and word order, pronominalization, and cliticization. Two opposing views concerning agreement have been debated endlessly and defended by different authors. The first view claims that the agreement pattern is the salient difference between VSO and SVO word orders in Modern Standard Arabic (MSA, henceforth).While agreement is assumed to be partial in the former word order, it is said to be full in the latter word order as it includes the number feature (cf. [Aoun et al. 1994, Bahloul, Harbert 1992, Benmamoun, Lorimor 2006, Bolotin 1995, Fassi Fehri 1993, Mohammad 2000], among many others). The second view holds that there is no agreement alternation and what appears to be a number marker in SVO word order is a pronominal clitic (or a resumptive pronoun) associated with the preverbal subject. This view is found in the work of traditional Arab grammarians (cf. [Hassan 1961, Ibn Hisham 1964]) and some modern linguists (cf. [Akkal 1996, Alenazy 2009, Ouhalla 1997, Plunkett 1993]). This paper does not concern itself with the agreement patterns associated with the word order. Rather, it tackles the issue of agreement from a different perspective. It investigates the use of animal metaphors in Jordanian Arabic (JA) and their implications for syntactic agreement, a topic that has not been addressed by previous research.

Adopting Chomsky's [1995, 2001] feature system and building on Lakoff and Johnson's [1980] theory of the conceptual metaphor, the paper argues that the metaphoric use of animal names is, in fact, a conceptual mapping process between two domains (i.e. the animal as a source and the human as a target), which also involves mapping the phi features (φ-features, henceforth) of the target onto the source. This means that the conceptual mapping process results in a hybrid lexical item which represents the animal property along with the φ-

features of the human. These φ-features dictate agreement on the verb under Agree relation.

2. Agreement in Arabic

The morphological realization of syntactic features helps in understanding the syntactic structure. Actually, Chomsky [2004] assumes that morphological agreement reflects the syntactic agreement which follows from the operation Agree. In a language such as Arabic, the rich morphological system makes the discussion of the different interpretations of the agreement patterns, shown by the verb, comprehensible and more reliable.

In terms of gender, all nouns in Arabic are classified as masculine and feminine. On the one hand, the natural gender of the animate nouns which refer to people and animals coincides with the grammatical gender; this means that the grammatical gender reflects the natural gender. The inanimate nouns, on the other hand, are assigned grammatical gender. Gender as a feature, along with the features of number and person, constitutes a bundle of features which are collectively referred to as φ-features (see section 4). Arabic verbs show agreement with their subjects in terms of φ-features. Depending on whether the subject is masculine or feminine, the verb shows different agreement patterns. The JA sentences in (1) illustrate that the masculine singular and the feminine singular subjects are associated with different agreement patterns.

(1)   a.   al-walad   wasal
                  the-boy   arrived.3ms
                  'The boy arrived.'

        b.   al-bent   wasalat
                  the-girl   arrived.3fs
                  'The girl arrived.'

Similarly, with the plural masculine and feminine subjects, the verb shows different agreement endings:

(2)   a.   al-welaad   wasalu
                  the-boys   arrived.3mp
                  'The boys arrived.'

        b.   al-banat   wasalan
                  the-girls   arrived.3fp
                  'The girls arrived.'

Masculine and feminine singular nouns denoting an animal or an inanimate object are similar to the human nouns in (1) regarding the verbal agreement, i.e. they are associated with the agreement patterns shown by the verb in (1a) and (1b) respectively.

However, plural nouns for animals and inanimate objects differ significantly from their human counterparts. Traditional Arab grammarians observed that all nonhuman nominal subjects in Classical Arabic (as well as in MSA) dictate feminine agreement on the verb (cf. [Al-Ghalayyini 1974, Hassan 1961]). In other words, the plural (masculine and feminine) inanimate and animal nouns

are associated with an agreement ending that is homophonous with the plural feminine marker in (2b), as can be seen in the MSA examples in (3):

(3)   a.   al-kutub-u   saqatat
                the-books-Nom   fell.3fs
                'The books fell.'

         b.   at-tawelat-u   saqatat
                the-tables-Nom   fell.3fs
                'The tables fell.'

         c.   al-usud-u   harab-at
                the-lions-Nom   fled.3fs
                'The lions fled.'

         d.   al-labua'aat-u   harab-at
                the-lionesses-Nom   fled.3fs
                'The lionesses fled.'

