

## A Comparison of English and Arabic Noun Inflectional Morphology

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### Abstract

The present study explores the inflectional systems of Arabic and English nouns with special attention to the similarities and differences between them. In other terms, this paper aims to answer the following research questions: What forms are used to mark the Arabic and English nouns for inflection? To which extent is inflection in Arabic nouns identical to/varied from that in English nouns? To do so, it is essential to describe the inflectional morphology of nouns in each language and explain how they are inflected and for which category/ies. A systematic comparison, then, is carried out between the two morphological systems. The outcome of the study reveals that the English nouns are weakly inflected as opposed to the Arabic ones. It is noteworthy that the results of this study are majorly applicable in the fields of second language learning, translation and machine translation.

**Keywords:** inflectional morphology ; comparative study ; Arabic nouns; English nouns

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### Résumé

La présente étude explore les systèmes flexionnels des noms arabes et anglais avec une attention particulière aux similitudes et aux différences entre eux. En d'autres termes, cet article vise à répondre aux questions de recherche suivantes: Quelles formes sont utilisées pour marquer les noms arabes et anglais pour l'inflexion? Dans quelle mesure la flexion des noms arabes est-elle identique/variée par rapport à celle des noms anglais? D'abord, il est essentiel de décrire la morphologie flexionnelle des noms dans chaque langue et d'expliquer comment ils sont fléchis et pour quelle(s) catégorie(s). Une comparaison systématique est alors effectuée entre les deux systèmes morphologiques. Le résultat de l'étude révèle que les noms anglais sont faiblement fléchis par opposition aux noms arabes. Il convient de noter que les résultats de cette étude sont applicables dans les domaines de l'apprentissage d'une langue seconde, la traduction et la traduction automatique.

**Mots clés:** morphologie flexionnelle ; étude comparative ; noms en arabe, noms en anglais

### ملخص

تستكشف الدراسة الحالية نظامي التصريف لكل من الأسماء العربية والإنجليزية مع إيلاء اهتمام خاص لأوجه الشبه والاختلاف بينهما. بعبارة أخرى، تهدف هذه الورقة إلى الإجابة على أسئلة البحث التالية: ما هي الصيغ المستخدمة لتميز الأسماء العربية والإنجليزية للتصريف؟ إلى أي مدى يكون التصريف في الأسماء العربية مطابقاً/مختلفاً عن ذلك في الأسماء الإنجليزية؟ للقيام بذلك، من الضروري وصف مورفولوجيا الأسماء في كل لغة وشرح كيف يتم تصريفها وفي أي فئة/فئات. ثم يتم إجراء مقارنة بين نظامي تصريف الأسماء في اللغتين. تظهر نتيجة الدراسة أن الأسماء الإنجليزية ضعيفة التصريف مقارنة بالأسماء العربية. من الجدير بالذكر أن نتائج هذه الدراسة قابلة للتطبيق في مجالات تعلم اللغة الثانية والترجمة والترجمة الآلية.

**الكلمات المفتاحية:** تصريف ؛ دراسة مقارنة ؛ الأسماء في العربية ؛ الأسماء في الإنجليزية

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## I- Introduction

After being at the centre of the interest of structuralists, morphology lost the attention it was given by the structuralists due to the Generative theory which carved it up between syntax and phonology. However, morphology has recently started to flourish again as an area of research. The current study deals with inflectional morphology, a sub-category of morphology, and tries to draw a comparison between the English and Arabic noun inflectional systems. However, it would be difficult to deal with inflectional morphology from a non-Chomskyan standpoint since it consists of those aspects of word structure that are syntactically relevant. Thus, this work is not purely morphological. Yet, this does not mean that various linguistic aspects are intervening; many of them are not addressed like the orthographic or phonological aspects of morphemes.

The present paper is a total of eight sections. We will start by defining two key terms in two sections: morphology and inflectional morphology. The third section will give an overview of the methodology. Surprisingly, the Arabic grammatical categories are not clearly divided. This enigma triggered the reaction of very few grammarians. For the purposes of the current study, we must determine what is considered a noun in Arabic in the fourth section just before embarking on outlining the Arabic nouns inflectional system in the fifth section while that of the English nouns will be dealt with in the sixth section. This description will be organized this way: the inflected grammatical classes/subclasses are listed and under each are mentioned the inflectional categories for which every class/subclass is inflected. It is essential to define the inflectional category first then explain how inflection occurs. Subsequently, the similarities and differences between the two inflectional systems will be presented in section seven. Before bringing this work to its end, we will account for its theoretical and applied implications in section eight.

### I.1. Morphology

Morphology is a sub-branch of linguistics that deals with the internal structure of words and with the rules by which words are formed (Bauer, 1983). Two major morphological processes are distinguished: derivation and inflection which are both carried out using affixes. When derivational affixes are added to roots, new words are formed. They, further, may/not change the part of speech of that word. For example, respect is a noun from which the adjective respectable is derived after being attached to the suffix -able. By contrast, inflectional affixes do not take part in word-formation; they are terminal and grammatical.

