

A Lexico-Cognitive Study of the Forms of Quantification in Arabic Within the Framework of Gradeability by Force

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Abstract: *The present paper tackles the linguistic phenomenon of quantification which is the second source of gradeability by force. Quantification is an important aspect in semantic relationships. The study adopts a lexical-cognitive approach. The process of analysis reveals the lexical, grammatical, and morphological features of quantification. Moreover, it unearths the rhetorical functions of the forms of gradeability in reference to quantification. In conclusion, the study shows that quantification is useful for language learners and translators. Moreover, it proves important at the social, cognitive and logical levels.*

Keywords: cognition, gradeability, lexicality, morphology, quantification, semantics

INTRODUCTION

The present study deals with quantification which is the second source of gradeability by force. Quantification is an important aspect in semantic relationships. The study aims at revealing the lexical, grammatical, and morphological features of quantification. Moreover, it unearths the rhetorical functions of the forms of gradeability in reference to quantification. Furthermore, the study deals with the two main categories of quantification: (a) amount and (b) extent. On one hand, amount scale covers size, weight, strength and number. On the other hand, extent scale covers scope and proximity. The present paper delves into the linguistic forms of the modes of quantification at the classical level. Besides, knowing the features of gradeability helps in attaining the exact translation equivalent.

Objectives of the Study

The study aims to provide answers to the following questions:

- What does quantification mean under the theory of gradeability?

- What are the features of quantification at the grammatical, lexical and morphological levels?
- What are the rhetorical functions of quantification?
- What is the role of quantification in obtaining the accurate translation equivalent?

Rationale of the Study

It is known that language and cognition are closely intertwined. Linguists theorize about the interaction between language and society on one hand, and the interaction between language and cognition on the other hand. Therefore, the study delves into the cognitive and lexical aspects of quantification. Primarily, dealing with the feature of gradeability helps in overcoming the cognitive problem of rigidity. Rigidity takes the form of polarized thinking which revolves around the dichotomy of good and bad. Entertaining such a mindset is the result of having two ends of the scale of gradeability. Therefore, there is no mid end of the scale. According to Stanborough (2022), a polarized mindset is “a cognitive distortion that makes everything feel extreme”. Given the fact that no special focus is placed on gradeability, rigid mindsets find their way in communities. To overcome these mindsets, gradable forms should be given adequate attention.¹ Gradeability plays a crucial role in shaping thoughts and delivering ideas in the proper way.

Stanborough (2022) states that polarized thinking is a form of common distorted thinking patterns. It is sometimes called “all-or-nothing” or “black and white thinking”. It happens when people think in extremes without considering all the possible facts in each situation. This raises the question: Are linguistic patterns the result of cognitive patterns or vice versa? Given the fact that the linguistic patterns of polarized thinking have become prevalent and popular; therefore, they control our cognitive patterns.

Similarly, unit fractions such as one-eighth, one-fourth, one-half, one-third, and two-thirds play an essential role in the Islamic inheritance system. Moreover, quantification plays a crucial role in daily life. In culinary arts, it helps in measuring ingredients properly. At the level of translation, quantification helps in obtaining the right translation equivalent. For example, knowing the group age set helps in securing the right translation equivalent. In conclusion, the study aims at promoting understanding of an important linguistic phenomenon in Arabic. It paves the way for understanding how language works regarding gradeability. In addition, it helps in building vocabulary and improving cognition and memory skills.

METHODOLOGY

The study uses a lexico-cognitive approach making use of the theory of gradeability with reference to quantification by Martin and White (2005). The approach aims at explaining the relationship

¹ According to Cambridge Dictionary, scale means the relation between the real size of something and its size on a map, model, or diagram. Also, it means a set of numbers, amounts used to measure or compare the level of something. The second meaning is the intended one in the present study.

between lexemes in the terms of lexicology and cognition. Semanticists establish a system of semantic relationships which includes a variety of relations such as synonymy. For example, “amazing” is the synonym of “great”. Others explain the semantic relationship in terms of antonym such as “offensive” is the antonym of “great”. Moreover, semantic relationships are understood in terms of part-whole relationship. Kreidler (1998) uses a binary system to demonstrate how a lexeme differs from other members of the same set. According to Kreidler (p. 88), semanticists use componential analysis to differentiate members of the set from one another. It goes without saying that semanticists’ explanation contains all the aspects of gradeability as discussed below. But they did not pay special focus on gradeability. Discussing this linguistic phenomenon helps in revealing semantic relations more clearly. The study elaborates and extends the theory of gradeability with reference to quantification by Martin and White (2005). Based on the model, quantification involves gradeability with reference to amount and extent. Under amount, there is gradeability with size, weight, strength, and number. Extent covers scope and proximity.

Quantification

Quantification is an intrinsic property of things that are measurable. It covers size, weight, amount, extent, or number according to AARTS et al. (2014, p. 734). Technically speaking, quantification means measuring things in terms of amount and extent. The sections below dig into the features of amount and extent.

Isolation and Infusion

Quantification can be realized via infused or isolated forms. As for infused forms, gradeability is carried out by the head word itself. For example, saying “*’imlāq*” is analogous with “*rajulun ṭawīl wa dakhm al-jism*” (i.e., man mountain). Also, saying “*al-musinnīn*” is analogous with “*kibār as-sinn*” (i.e., old people). Regarding isolation, it acts as a modifier of the graduated entity as in “*rajulun ṭawīl*” (i.e., a tall man).

Abstract versus Concrete

Quantification can be used for graduating abstract and concrete entities. The table below provides examples for both abstract and concrete entities.

Table (1): Abstract and Concrete Forms.

Abstract Forms in Arabic	Abstract Forms in English	Concrete Forms in Arabic	Concrete Forms in English
مشكلة	Problem	شخص	Person
نجاح	Success	كرسي	Chair
سعادة	Happiness	نبات	Plant

دين	Debt	حيوان	Animal
فكرة	Idea	كتاب	Book
حزن	Sadness	ذهب	Gold
أمل	Hope	فضة	Silver

Terms of Measurements and Weights in the Qur'an

The All-Glorious Qur'an mentions some of the general terms of measurements and weights such as: “*Mīzān*”, “*Wazn*”, “*Mawāzīn*”, “*Mikyāl*”, “*Kayl*”, and “*Mithqāl*”. The Qur'an abounds with the forms of measurement and weight as in the following verses:

وَيَا قَوْمِ أَوْفُوا الْمِكْيَالَ وَالْمِيزَانَ بِالْقِسْطِ وَلَا تَبْخَسُوا النَّاسَ أَشْيَاءَهُمْ وَلَا تَعْتُوا فِي الْأَرْضِ مُفْسِدِينَ. (11:85).

And my people, fill up the measuring and the balance with equity and do not depreciate the things of mankind and do not perpetrate (mischief) in the land as corruptors. (Ghālī, 2005, 11:85).

وَالسَّمَاءَ رَفَعَهَا وَوَضَعَ الْمِيزَانَ. (55:7).

And the heaven, He raised it up and laid down the balance. (Ghālī, 55:7).