Nonhuman JA plural nouns behave on a par with the MSA examples in (3). There is a minor regional variation, though. In the Ammani variety of JA, for example, plural human and nonhuman nouns, whether they are masculine or feminine, are associated with a morphological marker on the verb, which is typically plural masculine, as in (2a). This amounts to saying that in this variety of Arabic the verb does not show gender distinction with plural subjects.

Interestingly, however, MSA and JA allow a different kind of variation. The correlation between the interpretation of the animal metaphors and the verbal agreement is apparent in Arabic; when an «animal» noun is used metaphorically to refer to a human being, the data show that it behaves like a «human» noun in terms of the agreement pattern that it dictates on the verb. Compare, for instance, these two examples from JA:

(4)   a.   al-usuud   naam-at   fee   al-Hadeeqah
                the-lions   slept-3fs   in   the-zoo
                'The lions slept in the zoo.'

         b.   al-usuud   naam-uu   ba'ad   al-muhadarah
                the-lions   slept-3mp   after   the-lecture
                'The lions slept after the lecture.'

While the first sentence in (4) has a literal interpretation, the second sentence has a metaphoric interpretation. The metaphoric use of animal names has its implications for agreement, hence the agreement discrepancy. In fact, this is not the only case, in which a feminine human name is associated with a masculine agreement if it is used metaphorically to refer to a masculine human (see section 5 for details).

Examples like (4a) and (4b) allow discussion under the minimalist assumptions, as they seem to challenge the basic idea of the Agree Theory [Chomsky 2001], which is based on the un/interpretability of φ-features. However, before we delve into the discussion of Chomsky's feature system and the proposed analysis of animal metaphors, a word should be said about the metaphor and how it is associated with the conceptual system.

3. Conceptual Metaphor

Since the introduction of Lakoff and Johnson's [1980] work *Metaphors We Live By*, metaphors have constituted an intriguing topic of discussion. Metaphors are investigated within such fields as politics (cf. [Howe 1988]), literature (cf. [Freeman 2000]), and linguistics (cf. [Deignan 2006]). Lakoff and Johnson suggest that «our conceptual system, in terms of which we both think and act, is fundamentally metaphoric in nature» [Lakoff, Johnson 1980: 3]. According to their view, a metaphor is thought of as a process of experiential-mapping between two conceptual domains. This «metaphoric mapping involves a source domain and a target domain» [Lakoff 1987: 288], which means that a metaphor is thought of as a process of understanding the properties of one thing in terms of another. The process of «mapping is typically partial. It maps the structure in the source domain onto the structure in the target domain» (ibid.).

A metaphor is meant to «highlight» some properties of the target domain. For that reason, the metaphorical structuring is assumed to be partial because it involves only a set of correspondences between the source and the target conceptual domains. This partiality of the conceptual mapping is subject to Lakoff and Johnson's principle of *metaphorical highlighting and hiding* according to which «a metaphorical concept can keep us from focusing on other aspects of the concept that are inconsistent with that metaphor» [Lakoff, Johnson 1980: 10]. In section 5, we argue that the interpretable φ-features are specified within the lexicon in accordance with this principle.

The partial conceptual mapping between the source and the target domain takes the form of an association. Dirven [1985] assumes that the metaphorical process is an association of properties, which excludes the literal interpretation and leads to a figurative interpretation. According to Dirven's view, the metaphorical process takes place within the lexicon and it involves extending of the existing meaning of a lexical item. Furthermore, Dirven suggests that the process of extending the meaning is an example of semantic transfer that «applies to the basic meaning [of the metaphor]» [Dirven 1985: 114].