It is worthy to note that the basis unit of analysis in morphology is the morpheme which is defined as the minimal unit of meaning. Aronoff and Fudeman (2011, p. 1) stated that:

A major way in which morphologists investigate words ... is through the identification of morphemes, often defined as the smallest linguistic pieces with a grammatical function. This definition is not meant to include all morphemes, but it is the usual one...

There are two types of morphemes: the free morpheme which can stand alone freely such as the word *item* and the bound morpheme which cannot stand alone as an independent word and must be attached to another morpheme such as the plural -s. Affixes are always bound morphemes (Akmajian et al., 2001).

### I. 2. Inflectional Morphology

First and foremost, inflectional morphemes are class-maintaining. Their function is to mark the word for number, gender, case, person, tense, aspect, etc. For instance, the verb 'to develop' is inflected in the third person singular present with an -s: he develops. Thus, the inflectional endings show the relation of a word to the other words in a grammatical construction. Bybee (1985, p. 4) maintained that: "Inflectional

morphology involves concepts that are more relevant to how the word relates to other words in a construction than to the lexical item itself.”

## **II– Methodology**

The specific procedures used to tackle the topic of noun inflectional morphology across two languages are delineated below.

### **II.1. Aims of the Study**

The present paper aims at enlightening the path for second language learners of either English or Arabic in matters of inflection. Precisely, its goal is to make them aware of the differences (i.e.; the learning difficulties) and similarities between both languages at the morphological level. Not only does this study present a description but also a comparison of the noun inflectional structures in the languages under scrutiny.

### **II.2. Research Problems**

Basically, the objective of this paper is to discuss the inflectional morphology of Arabic and English nouns and implementing its results in, primarily, the language teaching domain. For this reason, the research problems of this paper are set forth as follows: (1) what is the English noun inflectional morphology? (2) what is the Arabic noun inflectional morphology? (3) what are the similarities and differences between both? and (4) what are the practical implications of this comparison? The answers to these questions are advanced in the sections below.

### **II.3. Scope**

The current research focuses on noun inflectional morphology so as to give a detailed description of their inflectional systems in each of Arabic and English and mainly depict the differences between them. Enlarging the scope to other grammatical categories made it rather loose and inconvenient –in terms of space– for a research paper; therefore, we decided to narrow it down.

### **II.4. Method**

In order to answer the research questions, the researcher opted for a theoretical systematic description of both the Arabic and English inflectional systems followed by a contrastive method to analyse and compare both systems. Meanwhile, we stick to the Arabic tradition which “keeps the formal description of inflection separate from that of derivation and semantics” (Neme & Laporte, 2013, p. 221).

## **III- Description and Comparison of the Arabic and English Noun Inflectional Morphology**

Before moving any further to the description and comparison of the two noun inflectional systems, the Arabic grammatical classes should be expounded as their taxonomy differs from those of the English language. We must make sure that they will be compared on equal levels so that to end up with the appropriate implications.

### **III.1. Solving the Arabic Lexical Categories Enigma**

At the outset, a word should be said about the Arabic parts of speech conundrum. Sibaweih, a great Arab grammarian, devised a classification that goes back to the 8<sup>th</sup> century and it includes three classes: nouns, verbs and particles (Mosel, 1980). In spite of the fact that this classification has remained valid ever since, it seems to be too broad and utilizes a deficient terminology (Mosel, 1980). Mosel (1980) advanced that in Arabic: “The category *ism* [noun] is a constituent class”; that is to say, it is not a word-class.

Unfortunately, there has been no other detailed research about the comprehensive class of nouns except that of Wright (1996). Like Sibaweih, Wright

(1996) proposed three categories: nouns, verbs and particles. Yet, he considered that the class of *nouns* includes substantive nouns, adjectives, pronouns, relative pronouns, demonstrative pronouns and numerals. It must be pointed out that they are all grouped together because of two reasons. Firstly, all of them are inflected for number, gender and case. Secondly, the demonstrative and relative pronouns can substitute nouns. Besides, the interrogatives in Arabic grammar books are called أسماء الاستفهام (*asmaa el'istifham*) 'nouns of interrogation'; therefore, we will put them under the umbrella category of nouns (along with substantive nouns, adjectives, pronouns, relative pronouns, demonstrative pronouns and numerals and study each sub-class alone). Hence, the term *nouns* refers to *substantive nouns* which englobe any part of speech that is inflected or functions like nouns within a sentence. That is, a phrase or a verb is included and this renders our task in this paper very complicated. Hence, the subcategory 'substantive nouns' will be overlooked in favour of that of, simply, 'common nouns'.

Building on all of what preceded, we will account for what constitute the class of nouns in Arabic (common nouns, adjectives, pronouns and numerals) as well as their counterparts in English (nouns, adjectives, pronouns and numerals). When inserting numerals in the English list, a justification is due. Although numerals in English do not constitute a grammatical class or sub-class, they will not be discarded on the grounds that: (a) they can be considered as nouns, adjectives or pronouns depending on their usage, (b) these three categories will be dealt with in this study and (c) they appear in the Arabic list and we want to meet the condition of *tertium comparationis* to render the comparative study possible. *Tertium comparationis* is the quality that the two phenomena which are being compared must be placed on the same platform of comparison.