Rhetorical Functions

In essence, the use of the terms of weights and measurements lays the foundation of justice and fairness in communities. By and large, people cannot do without these scales in their daily life. One of the verses of the Qur'an reads:

وَالسَّمَاءَ رَفَعَهَا وَوَضَعَ الْمِيزَانَ (7).

And the heaven, He raised it up and laid down the balance. (Ghālī, 55:7).

For some scholars, “*al-Mīzān*” means that Allah establishes justice on earth. Other scholars say that *al-Mīzān* refers to the ordinary balance by which people give every person his or her due. In the same vein, the terms of *Mīzān* and *Mawāzīn* are used for establishing justice in the hereafter. A verse reads:

وَنُضَعُ الْمَوَازِينَ الْقِسْطَ لِيَوْمِ الْقِيَامَةِ فَلَا تُظْلَمُ نَفْسٌ شَيْئًا وَإِنْ كَانَ مِثْقَالُ حَبَّةٍ مِنْ خَرْدَلٍ أَتَيْنَا بِهَا وَكَفَى بِنَا حَاسِبِينَ. (21:47).

And We will lay down the equitable scales for the Day of Resurrection, so that not oneself will be done an injustice in anything, and even in case it be the weight of one grain of mustard seed.

We will come up with it. And sufficient are We for the reckoners. (Ghālī, 21:47).

The verse above indicates that the highest level of justice is adopted in the hereafter. The Qur'an uses the smallest unit of weight to convey the highest degree of justice and fairness. Also, weighing the lowest end of the scale of the good and bad deeds aims at achieving the highest level of fairness in the hereafter as in the verse that reads:

فَمَنْ يَعْمَلْ مِثْقَالَ ذَرَّةٍ خَيْرًا يَرَهُ (7) وَمَنْ يَعْمَلْ مِثْقَالَ ذَرَّةٍ شَرًّا يَرَهُ (8).

So, whoever does an atom's weight of charity will see it. (7). And whoever does an atom's weight of evil will see it. (8). (Ghālī, 99:7-8).

According to the verse above, man's deed is scaled even if it is an atom's weight, it is considered. It indicates that everyone will take his/her due. This rhetorical function is realized by the form of quantification.

Amount

The amount is the quantity of something such as time, space, or substance. When it comes to gradeability, amount covers size, weight, strength, and number. In Arabic, there are general words for conveying the meaning of amount such as:

مقدار - كم - كمية

These terms could be translated into extent- amount-quantity.

Size

Traditionally, size means how big or small something is. But this definition overlooks the third scale of medium size. It is an intrinsic feature of gradeability to have a scale of three or more different ends: small, medium, large, and extra-large. These scales are found in the size guide: small, medium, and large. Even the large size can be of different sizes: xl, xxl, xxx, etc. There are general words which convey the meaning of size such as the forms in the table below.

Table (2): Synonyms of “Size” in Arabic and English.

Arabic	حجم/مقاس/مقياس/درجة/مقدار/قدر
English	Size/measure/amount/degree/extent

One of the synonyms of size is mentioned in the verse that reads:

اللَّهُ يَعْلَمُ مَا تَحْمِلُ كُلُّ أُنْثَىٰ وَمَا تَغِيضُ الْأَرْحَامُ وَمَا تَزْدَادُ وَكُلُّ شَيْءٍ عِنْدَهُ بِمِقْدَارٍ. (13:8).

Allah knows what every female bears and what the wombs subside and increase, and everything in His Providence has (its) (perfect) determination. (Ghālī, 13:8).

The term “*miqdār*” is preceded by the preposition “ba”. The prepositional phrase “*bimiqdār*” is one of the forms of the scale of preciseness. Therefore, it is a means of the scale of focus. The use of the preposition “*ba*” in Arabic changes the form from the scale of force into the scale of focus. On the contrary, the same word in the verse below is a general term for scaling duration/extent of time. Therefore, it graduates time according to the scale of force. The verse reads:

يُدَبِّرُ الْأَمْرَ مِنَ السَّمَاءِ إِلَى الْأَرْضِ ثُمَّ يَرْجِعُ إِلَيْهِ فِي يَوْمٍ كَانَ مِقْدَارُهُ أَلْفَ سَنَةٍ مِّمَّا تَعُدُّونَ. (32:5).

He conducts the Command from the heaven to the earth; thereafter it winds up to Him in (one) Day, whose determined (length) is a thousand years of what you number. (Ghālī, 32:5).

The verse uses the nominal form “*miqdār*”, a general term of measurement meaning measure/extent. It is followed by a period of time as in the verse above. Similarly, the general term “*Maqās*” or “*Miqyās*” can be graduated via modifiers as in the table below.

Table (3): Graduation of the Forms of Size.

Scale	Infused Form in English	Separate Form in Arabic	Separate Forms in English
High	-	مقياس/حجم كبير	Large size
Mid	-	مقياس/حجم وسط	Medium size
Low	-	مقياس/حجم صغير	Small size

Size usually refers to things having mass, length, width, and depth of height according to Webster's New Dictionary of Synonyms (1984, p. 742). The section below provides a detailed discussion of the sub-categories of size.

Imprecise Reckoning of Mass

The high and low ends of the scale of mass can be realized via the forms below.

Table (4): Graduation of Mass via Modifiers.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	ضخم/علاق/هائل	Immense Giant Great	عظيم الجسم كبير جدا	king-size very big
Mid			وسط الحجم	Average size
Low	ضئيل- صغير- نزر-يسير	Small Tiny	صغير جدا قليل جدا	Very small

Social status can be graduated via the forms of mass as in the table below.

Table (5): Graduation of Social Status.

Mass Scale	Separate Form in Arabic	Separate Form in English
High	موظف كبير	Senior officer
Low	موظف صغير	Junior officer

In religious discourse, man's deeds are graduated in terms of mass as in the table below.

Table (6): Graduation of Man's Deeds.

High scale	Low scale
ذنب كبير	ذنب صغير
Big sin	Small sin

By and large, the scale of mass is used for graduating man's deeds. The underlined forms “*ṣaghīr*” and “*kabīr*” reflect two ends of the scale of size in the verse that reads:

وَكُلُّ صَغِيرٍ وَكَبِيرٍ مُسْتَنْطَرٌ. (54:53).

And every small and great thing is judiciously inscribed. (Ghālī, 54:53).

Mass has been used for graduating the abstract entity of man's deeds. It states that everything is registered for getting man accountable for his deeds. Similarly, the abstract entity of ‘debt’ is graduated by the scale of mass in the verse that reads:

وَلَا تَسْأَمُوا أَنْ تَكْتُبُوهُ صَغِيرًا أَوْ كَبِيرًا إِلَىٰ أَجَلِهِ. (2:282).

... and be not too loathe to write it down, (whether) it is small or great, with its term, (Ghālī, 2: 282).

The two forms “*ṣaghīr*” and “*kabīr*” are modifiers of the abstract entity “*dayn*” (i.e., debt). Thus, debt is graduated via the forms of mass.