Taking into account that human behavior is sometimes metaphorically described as animal behavior, the transfer of a name takes place from an animal to a person, a phenomenon that is referred to as animal metaphors. In order to convey negative or positive evaluations, people are associated with animals. Martsa [2003] and others argue that this kind of association relies upon five parameters: habitat, size, appearance, behavior, and relation (between the animal and the human being). Thus, characteristics of the behavior of the source domain (animals) are mapped onto the target domain (people). In the metaphor *John is a lion*, for example, the association relies on the behavior; what is being highlighted in this metaphor is the feature *courage* (cf. [Lakoff, Turner 1989]).

It is worth mentioning that the animal metaphor can be thought of as a simple system of metaphoric mapping (cf. [Iza Erviti 2012]). According to Ruiz de Mendoza Ibáñez [2000: 112], animal metaphors are «one-correspondence metaphors» which focus on one characteristic of an entity and put it in correspondence with a similar characteristic of another entity. The system of metaphoric mapping is schematized in (5):

(5)
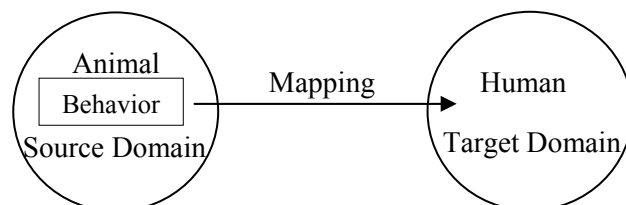
The process of conceptual mapping between two domains may result in linguistic forms that reveal the metaphoric reading. In other words, the syntactic structures of utterances testify to the metaphorical extension of one domain into another. Vorlat [1985] and Kuzmina [2013], for example, note that certain metaphors and metaphorical trade names are represented by syntactic structures which contain the copular verb *to be*. Arabic data show that there is a strong correlation between the metaphorical reading of an utterance and its linguistic form. The sentences in (4) above, for example, show that the agreement pattern on the verb is sensitive to the metaphorical reading. Other examples suggest that the correlation is significant; as examples (9) and (10) (see section 4) illustrate, the metaphoric use of a feminine animal noun to refer to a masculine human results in masculine agreement on the verb, which is not the case in literal use.

Generally speaking, Arabic metaphors conform to Lakoff and Johnson's accepted view that a metaphor is a conceptual process that involves mapping a property from a source to a target. However, there remains the issue of how to deal with the agreement discrepancy. Unless this discrepancy is proved, any analysis of Arabic metaphors would be insufficient. To bridge the gap, this paper combines Lakoff and Johnson's idea of conceptual metaphor with Chomsky's idea of the conceptually determined system of features that is outlined in the next section.

4. Chomsky's Conceptual Features

Chomsky [1995, 2001, 2008] argues for a system of derivation that is based on conceptual considerations of language design. According to his view, derivation is feature-driven in that all the syntactic operations such as Agree and Move are motivated by phase heads that are endowed with certain features. Chomsky makes a clear semantically based distinction between formal features and their dependence on semantic interpretability. A feature that makes a semantic contribution to the interpretation of the lexical item is interpretable. On the other hand, an uninterpretable feature does not make any semantic contribution to the interpretation of the lexical item.

The distinction between interpretable and uninterpretable features is not without a consequence, however. While the values of the interpretable features are determined in the lexicon, the values of the uninterpretable features are determined during the course of derivation. In other words, the uninterpretable features are valued as a consequence of agreement. The number and gender features (φ-features) are either interpretable or uninterpretable depending on in which lexical item they appear; they are interpretable on nominal items and uninterpretable on functional heads such as v and C, the phase heads. Chomsky's distinction between interpretable features and uninterpretable features is essen-

tial for the operation Agree, as these features are subject to the principle of Full Interpretation reformulated as follows (cf. [Chomsky 1986, 1995: 194]):

(6)   The principle of Full Interpretation (FI)
      PF and LF representations contain only interpretable features. All the uninterpretable features must be valued and deleted before they reach the interface levels.