## III.2. Inflectional Morphology of Arabic Nouns

Noun inflection is a vital part of the Arabic morphological system as nouns form a broad category of the lexicon. They are inflected for number, gender, case, agreement and person. It is worthy to note here that case and agreement are not an inherent feature of nouns; rather, Arabic nouns take various forms according to their position and function in a phrase or clause. More precisely, case and agreement are temporal characteristics in which syntax is a determining factor (Abdulmughni, 2017).

### III.2.1. Common Nouns

#### III.2.1.1. Number

Arabic has three forms of number: the singular, the dual and the plural. To begin with, the singular is unmarked but the dual is marked with the dual suffix ان- in the nominative case (المرفوع *elmarfou*) and ين- in the accusative (المنصوب *elmansoub*) or genitive (المجرور *elmadjrour*) cases.

Regarding plural formation, it follows three patterns; they are: the sound masculine pattern, the sound feminine pattern and the broken form. In other terms, the plural morpheme has a large number of variants. Their distribution is as follows.

*a. The sound masculine pattern (a regular plural):* Here, the plural morpheme variants are -ون (-un) when added to a singular base form in the nominative as in معلمون *mualimoun* 'teachers' and -و (-u) when added to a singular appositioned noun in the nominative case as in معلمو المدرسة *mualimou elmadrassati* 'the teachers of the school'. In the accusative case, the plural sound masculine morpheme is -ين (-in) as in معلمين *mualimina* 'teachers' or -ي (-I) for an appositioned noun as in معلمي المدرسة *mualimi elmadrassati* 'the teachers of the school'. It is interesting to note that some nouns have an invariable plural form and have no singular form like the word أولو *ulou* 'those who have' and that some other nouns ending in the plural suffixes -ون (-

*un*) or *-in* (ين) are plural in form but have no singular meaning such as زيتون (*zeytoun*) 'olive' and ياسمين (*yasmine*) 'jasmine'. Regarding compound nouns, the plural suffix is added to the first element as in مفاوضات السلام (*mufawadhatu essalemi*) 'peace negotiations'.

**b. The sound feminine pattern (a regular plural):** The feminine plural suffix *-at* (ات) is added to a singular base form of a noun—not necessarily a feminine noun—to convert it to the plural like طولة (*tawilah*) / طولات (*tawilaatum*).

**c. The broken plural (an irregular plural):** Both feminine and masculine singular nouns have broken plural forms. The broken plural is not formed by the addition of a plural suffix but by many suppletive allomorphs which involve an internal change (Al-Jarf, 1994). This change could be the addition of one or more consonants and/or vowels such as قلم (*qalemun*) / أقلام (*aqlemun*), the deletion of one or more consonants and/or vowels as in رسول (*rasoulun*) / رسل (*rusulun*) or a vowel change as in كتاب (*kitab*) / كتب (*kutub*).

It is essential to note that here are many patterns according to which the broken plural can be formed. These patterns are grouped into five categories. First, the final plural patterns (صيغة منتهى الجموع) (*sigat muntaha eldjumu*): فواعل (*fawail*), أفاعيل (*afaiil*), and أفاعل (*afail*) such as دراهم (*darahim*), أراجيز (*araadjiiz*), and أنامل (*anamil*). Second, the plural of the plural (صيغة جمع الجموع) (*sigat djam*) *elffjoumou*) as in يد (*yad*) / أيدي (*aydii*) / أيادي (*ayadi*) or رجل (*radjul*) / رجال (*ridjaal*) / رجالات (*ridjaalaat*). Third, the collective noun (اسم الجمع) (*ism al djam'*) which denotes a plural that has no singular form but can get a plural form (e.g.; شعب (*chaab*) / شعوب (*chuoub*)). Fourth, the quasi-plural which is of three types. The first type of the quasi-plural is 'the plural of the few' (جمع القلة) (*djam' elquillah*) which could be a plural denoting a number from three to ten and it has four patterns: أفعل (*af'ul*), أفعال (*afaal*), فِعْلة (*fi'la*), أفِعة (*afila*) as in أخرف (*ahruf*), أقفال (*aqfaal*), فَيْتية (*fityah*), أعمدة (*a'midah*). The quasi-plural could be a plural denoting a big number (جمع الكثرة) (*djam'u elkathra*) which, in turn, has several patterns among which are the following: فُعْل (*fu'ul*) / كُتُب (*kutub*), فِعْل (*fi'al*) / قِمَم (*quimam*), فِعْلان (*fi'laan*) / غِلْمان (*ghilman*), فِعْلة (*fi'ala*) / قِرْدَة (*quiradah*), فُعْال (*fu'aal*) / رُوَاد (*ruwaad*), فَعْلَى (*fa'la*) / جِرْحَى (*djarha*), فِعْال (*fi'aal*) / جِبَال (*djibaal*), أفْعِلاء (*af'ilaa*) / أنبياء (*anbiya*). The other quasi-plural form is the ultimate plural pattern (صيغة منتهى الجموع) (*sighat djam' eldjoumou*) whose templates are مَفَاعِل (*mafa'l*) like دراهم (*darahim*) and مَفَاعِيل (*mafa'iil*) like طَوَابِير (*tawabiir*).

