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Statistical Modeling of the God's Traits in Quran

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Abstract. The fact about the way God has described himself or how Muslims regard God's traits is a significant point because that is the path to know the truth about God in his own words and the verification of Muslims understanding of God through their thoughts and behaviors in accordance with Quran can be studied. In Islamic mysticism, the names and traits of God are categorized into two groups: beauty and divine glory. Although there have been widespread studies in regard to God's traits, casting a statistical view on these traits can help with the understanding of God, because it would ease the recognition of the way God has introduced himself or envisages traits he most used for himself which in its turn will enlighten the path a Muslim should take. Therefore, with regard to statistics in this work we would like to study the idea that which group of God's traits (beauty or divine grace) is more repeated or what the proportion of the two is, and also what difference there is between the Meccan and Medinan suras in the description of God.

Keywords: Quran, God's Traits, Beauty, Divine Glory, Statistics.

1. Introduction

Quran is the holy book of Islam. It is the base and the bedrock of Islam and Islamic culture. Also, it is the oldest historical document of Islam and the last Holy Scripture. According to Muslims Quran is a compilation of God's massages for mankind which has been delivered to Muhammad be Abdullah (the prophet) through Gabriel. In other words, God's scripture is a rope from the sky to the earth upon which the man's relation with God is based. From Muslims point of view, this Holy Scripture was delivered to Muhammad during his prophecy, day and night, for twenty-three years, in Mecca and Medina, by Gabriel, in a form that even though the words were conveyed by Gabriel, the speaker is God. Muslims believe that Quran was once delivered to Muhammad as a whole and for the second time step wise. Quran's content is very vast and varied. Although its main subject is like the previous holy scriptures around monotheism and adoration of God, there are also some other topics: God's characterization, prophet's stories, eschatology, moral judgments, jurisprudential sentences, the story of creation, and thousands of other topics tangible on daily basis; that is why Quran's influence on Muslims' lives is highly significant. Muslims recite some verses of that every day.

The religious doctrine, the ethical principles, social and political and judicial and economic relations, personal whereabouts and even the thoughts, conversations and dreams of a Muslim, every aspect of his life, is based on, influenced by, and originates from this book. In the Islamic culture, Quran is present in every aspect of life, from birth when it is sung in the baby's ear, through marriage, travel, to death. Islamic mystics consider the roots of their beliefs form Quran and, as we know, their aspiration is to get closer to God and reach him. One of the ways of getting closer to God in Islamic mysticism is having traits like those of God's. Even though this was a mainstream in Islamic mysticism, its reflection is evident among all Muslims. Having the traits like those of God's is a sign of the elevation of the spirit among Muslims.

The fact about the way God has described himself or how Muslims regard God's traits is a significant point because that is the path to know the truth about God in his own words and the verification of Muslims understanding of God through their thoughts and behaviors in accordance with Quran can be studied.

In Islamic mysticism, the names and traits of God are categorized into two groups: beauty and divine glory. Although there have been many interpretations in regard to these categories the most prevalent one says that the divinely glorious names of god are those which describe the glory of God and cause its disappearance or deter a blessing or a perfection in man, such as arrogant, dear, haughty, watchful and etc. The names of beauty are also those which bestow the appearance of truth and a perfection and blessing on man, such as merciful, right, tender, and etc. Although there have been widespread studies in regard to God's traits, casting a statistical view on these traits can help with the understanding of God, because it would ease the recognition of the way God has introduced himself or envisages traits he most used for himself which in its turn will enlighten the path a Muslim should take.

Therefore, with regard to statistics in this work we would like to study the idea that which group of God's traits (beauty or divine grace) is more repeated or what the proportion of the two is, and also what difference there is between the Meccan and Medinan suras in the description of God; is there a difference between the Meccan and medina suras in regard to God's traits? Therefore with regard to statistics in this work we would like to study the idea that which group of God's traits (beauty or divine grace) is more repeated or what the proportion of the two is, and also what difference there is between the Meccan and Medinan suras in the description of God; is there a difference between the Meccan and Medinan suras in regard to God's traits?