The principle in (6) implies that the unvalued φ-features have to be valued and deleted during the course of derivation. All identical features must match for the derivation to converge. Thus, the operation Agree is dependent on feature matching and takes place under a probe-goal relation, providing that both the probe and the goal in its c-command domain must be active. The former is active because it carries unvalued features that have to be valued by matching them with their valued counterparts on the goal, which is active by virtue of having an unvalued case feature.[1]

As mentioned above, the operation Agree is triggered by the phase head, and this process is phase-based in that it takes place within the phase. Chomsky [2008] stipulates that CP and vP are phases while TP is not. Being selected by C, the head of CP, the head of TP inherits its φ-features from C. This process is generally referred to as Feature Inheritance. Structure (7) schematizes Chomsky's Agree model, which is dependent on features.

(7)
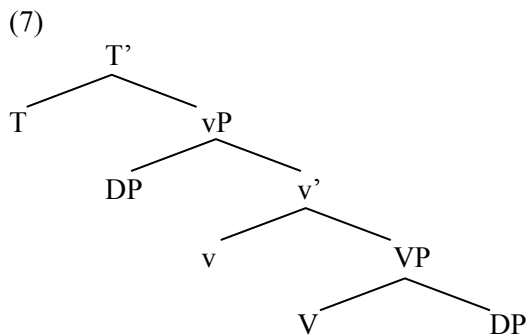
The feature matching process between the probes v and T, the object and the subject (the goals) respectively results on a simultaneous valuation and deletion of the unvalued uninterpretable φ-features on the probes (cf. [Richards 2007]). The unvalued uninterpretable Case feature on each goal is also valued and deleted. It is worth noting that structure (7) is VSO; in an SVO structure, according to Chomsky [2008], T may possess an additional feature, namely

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[1] The issue of Case is beyond the scope of this paper. Nevertheless, Case plays an essential role in the process of derivation. Case feature, which is uninterpretable, is derivative in the sense that it renders the goal active and available for an Agree relation with a c-commanding probe. According to Chomsky [2001], the process of valuation of Case feature (as nominative, for example) and subsequently deletion is a 'by-product' of an Agree relation.

Edge Feature (EF), which triggers the movement of the subject to the specifier position of TP.[2]

In addition to Lakoff and Johnson's view of conceptual mapping, the conceptual drive of Chomsky's Agree theory makes it an applicable analysis for Arabic animal metaphors. Effectively, the conceptual bases of Lakoff and Johnson's view of metaphors and Chomsky's system of features suggest that both views can be accommodated within one approach that can provide a richer understanding of the Arabic animal metaphors and their implications for agreement.

5. Towards an Analysis

Taking Chomsky's view of the interpretability of features into consideration, we claim that the process of conceptual mapping, outlined in Lakoff and Johnson [1980], has in fact two components. First, it involves mapping a property from the source to the target. Second, the supposed process of conceptual mapping entails φ-features mapping from the target to the source. In other words, animal metaphor is a process of a symmetric conceptual mapping that involves mapping a property from the source (animal) to the target (human). In the other direction, the φ-features of the target are mapped, or to use a better term, copied on the source. We further argue that this process results in producing what we call a *hybrid* lexical item. Thus, Lakoff and Johnson's model of mapping represented by (5), is revisited in (8):

(8)
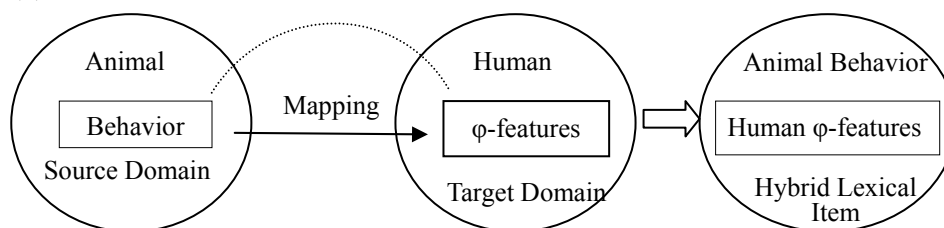
The hybrid lexical item comprises the animal property and the φ-features of the human name. Consequently, when the hybrid lexical item is selected, it enters the derivation with its φ-features that dictate the agreement pattern on the verb under the operation Agree. The derivation proceeds normally, as it is only the features that are visible and important for the Agree operation to take place.