We shift now to some of the peculiarities of the Arabic plurals. Astonishingly, the broken plural noun can be put in the dual just like a singular; for example, الجندي (*eldjundi*) (which means a soldier) / الجنود (*eldjunoud*) (which means an army) / الجنودان (*eldjunoudan*) (which means two armies). Additionally, some nouns appear always in the broken plural form and have no singular form like التباشير (*ettabashir*) and *el'alaa* الألاء. In few cases, a singular noun may take two plural forms—for instance, نَهْر (*nahr*) (which means a river) / نُهُر (*nuhur*) (which means rivers) / أنهار (*anhar*) (which means rivers also) or امرأة (*imra'a*) / نساء (*nisa*) / نسوة (*niswa*). Last but not least, sometimes one noun can have one invariable singular and plural forms at once like رقيق (*rakik*) and بشر (*bashar*).

### III.2.1.2. Gender

In Arabic, there are two genders: the masculine and the feminine. Persons, things and animals can take the masculine or feminine form. The feminine is usually denoted by the addition of the morpheme *-h* (هـ) to the masculine noun; the letter before

this morpheme is vowelised with َ (its English equivalent is the phoneme /æ/) as in طيب (tabib)/طبيبة (tabibah).

### III.2.1.3. Case

The Arabic nouns have a three case system: the nominative marked with ُ (its English equivalent is /u/), the accusative marked with َ (its English equivalent is /æ/) and the genitive marked with ِ (its English equivalent is /I/). These case endings can be replaced by a pausal pronunciation ْ (السكون) (essoukoun), the English equivalent of which is /ʔ/ in final position. What must be stressed, here, is that the dual, the sound masculine and the sound feminine plurals have special case endings. The dual is marked with -ان in the nominative and -ين in the accusative and genitive (oblique). The sound masculine plural is marked with -ون in the nominative and -ين in the oblique. The sound feminine plural is marked with -اثنان in the nominative and -ات in the accusative and genitive. Diptotic nouns<sup>1</sup> never receive /i/ (الكسرة) (elkesrah) in the genitive and are never nunated in the indefinite. Interestingly, case markers do not appear in all nouns; for example, quiescent names (الأسماء المقصورة) (elasma) (elmaqsoura) such as مصطفى (mustafa) are not marked for case whilst defective nouns (الأسماء المنقوصة) (elasma' elmanqoussa) receive only the accusative case marker such as القاضي (elqaadhii).

### III.2.1.4. Agreement

The Arabic nouns agree in number, gender and case with demonstratives. Examples of this could be: هذا الرجل (hada erradjulu) to mean 'this man' and هاتهن النسوة (hatihenniswatu) to mean 'these women'.

## III.2.2. Adjectives

### III.2.2.1. Number

Like nouns, an adjective may be singular, dual or plural. Dual adjectives are formed by adding the dual suffix -ان in the nominative case and -ين in the oblique. Examples of these are: كبير (kabiir)/كبيران (kabiiraan)/كبيرين (kabiireyn). Similar to nouns, plural adjectives are either sound (masculine or feminine) such as مجتهد (mudjtahid)/مجتهدون (mudjtahidoun)/مجتهدين (mudjtahidin), مجتهدة (mudjtahida)/مجتهدات (mudjtahidat) or broken such as صغير (saghiir)/صغار (sighaar).

### III.2.2.2. Gender

Like nouns, adjectives can be either masculine or feminine. The suffix -ة is also added to the masculine base form to get the feminine. It has allomorphs which are the templates أفعل (fa'la) and فعلاء (fa'laa) for the adjectives whose patterns are فعلا (fa'la) and فعلان (fa'lan) respectively (e.g.; أسود (aswad)/سوداء (sawda) and عطشان (atchan)/عطشى (atcha)).

### III.2.2.3. Comparative

In Arabic, the comparative and superlative are expressed by the relative. Put otherwise, no special affixes are used. The relative is derived from a trilateral transitive verb whose meaning is comparable and does not indicate color, beauty, weather or defect in the body. Besides, this verb should have full conjugation i.e.; it can be

<sup>1</sup> Diptotic nouns include: plurals on the pattern مفاعل (mafa'il) and مفاعيل (mafa'iil), compound proper nouns, proper nouns whose form is similar to the verb like يزيد (yaziid), feminine proper nouns like زينب (zeyneb) and أسامة (ussamah), etc. Diptotic nouns turn to be fully declined when ال- (-el) is prefixed to them (Elkheweissi, 2001).

conjugated in all tenses. Concerning the elative, it is formed by the pattern أفعل *(af'al)* followed by the preposition من. This pattern is used to derive both the comparative and the superlative (e.g.; كبير *(kabiir)*/ أكبر من *(akbar min)*). The variants or function words like أشد *(achad)*, أكثر *(akthar)*, أسرع *(asra)*, أكبر *(akbar)* and أحسن *(ahssen)* are used to compare adjectives derived from the passive verbs, verbs of more than three syllables, and verbal adjectives that denote color or a physical deformity. Examples of these are حمرة أشد *(achaddu humrattan)* and أحسن تعليماً *(ahssanu taliman)*.