2. Literature

Quran has 114 chapters contains independent group of verses with a beginning and an ending (Sura), around 6000 verses (a short unit in Quran), 30 parts (Juz), and 120 groups (Hezb). Naji et al. (2005) has been designed a classifier and implemented it to categorize the different verses in each Sura. Bin Dost and Ahmad (2008) studied the constructional characteristics of Makki and Madni Suras in the Quran. They investigated the dispersion and shapes of word-size and word-length of Suras. Abdul-Baquee and Atwell (2009) presented an in-progress research tasks for building lexical database of the verb valences in the Arabic Quran using. They studied the verbs in the Quran, and compared that with matching frames and frame evoking verbs in the English Frame Net. They also analyzed the gaps and gave appropriate amendments to the Frame Net by adding new frame elements and relations. Sadeghi (2011) verified a chronology in which seven groups of passages represent consecutive phases. Defined stylistic profile was shown to vary in a smooth fashion over the proposed chronological sequence of phases. Finally has been shown that the Qurān has one author. Alhawarat et al. (2015) initiated a series of research studies that aim to serve the Holy Quran and provided helpful and accurate information and knowledge to the all human beings. Also, they extracted a framework that can be used by researchers in the field of Arabic natural language processing by providing a ”Golden Dataset” along with useful techniques and information that will advance this field further. They found an approach for analyzing Arabic text and then provided statistical information that is helpful for the people in this research area. The holly Quran text was preprocessed and then different text mining operations were applied to it to reveal simple facts about the terms of the holy Quran. The results indicated a variety of characteristics of the Holy Quran such as its most important words, its word-cloud and chapters with high term frequencies.

3. Methodology

Based on the nature of the research, different issues such as samples, data collection, and statistical procedures are considered in detail in this section. The first part concerns the characteristics of the samples of the study and data collection. Then, the procedures which were applied to analyze the collected data are explained.

3.1. Data Collection

In this study, the whole verses of Quran have been considered. Then, for each sura, the frequencies of different beauty and divine glory traits of God have been computed. Table 1 and 2 indicate the different traits of God and the descriptive statistics of them, respectively.

Table 1: Traits of God

Classical Arabic	Romanization	Translation	Type of drait	Classical Arabic	Romanization	Translation	Type of drait
ٱلرَّحْمَـٰنُ	Ar-Rahman	The Most Gracious	**Beauty**	ٱلرَّزَّاقُ	Ar-Razzaq	The Provider, The Sustainer	**Beauty**
ٱلرَّحِيْمُ	Ar-Rahim	The Most Merciful	**Beauty**	ٱلْفَتَّاحُ	Al-Fattah	The Opener, The Victory Giver	**Beauty**
ٱلْمَلِكُ	Al-Malik	The King	**Divine Glory**	ٱلْعَلِيمُ	Al-Alim	The Knowing	**Beauty**
ٱلْقُدُّوسُ	Al-Quddus	The Holy	**Divine Glory**	ٱلسَّمِيعُ	As-Sami‘	The Hearing	**Beauty**
ٱلسَّلَامُ	As-Salam	The Peace	**Beauty**	ٱلْبَصِيرُ	Al-Basir	The All-Seeing	**Beauty**
ٱلْمُؤْمِنُ	Al-Mu’min	The Granter of Security	**Beauty**	ٱلْحَكَمُ	Al-Hakam	The Judge, The Arbitrator	**Divine Glory**
ٱلْمُهَيْمِنُ	Al-Muhaymin	the Overseer	**Divine Glory**	ٱللَّطِيفُ	Al-Latif	The Gentle, The Subtly Kind	**Beauty**
ٱلْعَزِيزُ	Al-Aziz	The Powerful	**Divine Glory**	ٱلْخَبِيرُ	Al-Khabir	The All-Aware	**Beauty**
ٱلْجَبَّارُ	Al-Jabbar	The Strong	**Divine Glory**	ٱلْحَلِيمُ	Al-Halim	The Forbearing, The Indulgent	**Beauty**
ٱلْمُتَكَبِّرُ	Al-Mutakabbir	The Supreme	**Divine Glory**	ٱلْعَظِيمُ	Al-‘Azim	The Great, The Magnificent	**Divine Glory**
ٱلْخَالِقُ	Al-Khaliq	The Creator	**Beauty**	ٱلْغَفُورُ	Al-Ghafur	The Much-Forgiving	**Beauty**
ٱلْبَارِئُ	Al-Bari	The Evolver, The Maker	**Beauty**	ٱلشَّكُورُ	Ash-Shakur	The Grateful	**Beauty**