The proposed analysis draws on different types of empirical as well as theoretical evidence. Empirical evidence suggests that the animal metaphor is in fact a hybrid lexical item. In addition to the examples discussed so far (see (4b), for instance), other examples from JA show striking discrepant agreement patterns and a sharp contrast between the literal and metaphorical reading. In (9a), agreement is straightforward as the verb shows feminine agreement with a feminine subject. Basically, the sentence has a literal interpretation. However, it can be interpreted metaphorically if the context helps understand that 'hen' is

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[2] EF is Chomsky's [2008] new version of the well-known EPP feature. However, EF is more consistent with his assumption that the source of all features is the phase head, a mechanism that is known as feature inheritance (cf. [Chomsky 2008, 2013]).

used to refer to a female human. On the contrary, (9b) has to be interpreted metaphorically or it is ruled out as a literal interpretation is not available; the verb shows a masculine agreement, hence the subject is understood to refer to a masculine human.

(9)   a.   ad-dajajeh   sharadat
                the-hen   escaped.3fs
                'The hen escaped.'

        b.   ad-dajajeh   sharad
                the-hen   escaped.3ms
                'The hen escaped.'

The sentences (10a) and (10b) behave on a par with (9a) and (9b) respectively. In (10b), the masculine animal noun that is used metaphorically to refer to a female human dictates feminine agreement on the verb. It is worth noting that some speakers find (10b) dubious when it stands out of the context.

(10)   a.   al-jamal   raaH
                the-camel   left.3ms
                'The camel left.'

        b.   al-jamal   raaHat
                the-camel   left.3fs
                'The camel left.'

Assuming that the morphological agreement reflects the syntactic Agree operation as mentioned earlier, examples such as (9) and (10) indicate clearly that the nominal subjects carry different φ-features which dictate different agreement patterns on the verb. In effect, the theoretical evidence confirms this conclusion.

On this theoretical ground, we present two pieces of evidence to support the view that the animal metaphor is a hybrid lexical item. The first piece of evidence comes from the Case theory while the second comes from the Binding theory. According to Chomsky, Case feature is an uninterpretable feature whose sole function is to make the nominal an active goal that can be matched with a c-commanding probe (see section 4). It is the valued φ-features of the noun that determine the values of the φ-features on the verb under the Agree operation that takes place within a probe-goal configuration. Agreement is projected as feminine or masculine depending on the φ-features of the goal. The morphological realization of Case in MSA suggests that it is valued under Agree, regardless of the intended reading; Case is valued nominative whether the noun has a metaphorical or literal interpretation. Consider the following examples[3]:

(11)   a.   al-numoor-u turamel-u nisaa' qariatinhindiat-in
                the-tigers-nom widow.3mf-indic. women-acc village-gen
                Indian-gen
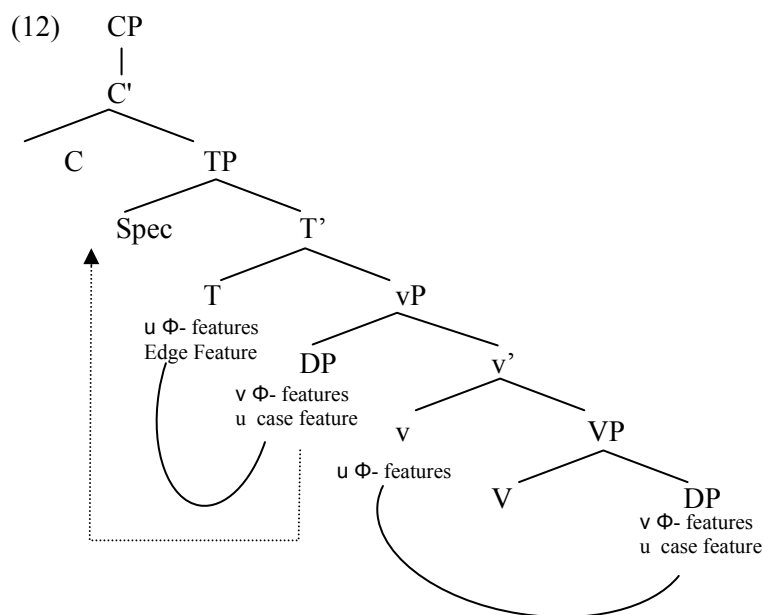   'The tigers widow the women of an Indian village.'