Imprecise Reckoning of Mass and Generosity

In the Arabic culture, imprecise amount can be used for graduating generosity such as the idiomatic expression “*khathīr ar-ramād*”. Literally, it means a large amount of ash. Metonymically, it means that someone is very generous. Therefore, it indicates a high scale of generosity. In the same vein, the high scale of amount can indicate the low end of the scale of generosity. On the contrary, a zero end of the scale of generosity can be realized by expressions such as “*khathīr nubāḥa al-kalb*”. Literally, it means that somebody has a dog that barks a lot. Metonymically, it means that the dog barks a lot because its owner is a niggard person who never has guests at home.

Diminutive Form

Morphologically, graduating size can be realized via the diminutive form. A diminutive form means changing the form of the word for rhetorical purposes such as minimizing, belittling, or decreasing number. A diminutive form is used for expressing the low end of the scale of size. For example, mountains can be scaled as in the table below.

Table (7): Graduation of Mountains via Diminutive Forms.

Scale Ends	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate forms in English
High		جبل Mountain	تل كبير	A large hill
Mid				-
Low		جبل Monticule	جبل صغير	A small mountain

Metaphorically, using “*jabal*” (i.e., a mountain) as a modifier of man conveys the high end of the scale of patience. Likewise, a mountain and rat can be used where a great deal of promise, attention, or fuss is made about something that is trivial. For example, the proverb that reads: “*tamakhkhada al-jabalu fawalada fa’ran*” could reflect the low and high ends of the scale. It could be translated into “The mountain was in labor but gave birth to a mouse”.

Nominal forms

Lexically, quantification can be realized by nominal forms which convey small and large sizes of an area.

Table (8): Graduation of Salt-Water Bodies.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High		محيط Ocean	من العظيم البحار	a very large expanse of water more than the sea
Mid		بحر Sea	كبير تجمع للمياه المالحة أقل من المحيط	A large expanse of water less than the ocean
Low		بحيرة Lake	كبير تجمع للمياه أقل من البحر	A large expanse of water less than the sea

Metaphorically, the term “*bahr*” (sea) and “*muḥīt*” (ocean) can be used for conveying the high end of the scale of knowledge. They refer to a knowledgeable or well-informed person.

Table (9): Graduation of Fresh Water Bodies.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	نهر	River	مجرى مائي طويل	A large natural stream of water
Mid	بحيرة/جدول	Lake/stream	نهر صغير	A small/narrow river
Low	ينبوع	Well	عين الماء	Spring water ⁱⁱ

- **Length: Lexical Forms**

The process of graduating length units runs as in the table below.

Table (10): Graduation of Meter Units.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	متر	Meter	مئة سنتيمتر	one hundred centimeters
Mid	سنتيمتر	Centimeter	جزء من مئة من المتر	One hundredth of a meter
Low	مليمتر	Millimeter	جزء من الألف من المتر	one thousand of a meter.

Human height/stature can be graduated by modifiers as in the table below.

Table (11): Graduation of Human Height.

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
High	عماق/مارد	Giant	طويل جدا	very tall
Mid	مربعة/مربع		وسيط/معتدل القامة ليس بالقصير ولا بالطويل	Average height/normal height Neither tall nor short
Low	قزم	Dwarf	قصير القامة. ذو قامة قصيرة	Shorty/short stature Vertically challenged Pint-sized

Width: Lexical Forms**Table (12): Gradable Forms of Width.**

Scale	Infused Forms in Arabic	Infused Form in English	Separate Forms in Arabic	Separate Forms in English
High	عريض- متسع	Wide/broad	متباعد الحاشيتين	Having distance from side to side
Mod	محدود- كنز	Limited/bounded		-Restricted in width
Low	ضيق	Narrow		-Small width

Metonymically, the high scale of width is used for conveying the high end of the scale of stupidity as in the table below.

Table (13): Graduation of Width Forms Using Metonymical Forms.

Scale	Separate Form in Arabic	Separate Form in English
High	عريض الففا	Thick as a brick (Thick here equals wide).

The low end of width can be used for graduating sadness, pain, poverty conveying the high end of these scales as follows:

Table (14): Width Forms & the Graduation of Sadness, Pain, and Poverty.

Low end of the scale of width	The high end of the scale of poverty	The high end of the scale of sadness
ضيق	ضيق ذات اليد	ضيق الصدر
Narrow	Hard-pressed	Literally: chest tightness Metonymically: anxious

Depth: Lexical Forms

Table (15): Graduation of the Forms of Depth.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	عميق/غائر/ساحق	Deep/profound/bottomless	لا حد له	Without limits
Mid				
Low	ضحل- سطحي	Shallow/superficial	غير عميق لا عمق له	Not deep

When used metaphorically, the scale of depth is a form of gradeability by intensification because it conveys intensity. For instance, graduating pain in terms of depth via forms such as “*amīq*” (deep) in saying “*alam ’amīq*” (a deep pain) intensifies the meaning. The meaning of “*’amīq*” is intense or very painful. Also, using depth can be a scale of focus as in “*ṣamt*” (deep silence or dead air). The lower end of the scale can be realized metaphorically via forms such as “*tafkīr ṣathy*” (superficial thinking). Also, graduating the degree of intelligence saying “*rajulun ṣathy*” (Superficial guy-empty-headed) has the function of intensifying meaning. Gradeability in terms of depth can be realized via nominal forms as in table below.

Table (16): Graduation of Depth via Nominal Forms.

Scale	Infused form in Arabic	Separate Form in English	Separate form in Arabic	Separate Form in English
High	هوة هاوية	Abyss/hole	حفرة بعيدة القعر/عميقة	Immeasurable deep hole
Mid	حفرة نقرة	Pothole	حفرة صغيرة من الأرض ونحوها	A depression/hollow in a road surface
Low	نقير	Speck	حفرة مستديرة	A tiny spot

Heights

Heights can be graduated via heads themselves as in the table below.ⁱⁱⁱ

Table (17): Graduation of Terrain Features.

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
High	جبل	Mountain	ما ارتفع عن سطح الأرض أعلى من التل	A large natural elevation of the earth's surface more than the hill
Mid	تل	Hill	منطقة مرتفعة عن سطح الأرض أقل من الجبل	Naturally raised area of land/high ground/rising ground less than the mountain
Low	سهل/وادي	Plain/valley	أرض منبسطة	Flat land

The high end of the scale of size can be used for graduating firmness, high social status, and knowledge as in the table below.

Table (18): Forms of Height & Gradeability of Social Status.

The high end of the scale of size	The high social status	The high end of the scale of intelligence
جبل	رجل جبل	الجبل
Mountain	A noble man	Shrewd-Cunning person

In the same vein, heights can be graduated via modifiers as in the table below.

Table (19): Graduation of the Forms of Height.

Scale	Infused Form in Arabic	Separate Form in English	Separate Form in Arabic	Separate Form in English
High	عال/سامق/شاهق/شامخ	High/lofty/towering	مرتفع/عال جدا	Very tall/high
Mid			متوسط الارتفاع	Average height
Low	منخفض/منحدر/نازل	Low/sloping/downward		

Metaphorically, man's status in the hereafter can be graduated via the forms of heights. This can be realized by the agent noun forms such as “*khafidatun*” (i.e., brings down) and “*rafi'ah*” (raises up). The Day of Judgement can be graduated via the forms of heights in the verse that reads:

خَافِضَةٌ رَافِعَةٌ. (56:3).

