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The Arabic origins of "question and modal words" in English and European Languages: A lexical root theory approach

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Abstract: This paper examines the Arabic origins of *question* and *modal* words in English, German, French, Latin, Greek, Russian, and Sanskrit from a lexical root theory perspective. The data consists of 21 terms like *who, what, why, when, where, which, how; can/could, will/would, shall/should, may/might*. All such words, the results exhibit, have true Arabic cognates, with the same or similar forms and meanings. Their different forms, however, are all found to be due to natural and plausible causes and different courses of linguistic change. Moreover, all the wh-question words in the so-called Indo-European languages developed from one form- viz., *hu-* in Germanic languages (English *how*, German *wie*, Gothic *hvaiwa*), *qu-* in Romance (Latin, French, Italian *quis/que*), Slavic (Russian *kto*), Sanskrit (*kah*), and Greek *ti (tos)*, to which gender, number, and case endings were added, leading to different forms and different meanings like *who, what, why, how, when, where* in English. All such forms descended eventually from Arabic *kaifa/kai* 'how' via different routes of sound change, turning /k/ into /q/ in Latin and French, /h/ in English, and /t/ in Greek while /f/ became /w (u)/ in all. That is, Arabic *kaifa (kai)* → (i) *kwa* in Latinate → (ii) *haifa, haiwa/wa* in Germanic → iii) *ta/sa* in Greek/Irish or something similar. Also the auxiliary or modal words had true Arabic cognates. Consequently, the results indicate, contrary to Comparative Method claims, that Arabic, English, and all (Indo-)European languages belong to the same language, let alone the same family. They, therefore, prove the adequacy of the lexical root theory according to which Arabic, English, German, French, Latin, and Greek are dialects of the same language with Arabic being their origin all because of its phonetic complexity and huge lexical variety and multiplicity (10 v. 1).

Keywords: Question & Modal Words, Arabic, English, German, French, Russian, Latin, Greek, Sanskrit, Historical Linguistics, Lexical Root Theory

1. Introduction

The lexical root theory (Jassem 2012a-f, 2013a-q, 2014a) has been so named for using lexical (consonantal) roots in tracing genetic relationships between Arabic words and those of English, German, French, Latin, Greek, Sanskrit, and/or Indo-European languages. It first arose as a rejection of the classification of the Comparative Method in historical linguistics that Arabic belongs to a different language family from English, German, French, and all (Indo-)European languages in general (Bergs and Brinton 2012; Algeo 2010; Crystal 2010: 302; Campbell 2006: 190-191; Yule 2006; Crowley 1997: 22-25, 110-111; Pyles and Algeo 1993: 61-94). Conversely, it clearly demonstrated the inextricably close, genetic relationship between Arabic and such languages phonetically, morphologically, grammatically, and semantically (Jassem 2012a-f, 2013a-q, 2014a).

Twenty four studies have already been conducted on all language levels. Phonetically, although this recurred in all the studies below, Jassem (2013c) outlined the English, German, French, Latin, and Greek cognates of Arabic back consonants: viz., the glottals, pharyngeals, uvulars, and velars. Morphologically, three studies established the Arabic origins of English, German, French, Latin, and Greek inflectional 'plural and gender' markers (Jassem 2012f), derivational morphemes (Jassem 2013a), and negative particles (Jassem 2013b). Grammatically, four papers described the Arabic origins of English, German, French, Latin, Greek, and Sanskrit personal pronouns (Jassem 2012c, 2013l), determiners (Jassem 2012d), and verb 'to be' forms (Jassem 2012e). Lexically, sixteen studies successfully

traced the Arabic origins of English, German, French, Latin, Greek and Sanskrit words in key semantic fields- namely, numeral words (Jassem 2012a), common religious terms (Jassem 2012b), water and sea terms (Jassem 2013d), air and fire terms (Jassem 2013e), celestial and terrestrial terms (Jassem 2013f), animal terms (Jassem (2013g), body part terms (Jassem 2013h), speech and writing terms (Jassem 2013i), time words (Jassem 2013j), family words (Jassem 2013k), cutting and breaking words (Jassem 2013m), movement and action words (Jassem 2013n), perceptual and sensual words (Jassem 2013o), cognitive and mental words (Jassem 2013p), love and sexual words (Jassem 2013q), and wining and dining terms (Jassem 2013r). In all such studies, Arabic and English words, for example, were true cognates with similar or identical forms and meanings, whose different forms are due to natural and plausible causes and different courses of linguistic change.

The remainder of this paper is comprised of four sections: (i) research methods, (ii) results, (iii) discussion, and (iv) conclusion**.**

2. Research Methods

2.1. The Data

The data consists of 9 question words such as who, whom, whose, what, why, when, where, how, which and 12 auxiliary or modal terms like can/could, will/would, shall/should, may/might, must, ought to, and so on. They have been selected for their high frequency in the core vocabulary of language. To facilitate reference, they will be arranged alphabetically together with brief linguistic comments in (3.) below.

Regarding etymological data for English and European languages, all references are for Harper (2013) and Pyles and Algeo (1996); for Arabic data, the meanings are for Ibn Manzoor (2013) in the main and Al-Ghalayeeni (2010).

In transcribing the data, normal spelling is used for practical purposes; nevertheless, certain symbols were used for unique Arabic sounds, including /2 & 3/ for the voiceless and voiced pharyngeal fricatives respectively, /kh & gh/ for the voiceless and voiced velar fricatives each, capital letters for the emphatic counterparts of plain consonants /t, d, dh, & s/, and /'/ for the glottal stop (Jassem 2013c).

2.1.1. Question Words in English and Indo-European Languages

These are also called interrogative pronouns, information question or wh-words, which include *who, whom, whose*, *what, why, when, where, which,* and *how*; they can also function as relative pronouns after nouns (e.g., the man who…) and as interrogative adjectives before them (e.g., which man?).

How is the source word from which *who, whom, whose, what, why, when, where,* and *which* emerged, with the different forms being due to case in Old and Middle English (Pyles and Algeo 1993: 118-119; Harper 2013). More precisely, they all came from Old English *hu* 'how', which gave rise to *hwa* 'who' to which case and gender endings were added to express certain functions like person, time, place, cause, and manner as shown below.

Case	Masculine	Neuter	
Nominative	hwā	'who'	hwæt	'what'
Accusative	hwone		hwæt	'what'
Genitive	hwæs		hwæs	'whose'
Dative	hw(æ:/ā)m		hw(æ:/ā)m	'whom'
Instrumental	hw(æ:/ā)m		hwy	'why'

Source: based on Pyles and Algeo (1993: 118)

As can seen from the table, certain endings or inflections are added to *hwa* to express different functions: (i) /t/ is added in the nominative and accusative neuter to ask about things from which modern English *what* came; (ii) /s/ is added in the genitive to ask about possession, which led to modern English *whose*; (iii) /m/ is added in the dative which resulted in modern English *whom*; (iv) /y/ is added in the instrumental neuter from which modern English *why* sprang; (v) /n & r/ are added (not shown), leading to Modern English *when* and *where*; (vi) *how* had nothing added to it. Moreover, *hwa* was exclusively interrogative in Old English; the relative pronoun was demonstrative *the* (later *se the*) 'this, (this this)'.