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[3] Both sentences in (11) are news headlines taken from BBC and Aljazeera websites on December 27, 2014.

b.   al-numoor-u yu-hajem-uun mauqi3-an bahri-an Sri Lankian
        the-tigers.nom attack-3mp-indec site-acc naval-acc Sri Lankan
        'The Tigers (of Tamil Eelam) attack a Sri Lankan naval site.'

This indicates that the versatility of agreement and its sensitivity to these interpretations is subject to the values of the φ-features on the noun with a metaphoric reading. This view is actually the only explanation for Arabic discrepant agreement patterns if Chomsky's feature system is to be adopted. The tree diagram in (12) below depicts the derivation of both (11a) and (11b).

(12)   CP
         |
         C'

     C   TP

         Spec   T'

              T   vP
          u Φ- features
          Edge Feature
                     DP   v'
                 v Φ- features
                 u case feature
                        v   VP
                    u Φ- features
                              V   DP
                                      v Φ- features
                                      u case feature

The structure in (12) shows that the unvalued φ-features of the probes v and T, the functional heads, are matched with their valued counterparts on the object and the subject respectively. Once Agree relation is established, all the unvalued features (including Case feature) are valued and deleted; Case features of the object and the subject are valued as accusative and nominative respectively. Due to the presence of EF on T, the subject moves from the specifier of vP to the specifier of TP to satisfy this feature.[4] Since the values of φ-features of T (to which the lexical verb is adjoined) are determined by the values of the φ-features of the subject, the different agreement patterns are accounted for by assuming that these features have different values depending on the intended reading, be it literal as in (11a) or metaphorical as in (11b).

The second piece of theoretical evidence comes from binding relations; the phenomenon of pronominalization can be seen as direct evidence in favor of the hybridity of the lexical item which has a metaphoric reading. Pronouns are composed exclusively of φ-features and they lack lexical heads [Radford 1997]. This means that the pronoun represents the φ-features of the noun to which it

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[4] For the sake of consistency, we assume here, following [Fassi Fehri 1993, Mohammad 2000], that the preverbal DP is a subject. The issue of the subject positions and analyzing them as topics of foci (cf. [Ouhalla 1997, Plunkett 1993]) is beyond the scope of this paper.

refers. The data show clearly that, for example, a masculine pronoun is used to refer to a metaphoric feminine animal name that describes a masculine human, as (13) shows:

(13)   ad-dajajeh   madafaa'   ma'   aShab-uh
         the-hen   not defended.3ms   with   companions-his
         'The hen did not defend with his companions.'

The opposite is true when a masculine animal metaphor refers to a female human:

(14)   al-jamal Tala'atmin al-qaa'ah   qabil   ma ashoof-ha
         the-camel exited.3fs   from the-hall   before not I.see-her
         'The camel had exited the hall before I saw her.'

Similarly, reflexive pronouns are used in accordance with the gender of the target, not the source:

(15)   a.   ad-dajajeh   ma   aHtaram   nafs-uh
                the-hen   not   respect.3ms   himself
                'The hen did not respect himself.'

        b.   a'ref   inno ha al-jamal   tHeb   nafs.haa
                I.know that this camel   likes.3fs   herself
                'I know that this camel likes herself.'

The pronouns in (13), (14), and (15) are subjects to condition B of the Binding theory, which requires pronouns to be free in their local domain. On the other hand, the reflexives in (15) are subjects to condition A, which requires anaphors to be bound (cf. [Chomsky 1981]). Assuming that the pronominal forms (i.e. the reflexives and the personal pronouns) represent the φ-features of the nouns to which they refer, and accepting the idea that animal metaphors are hybrid lexical items, the behavior of the sentences such as (13), (14), and (15) is predicted. This is because these pronominal forms, which have to be separated from the lexical heads to which they are attached, correspond to the φ-features of targets which are the human nouns that are described by the animal metaphors.