Lowering (some), raising (others). (Ghālī, 56:3).

The underlined forms in the verse above function as modifiers of the nominal phrase “*‘al-Wāq ‘tu*” (the inevitable, the Day of Judgment) in the start of the chapter of “*‘al-Wāq ‘tu* in the Qur’an. Also, the scale of heights can be realized via verbal processes as in the table below.

Table (20): Graduation of Heights via Verbal Processes.

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
High	ارتفع حلق طار	Rise come up go up	اتجه لأعلى طار مرتفعاً	Move to a higher position Move through the air
Mid				
Low	هبط-انخفض	Go down	اتجه لأسفل	move to a lower position

Measure and Weight

There are general words for expressing the notion of weight. The following forms are ones of the terms of weight: “Mithqāl”, “Wazn”, “Zinatun” (weight)- “Mikyāl” (measure). Weight can be graduated by verbal processes as “*khaffa*” (become light) and “*thaqula*” (become heavy).

Table (21): Graduation of Weight via Verbal Processes.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	ثقل/رجح		زاد وزنه	Become heavy Tip the scales/tip the balance Tilt the balance one way or the other
Mid	تساوى تعاذل تمائل			Become equal Get balanced
Low	خف طاش		قل ثقله	Become light

The low end of the scale of weight is realized by verbal processes such as “*yukhsir*” (make the balance deficient) as in the verse that reads:

وَأَقِيمُوا الْوَزْنَ بِالْقِسْطِ وَلَا تُخْسِرُوا الْمِيزَانَ. (55:9).

And keep up the weight with equity, and do not cause loss in the Balance. (Ghālī, 55:9).

On the contrary, the high end of the scale is realized via verbal processes such as “*yuwaffy*” (give full measure) in the verse that reads:

And fill up the measure when you measure, and weigh with the straight equitableness that is more charitable and fairest in interpretation. (Ghālī, 17:35).

Precise Weight Units

There are specific units for weight which can be graduated as in the table below.

Table (22): Graduation of Some Weight Units.

Scale	Infused Forms in Arabic	Separate Forms in English	Separate Forms in Arabic	Separate Forms in English
High	طن	Tonne	ألف كجم	one thousand kilograms
Mid	كجم	Kilogram	ألف جرام	one thousand grams
Low	جم	Gram	ألف ملليجرام	one thousand milligrams

Table (23): Graduation of Gram Units.

Scale	Infused Form in Arabic	Separate Form in English	Separate Form in Arabic	Separate Form in English
High	جرام	Gram	ألف ملليجرام	one thousand milligrams
Mid	ملليجرام	Milligram	جزء من الألف من المليجرام	one thousandth of a gram
Low	ميكروجرام	Microgram	جزء من مليون من الجرام	one millionth of a gram

Imprecise Weight Units

There are units which are imprecise such as “*dharrah*” (the smallest particle of a chemical element). The Qur’an mentions the term of “*adh-dharrah*” in many contexts. One of these contexts is the fairness of Allah that He will hold people accountable for everything. One of the verses reads:

فَمَنْ يَعْمَلْ مِثْقَالَ ذَرَّةٍ خَيْرًا يَرَهُ. وَمَنْ يَعْمَلْ مِثْقَالَ ذَرَّةٍ شَرًّا يَرَهُ. (99:7-8).

So, whoever does an atom’s weight of charity will see it. (7). And whoever does an atom’s weight of evil will see it. (Ghālī, 99:7-8).

Measurement Units

Measurement units can be graduated as follows:

Table (24): Some Measurement Units.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Form in Arabic	Separate Forms in English
High	أردب	Irdabbun (a unit of dry measurement)	مائة وخمسون كجم من القمح/ومائة وخمسة وعشرون من الأرز	one hundred fifty kilograms of wheat/twenty-five of rice.
Mid	كيلة	Keila (a unit of dry measurement)	اثنا عشرة كيلوجرام من القمح	twelve kilograms of wheat.
Low	صاع-مد	Sa'/Muddu (a unit of dry measurement)	٢,٠٣٥ كيلو جرام. المد: ٦٥٠ جرام تقريبا	2.035 kg A cubic dry measure-half bushel a dry measure Approximately 650 grams

Number

Graduating numbers can be realized via forms which can be either precise or imprecise. Number, in a grammatical sense, is mainly the distinction between singular and plural words; that is, between words that apply to anything or person and words that apply to more than one. So, from the point of view of gradeability, the discussion of graduating numbers is held under two headings: precise and imprecise reckoning.

Precise Reckoning of Number

Precise reckoning means definite calculation. It can be realized grammatically and lexically via dual and singular forms as demonstrated below.

Singular-Plural System**Table (25): Graduation of the Singular-Plural System.**

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	جمع	Plural	ما زاد على اثنين أكثر من اثنين	more than two persons
Mid	مثنى	Dual		
Low	مفرد	Singular	-	

Also, number can be realized by a form of a particular word or phrase that indicates singularity or plurality such as tree, woman, trees and women. Also, the low scale can be realized morphologically by the one-time noun.

Table (26): Graduation of Precise Number via the One-time Form.

Scale	Arabic Form	English Form
High	هجمات	Attacks
Low	هجمة	Attack

Graduation of Personal Pronouns

The tables below provide graduation of personal pronouns regarding number. First, there is a graduation of the first-person pronouns. Then, there is a graduation of the second person. Finally, there is a graduation of the third person pronouns. The process of analysis includes both attached and detached pronouns. Attached pronouns are dependent pronouns which cannot stand alone such as 'هـ' in 'كتابه' (his book), 'ضربته' (I beat him), and 'له' (his). As for detached pronouns, they are independent and can stand alone as the first speaker pronoun 'أنا' (I).

Table (27): Graduation of the First Speaker Pronouns.

Scale	Arabic Forms	Infused Meaning	English Forms	Infused
High		نحن نا Both are first-speaker pronouns.	We Us	
Mid End		نحن نا The form 'نحن' is a first-speaker pronoun which is used in the nominative case. Also, the form 'نا' is a first-speaker pronoun but it can be used in the nominative, accusative, and genitive cases. Here are examples for each case: - The use of 'نا' in the nominative case: 'ضربناه'. It could be translated into 'we beat him'. - The use of 'نا' in the accusative case: 'ضربنا'. It could be translated into 'he beat us'. - The use of 'نا' in the genitive case: 'كتابنا' and 'منا' which could be translated into 'our book' and 'from us'.	We We/our/us	
Low	نا (ياء المتكلم تأتي في موضع النصب والجر). ت (ضمير متكلم). ت (ضمير مخاطب)	نا It is one of the forms of the first-speaker pronoun. ت (ياء المتكلم تأتي في موضع النصب والجر). It is a direct object of the verb and an object of the preposition). ت (ضمير متكلم). The letter 'ت' is a first speaker pronoun in the nominative case. ت (ضمير مخاطب) The letter 'ت' in Arabic is a second person pronoun in the nominative case.	I Me I You	

Lexically, the high and mid ends have the same graphemes in Arabic. However, the meaning is different depending on the context in which they are used. These forms refer to two persons or things only in the mid end while they refer to more than two persons or things in the high end. Grammatically, the pronouns 'أنا', (I), 'نحن' (we), 'ت' (I), 'ت' (you), 'نا' (we) are used in the

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nominative case. As for the other pronouns such as 'نا' (us), 'ي' (me), they are used in the accusative and genitive cases.