#### III.2.2.4. Superlative

The superlative is formed by adding the definite particle ال to the comparative form and by deleting the preposition من *(min)*. An example of this is: أكبر *(kabiir)*/ الأكبر *(alakbar)*.

#### III.2.2.5. Case

Adjectives are inflected for the three case systems using the same markers as nouns: the nominative marked with ُ, the accusative marked with َ and the genitive marked with ِ .

#### III.2.2.6. Agreement

The form of the adjective is always determined by the gender, number, case and state of the noun it qualifies. State refers to whether a noun is indefinite as نجمة *(nedjma)*, definite using a definite article as النجمة *(ennedjma)* or a construct as نجمة الصباح *(nedjmatu essabaahi)*.

#### III.2.3. Pronouns

Arabic pronouns are divided into two groups: independent pronouns that can function as subjects or predicates and pronominal suffixes that may function as objects, prepositions or possessors of nouns.

##### III.2.3.1. Number

Number distinctions occur with independent pronouns in the nominative like أنا *(ana)*, أنت *(anta)*, نحن *(nahnu)* and أنتن *(antunna)* and in the oblique like إياك *(iyyaka)*, إياهما *(iyyahuma)*, إياهم *(iyyahum)*. Pronominal suffixes also show number distinctions but only in the nominative as in نجحت *(nadjahat)*, نجحوا *(nadjahu)*.

##### III.2.3.2. Gender

Gender distinctions are made in the independent pronouns in second and third persons in the singular and plural but not in the dual. For example, there is أنتم *(antum)* أنتن *(antunna)* and هو *(huwa)* هي *(hiya)* in the nominative and إياك *(iyyaka)*/ إياك *(iyyaki)* and إياهم *(iyyahum)*/ إياهن *(iyyahunna)* in the oblique. Pronominal suffixes also show gender distinctions in the second and third person in the nominative as in نجحت *(nadjahat)* (feminine) and نجحوا *(nadjahu)* (masculine) and نجحت *(nadjahat)* (feminine) and نجحوا *(nadjahu)* (masculine).

##### III.2.3.3. Person

Arabic personal pronouns are thirteen in number. Each of them occurs in a paradigm of six forms. The paradigms are two personal independent forms (one for the nominative (e.g.; أنا *(ana)*) and the other for the accusative (e.g.; إياي *(iyyaya)*), one pronominal prefix form (e.g.; يضرب *(yadribu)*) and three pronominal suffixes forms in the nominative (e.g.; ضربت *(darabat)*), accusative (e.g.; ضربني *(darabani)*) and genitive

cases (e.g.: قلمي <qalami>). The pronominal suffix is added to the verb in the perfect tense (e.g.: ضربوا <darabuu>). However, in the imperfect tense, both the pronominal suffix and the pronominal prefix are added to the verb (e.g.: يضربني <yadribunii>). The independent pronouns, the imperfect prefixes and the pronominal suffixes have separate forms for first, second and third persons.

#### III.2.3.4. Case

Personal independent pronouns represent a two case system: the nominative as أنت 'anta) and the accusative as إياك <iyyaka>. Concerning pronominal suffixes, they show a three case system. They indicate the nominative as in نجحت <nadjahtu>; they also indicate the accusative when attached to a verb as in سألك <sa'alaka> and the genitive when attached to a noun as in كتابك <kitaabuka>.

#### III.2.4. Relative pronouns

##### III.2.4.1. Number

Arabic relative pronouns show number distinctions. A dual suffix, that has a number of allomorphs, is added to the singular relative pronoun to convert it to dual and a plural suffix, which has a number of replacive allomorphs, are used to form the masculine and the feminine plurals. The relative pronouns الذي <elladi> and التي <ellati> are singular; اللذان <elladani>, اللذين <elladayni>, اللتان <ellatani> and اللتين <ellatayni> are dual; and الذين <elladina>, اللواتي <ellawaatii>, اللاتي <ellaatii> and اللاتي <ellaaiii> are plural.

##### III.2.4.2. Gender

Gender distinctions are made in the singular, dual and plural. Examples of these are الذي <elladi>/الذي <elladi>, اللتان <ellataani>/الذاتان <elladaani>, اللواتي <ellawaatii>/الذاتين <elladiina>. It is noteworthy that the feminine plural relative pronoun has three forms: اللاتي <ella'ii>, اللواتي <ellawatii> and اللاتي <ellaatii>.

##### III.2.4.3. Case

Relative pronouns show case distinctions only in the dual. There is اللذان <elladani> and اللتان <ellatani> in the nominative and اللذين <elladayni> and اللتين <ellatayni> in the oblique.

##### III.2.4.4. Person

The relative pronouns are always in the third person.

##### III.2.4.5. Agreement

Arabic requires relative pronouns to show number, gender and case agreement with nouns.