In Germanic languages, the forms are similar to English *who*. For example, Gothic *hvaiwa*, Danish *hvo*, (Old High) German *(hwer)/wer*, and Swedish *vem* all developed from the same source.

Different in forms though, the same picture holds for Romance languages, headed by their parent language, Latin, on which English grammar was originally modeled and from which it could have evolved. More precisely, *qu-* 'how, who, whom, whose, what, why, when, where, and which' is the common base morpheme to which gender, number, and case suffixes are added such as /s/ in the nominative for the masculine and feminine singular, /d/ in the neutral, and /a, e, i, & o/ in gender-based plurals. The resulting forms were *quis/quid* 'who, what, how, which; in what respect, to what extent', *qua* 'where, which way', *qui, quae, quod* 'who, which', *cuius* 'whose', *cur* 'why', *quanti* 'how much', *quota hora* 'what time', *quomodo* 'how', *ubi* 'where' (for detail, see Pavur 2009). French, Italian and Spanish inherited this system almost intact as in French *qui* 'who', *que/quoi* 'what', *pourquoi* 'lit., for what, why', *quand* 'when', *quelle heure* 'what time', *comment* 'lit., like what; how', and *ou* 'where'.

It can also be seen from the Latin and French data, that suffixes are added to question words to express gender, number, and case. Moreover, the French pronouns add prepositional prefixes as in *porquoi* 'why'. Sometimes separate words are used after them such as Latin *quota hora* 'what time' and French *quelle heure* 'what time'.

In Indic and Slavic languages, a similar picture to Latin is found as in Sanskrit *kah* 'who, which', Russian *kto/chto*, and Lithuanian *kas*. In Irish and Greek, the situation is slightly different where *ce* is used in the former and *ti (tis)* 'who, whom, whose, what, how, etc.' in the latter together with gender and number suffixes.

2.1.2. Arabic Question Words

Unlike English, German, French, Latin, Greek, and Sanskrit, Arabic has a larger number of totally unrelated interrogative pronouns without a common form as follows.

i) *man (dha)* 'who (this)' asks about person, which is pronounced *meen/min* in spoken Arabic. In addition, prepositions may be prefixed to it, e.g., *liman* 'to whom', *biman* 'in whom', *mimman* (=*min* + *man*) 'from whom'.

ii) *maa(dha)* 'what (this)' asks about things, which occurs in Classical and educated Arabic. In spoken Arabic, *maa* almost always means *not* (for detail, see Jassem 2013b).

Like man above, prepositions may be prefixed to it, leading to such question words as:

a) *limaa(dha)* 'for what (this); why' asks about cause in Classical Arabic, which is combined from (a) li 'to, for', (b) maa 'what', and (c) dha 'this', usually shortened to lima.

b) *3alaama* 'on what; why' asks about cause, consisting of (a) 3ala 'on' and (b) maa 'what'; It is used in both Classical and spoken Arabic, usually followed by a suffixed pronoun like 3alaamak 'lit', on what you = what's wrong with you'.

c) *bima(dha)* 'in what' asks about cause.

d) *mimma* (= min ma) 'from what' asks about cause.

iii) *kaifa* (*kai* also, though rare) 'how' asks about manner, which is common to all varieties of Arabic, old and new, in some of which it may be pronounced /chef/ or /tsef/ as in Qasseemi Arabic. Only dependent pronouns can be suffixed to it, e.g., kaifak 'how-you = how're you?'.

iv) *kam* 'how many/much; quantity' asks about quantity. To ask about age, time, and measurements like distance and height, the intended word/noun is added after it. In spoken Arabic, it may be pronounced /cham/ or /tsam/ in Qasseemi Arabic (Jassem 1987). Like *man* and *maa(dha)* above, certain prepositions may be prefixed to it such as bikam 'how much'.

v) *mata* 'when; in, mid, middle' asks about time, which may be pronounced *emat/emta* in spoken Arabic. It is unaffixable.

vi) *'aina* 'where' asks about place. In spoken Arabic, it is pronounced wain, ween, (hwain sometimes) and fain in Egyptian Arabic. Dependent pronouns can be suffixed to it, e.g., 'ainak (wainak) 'where-you = where're you?'.

vii) *'aiyaana* 'where' asks about place in Classical Arabic. It seems that 'aina above is a shortening of it.

viii) *'anna* 'when, where, how' asks about manner in the main, which is limited to Classical Arabic.

ix) *'ai* 'what, which; any' asks about choice, which may be variably pronounced wai in spoken Arabic. It is usually followed by a noun such as 'ai yawm 'which/any day', 'ai shai' 'what thing'. Also dependent pronouns can be suffixed to it like 'aiyuhum 'which-them = which one of them?'.

x) *'aih* 'what (also exclamatory).

xi) *ka'ayin* (also *ka'ai, kaiyin, kaa'in, ka'i, kaa'*) 'how many/much; quantity' asks about quantity. It may be followed by min 'from' to express exclamation instead.

To these, one can add the following question words in spoken Arabic.

xii) *'aish* 'what' asks about things and choice, which is reduced from 'ai 'what, any' above and shai' 'thing'. In spoken Arabic, it may be variably pronounced waish (also wesh, wish), 'ish, shoo or shunoo; sometimes the independent pronoun hua 'he' is suffixed to it as in shoo (= 'ai shai'(in) hua = ishshu (Aleppo Arabic), shoo (Damascus Arabic), sh(u)nu (Syrian/Iraqi Arabic) 'what is it?'). Also prepositions may be prefixed to it as follows:

a) *laish* 'for what' is the most commonly used form for cause in spoken Arabic, which is reduced from (i) li 'for, to', (ii) 'ai 'what, any', and (iii) shai' 'thing'; it may be variably pronounced lawwaish (also lwesh), lish, lashoo.

b) *baish* 'in/by what' asks about cost in spoken Arabic; it is reduced from (i) bi 'in, by', (ii) 'ai 'what, any', and (iii) shai' 'thing', which may be variably pronounced beesh, b(i)shoo.

c) *3alaish* 'on what' asks about cause in spoken Arabic, which may be variably pronounced 3alesh, 3alashoo; it is reduced from (i) 3ala 'on', (ii) 'ai 'what, any', and (iii) shai' 'thing'.

xiii) *shlon/ishlon* 'lit., what colour; how' asks about manner in spoken Gulf, Syrian, and Iraqi Arabic; it is combined from *'ai* 'what, which, any' above, *shai'* 'thing', and *lawn* 'colour', reduced thus via merger.

xiv) *qaddaish* (pronounced *'addesh, gaddesh,* or *kaddesh* in Syrian Arabic) 'how many/much' asks about quantity in spoken Syrian Arabic; it is combined from (a) *qadd* 'quantity', (b) *'ai* 'what, which, any' above, and (c) *shai'* 'thing" via merger and /ai/-loss (Jassem 1987).

xv) *izzai* 'what style, how' asks about manner in Egyptian Arabic, which is combined from (a) *'aish* 'what, which, any' above and (b) *zai* 'style, costume', reduced thus via merger.

xvi) *wara* 'lit., behind; why' asks about cause in Qasseemi Arabic, which is short for Classical Arabic *maa waraa'-ak* 'lit., what behind-you; what's the news?' (reduced into *waraak* in Qassemi Arabic).