Table (28): Graduation of the Second Person Pronouns.

Scale	Arabic Infused Forms	Meaning	English Infused Forms
High	أنتم-أنتن	The form 'أنتم' is a masculine first-person plural pronoun. As for 'أنتن', it is a feminine first-person pronoun.	You
	واو الجماعة (تفعلون) مذكر	The letter 'و' is a plural pronoun which is equal to the second person pronoun 'you' in this context as in 'You do it'.	you
Mid End	أنتما	A masculine/feminine pronoun which indicates duality.	You
Low	أنت	It is a masculine pronoun.	You
	أنت	It is a feminine pronoun.	-
	ي (ياء المخاطبة) المؤنثة مثل تفعلين	The letter 'ي' is a feminine second person pronoun.	You
	لك (كاف الخطاب للمذكر والمؤنث: ضربتك- ضربتُكِ).	The letter 'ك' is a second person pronoun as in 'ضربتك' i.e., I beat you. 'you' here can refer to a male or female depending on the context.	You

In the table, there are specific lexemes for each end of the scale of gradeability.

Table (29): Graduation of the Third Person Pronouns.

Scale	Arabic Forms	Infused Meaning	English Forms	Infused
High		هم It is a masculine personal pronoun.	They	
		هنَّ It is a feminine personal pronoun.	They	
	واو الجماعة (للغائب المذكر)	The letter 'و' is a plural third-person pronoun.	They	
	نون النسوة (للمؤنث الغائب) أي هن	The letter ن is a feminine plural pronoun. It can function as a third-person pronoun as in 'يقرأن' (they read) in which the 'ن' functions as a third person pronoun in the nominative case. Also, it can function as a second-person pronoun as 'تكتبين' (you write). The 'ن' is in the nominative case.	They	
Mid End		هما It is a personal pronoun which is a dual form.	They	
	الف الاثنين هما يفعلان الخير (المؤنث)	The letter 'ا' in Arabic indicates duality.	They	
Low		هو It is a personal pronoun that refers to the male person/thing previously mentioned. It is used in the nominative case.	He	
		هي It refers to the female person/thing mentioned earlier. It is used in the nominative case.	She	
	ه (الغائب)	It is a pronoun that refers to a male person/thing in the accusative and genitive cases.	Him	
	ها (الغائبة)	It is a pronoun that refers to a female person/thing in the accusative and genitive cases.	Her	

The Currency System

The Egyptian system of money can be graduated as in the table below.

Table (30): Graduation of Egyptian Currency System.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in English	Separate Forms in English
High	جنيه	Pound	ألف قرش	one thousand piasters
Mid	قرش	Piasters	مئة مليم	Piasters/one hundredth of a pound
Low	مليم	Penny/Millieme	جزء من مئة ألف من الجنيه	one thousandth part of a pound/the tenth part of a piasters.

The Old Arabic System of Currency

The Arabic old system of currency is graduated in terms of dīnār and Qīnṭār which reflect the high and low ends of the scale as in the table below.

Table (31): Graduation of the Old Arabic Currency System.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	قنطار	Qīnṭār	مئة مثقال/100 رطلا أو 44.928 كم	One hundred pounds 100 pounds Or 44.928 kg
Mid				
Low	دينار	Dīnār	عشرة دراهم فضة	ten silver dirhams

Demonstrative Pronouns

One of the precise reckonings of numbers is the demonstrative pronouns in the singular and dual cases. Demonstrative pronouns can be graduated from the perspective of number in the table below.

Table (32): Graduation of Precise Number via the Demonstrative System.

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
Low	هذا/هذه ذلك/تلك	This/that	المشار إليه/إليها	The thing/person referred to
Mid	هذان/هاتان	These two persons/things Those two persons/things	المشار إليهما	The two persons/things referred to
High	هؤلاء أولئك	These/those	المشار إليهم/إليهن	The persons/things referred to

Relative Pronouns

Also, precise numbers can be realized via the relative pronouns in the singular and dual cases. Relative pronouns can be graduated from the perspective of number in the table below.

Table (33): Graduation of Precise Number via Relative Pronouns.

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
Low	الذي/التي	Who/whom/that/which	-	
Mid	الَّذَانِ- الَّذَيْنِ/اللّتان-اللّتين	Who/whom/that/which	-	
High	الَّذِينَ-/اللاتي	Who/whom/that/which	-	

In this table, the dual relative pronouns in the nominative case are “*allathān*” (who, whom, which, and that) and “*allatān*” (who, whom, which, and that). But the accusative and genitive cases are “*allathayn*” and “*allatyn*” (who, whom, which, and that). As for plural, the forms in the nominative and the accusative cases are the same “*allathyna*” (who, whom, which, and that).

Ordinal Numbers

Ordinal numbers can be a means of gradeability since they indicate precedence. Therefore, these numbers indicate priority in importance, order, or rank. Lexically, it is equivalent to extent in time as the latter, the former, the precedent. So, mathematicians use terms such as ascending and descending order. This hierarchical order is a form of gradeability. Lexically, gradeability can be realized via forms as in the table below.

Table (34): Graduation of Ordinal Number.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in English	Separate Forms in English
High	الأول	The first	أول الأمر	the first part/the earlier stage
Mid	الثاني	The second		
Low	الآخر	The last	آخر الشيء	The final part of

The Qur'an uses the scale of *al-'Akhira* (the hereafter) and *al-Ola* (worldly life) in a verse that reads:

فَأَخَذَهُ اللَّهُ نَكَالَ الْآخِرَةِ وَالْأُولَى. (79:25).

Then Allah took him away with the torture of the Hereafter and the first (life). (Ghālī, 99:25).

This can be expressed lexically via the forms below.

Table (35): Graduation of Sequence via Lexical Forms.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	البداية	The start/ the beginning	أول الأمر/بداية الأمر	At first/the very beginning of
Mid	الوسط	The middle	منتصف الحدث/ الترتيب	At an equal distance from the extremities of something
Low	النهاية	The end	نهاية المطاف	At the end, when all is said and done

Imprecise Reckoning of Number

Graduating imprecise numbers can be realized lexically, morphologically, and grammatically as illustrated in the sections below.

Lexical Forms**Table (36): Graduation of Imprecise Number via Lexical Forms.**

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	كثير / وافر / غزير	Many/numerous/several/myriad	عدد كبير	Large number/extremely great number of
Mid	كافي	Enough/okay	لا بأس به	All right
Low	خس يسير محدود محدد	Handful/few	عدد محدود/قليل	A limited number of

Imprecise reckoning of number can be realized metaphorically via lexemes as in the expression '*ghayd min fayd*'. Literally, this expression means one small part of a much larger part. Functionally, it means the tip of the iceberg.