6. Conclusion

This paper has discussed the issue of the strong correlation between Arabic animal metaphors and the verbal agreement. We have shown that the use of the animal metaphors results in an agreement pattern that matches the features of the human name which is described by the animal metaphor.

We have approached the topic from a strictly conceptual point of view, accounting for the implication of the metaphoric reading of animal names for syntactic agreement. The analysis we have proposed is based on the premises that animal metaphors are the outcome of a conceptual mapping process between two domains and that the values of interpretable φ-features are determined conceptually. Building on these two views, the animal metaphor has been characterized in this paper as a hybrid lexical item composed of a lexical part and φ-features of a human name, which means that these features are copied to the

animal name under the conceptual mapping process. The hybridity of animal metaphors in Arabic metaphors proves to be manifested by syntactic means; hence they are associated with particular agreement patterns.

In summary, this paper has intended to bring to light the significance of the conceptual basis of Arabic animal metaphors and the accountability of the conceptually based system of φ-features to account for syntactic agreement. Other issues concerning agreement and metaphoric interpretation of animal names are yet to be further investigated. The analysis presented in this paper should be developed in future research to account for issues such as the use of metaphor and its implication for adjectival agreement and the structure of Arabic DP.

REFERENCES

Akkal 1996 – *Akkal A.* How SVO is SVO in Standard Arabic // A.Fassi Fehri (ed.). Linguistique Comparée et Langues au Maroc. Rabat: Université Mohamed V, Publications de la Faculté des Lettres et des Sciences Humaines, 1996.

Alenazy 2009 – *Alenazy M.* Case, Agreement and Movement in Arabic: A Minimalist Approach. Saarbrücken: VDM Verlag, 2009.

Al-Ghalayyini 1974 – *Al-Ghalayyini M.* Jame' ad-durus al-arabiyah. Beirut: Al-maktaba al-asriyya, 1974.

Aoun et al. 1994 – *Aoun J., Benmamoun E., Sportiche D.* Agreement, word order, and conjunction in some varieties of Arabic // Linguistic Inquiry, 25 (1994).

Bahloul, Harbert 1992 – *Bahloul M., Harbert W.* Agreement Asymmetries in Arabic // J.Mead (ed.). The Proceedings of the 11th West Coast Conference on Formal Linguistics. Stanford: CSLI Publications, 1992.

Benmamoun, Lorimor 2006 – *Benmamoun E., Lorimor H.* Featureless Expressions: When Morphophonological Markers Are Absent // Linguistic Inquiry, 37 (2006).

Bolotin 1995 – *Bolotin N.* Arabic and parametric VSO agreement // M.Eid (ed.). Perspectives on Arabic Linguistics VII: Papers From the 7th Annual Symposium on Arabic Linguistics. Amsterdam: John Benjamins, 1995.

Chomsky 1981 – *Chomsky N.* Lectures on Government and Binding. Dordrecht: Foris, 1981.

Chomsky 1986 – *Chomsky N.* Knowledge of Language: Its Nature, Origins, and Use. New York: Praeger, 1986.

Chomsky 1995 – *Chomsky N.* The Minimalist Program. Cambridge: MIT Press, 1995.

Chomsky 2001 – *Chomsky N.* Derivation by phase // M.Kenstowicz (ed.). Ken Hale. A Life in Language. Cambridge: MIT Press, 2001.

Chomsky 2004 – *Chomsky N.* Beyond explanatory adequacy // A.Belletti (ed.). Structures and Beyond. The Cartography of Syntactic Structures, Vol. 3. Oxford: Oxford University Press, 2004.

Chomsky 2008 – *Chomsky N.* On Phases // R.Freidin, C.P.Otero, M.L.Zubizarreta (eds.). Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud. Cambridge: MIT Press, 2008.