These question words behave with affixation variably, which may be prepositional or pronominal as follows:

(a) *maa* 'what' is usually attached to demonstrative *dha* 'this' as in *maadha* 'what (this)'. It may also accept (a) prepositional prefixes such as *ilaama* 'to/for what = why', *lima* 'to/for what = why', *3alaama* 'on what = why', *bima* 'by what = why', *mimma (min maa)* 'from what = why', *feema* 'in what = why' and (b) pronominal suffixes in *3alaamak* 'on what you = what's wrong with you' only;

(b) *kaifa* 'how' and *'aina* 'where' can be attached to pronominal suffixes only as in *kaifak* 'how you = how're you', *'ainak* 'where you = where are you?';

(c) *mata* 'when' occurs alone; and

(d) some may accept suffixing *ma(a)* 'anything' as in *kaifama* 'however, anyhow', *'ainama* 'wherever', and *mahma* 'lit., what what = however' (= *maa* + *(h*-insertion*)* + *maa*). In all such circumstances, they cease to be question words, expressing indefiniteness instead.

Finally, Arabic uses in yes/no-questions two particles with the same function or meaning. The first is the prefix *'a* as in *'a-katab* '(did he) write?' while the second is the particle *hal* as in *hal katab* '(did he) write?'. Both are placed at the beginning of every yes/no question, which can be answered with *yes* or *no*. These are not information questions, though.

In summary, it can be clearly seen that Arabic question words are different from Indo-European ones in the sense that it uses separate words for every type of information question. They are more numerous, indeed. In standard Arabic alone, there are ten such words at least whereas in English, German, French and Latin, there is only one to which suffixes are added to indicate the different types. Furthermore, Arabic uses separate particles for yes/no-questions whilst English and French, for example, use subject-verb inversion. Of course, rising intonation is common to all in questions of the latter type (e.g., Roach 2008: Chs. 15-19).

2.2. Data Analysis

2.2.1. Theoretical Framework: The Lexical Root Theory

In the analysis of the data, the lexical root theory will be used as a theoretical framework (Jassem 2012a-f, 2013a-r). It is so called because of employing the lexical (consonantal) root in examining genetic relationships between words such as the derivation of *observation* from *serve* (or simply *srv*). The major reason stems from the fact that the consonantal root carries and determines the basic meaning of the word irrespective of its affixation such as *observation*. Historically speaking, classical and modern Arabic dictionaries (e.g., Ibn Manzoor 1974, 2013) used consonantal roots in listing lexical entries, a practice first founded by Alkhaleel, an 8th century linguist, lexicographer, musician, and mathematician (Jassem 2012e).

The lexical root theory is comprised of a theoretical principle or hypothesis and five practical procedures of analysis. The principle states that:

Arabic and English as well as the so-called Indo-European languages are not only genetically related but also are directly descended from one language, which may be Arabic in the end. In fact, it claims in its strongest version that they are all dialects of the same language, whose differences are due to natural and plausible causes and different courses of linguistic change.

To empirically prove that, five applied procedures are used in data collection and analysis: namely, (i) methodological, (ii) lexicological, (iii) linguistic, (iv) relational, and (v) comparative/historical. As all have been reasonably described in the above studies (Jassem 2012a-f, 2013a-n), a brief summary will suffice here.

Firstly, the methodological procedure concerns data collection, selection, and statistical analysis. Apart from loan words, *all* language words, affixes, and phonemes are amenable to investigation, and *not only* the core vocabulary as is the common practice in the field (Crystal 2010; Pyles and Algeo 1993: 76-77; Crowley 1997: 88-90, 175-178). However, data selection is practically inevitable since no single study can accomplish that at one time, no matter how ambitious it might be. The most appropriate way for approaching that goal would be to use semantic fields such as the present and the above topics. Cumulative evidence from such findings will aid in formulating rules and laws of language change at a later stage (cf. Jassem 2012f, 2013a-f). The statistical analysis employs the percentage formula (see 2.2 below).

Secondly, the lexicological procedure is the initial step in the analysis. Words are analyzed by (i) deleting affixes (e.g., *explained* → *plain*), (ii) using primarily consonantal roots (e.g., *plain* → *pln*), and (iii) search for correspondence in meaning on the basis of word etymologies and origins as a guide (e.g., Harper 2012), to be used with discretion, though. The final outcome yields Arabic *baien, baan* (v) 'clear, plain; a plain' via /l/-insertion or split from /n/ (Jassem 2013i).

Thirdly, the linguistic procedure handles the analysis of the phonetic, morphological, grammatical and semantic structures and differences between words. The phonetic analysis examines sound changes within and across categories. In particular, consonants may change their place and manner of articulation as well as voicing. At the level of place, bilabial consonants ↔ labio-dental ↔ dental ↔ alveolar ↔ palatal ↔ velar ↔ uvular ↔ pharyngeal ↔ glottal (where ↔ signals change in both directions); at the level of manner, stops ↔ fricatives ↔ affricates ↔ nasals ↔ laterals ↔ approximants; and at the level of voice, voiced consonants ↔ voiceless.

In similar fashion, vowels change as well. Although the number of vowels differ greatly within and between English (Roach 2008; Celce-Mercia et al 2010) and Arabic (Jassem 2012g, 1987, 1993), all can be reduced to three basic long vowels /a: (aa), i: (ee), & u: (oo)/ (and their short versions besides the two diphthongs /ai (ay)/ and /au (aw)/ which are a kind of /i:/ and /u:/ respectively). They may change according to modifications in (i) tongue part (e.g., front ↔ centre ↔ back), (ii) tongue height (e.g., high ↔ mid ↔ low), (iii) length (e.g., long ↔ short), and (iv) lip shape (e.g., round ↔ unround). In fact, the vowels can be, more or less, treated like consonants where /i:/ is a kind of /j (y)/, /u:/ a kind of /w/, and /a:/ a kind of /h/ or vice versa. Their functions are mainly phonetic such as linking consonants to each other in speech and grammatical such as indicating tense, word class, and number (e.g., *sing, sang, sung, song*; *man/men*). Thus their semantic weight is little, if not at all. For these reasons, vowels are marginal in significance which may be totally ignored in the analysis because the limited nature of the changes do not affect the final semantic result at all.

Sound changes result in natural and plausible processes like assimilation, dissimilation, deletion, merger, insertion, split, syllable loss, re-syllabification, consonant cluster

reduction or creation and so on. In addition, sound change may operate in a multi-directional, cyclic, and lexically-diffuse or irregular manner (for detail, see Jassem 2012a-f, 2013c).

Regarding the morphological and grammatical analyses, some overlap obtains. The former examines the inflectional and derivational aspects of words in general (Jassem 2012f, 2013a-b); the latter handles grammatical classes, categories, and functions like determiners, pronouns, nouns, verbs, and case (Jassem 2012c-e, 2013l). Since their influence on the basic meaning of the lexical root is marginal, they may also be ignored altogether.