Age: Morphological Forms

Scaling age can be realized via the comparative and superlative forms as in the table below.

Table (37): Graduation of Age via Comparative and Superlative Forms.

Scale	Infused Forms in Arabic	Infused Form in English	Separate Forms in Arabic	Separate Forms in English
High	أكبر الأكبر الأكبر الأكبر	Older- the oldest the elder the eldest	عمره يفوق عمر شخص آخر	Having a greater age than someone else
Mid	الترب اللدة أقران	Peer Counterpart	مماثل في السن/من سن واحدة	Of the same age
Low	أصغر الأصغر	Younger the youngest less than	سنه أقل من سن فلان	Half someone's age

Age Sets

An age set means a social category or group, consisting of people of similar age, who have a common identity, maintain close ties over a prolonged period, and together pass through a series of age-related statuses. Age-sets can be graduated as in the table below.

Table (38): Graduation of Age Sets.

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
High	الكبار المسنين	The old Seniors The elderly	كبار السن متقدم في العمر	Old people advanced in age
Mid	الشباب	The youth	منتصف العمر	Middle age
Low	الصغار	The young		Young people

Grammatical Forms

Imprecise reckoning of number can be realized grammatically. It includes the plural demonstrative and relative pronouns. Moreover, there are specific grammatical formulations in the sections below.

kināyātu al'adad (Indefinite Numbers)

These are linguistic forms which refer to imprecise numbers. They can be graduated as demonstrated in the table below.

Table (39): Grammatical Forms & the Graduation of Imprecise Number.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	كاي كم	How many ...?	ما أكثر	How many...?
Mid	كيف	Some	أكثر من- زيادة على (٣-١)	more than
Low	ضع (٩-٤) كذا	Some: unspecified number between 3 and 9 Such and such	تشمّل من ٩-٣ ١- ١- ١-	unspecified number between 3 and 9 -such and such Giving a course of lectures on such and such a topic.

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 “*kadha*” refers to number one and “*bid’u*” refers to numbers from 3 up to 9.

Collective Nouns

Collective nouns refer to a group of people, animals, or things (AARTS et al., 2014, p. 70). Collective nouns can indicate both the high and low ends of the scale. Collective nouns refer to a collection of things taken as a whole. The high end can be realized by words as in the table below.

Table (40): Graduation of Imprecise Number via Collective Nouns.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	<p>حشد Crowd</p> <p>فريق team</p> <p>قافلة Convoy</p> <p>موكب Procession</p> <p>فرقة Denomination/group</p> <p>سرب Flock</p> <p>قطيع herd</p> <p>²</p>		<p>جمع غفير من الناس A number of people</p> <p>مجموعة من اللاعبين A group of players</p> <p>مجموعة من الجمال أو السفن أو المركبات A group of camels, ships/vehicles</p> <p>عدد من الناس A number of people</p> <p>مجموعة من الطيور A number of birds</p> <p>مجموعة من الماشية والغنم A large number of cattle and sheep.</p>	
Mid				
Low	<p>شُرذمة Band</p> <p>بعض some</p> <p>فرادى Individually</p> <p>متفرقون</p>		<p>شُرذمة قليلون A handful of people</p> <p>Unspecified number</p> <p>One by one</p>	

Time

There are general words which indicate time. These words can be graduated from high to low or vice versa. Time duration can be imprecise or precise. Imprecise infused forms include ‘*zaman*’, ‘*waqt*’, ‘*hīn*’, and ‘*’awān*’. These could be translated into time, period, and a while respectively. The table below shows how time is graduated.

² The use of such forms depends on the context in which they are used. For example, the term ‘*farīq*’ can refer to a team of eleven players or a huge number of persons. So, the word itself may be a higher or a lower scale depending on the context.

Table (41): Graduation of Time Terms

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
High	دهر البرهة	Time	زمن طويل حين من الدهر	A long period of time-
Mid				
Low	هنيهة فينة.	Awhile	لحظة يسيرة وقت قصير القليل من الزمان	For a short time A little while

Precise Reckoning of Time

Graduating precise reckoning of time takes many forms. Gradeability can be realized by forms of daytime, nighttime, hour units, year, decade and century. In the sections below, there is a detailed discussion of how these forms are graduated.

Table (42): Graduation of Daytime Forms.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	صبيحة ضحى a.m.	Morning Forenoon	أول النهار	The beginning of the day The early part of the day In the morning Before noon
Mid	ظهيرة	Noon Midday	منتصف النهار الساعة الثانية عشر ظهرا	The middle of the day 12 o'clock in the daytime At noon
Low	مساء عشية p.m.	Evening eve	آخر النهار	at the end of the day (sunset, evening, twilight, midnight). After midday

Daytime is graduated into three parts: dawn, noon, and evening as in the verse that reads:

يَا أَيُّهَا الَّذِينَ آمَنُوا لِيَسْتَأْذِنَكُمْ الَّذِينَ مَلَكَتْ أَيْمَانُكُمْ وَالَّذِينَ لَمْ يَبْلُغُوا الْحُلُمَ مِنْكُمْ ثَلَاثَ مَرَّاتٍ مِّن قَبْلِ صَلَاةِ الْفَجْرِ وَحِينَ تَصْعُونَ
ثِيَابَكُمْ مِّنَ الظُّهْرِ وَمِن بَعْدِ صَلَاةِ الْعِشَاءِ ثَلَاثُ عَوْرَاتٍ لَّكُمْ لَيْسَ عَلَيْكُمْ وَلَا عَلَيْهِمْ جُنَاحٌ بَعْدَهُنَّ طَوَّافُونَ عَلَيْكُمْ بَعْضُكُمْ عَلَى
بَعْضٍ كَذَلِكَ يُبَيِّنُ اللَّهُ لَكُمُ الْآيَاتِ وَاللَّهُ عَلِيمٌ حَكِيمٌ (24:85).

O you who have believed, let the ones your right hands possess and the ones of you who have not reached puberty and permission of you three times: right before the dawn prayer, and (the time) while you lay aside your clothes during midday, and right after the eventide prayer -three privacies for you. It is no fault in you or them, after these (times), that you go about one to the other. Thus, Allah makes evident to you the 'ayāt, and Allah is Ever-Knowing, Ever-Wise. (Ghālī, 24:58).

In the verse above, daytime is graduated into three distinct periods of time as follows: '*al-Fajr*' (dawn), '*az-Zahirah*' (the noon), and '*al-Ishā*' (the evening). Metaphorically, the Qur'an graduates daytime via separated forms. This form conveys two ends of daytime as in the verse that reads:

وَأَقِمِ الصَّلَاةَ طَرَفَيْ النَّهَارِ وَزُلْفًا مِّنَ اللَّيْلِ إِنَّ الْحَسَنَاتِ يُذْهِبْنَ السَّيِّئَاتِ ذَلِكَ ذِكْرَى لِلذَّاكِرِينَ. (11:114).