Chomsky 2013 – *Chomsky N.* Problems of projections // Lingua, 130 (2013).

Dirven 1985 – *Dirven R.* Metaphor as a basic means for extending the lexicon // P.Paprotté, R.Dirven (eds.). The Ubiquity of Metaphor. Amsterdam: John Benjamins, 1985.

Deignan 2006 – *Deignan A.H.* The grammar of linguistic metaphors // A.Stefanowitsch, S.Gries (eds.). Corpus-Based Approaches to Metaphor and Metonymy. Berlin, New York: de Gruyter Mouton, 2006.

Fassi Fehri 1993 – *Fassi Fehri A.* Issues in the Structure of Arabic Clauses and Words. Dordrecht, Boston: Kluwer Academic, 1993.

Freeman 2000 – *Freeman M.H.* Poetry and the Scope of Metaphor: Toward a Cognitive Theory of Literature // A.Barcelona (ed.). Metaphor and Metonymy at the Crossroads: A Cognitive Perspective. Berlin, New York: de Gruyter Mouton, 2000.

Hassan 1961 – *Hassan A.* An-nahw al-wafi. Cairo: dar al-ma'araef, 1961.

Howe 1988 – *Howe N.* Metaphor in contemporary American political discourse // Metaphor and Symbolic Activity, 3 (1988).

Ibn Hisham 1964 – *Ibn Hisham J.* Mughni al-labeeb. Damascus: Darulfeker, 1964.

Iza Erviti 2012 – *Iza Erviti A.* Resemblance operations and conceptual complexity in animal metaphor // Revista de Lingüística y Lenguas Aplicadas, 7 (2012).

Kuzmina 2013 – *Kuzmina S.* Conceptual metaphor in syntax: sentence structure level // Moderna Sprak, 107 (2013).

Lakoff 1987 – *Lakoff G.* Women, Fire and Dangerous Things: What Categories Reveal about the Mind. Chicago, London: University of Chicago Press, 1987.

Lakoff, Johnson 1980 – *Lakoff G., Johnson M.* Metaphors We Live by. Chicago: University of Chicago Press, 1980.

Lakoff, Turner 1989 – *Lakoff G., Turner M.* More than Cool Reason: A Field Guide to Poetic Metaphor. Chicago: University of Chicago Press, 1989.

Martsa 2003 – *Martsa S.* Conceptual mappings in the ethnobiological categorizations of animals. Paper presented at the Researching and Applying Metaphor Conference. Paris, 2003.

Mohammad 2000 – *Mohammad M.A.* Word Order, Agreement, and Pronominalization in Standard and Palestinian Arabic. Amsterdam: John Benjamins, 2000.

Ouhalla 1997 – *Ouhalla J.* Remarks on focus in Standard Arabic // M.Eid, R.R.Ratcliffe (eds.). Perspectives on Arabic linguistics X: Papers from the 10th Annual Symposium on Arabic Linguistics. Amsterdam: John Benjamins, 1997.

Plunkett 1993 – *Plunkett B.* The position of subjects in Modern Standard Arabic // E.Mushira, C.Holes (eds.). Perspectives on Arabic linguistics V: Papers from the 5th Annual Symposium on Arabic Linguistics. Amsterdam: John Benjamins, 1993.

Radford 1997 – *Radford A.* Syntax: A Minimalist Introduction. Cambridge: Cambridge University Press, 1997.

Richards 2007 – *Richards M.* On Feature Inheritance: An Argument from the Phase Impenetrability Condition // Linguistic Inquiry, 38 (2007).

Ruiz de Mendoza Ibáñez 2000 – *Ruiz de Mendoza Ibáñez F.J.* The role of mappings and domains in understanding metonymy // A.Barcelona (ed.). Metaphor and Metonymy at the Crossroads. Berlin: de Gruyter Mouton, 2000.

Vorlat 1985 – *Vorlat E.* Metaphors and Their Aptness in the Trade Names for Perfumes // W.Paprotté, R.Dirven (eds.). The Ubiquity of Metaphor. Amsterdam: John Benjamins, 1985.