As regards the semantic analysis, it examines meaning relationships between words, including lexical stability, multiplicity, convergence, divergence, shift, split, change, and variability. Stability means that word meanings have remained constant over time. Multiplicity denotes that words might have two or more meanings. Convergence means two or more formally and semantically similar Arabic words might have yielded the same cognate in English. Divergence signals that words became opposites or antonyms of one another. Shift indicates that words switched their sense within the same field. Lexical split means a word led to two different cognates. Change means a new meaning developed. Variability signals the presence of two or more variants for the same word (for detail, see Jassem 2012a-f).

Fourthly, the relational procedure accounts for the relationship between form and meaning from three angles: formal and semantic similarity (e.g., *three, third, tertiary* and Arabic *thalath* 'three' (Damascus Arabic *talaat* (Jassem 2012a)), formal similarity and semantic difference (e.g., *ship* and *sheep* (Jassem 2012b), and formal difference and semantic similarity (e.g., *quarter, quadrant, cadre* and Arabic *qeeraaT* '1/4' (Jassem 2012a)).

Finally, the comparative historical analysis compares every word in English in particular and German, French, Greek, and Latin in general with its Arabic counterpart phonetically, morphologically, and semantically on the basis of its history and development in English (e.g., Harper 2012; Pyles and Algeo 1993) and Arabic (e.g., Ibn Manzour 2013; Altha3aalibi 2011; Ibn Seedah 1996) besides the author's knowledge of both Arabic as a first language and English as an equal second language. Discretion should be exercised here due to uncertainties and inaccuracies, especially in Harper's work, though.

2.2.2. Statistical Analysis

The percentage formula is used for calculating the ratio of cognate words or shared vocabulary, which is obtained by dividing the number of cognates over the total number of investigated words multiplied by a 100. For example, suppose the total number of investigated words is 100, of which 90 are true cognates. The percentage of cognates is calculated thus: 90/100 = 9 X 100 = 90%. Finally, the results are checked against Cowley's (1997: 173, 182) formula to determine whether such words belong to the same language or family (for a survey, see Jassem 2012a-b).

3. Results

The main focus of the results will be on the Arabic lexical (consonantal) roots of English, German, French, Latin, Greek, and Sanskrit question and modal words. Therefore, affixation (prefixes, suffixes, and infixes) will be excluded in general to save time, space, and effort here although all have true Arabic cognates (see Jassem 2012f, 2013a).

3.1. Question Words

The interrogative pronouns or information questions are related to one another in all the so-called Indo-European languages of all branches: Germanic (English, German, Swedish, Gothic), Romance (Latin, French, Italian), Slavic (Russian), Indic (Sanskrit, Persian), and Hellenic (Greek). Moreover, *all* are related to Arabic in an interestingly simple and direct manner, which is their origin without exception. How?

3.1.1. How (Old English hu, German wie, Gothic hvaiwa)

How is the source from which all English wh-words came-namely, *who, whom, whose, what, why, when, where,* and *which*. It derives directly from Arabic *kaifa (kai)* 'how' through the evolution of /k & f/ into /h & w/. In German, *kaifa* developed further into *wie* 'how', merging /k & f/ into /v/. Formulaically,

(a) kaifa → hai(f/w)a (English how) → wa (German wie)
or
(b) kai → kaw/haw (English how) → wa (German wie).

In addition, *how* combines with other adjectives to make questions about amount (*how many, much*), age (*how old*), dimensions (*how far, long, high, wide, deep*), and degree (*how beautiful, ugly*) all of which have their respective Arabic source cognates. For example, in how many/much (*manig* in Old English), the adjective derives from Arabic *jamm* 'much' or *jam3, majmoo3* (adj.) 'gathering, many, much' via reversal, turning /j/ into /(g/y) ch/, and /n/-split from /m/ or /3/-loss in the latter. In how old, it derives from Arabic *walad/waleed* 'born, young' via lexical shift or divergence.

Furthermore, the suffix –ever (-soever) may be added to all question words, in which case they no longer function as such, for example, *however, wherever, whichever, whatever (whatsoever), whoever (whosoever)*. Ever comes from Old English *æfre* 'ever, at any time, always' from Arabic (i) *idh(in)* 'time, then' where /th & n/ turned into /f & r/, (ii) *dahr, duhoor* (pl.) 'time' via /d & h/-merger into /f/, (iii) *3aSr* 'age, time' via /3 & S/-merger into /f/, or (iv) *ma* 'what, any' as in *kaifama* 'however' in which /m/ became /v/ besides /r/-insertion (Jassem 2013j). So derives from Arabic *dha* 'this' where /s/ replaced /dh/ or *kadha* 'lit., like this; so, such' via /k & dh/-merger into /s/.

3.1.2. Who (Whom, Whose, What, & Why)

As has already been stated, *how* is the source word from which *who, whom, whose, what, why, when, where,* and *which* emerged, with the different forms being due to case and gender in Old and Middle English (Pyles and Algeo

1993: 118; Harper 2013). Once again, they all derive from Arabic *kaifa (kai)* 'how' through the evolution of /k & f/ into /h & w/.

As to the grammatical (inflectional and derivational) endings, Jassem (2012f, 2013a) handled their Arabic origins in detail. For example, /m/ in *whom* comes from the Arabic suffixed plural pronominal marker /-m/ via lexical shift; /s/ in *whose* stems from the Arabic possessive marker *dhi* 'of, whose', turning /dh/ into /s/; /t/ in *what* comes from the Old English neuter pronoun *hit/it* 'this' from Arabic *tih* 'this' via reversal and /h/-loss (Jassem 2012c-d); the masculine, feminine, and plural markers in Latin all have similar or identical Arabic cognates (Jassem 2012f); the derivational functions or cognates of /n/ and /-ee (-i, -y)/ in such languages are described in Jassem (2013a).

Which came from Old English *hwilc* 'which of many' (Old High German/German *hwelich/Welch*) vis-à-vis *hwæther* 'which of two' (Pyles and Algeo 1996: 119). Harper (2013) noted that *hwilc (hwylc, hwelc)* 'of what from, shape' consists of *hwi* 'what' + *lic (like)* 'form, shape'. In light of this, it comes from Arabic (i) *kaifa* above or *'ai* 'what, which' where /'/ became /(h)w/ and (ii) *shakl* 'form, shape' via reversal, /sh & k/-merger into /k (ch)/, and subsequent /l/-loss.

Concerning *hwæther* 'lit., which other/second = which of the two', *æther* 'two, other' comes from Arabic *thaani* 'other, second', turning /n/ into /r/ (Jassem 2012a).

As to the use of *hwa*, it was exclusively interrogative in Old English in which the relative pronoun was demonstrative *the/se the* 'this, this this'. Again this derives from Arabic *dhee* (*dhu, dha*) 'this, of, whose' (see Jassem 2012c-d).