And keep up the prayer at the two extremities of the daytime and in the early reaches of the night. Surely the fair deeds will put away the odious deeds. That is a Reminding to the mindful. (Ghālī, 11:114).

Here, the underlined word '*tarafy*' means the morning and the evening of the day. According to At-Tabary (1994, p. 317), '*tarafy*' means both the dawn prayer and the sunset prayer. Therefore, it combines both the high and low end of the scale of daytime. In the same vein, the high end of the scale of daytime is realized metaphorically via the form "*wajh*" (i.e., face). The underlined expression "*Wajh an-Nahār*" means the first part of the day. The verse reads:

وَقَالَتْ طَائِفَةٌ مِّنْ أَهْلِ الْكِتَابِ آمَنُوا بِالَّذِي أُنْزِلَ عَلَى الَّذِينَ آمَنُوا وَجْهَ النَّهَارِ وَآكُفُّوا أَعْرَءَهُ لَعَلَّهُمْ يَرْجِعُونَ. (3:72).

And a section of the population of the Book said, "Believe in that which has been sent down upon the ones who have believed in the early part of the daytime and disbelieve at the last part of it, that possibly they would return. (Ghālī, 3:72).

Graduation of Nighttime Forms

The term '*al-layl*' (nighttime) is an infused form which is analogous to '*waqtu al-'atamah*' (the time of darkness). Similarly, 'Nighttime' is an infused form in English which is analogous to the time of darkness. The table below shows how nighttime is graduated.

Table (43): Graduation of Nighttime Forms.

Scale	Infused Forms in Arabic	Infused Form in English	Separate Forms in Arabic	Separate Forms in English
High	غسق شفق عَمَة	Dusk Twilight Darkness	أول الليل وقت الغروب بداية الظلام	The early evening at the beginning of night the sunset
Mid		Midnight	منتصف الليل	
Low	سحر فجر	Dawn Aurora	آخر الليل ضوء النهار	At the early hours Small hours Early dawn Late-night

Gradeability of the Hour Units**Table (44): Graduation of Hour Units.**

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High		ساعة An hour	ستون دقيقة	sixty minutes
Mid		دقيقة Minute	ستون ثانية	sixty seconds.
Low		ثانية Second	1000 مللي ثانية	One thousand milliseconds

Day-Year Gradeability**Table (45): Graduation of the Day and Year Forms.**

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
High	عام	Year	اثنا عشر شهرا ثلاث مئة وخمسة/ستة وستون يوما	twelve months/the period of 365/366 days.
Mid	شهر	Month	ثلاثون يوما	thirty days
Low	اسبوع- يوم	Week Day	سبعة ايام اربع وعشرون ساعة	Week seven days Twenty-four hours.

Decade-Century Gradeability**Table (46): Graduation of Decade and Century Forms.**

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Form in English
High	ألفية قرن	Millennium Century	مئة عام	A period of one hundred years A period of one thousand years
Mid	عقد	Decade decennary	عشر سنوات	ten years.
Low	سنتين	Biennium	خمس سنوات	Two years Lustrum

Graduation of Time via Prepositions

Precise reckoning of time can be realized via the two prepositional phrases “*min*” (from) and “*ila*” (to) as demonstrated below.

Table (47): Forms of Precise Reckoning.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate forms in Arabic	Separate Forms in English
Low	من	From	ابتداء من ...	starting time starting at
Mid		During	في غضون ذلك في هذه الأثناء خلال ذلك	In the meantime,
High	إلى	To Till Until	انتهاء بـ	Ending with

Extent

According to the Oxford Dictionary of Current English (p.306), extent means a space over which a thing expands. The form 'extent' is synonymous with range, scope, and degree. It covers both scope and proximity.

Scope in Time

The table below shows how scope in time can be graduated lexically.

Table (48): Graduation of Scope in Time.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	متتابع متتالي	Incessant Continual Infiltrated	تتابع/تلا بعضه/ها بعضا	Continuing without interruption
Mid	متقطع أحيانا	Intermittent Sometimes Discontinuous	بين الحين والآخر بين الفينة والأخرى	At times From time to time
Low	منقطع متوقف	Ceased Disconnected Interrupted		Bring/come to an end Lacking logical sequence Lacking continuity

Moreover, scope in time can be realized via the following modifiers.

Table (49): Some Gradable Forms of Scope in Time.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	دائم سرمدي أبدي	Eternal Immortal	ما لا نهاية له	Without end Lasting forever

Mid	مؤقت	Temporary	Interim	بصورة مؤقتة	For a short period of time
Low	فان	Ephemeral	زائل	لوقت قصير	For a short time
		Short-lived			

Also, scope in time can be realized via adjectives acting as adverbs of time as in the table below.

Table (50): Graduation of Scope in Time via Adverbs of Time.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	الآن	Now	الوقت الحاضر	the present moment
Mid	التالي	Next	التابع لشيء يسبقه	Coming after the present one.
Low	لاحقا	Later	في وقت لاحق في المستقبل فيما بعد	at some time, after a given time.

Grammatically, scope in time can be graduated by the adverbs of time below.

Table (51): Graduation of Scope in Time via Adverbs of Time.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate forms in Arabic	Separate Forms in English
High	قبل	Before	تقدم في الوقت/المكان	Earlier than, During a period of time preceding a particular time
Mid	الآن	Now	الوقت الحاضر	The present time
Low	بعد	After	التأخر في الوقت/المكان	In the time following an event or another period of time

In addition, Chronological succession can be realized grammatically via forms as in the table below.

Table (52): Graduation of Chronological Succession via Grammatical Forms.

Scale	Infused forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High		ثم Then Afterwards	بعد ملهه من الزمن بعد حين	At a later time
Low		فـ Immediately At once Instantly	بدون ملهه	Without any intervening time

The conjunctions in the table above are analogous to the lexical infused forms in the table below.

Table (53): Graduation of Chronological Succession via Lexical Forms.

Scale	Infused forms in Arabic	Infused forms in English	Separate forms in Arabic	Separate forms in English
High		أجلا Soon Afterwards	أفيما بعد بعد حين	Later on
Mid				
Low		إثر تتلو عقب	مباشرة بعد على إثر	Immediately after In the aftermath of After

	بعد			
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In the same vein, extent can be realized grammatically via adverbs of frequency.

Table (54): Adverbs of Frequency.

Scale	Infused Forms in Arabic	Infused forms in English	Separate Forms in Arabic	Separate Forms in English
High	دائما	Always	في كل وقت	At all times In all occasions
Mid	أحيانا	Sometimes Occasionally		Ever and anon
Low	أبدا بالتاتا	Never	على الإطلاق	At no time Not ever

Distribution

Scope in time can be graduated regarding distribution as in the table below.

Table (55): Graduating Scope in Time Regarding Distribution in Time.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	-	-	طويل الأمد	Long-term Long-lasting
Mid				
Low			قصير الأمد/الأجل	Short-term short-lasting

Distribution in Space

Scope regarding distribution in place can be graduated as in the table below.