#### III.2.5. Demonstratives

##### III.2.5.1. Number

Arabic demonstratives are marked for number. A demonstrative may be singular, dual or plural. Dual and plural demonstratives are not formed by the addition of a dual or plural suffix; rather, the dual is formed by a replacive suffix, and the plural is formed by a suppletive suffix. The demonstrative pronouns هذا <hadhaa>, ذلك <dhalika>, ذاك <dhaaka>, هذه <haadhihi> and تلك <tilka> are singular; هذان <hadhaani>, هذين <hadhayni>, هاتان <hataani>, هاتين <haatayni> and تانك <taanika> are dual and هؤلاء <ha'ulaa'i> and أولئك <uula'ika> are plural.

### III.2.5.2. Gender

Arabic makes gender distinctions in demonstrative pronouns. Gender distinctions are made in the singular, dual and plural forms. The following are but examples of the masculine and the feminine forms of the demonstrative pronouns: هذا *(hadhaa)*/ هذه *(haadhihi)* and تلك *(tilka)*/ ذاك *(dhaalika)*.

### III.2.5.3. Case

Demonstratives show case distinctions only in the dual. They are used in this way: هذان *(hadhaani)* and هاتان *(hataani)* in the nominative and هاتين *(haatayni)* and هذين *(hadhayni)* in the oblique.

### III.2.5.4. Agreement

Demonstratives show number and gender agreement with nouns, in Arabic.

## III.2.6. Interrogative pronouns

### III.2.6.1. Person

They are always in the third person. For example, ما *(maa)*, من *(min)*, أي *(ayyu)* are interrogative pronouns.

### III.2.6.2. Case

Only أي *(ayyu)* is inflected for the nominative, accusative, and genitive cases and can take the nunation.

## III.2.7. Numeral numbers

### III.2.7.1. Gender

The numbers "واحد" *(waahid)* and "اثنان" *(ithnaani)* are adjectives that follow the noun and agree with it in gender. However, simple numerals (3-10) do not agree with the noun in gender. For instance, we say ثلاث فتيات *(talaatu fatayaatin)* and not فتيات ثلاث *(talaatu fatayatin)\**. Contrary to them, the numbers 11 and 12 show gender agreement. Concerning complex numerals (13-19), their second part agrees with the noun in gender but the first part shows polarity (e.g.; أربعة عشر رجلا *(arba'ata acharah radjulan)*). This rule is reversed with the coordinated numbers (المعطوف *(al-maatouf)*) (i.e.; 21-29, 31-39...91-99) where the first element exhibits gender agreement with the noun while the second element is unchangeable (like خمسة وعشرون طالبة *(khamsatun wa ichrouna taalibatan)*). The simplest rule is with the unitary numbers (i.e. 20, 30,... 90, 100, etc.); they take one form with all nouns (e.g.; سبعون طالبا *(sab'una taaliban)*).

### III.2.7.2. Case

Numerals take the case required by the surrounding syntax except for those from 11 through 19 which are always in the accusative case, but 12 is declinable: it is اثنا عشر *(ithna acharah)* or اثنتا عشرة *(ithnataa acharah)* in the nominative and اثني عشر *(ithnay acharah)* or اثنتي عشرة *(ithnatay acharah)* in the oblique. As for *al-maatouf*, its first element is declinable according to the surrounding syntax while the second element is unchangeable.

## III.3. Inflectional Morphology of English Nouns, Adjectives and Pronouns

English inflectional morphology is concerned mainly with the behaviour of words that belong to these classes: nouns, verbs, adjectives, adverbs as well as pronouns and determiners because some of them display plurality, gender and case (Carstairs-McCarthy, 2002). This section will deal only with how nouns are inflected in English. Precisely, they can be inflected for three categories: number, case and agreement.

### III.3.1. Common Nouns

#### III.3.1.1. Number

Number is a grammatical category that expresses count distinctions such as "one", "two" or "three" or more. English has two forms of number: the singular and the plural. The singular is not marked but the plural is by the suffix {-s} that may be added to a singular base form to convert it to the plural. Some irregular cases are worth mentioning here. For example, with collective nouns, a zero suffix indicates the plural meaning such as the words *cattle* and *people*. Moreover, some nouns form the plural by a replacive morpheme: the plural formation involves an internal change of vowels. For instance, the plural of *foot* is *feet* or that of *man* is *men*. With respect to loan words, they retain the plural formation used in the original language e.g.; *curriculum/curricula* or *locus/loci*.

#### III.3.2. Case

Case is the relationship of a word to other words in a sentence, shown by word order or by prepositions in non-inflected languages and by change in word form in inflected languages. English nouns have a two case system. The first is the unmarked common case in which nouns do not have different forms to indicate whether they are subjects (the nominative case) or objects (the accusative case); this information is partially shown by word order (Al-Jarf, 1994). The second is the marked genitive case or the possessive case where the inflectional suffix -s is used. This possessive morpheme has the variants {-s} and {-'}. Furthermore, the 'of-structure' is considered as a variant of the {-s} morpheme. The suffix -s is used with animate nouns and the 'of-structure' is used with inanimate nouns; for example, the *cat's tail* is possible while the *tree's branch\** is not; rather, it is *the branch of the tree*.

#### III.3.3. Agreement

A word in a sentence can take a particular morphological form, or 'inflect', under the impact of another word form in a construction. Nouns show number agreement with determiners and the third person singular present. They also indicate gender agreement with the relative pronouns *who/whom* and *which*.