Besides, Arabic offers other likely cognates irrespective of their history and etymology. These are as follows:

i) *What* might derive from Arabic *'aiyat* (waiyat in spoken Arabic).

ii) *Why* might obtain from Arabic *'aih* (waih) 'what' or from 'ai (wai) 'what, which, any' where /'/ became /w/.

iii) *When* (Old English *hwænne (hwanne, hwenne, hwonne),* Old High German *hwanne* (*wann* in German) may function as (a) a question word (e.g., When did you come?) and as (b) a relative pronoun (e.g., The time when I last saw you). Both usages come from two related Arabic cognates: the former derives from Arabic *'aiyana* or *'anna* 'where, when, how' in which /'/ passed into /w/; the latter from *2een(a)* 'time, when' in which /2/, a voiceless pharyngeal fricative, split into /w (& h)/.

iv) *Where* (Old English *hwaer/hwar*, (Old High) German *(hwar)/wo* 'where') can be used as a question word (e.g., Where do you go?) and as a relative pronoun (e.g., The place where I live …); its Arabic cognate is *'aina ('aiyana, 'anna)* 'where' where /' & n/ passed into /w & r/; in spoken Arabic, it is said /ween/ or /feen/ (see above).

(i) As to Modern German *wo*, it resulted straight from the merger of /k & f/ in Arabic *kaifa* into /w/.

(ii) *Which* might come from Arabic *'aish/waish* 'what' or *lawesh* 'why' via lexical shift. The forms *which* and *waish* are almost identical (see above).

In Latin, French, Russian, Sanskrit, *qu-* is the common source form from which all interrogative pronouns stemmed to which inflections are added to ask different questions like *quis/quid* 'who, what, where, how'*, qui/quae* 'who, where, which'*, cuius* 'whose' in the first (see above). They derive directly from Arabic *kaifa* 'how' in which /k/ remained intact while /f/ evolved into /w/ in Latin and French, /t/ in Russian, and /h/ in Sanskrit. In Greek and Irish, /k & f/ merged into /t & s/ respectively, leading to *tis* and *ce*. It is worth noting that the pronunciation of *kaifa (kai)* by old speakers in my dialect (Jassem 1987, 1993, 1994) is the same (palatal affricate) as in Irish, with a /h/ being added at pause- i.e., /che(h)/.

As to Lain *ubi* (short for *quibus* in the dative and ablative), French *ou* 'where', Greek *po,* again they all resulted from the merger of /k & f/ in Arabic *kaifa* into /w (b)/.

As for French *comment* 'lit., like what; how', *comme* 'like', it derives from Arabic *kama* 'like', *kamaan(iat)* (n) 'also, likewise' via lexical shift.

Moreover, the use of *que* in French and Latin as a relative pronoun and complementizer (e.g., *J'espère que vous m'aimez* 'I hope that you love me') as well came from Arabic *kai* 'to, in order to, so that', a particle that usually follows verbs in Classical Arabic which happens to have the same form as the shorter variant for *kaifa* above. In light of their Arabic source cognate, French *que*'s 'what/who; that/to' are not the same word which developed into two functions over time; rather they emanated from two different Arabic words, which happened to have coincided in form but differed in meaning and function.

To sum up, as all the Indo-European question words stemmed from one common form or base in origin- *qu-* in Latin or *hu-* in English, with different endings added to express different meanings or functions, it can be safely said that all have descended directly from their single Arabic source cognate *kaifa/kai* 'how' via different routes where /k & f/ developed into:

(a) /q (k) & w (u)/ in Latin and French, leading to *quis/que*, etc. The same applies to Sanskrit and Russian albeit for the mutation of /f/ into /h & t/. Actually, /k/ or the whole Arabic word remained intact as can be clearly seen from the shorter Arabic variant *kai* 'how' above (cf. queue from Arabic *waqaf, qif* 'stop, stand');

(b) /h & w/ in English and Old High German, which merged into /w/ in German and Swedish, for example; and

(c) in Greek and Irish, /k & f/ merged into /t & s/ respectively or developed from the shorter variant *kai (kaifa)* 'how' in which /k/ became /t/ in one and /s/ in the other.

Lexical shift also applied in all. That is the story very simply and truly, which can be diagrammed as follows:

Arabic Source Cognate	Variants in English and European Languages
Kaifa (kai) 'how' →	a) *kwafa/kwa* (*qui-/que* in Latin & French; *kah* in Sanskrit; *kto* in Russian), b) *hwa/hvaiwa* in Old English/German & Gothic) → *how (who, why, what)* in English → *wa (wie, was)* in German, c) *ci* (Irish), and d) *ti* (Greek)

Thus all interrogative pronouns in the so-called Indo-European languages from Sanskrit, Greek, and Latin down to French, Russian, English, German and so on derive directly from Arabic *kaifa (*also *kai)* 'how' via different natural and plausible courses of phonetic change as shown above.

3.2. The Modal Verbs

Modal verbs in English function like auxiliary verbs grammatically in making questions, negatives, and short answers but they differ in (a) having or conditioning meaning and (b) the use of the same form with all subjects. They include:

3.2.1. Can & Could

Can, which functions as noun and verb in both Old and Modern English, has different sources. As a noun, it came from Old English *canne* 'a cup, container', German *Channe/Kanne*, and Latin *canna* 'reed, vessel, container' from Arabic *qanneena(t)* (in spoken Palestinian Arabic *kinnia(t)*), *qanani/qinaan* (pl.) 'bottle, glass container' via lexical shift or *qana* 'reed', turning /q/ into /k/; *'inaa'* 'container' in which /'/ became /k/; or *Sa2n* 'dish via /S & 2/-merger into /k/. As a verb, it descended from Old English *cunnan* 'to know, to be able' and German *kennen* from Arabic *aiqan* 'know' via reordering (Jassem 2013p), *qanna* 'to pursue news; to surmise or count by sighting', or *3alima (a3lam)*, *3ilm* (n) 'know' via /3/-mutation into /k/ and /l & m/-merger into /n/ (cf. knowledge, acknowledge via reordering and turning /3 & m/ into /k & n/).

As to *could,* it evolved from its Old English past tense form *cudhe* → *cud(e)* → *could* via /l/-insertion, which survived into Modern English *uncouth (couth)* 'ignorant'.

As auxiliary or modal verbs, *can/could* express (a) ability (e.g., I *can/could* do that) and (b) possibility (e.g., It *can/could* be him; You *could* have killed me). *Could* is more polite, though. German uses the same word *können* as in *Ich can das machen* 'I can do that'. Both meanings are traceable to formally similar but semantically different Arabic cognates. How? First, modal *can* derives from Arabic *ka'anna* (in spoken Arabic *kann/kinn*) 'like, maybe, can be' via /'a/-loss. For example,

a) *ka'anna*hu (*kann*u*, kinn*u) huwa/hoo. possible-him he = It can (is possible to) be him.
b) *taqdir tasheel?* 'can you carry (it)?' *ka'ann*i (*kann*i, *kinn*i). (lit., like-me; I *can* (am able to). Notice how *can* and *ka'anna* are almost identical formally and semantically.

Secondly, modal *could* may have three meanings, all of which are traceable to different Arabic verbs as follows:

a) qadara 'be able to' via reordering and passing /q & r/ into /k & l/;
b) kaada 'be about to, likely to', a probability or proximity verb, via /l/-insertion as in Old English cude;
c) qad 'could, maybe', a reductive particle signaling possibility or uncertainty when used before present tense verbs as in qad ta-ktub 'lit., could you-write; you could write.' Furthermore, qad might also indicate emphasis and certainty before past tense verbs as i: qad katab-t (lit. certainly wrote-you = you did write it).