Table (56): Graduation of Scope Regarding Distribution in Place.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	شاسع واسع رحب فسيح	Vast Spacious Far-flung	متراامي الأطراف	Extending Far and wide
Mid				
Low	ضيق محصور محدد	Narrow Limited	محدود النطاق/المدى	Limited in extent

Metaphorically, scope in space can be used for conveying the high end of the scale of generosity as in “*rahīb al-bā*” (very generous). Likewise, the high scale of scope in space can be used for expressing the high end of leniency as in “*rahība as-Ṣadr*” (lenient).

Proximity

Proximity in place can be realized by modifiers as in the table below.

Table (57): Gradable Forms of Proximity.

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
High	بعيد نائي	Far Distant	-	-
Mid	--	--	-	-
Low	قريب متاخم مجاور	Near Adjacent next to		

Metaphorically, emotional relationships can be graduated via proximity of space. On one hand, far distance stands for hatred. On the other hand, near distance stands for intimate relationships. For example, the modifier “*ba’īd*” (far) is used for expressing hatred and antagonism. The word is used politely for refraining from mentioning a word of hostility, enmity or antagonism. On the contrary, near distance is used for conveying intimacy “*qarīb ila qalby*” (close to my heart) and

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 “*qarīb minny*” (close to me). Proximity doesn’t necessarily mean near distance. But it can convey intimacy. Moreover, proximity in space can be realized via the demonstrative system as in the table below.

Table (58): Graduation of Scope in Place via Adverbs of Place.

Scale	Infused Forms in Arabic	Infused Forms in English	Separate Forms in Arabic	Separate Forms in English
High	هناك هنا	There	في هذا المكان	At/to this place
Mid				
Low	هنا	Here	في ذلك المكان	At/to that place

Similarly, space can be graduated via demonstrative pronouns as in the table below.

Table (59): Graduation of Space via the Demonstrative System.

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
High	ذلك/تلك/ذلكم/تلكم/أولئك	That/those	-	The person/thing further away from the speaker
Mid		--	-	-
Low	هذا/هذه/هؤلاء	This/these	-	The person/thing close at hand

Diminutive Forms

A diminutive form can be used for graduating scope in space. Also, it indicates getting closer in space.

Table: (60): Graduation of Scope in Space via Diminutive Forms.

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
Low	قريب بجانب		قريب جدا	Immediately adjacent to

The high end of the scale is realized by ordinary forms such as ‘far’ and ‘distant’.

Proximity in Time

Proximity in time can be realized grammatically by ‘*as-sīn*’ and ‘*sawfa*’. *As-sīn* is used for the near future while *sawfa* indicates distant future. On the one hand, ‘*sawfa*’ can be a form of the high scale because it indicates a distant future. On the other hand, ‘*as-sīn*’ indicates near future; therefore, it is a means of the low-end of the scale.

Table (61): Graduation of Scope in Time via Grammatical Forms.

Scale	Infused form in Arabic	Infused Form in English	Separate Form in Arabic	Separate form in English
High	السين	Will Soon	في المستقبل القريب	In the near future In a short period
Low	سوف	Will	في المستقبل البعيد	In the distant future

Also, proximity in time can be realized via modifiers as demonstrated in the following table.

Table (62): Graduation of the Forms of Proximity.

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate Form in English
High	حديث طازج محدث	Recent Fresh New	ابن يومه	Garden-fresh Newly harvested Not stale
Mid				
Low	اجن قديم بائت	Stale Rotten Spoiled	تغير الطعم/اللون/الرائحة	Change in the color, taste, and odor

Diminutive Forms

The low end of the scale of time can be realized by the diminutive form as in the table below.

Table (63): Graduation of Scope in Time via Diminutive Forms.

Scale	Infused Form in Arabic	Infused Form in English	Separate Form in Arabic	Separate form in English
Low	قريب/بعيد			Immediately before/immediately after

CONCLUSION

The present study provides a detailed discussion of the linguistic phenomenon of quantification. Quantification is the second source of gradeability by force. It graduates both abstract and concrete entities. As has been demonstrated above, it has two main categories: amount and extent. The paper delves into the lexical, grammatical, and morphological features of these categories. Under the scale of amount, the study tackles the sub-categories of size, weight, strength and number. Under the scale of extent, it covers scope and proximity. Each scale of the sub-categories can be realized by precise and imprecise forms. On the one hand, precise forms convey the meaning of definite amount and extent. On the other hand, imprecise forms convey the meaning of an indefinite amount or extent.

Size is an intrinsic feature of gradeability which usually refers to things having mass, length, width, and depth of height. They can be realized via diminutive forms, nominal forms, and lexical forms. Number, in a grammatical sense, is mainly the distinction between the singular and plural words. It can be realized grammatically and lexically via the plural, dual and singular forms. It can be realized grammatically via the one-time form, personal pronouns and the demonstrative pronouns. Furthermore, precise numbers can be realized by relative pronouns in the singular and dual cases. Relative pronouns can be graduated from the perspective of number. Also, ordinal numbers can be a means of gradeability because they indicate precedence. Therefore, these numbers indicate priority in importance, order, or rank. Lexically, it is equivalent to extent in time as the latter, the former, the precedent. Contrary to precise number, graduating imprecise numbers can be realized lexically, morphologically, and grammatically. This includes the plural forms of the demonstrative and relative pronouns. Moreover, there are specific grammatical formulations such as *kināyātu ql'adad* (indefinite numbers) and collective nouns. Collective nouns refer to a group of people, animals, or things. Collective nouns can indicate both the high and low ends of the scale. They are words that refer to a collection of things taken as a whole. There are general words which indicate time. These words can be graduated from high to low or vice versa. Time duration can be imprecise or precise. Imprecise infused forms include '*zamān*', *waqt* '*hīn*', and '*awān*'. These could be translated into 'time, period, and a while' respectively.

As for extent, it is synonymous with range, scope, and degree. It covers scope and proximity in time and place. Scope in time can be graduated lexically via adjectives acting as adverbs of time. In the same vein, extent can be realized grammatically via the adverbs of frequency. Scope regarding distribution in place can be realized by modifiers. Similarly, space can be graduated via demonstrative pronouns and diminutive forms. As for proximity in time, it can be realized grammatically by '*as-sīn*' and '*sawfa*'. *As-sīn* is used for the near future while *sawfa* is used for distant future. On the one hand, '*sawfa*' can be a form of high scale because it indicates distant future. On the other hand, '*as-sīn*' indicates near future; therefore, it is a means of the low-end of the scale. Also, proximity in place can be realized via diminutive forms and modifiers.

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ⁱ In English, freshwater bodies can be graduated as follows:

- High scale: river.
- Mid-scale: stream.
- Low scale: Creek and Brook.

ⁱⁱ Graduating these forms in terms of depth runs as follows:

- High scale of depth: a well because it is much deeper. It comes from an underground.
- Low scale: spring water because its source comes from an above-ground source.

ⁱⁱⁱ According to the USGS, up until the 1920s, the British Ordnance Survey defined a mountain as a geographic feature rising higher than 1,000 feet (304 meters.). A minimum height of just over 2,000 feet. A hill is less than 2,000 feet high according to Matt Rosenberg.