#### III.3.2. Adjectives

In order to convey the meaning of the comparison or the superlative, the English adjectives can be attached to particular inflectional morphemes.

##### III.3.2.1. Comparison

Comparison refers to the modification of adjectives and adverbs so that to express increase or diminution of quality. Adjectives are compared in two ways. Either the comparative suffix *-er* is added to short adjectives as in *long/longer* or its variant *more* is placed before polysyllabic adjectives as in *more beautiful*. Furthermore, a selective form is used with few adjectives like *good/better*.

##### III.3.2.2. Superlative

The superlative is the modification of adjectives (and adverbs) in order to express superiority. Short adjectives inflect for the superlative by taking the suffix *-est* as in *long/longest*. For polysyllabic adjectives, it is the variant *'most'* that is added before them. Besides, selective forms are used in few cases as in *bad/worst*.

#### III.3.3. Pronouns

Seemingly, one of most detailed English inflectional system is found with pronouns. They take various forms to specify: number, gender, person and case.

##### III.3.3.1. Number

Number distinctions are made with personal and reflexive pronouns (such as *I/we* or *himself/ themselves*) but the second person (*you* and *yourself*) is unmarked for number. Those distinctions occur also with demonstrative pronouns (such as *this/these*), distributive pronouns (such as *both/all*), indefinite pronouns (such as *some/any*) and definite pronouns (such as *one/ones*).

### III.3.3.2. Gender

Though gender is not an inflectional category in Modern English, the third person singular pronouns *he/she/it* and the relative pronouns *who/which* are gender sensitive.

### III.3.3.3. Person

Person is the classification of pronouns according to: the person speaking or the *first person*, the person spoken to or the *second person* and the person spoken about or the *third person*. English personal pronouns are seven in number. Each of them occurs in a paradigm of four forms. The paradigms are personal nominative, personal accusative, determiner possessive and nominal possessive (*I, me, my, mine*). Only personal, possessive and reflexive pronouns have distinctions of person (Al-Jarf, 1994).

### III.3.3.4. Case

In English, pronouns can function as subjects or objects. They represent a three case system: the nominative case (*like I, we, who, one, others.*), the accusative case (such as *me, us, whom, one, others*), and the genitive case where we find pronominal possessors (like *my, whose, ones', others'*) and substitutional possessors—as, for example, the pronouns *mine* and *ours*.

### III.3.4. Numerals

Numerals are not inflected in English except for the plural by adding the suffix—s as in *ten, tens*.

## III.4. Comparison

Since English and Arabic are not genetically related languages in the sense that English is an Indo-European language whereas Arabic is a Semitic language, Al-Jarf (1994) suggested that no comparison between them could be made. For us, a comparison seems difficult but not impossible. The difficulty lies in the fact that the grammatical classes do not match; furthermore, the inflectional morphemes are not the same. In what follows is a comparison that involves some similarities and numerous differences between the ways nouns, adjectives and pronouns are inflected in each language.

### III.4.1. Similarities

Both English and Arabic have irregular forms of the plural and the zero plural morpheme. In spite of the fact that the inflectional affixes occur usually before the derivational ones, both English and Arabic show cases where inflection occurs inside derivation. This is clear in the plural formation of compound nouns—for instance, *teethmarks, mothers-in-law* and علماء الفلك *ulama'u elfalaki*. Probably, this results from the fact that examples like *tooth, mother* and عالم are words listed in the lexicon and are, hence, available as bases for further affixes. Personal pronouns are inflected for the same inflectional categories in each of Arabic and English.

Arabic inflectional morphology, like the English one, is not fully regular. The former exhibits irregularity in the broken plural of nouns (like قلم/أقلام *qalamun/aqlaamun*). A good example of irregularity in English is also found when forming the plural of some nouns like: *thesis/theses* and *criterion/criteria*. These are cases of borrowed words that have not been nativized into the morphophonemics of the syntactic class they belong to. These words lack the appropriate stem shape that would allow them to be combined with the inflectional morphemes of the language. Generally, irregularities may be induced by inherent inflection as opposed to contextual inflection. This is because inherent inflection (like number on nouns and degree with adjectives;) is not required by the syntactic context, though it may have syntactic relevance whereas contextual inflection (like case, person, gender and number agreement) (Bauer, 2003) is dictated by syntax which is mainly rule-based.

A further similarity between the two languages is that both of them exhibit syncretism. Syncretism refers to phonologically identical grammatical forms serving more than one function. To illustrate this point, reference is made to the suffix {-s} which is an inflectional morpheme to mark the plural, the possessive case and the third person singular present. Besides, the distinction of nominative and accusative endings is syncretised (or neutralized) in any paradigm (Matthews, 1974). Concerning Arabic, the use of *elkasra* /i/ to indicate both the accusative and the genitive cases in the sound feminine plural is a good example of syncretism. Reference could also be made to defective nouns exemplifying partial syncretis, where the nominative and the genitive forms are the same.