Besides, *qad* is the source cognate of (a) emphatic *do (does & did)* in English (e.g., *I do/did like it*) via /q & d/-merger and (b) the intensifier *quite* (e.g., I'm *quite* happy, I *quite* like it) where /d/ became /t/.

To sum up, *can* and *could* may be different verbs in English, which might derive from formally similar but semantically different Arabic cognates: namely, *can* from *ka'anna* and *could* from (a) *qadira*, (b) *kaada*, and/or (c) *qad* from which came *quite* and *do/did* also.

3.2.2. May & Might

They came from Old English *mæg, mogan, meahte/mihte* (past tense) 'be able' and German *mögen/mochte*. All derive from Arabic *amkan/makana* (v) 'to be possible, enable, strengthen', *mumkin(at)* (adj.) 'possible', *makeen(at)* (adj.) 'able, strong'; /k/ turned into /g (y)/.

In the expression *might just as well*, just (*justice, justification*) comes from Arabic *qisT, qaasiT* (adj.) 'justice' in which /q & T/ became /j & t/ (for detail, see Jassem 2013j).

3.2.3. Will & Would (Would Rather)

As ordinary verbs, they came from Old English *w(i/y)llan* 'wish, desire, want', *wolde* (past tense), German *wollen*, and Latin *volo, velle* 'wish, desire, want', which are related to Old English *wel* 'well, according to one's wish' and *wela* 'well-being, riches' as well as *will* 'bequest, trust' and German *Wille*. They derive directly from Arabic:

(i) *'ill* 'oath, swearing, promise, trust, will' and *'ala* 'well, yes', turning /'/ into /w/ (cf. well *(for water*) from Arabic *wa2l* 'mud' via lexical shift and /2/-loss or *beer* 'water well' where /b & r/ changed to /w & l/; wail from Arabic *wail* 'wail' or *'ill* 'shouting' where /'/ became /w/; and wall from Arabic *2aa'el* 'wall, barrier', replacing /2/ by /w/);
(ii) *baal* 'wish, desire, want, mind (thinking)' and *bal(a)* 'yes, well' where /b/ became /w/; or
(iii) *3allala* 'want, desire, hope' where /3/ changed to /w/.

As modals indicating futurity and politeness, *will* might alternatively come from Arabic:

(a) *'illa* 'emphatic particle, must, should' before verbs where /'/ became /w/ as in *'illa tishrab* 'you should drink';
(b) *la-* 'imperative and swearing particle' (cf. the

abbreviation of *will* (and *shall*) to "-ll" in English); or

(c) *3alla (la3alla)* 'likely', a verb-like particle, via reordering, turning /3/ into /w/, and lexical shift from certainty to likelihood.

Similarly, *would* might obtain from Arabic *wadda* 'desire' via /l/-insertion, e.g.,

widd-i 'a-naam.

'would-I I-sleep = I would (like to) sleep.'

In addition, *would* may occur with *rather* to indicate preference as in *I would rather sleep*. Rather, which stemmed from Old English *hrathor* 'more quickly', *hræth(e)* 'quick(ly)', came from Arabic (a) *sur3a(t), saree3* (adj.) 'quick' via reordering and turning /3 & s/ into /h & th/ or (b) *raaDi* 'satisfied, happy' where /D/ became /th/ (Cf. deviant Arabic **wudd raaDi* 'lit., want satisfied/happy).

3.2.4. Shall & Should

Both stemmed from Old English *sceal* 'I owe, he owes; will have to, ought to, must', *sculan* (inf.), *sceolde* (past tense) 'have to, be able to' and German *sollen*, which are related to Old English *scyld* 'guilt' and German *Schuld* 'guilt, debt'. *Shall* derives from Arabic *ja3ala* 'cause to become, make, prepare, to ready, work for a salary', *ji3aalat (ju3l, ja3eelat)* (n) 'salary; gift, bribery; corruption; dog mating' via /j & 3/-merger into /sh/.

As to the past tense morpheme /d/ in *sceolde* and *would*, it is cognate to Arabic /ta- (da)/, a past tense marker prefixed to quadrilateral verbs (Jassem 2012f, 2013a).

3.2.5. Must

As a noun, *must* 'new wine' came via Latin *mustum*, German *Most* 'wine' straight from Arabic *muzz(at), muzaa'* 'a tasty (sour-to-sweetish) wine'. As a verb, it came from Old English *motan, moste* (past tense) 'have to, be able to' and German *müssen*. Their Arabic source is *mazza, mazzat (mazaazat)* (n) 'to be better (higher, nobler) than' via lexical shift and turning /z/ into /s/; *'amsa, massa(t) (maassat, amass)* (adj.) 'urgent; important, necessary, badly need to'; or *maDa* 'went on (doing something)', *maDaa'* (n) 'power, ability', *'amDa* (v./adj.) 'achieve; to be stronger' where /D/ split into /st/.

3.2.6. Ought to

It developed from Old English *ahte* 'owned, past of *owe*, *agan* 'to own, possess, owe'; it derives from Arabic *qana/jana* 'own, have' where /q (j)/ became /g/; or *2aqq* 'right, possession', *2aqqa/ya2iqq* (v) 'have (the right) to, own, must, should, might' via /2/-loss and /q/-evolution into /g/. For example, *2aqq-i* 'a-naam.

'right-my I-sleep = I (have the right/ought to) sleep.'

(Cf. ought/aught (naught) 'zero, cipher' from Arabic *qaTT* 'nothing' via reordering (Jassem 2012a, 2013b).)

3.2.7. Need to

It evolved from Old English *nied/ned* 'originally force, violence; necessity, compulsion, duty, hardship, distress; business' and German *Not*. Their Arabic source cognate is *deen* 'compulsion, domination, power, rule, distress, humiliation, getting used to' or related *dain* 'debt, need, distress' via reversal and lexical shift; or *araad* 'to want, to need', turning /r/ into /n/.

As to *to*, it comes from Arabic *2atta* 'to, until' via /2/-loss or *kai* '(in order) to, so that', turning /k/ into /t/.

3.2.8. Used to (use, usage, utilize, utility, utilitarian)

It came from Old French *user* from Latin *usare,* frequentative past participle of *uti* 'to use', *oeti* 'employ, exercise', *utilitas* 'usefulness, serviceableness, profit' from Arabic *3adaa' (3adwaa', 3aadiat)* 'work', *3iddat* 'inherited money; counting; tools', *'a3adda* (v) 'to ready', *3adda* 'count' via /3/-loss and turning /d/ into /t (s)/; or *'adda, 'adaa(t)* (n) 'perform, do, work, achieve, give' where /d/ became /t (s)/.

3.2.9. Do (did, done)

Do descended from Old English *don* (*do* for first person singular) 'make, act, perform, cause; put, place' and German *tun* from Arabic *waDa3, Da3* (imp.) 'put, place' where /D/ became /d (t)/ and /3/ was lost; or *'adda* 'do, perform' via reordering.

As an emphatic particle, it might alternatively come from Arabic *qad* 'certainly' via /q & d/-merger (see could in 3.2.1 above). Furthermore, the rare use of *do* in the sense of 'except' came from Arabic *3ada* 'except' via /3/-loss.

3.2.10. Have (has, had)

It came via Old English *habban*, German *haben* 'to own, possess', and Latin *habere, capere* 'own, possess' from Arabic *haba (*also *wahab* and *2aba)* 'give for free' via lexical shift and substituting /v/ for /b/.

In the expression had better 'must', better derived from Old English *betoer* 'better, improve' and German *besser* from Arabic *baadar, badri* (adj.) 'to take the initiative, begin; early' or *baarid* 'cool, lovely, delicious' via reordering and replacing /d/ by /t/; or *Taiyeb* 'good, better, delicious, nice' through reordering and turning /T/ into /t/ and inserting /r/.

3.2.11. Dare (Daring, Daresay)

It came from Old English durran 'to brave danger' and German giturran from Arabic jaree' 'daring', jara'a (v), jur'a(t) (n), turning /j/ into /d/ (cf. Jassem 1987: Ch.5). Regarding say (sagen in German), it comes from Arabic Saa2, Siaa2 (n) 'say, shout, cry' via /2/-mutation into /g/ and subsequent loss (Jassem 2013i).

3.2.12. Is (be, am, is, are, was, were, been, being)

The Arabic origins of 'verb to be' in Indo-European languages were discussed in detail in Jassem (2012e). All forms and variants in English, German *(sein)*, French *(etre, suis, soi)*, Latin *(etre, essen, fuisse, fore)*, Greek (*esti, esmen*), and Sanskrit (*asmi*) derive from Arabic *kaan* 'be, was' via two routes of phonetic change: /k/ turned into (a) /s/ in some languages like Greek, English, and German or (b) split into /s & t/ as in Latin and French, depending on tense and case.

To sum, the total number of *wh-question* (9) and *modal* or *auxiliary* words (12) amounted to 21 in English, all of which had true Arabic cognates: i.e., 100%. The same situation applies to all other Indo-European languages.

4. Discussion

The above results clearly indicate that *question* and *modal* words in Arabic, English, German, French, Russian, Latin, Greek, and Sanskrit are true cognates because of their similar or identical forms and meanings. However, their differences are due to natural and plausible causes and different courses of phonetic, morphological and semantic change. As all the question and modal words have true Arabic cognates, where the percentage of shared vocabulary between Arabic, English, German, French and so on amounted to 100% in this study, so this indicates that they are members or dialects of the same language according to Cowley's (1997: 172-173) classification which sets an 80% ratio for such membership. Indeed, such languages are distant Arabic dialects in reality.

Thus the results agree with all the findings of previous studies (Jassem 2012a-f, 2013a-q, 2014a) in which English, German, French, Latin, Greek, Sanskrit and Arabic were all found to be rather dialects of the same language, let alone the same family. This picture cannot be any clearer than in wh-question words. Moreover, they lend further support to the lexical root theory which has been found as adequate for the present study as it was for the previous ones. The main principle which states that Arabic, English, German, French, Latin, Greek, and Sanskrit, and so on are not only genetically related but also are dialects of the same language is, therefore, theoretically sound, verifiably accurate, and empirically true. Retracing English *question* and *auxiliary* words to true Arabic cognates is the clearest such proof on all levels of phonetic, morphological, grammatical, and semantic analysis (see below).

Semantically speaking, the following patterns emerged. Lexical stability was the general pattern where words maintained their basic meanings across the languages. The recurrence of lexical convergence in the data was due to formal and semantic similarity between Arabic words, on the one hand, and their English cognates, on the other. For example, *when* may be derived from either Arabic (i) *kaifa/kai* via /k & f/-mutation into /h & w/ and /n/-insertion, (ii) *2eena* 'when, time' via /2/-mutation or split into /hw/, or (iii) *'anna* 'when', replacing /'/ by /w/; all are formally and semantically similar. French *que* 'who, what; that/to' has a similar story (see above). Likewise, semantic multiplicity was rife, where some English words had more than one meaning, which might have more than one likely Arabic cognate; for instance, *can* may function as an ordinary word and as a modal, which means 'container, know, be able/possible to; vessel, reed', which all derive from formally and semantically similar Arabic words- namely, *qannina(t)* 'bottle', *qana* 'reed', and/or *aiqan* 'know' via /q/-mutation into /k/ and lexical shift in the first. Lexical shift was also common as in Arabic *kaifa/kai* above, which shifted from being a manner question to all other functions. Lexical variability shows in the different forms for *kaifa/kai* 'how' in Arabic, for instance, *who/wer* in English and German, *quis/que* in Latin and French.

What do such findings signify? At least two things come to the fore. Firstly, they signify that Arabic, English, German, French, and so on are dialects of the same language for having the same words with similar or identical forms and meanings (cognates), with Arabic being the source or parent language because of its phonetic complexity and lexical multiplicity and variety. In the present case, for instance, the number of wh-question words is one (e.g., *qu-/hw-*) in Latin and English as all others are simply variants of it (e.g., *how, who, whom, whose, why*) as opposed to Arabic with 10 or more different forms like *kaifa, kam, maadha, 'aina, mata* above (see Jassem (2012a-f, 2013a-i). To illustrate this point more clearly, consider the following instance which shows that they really are Arabic dialects.

Charles: What (how) is this?

Karl: Was (wie) ist das?

Charle: Qu'est-ce que c'est (quel est ce)?

Carolus: quid est hoc?

Rajul: kaifa (kai) tha?

The same question is asked in English, German, French, Latin, and Arabic in that order in which every single word has a true Arabic cognate as follows. The proper Latin name *Carolus* means 'man, husband' from which French *Charle*, English *Charles*, and German *Karl* stemmed; all eventually derived from Arabic *rajul* 'man, husband' via reordering and turning /j/ into /k (ch)/ (see Jasem 2013l). The question words *quid/que* in Latin and French, *what/how* in English, and *wie/was* in German came from Arabic *kaifa (kai)* where /k & f/ became /h & w (v)/. The verb *is (ist, es(t))* obtained from Arabic *kaa(n), yakoo(n)* 'be', turning /k/ into /s/ (for detail, see Jassem 2012e). The demonstrative pronoun *this (das, ce, hoc)* arose from Arabic *dha/dhih* 'this' where /dh & h/ became /d & s/ in English and German while /dh/ turned into /s/ in French; Latin *hoc* came from Arabic *haadha* 'this' where /dh/ became /k/ or *haik* 'like this in spoken Syrian Arabic' via lexical shift. Can there be any doubts left then that these are Arabic dialects really and truly?

Here is another fuller English greeting dialogue, all whose words can be traced back to Arabic in full.

Monica: Hello, Mandy.

Amanda: Hi, Monica. How are you?

Monica: Fine. Thank you.

Amanda: Welcome.