Similar to English, Arabic tolerates a few lexical items that have no special grammatical paradigm at all. Instances of this would be nouns that have one form for both the plural and the singular. This may lead us to say that paradigms can be defective; put differently, one or more forms can be missing for certain words (Bickel & Nichols, 2001). Usually such gaps are motivated on logical, morphological, phonological or semantic grounds. Arabic defective nouns, for example, do not receive *edhamma* to avoid difficulty in pronunciation as in القاضي (elqadhii). Some English adjectives do not allow inflected forms for comparison and superlative like *unique*, *annual* and *black* because they express properties or circumstances which cannot be increased; this is a semantic constraint. All of these indicate the way in which inflection interacts with other linguistic phenomena.

#### III.4.1. Differences

Basically, English nouns are inflected for number, possessive case and agreement while Arabic nouns are inflected for number, case, agreement and gender. Concerning gender, if it is known to be derivational in English, it is rather inflectional in Arabic. The third difference between noun inflections in English and Arabic is that in English there is an absence of the dual suffix, whereas in Arabic dual affixes exist. Another distinction is that English has only one plural suffix {-s} whilst Arabic has two nominal sound plural suffixes (the masculine {-ون} and the feminine {-ات} along with their variants) and several patterns of the broken plural. We shift now to tackling loan words. In English, they form their plural by applying the rule of the foreign language where the word is borrowed from but in Arabic it is the plural feminine suffix which is used as in تكنولوجيا (tiknuuluudjiya) and تكنولوجياات (tiknuuluudjiyaat) but datum and data. Another difference between the two inflectional systems lies in case. Contrary to the English nouns whose case is marked only in the possessive case, Arabic nouns have a three case system that contains a marked nominative with /u/, a marked accusative with /a/ and a marked genitive with /i/. Often, since it is indicated with short vowels, case inflection is not indicated in Arabic publications; thus, word order alone indicates the syntactic functions.

Adjectives, either in Arabic or English, are inflected for both the comparison and superlative. In Arabic, however, they are also inflected for number, gender, case, and show agreement with the nouns they accompany in a construction.

Both Arabic and English are synthetic languages but the present study suggests that the former is highly inflected as opposed to the latter. English has fewer inflectional morphemes than Arabic. Precisely, it has three inflectional categories and five inflectional morphemes for nouns, adjectives and pronouns: -s, -'s, -ing, -er, -est. Arabic is a highly inflectional language with about 16 for nouns, 12 for demonstrative pronouns, ten for relative pronouns and 14 for detached pronouns. Additionally, the choice of suffixes for nouns is dependent on the type and syllable structure of the root.

From the afore-mentioned descriptions, it is clear that English is predominantly suffixing; its inflectional morphemes are limited to suffixes. In Arabic, both infixes and suffixes are found although there is an overall preference for suffixes. Perhaps, the largest theoretical question to be posed is: why are suffixes more frequent than prefixes? Probably, this is because prefixing makes it difficult to separate prefixes from stems and, thus, recognize the lexical item. It should be noted that different inflectional

categories exhibit different degrees of preference for suffixes. For example, case affixes show a particularly strong suffixing preference.

Furthermore, Arabic inflectional affixes either comprise consonants and vowels (pronominal prefixes, the feminine suffix, the dual, and sound plurals) or only vowels (the three case markers). However, in English all the inflectional suffixes comprise consonants and vowels or just consonants but no single suffix is made up of only vowels.

### **III.5. Implications of the Study**

The current paper which compares the inflectional morphology of nouns in Arabic and English has a number of theoretical and practical implications.

#### **III.5.1. Theoretical Implications**

This comparison of the inflectional systems in Arabic and English supports language universals. It is crystal clear that the number of the inflectional categories in both English and Arabic is small, as in most languages, and that the inflectional morphemes in both languages are resistant to borrowing. Moreover, the description of the two inflectional systems proves Greenberg's universals with reference to point 36 (Brown, 2005). It establishes the implicational relation between gender and number: if a language has a category of gender it always has a category of number. Both points are true for Arabic.

#### **III.5.2. Practical Implications**

At the practical level, studies of such a kind aid in building morphological analysers or synthesisers which are useful in natural language processing and information retrieval. They also help to solve the problem of statistical machine translation from Arabic, a language exhibiting a rich inflectional morphology, to English, a language with a relatively poor inflectional morphology, or vice versa. Translation students may also benefit from this study; they need to bear in mind that large inflectional paradigms are harder to process. Besides, such studies can facilitate second language acquisition because if a learner is aware of these inflectional differences between the two languages, transfer will occur less from the mother tongue to the foreign language. Second language learners, at beginner level, would be better at spelling if they were taught about morphemes as being the units that form words. Last but in no way least, pedagogically speaking, the Arabic learners will find it easy to learn the system of the inflectional affixes of English because from the findings of the aforesaid comparison, it can be safely concluded that the two systems of inflection are different rather than similar and the one of English is structurally simpler than that of Arabic.

## **IV- Conclusion**

In comparison with English where inflection plays a modest role, the Arabic morphology is known for its richness and complexity. Although there is a quasi-similarity in the categories of noun inflectional morphology, a cross-linguistic variation in the forms of the noun inflectional morphemes between the two languages is clearly visible. Various similarities exist and they might be relevant to language universals while numerous differences were discovered which could be attributed to the fact that the two languages are not cognate.

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