Hello (French telephone *Allo*) arose from Arabic *hala/ahla* 'hello, welcome'; *hi* derived from Arabic *2aiya* 'greet' where /2/ became /h/; *how* came from Arabic *kaifa* above; *are* evolved from Arabic *Saar* 'become, is' via /S & r/-merger (see Jassem 2012e); *you* emanated from Old English *ge* from Arabic *iak/ka* 'you- acc.' via reversal and turning /k/ into /g (y)/ (see Jassem 2012c); *fine* developed from Arabic *zain* 'fine' in which /z/ became /f/ or *fayen* 'bad' via lexical divergence; *thank* came from either Arabic *shakara* 'thank' via reordering and /sh & r/-mutation into /th & n/ or *thanaa'*, *thania* (v) 'thank' in which /' (or y)/ became /k/. *Welcome* has been entirely reshuffled in English whose

Arabic cognate is *salaam* 'greeting, peace' via reordering and turning /s/ into /k/ and /aa/ into /w/. Finally, the names *Amanda* (*Mandy)* and *Monica (Monique)* are related; the former derives from *Am(i/ee)nat* 'honest; a proper name' in which /t/ became /d/ whilst the latter from *mona, amaani* 'wishes' via /k/-insertion or turning /y/ into /k/. Thus this greeting as used in English today in 2014 is still 100% Arabic, save for phonetic mutation.

Secondly, they have interesting implications for general linguistic theory, typology/taxonomy, and language origin (Jassem 2013l). On the one hand, they imply that the so-called proto-Indo-European language hypothesis is fictitious and baseless which should, subsequently, be rejected outright because all English, German, and French words, for instance, are traceable to Arabic sources; in fact, all Indo-European words are. On the other hand, it implies that all human languages are, on a wider scale, related to one another, which eventually descended from a single source, having suddenly emerged in perfect fashion. However, such a primary, sudden, perfect language became simpler and simpler over time like English words being simpler than their Arabic cognates phonetically, morphologically, and semantically; the same applies to today's Arabic words, which are simpler than Classical Arabic ones. Furthermore, the change or simplification progressed extremely slowly over time, spanning thousands of years to such an extent that nobody could have ever imagined. For example, Pagel et al (2013) showed that some 27 common English core words (e.g., pronouns) were not any different 15, 000.00 years ago during which they changed or simplified little; this runs contrary to current established knowledge about their history of not more than two millennia at the very most (e.g., Pyles and Algeo 1996).

Now can that old, primary, sudden, perfect source, technically known as proto-language (Harper 2012) or proto-world-language (Ruhlen 1987, 1994) be feasibly reconstructed? Yes, very much so indeed. How? According to Jassem (2013l, 2013o), a clearer and more satisfactory answer to that question requires one to elucidate (i) the nature of language acquisition or learning and (ii) language change or evolution. As to the former, all human languages are the result of learning; one speaks a language because someone (usually the parents) taught him it; it is really and certainly impossible, otherwise. Whether it was yesterday's language at *time zero* when humanity first appeared on earth, today's language in the 21st century, or tomorrow's language a million years later, the same rule would still apply irrespective of time. In fact, time is immaterial because the same outcome would still obtain as a million or a billion years would make no difference whatsoever. This unshakably solid and well-established fact is the axis upon which all first and second language acquisition research rotates worldwide (for a survey, see Crystal 2010; Yule 2006; Jassem 1987, 1993, 1994). In this sense, language learning is just like computer processing where both the hardware and software have to be designed by someone; a computer neither makes nor runs itself; it must be prompted externally.

As to language evolution, it is closely linked to language acquisition. As all languages change over time in the sense of splitting up into dialects due to internal (e.g., linguistic) and external (e.g., social) factors (for a survey, see Jassem 1987, 1993, 1994), it follows from such corollary that all languages must have descended, evolved, or originated eventually from one perfect source. Over time, they have changed form and meaning but not substance where the essence (meaning roughly) of the word remained intact. For example, Arabic *kaifa/kai* 'how', English and German *how/wie*, and Latin/French *quis/que* all kept their substance in general as real question words in all but changed their form or pronunciation where /k & f/ became /h & w/, for instance. Therefore, this entails, in light of these facts, that pre-historic language has survived to this day in contemporary world languages, though variably. In other words, all human languages are variations on or variable developments of that old, primary, sudden, perfect source. Put more simply, such a pre-historic language has never died out and will never do so, which still exists to varying degrees in all human languages in current use. The mutation or change is just like what happens to any natural phenomenon such as the relationship between snow, ice, sleet, fog, dew, vapour, and *water* (all are water) or dust, sand, ash, rock, stone, and *earth* (all are earth). Viewed thus, language is just like a chameleon, which changes skin colour but not body, flesh, and spirit. Disintegration, recycling and recombination is the pattern in all.

Now one can turn to the question of reconstructing that pre-historic language or which current human language resembles it more closely. Since it has not died out at all, reconstruction can be successfully achieved on the basis of (an) ancient world language(s), which has variably survived into modern ones. In fact, in light of the current data, there is no need to reconstruct whatsoever- simply choose one from amongst the extant many, choose the one with more forms which recurs in or is common to all. Of all the languages at hand, Arabic is the natural choice for having all the forms in all the others and more as has been shown in question words; so it is perhaps the greatest survivor and inheritor, which may be the best possible link to that old, perfect language on which analysis should focus. Indeed, Arabic can be said to have maintained almost all the features of that primary, perfect language for the reasons adduced above (see Jassem 2012a). Question words and pronouns in world languages have provided some provisional clues to that (Jassem 2012d, 2013l), but more evidence is awaiting further research into the subject.

5. Conclusion and Recommendations

To summarize, the main results of the study were as follows:

(i) The 21 question and modal words or so in English, German, French, Russian, Latin, Greek, Sanskrit, and are true cognates with the same or similar forms and meanings. However, their differences are due to natural

and plausible causes and courses of phonetic, morphological, and lexical change (cf. Jassem 2012a-f, 2013a-q, 2014a).

(ii) All the question words in English and Indo-European languages are variations on one common base form to which certain endings such as /s & t/ are added to ask the various information questions. In English and Germanic languages, they all came from hu 'how', which gave rise to how, who, whom, whose, what, why, where, when, and which; in Latin and French, the base form is qu-, leading to que, quoi, qui, etc. in the latter. All derived eventually from Arabic kaifa/kai 'how' via different routes of sound change: (a) in English and German, /k & f/ became /h & w/; (b) in Latin, French, Sanskrit, and Russian, they changed to /q (k) & w/; and (c) in Greek and Irish, they merged into /t/ and /c/ respectively.

(iii) Phonetically, the main changes included substitution, reversal, reordering, split, and merger; lexically, the recurrent patterns were stability, convergence, multiplicity, shift, split, and variability; the abundance of convergence and multiplicity stem from the formal and semantic similarities between Arabic words from which English and European words stemmed in the first place.

(iv) The phonetic complexity, huge lexical variety and multiplicity of Arabic question (10 in number) and modal words compared to those in English and European languages (with 1 common base morpheme) point to their Arabic origin in essence. As such, they have a fraction of what Arabic does.

(v) The lexical root theory has been adequate for the analysis of the close genetic relationships between question and modal words in Arabic, English, German, French, Latin, Greek, and Sanskrit according to which they are all dialects of the same language with Arabic being the parent language.

(vi) Finally, the current work supports Jassem's (2012a-f, 2013a-q, 2014a) calls for further research into all language levels, especially lexis or vocabulary. The application of such findings, moreover, to language teaching, lexicology and lexicography, translation, cultural (including anthropological and historical) awareness, understanding, and heritage is badly needed to promote and disseminate cultural understanding and cooperation. Differences are meant to understand and enrich, not divide and clash. So this is a very good opportunity for cross-cultural investment with high dividends, indeed.

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