اَلْمُصَوِّرُ	Al-Musawwir	The Fashioner, The Shaper, The Designer	**Beauty**	اَلْعَلِيُّ	Al-ʿAli	The Sublime	**Divine Glory**
اَلْغَفَّارُ	Al-Ghaffar	The Repeatedly Forgiving	**Beauty**	اَلْكَبِيرُ	Al-Kabir	The Great	**Divine Glory**
اَلْقَهَّارُ	Al-Qahhar	The Subduer	**Divine Glory**	اَلْحَفِيظُ	Al-Hafiz	The Preserver	**Beauty**
اَلْوَهَّابُ	Al-Wahhab	The Bestower	**Beauty**	اَلْمُقِيتُ	Al-Muqit	The Nourisher	**Divine Glory**
اَلْكَرِيمُ	Al-Karim	The Bountiful, The Generous	**Beauty**	اَلْحَسِيبُ	Al-Hasib	The Bringer of Judgment	**Divine Glory**
اَلرَّقِيبُ	Ar-Raqib	The Watchful	**Divine Glory**	اَلْقَيُّومُ	Al-Qayyum	The Subsisting, The Independent	**Beauty**
اَلْمُجِيبُ	Al-Mujib	The Responsive, The Answerer	**Beauty**	اَلْوَاجِدُ	Al-Wahid	The Unique, The Single	**Divine Glory**
اَلْوَاسِعُ	Al-Wasiʿ	The Vast, The All-Embracing, The Omnipresent, The Boundless	**Beauty**	اَلْأَحَد	Al-Ahad	The One, The Indivisible	**Divine Glory**
اَلْحَكِيمُ	Al-Hakim	The Wise	**Beauty**	اَلْصَّمَدُ	As-Samad	The Eternal, The Absolute, The Self-Sufficient	**Divine Glory**
اَلْوَدُودُ	Al-Wadud	The Affectionate	**Beauty**	اَلْقَادِرُ	Al-Qadir	The All-Powerful, He Who is able to do Everything	**Beauty**
اَلْمَجِيدُ	Al-Majid	The All-Glorious, The Majestic	**Beauty**	اَلْمُقْتَدِرُ	Al-Muqtadir	The Determiner, The Dominant	**Divine Glory**
اَلْشَّهِيدُ	Ash-Shahid	The Witness	**Beauty**	اَلأَوَّلُ	Al-Awwal	The First, The Beginning-less	**Beauty**
يُجِيرُ	yojer	The Protect	**Beauty**	اَلْأَخِرُ	Al-Akhir	The Last, The Endless	**Beauty**
اَلْحَقُّ	Al-Haqq	The Truth, The Reality	**Beauty**	اَلْظَّاهِرُ	Az-Zahir	The Manifest, The Evident, The Outer	**Beauty**
اَلْوَكِيلُ	Al-Wakil	The Trustee, The Dependable, The Advocate	**Beauty**	اَلْبَاطِنُ	Al-Batin	The Hidden, The Unmanifest, The Inner	**Divine Glory**
اَلْقَوِيُّ	Al-Qawi	The Strong	**Divine Glory**	اَلْمُتَعَالِي	Al-Mutaʿali	The Supremely Exalted, The Most High	**Divine Glory**
اَلْمَتِينُ	Al-Matin	The Firm, The Steadfast	**Beauty**	اَلْبَرُّ	Al-Barr	The Good, The Beneficent	**Beauty**
اَلْوَلِيُّ	Al-Wali	The Friend, Helper	**Beauty**	اَلْتَّوَّابُ	At-Tawwab	The Ever-Returning, Ever-Relenting	**Beauty**
اَلْحَمِيدُ	Al-Hamid	The All Praiseworthy	**Beauty**	اَلْمُنْتَقِمُ	Al-Muntaqim	The Avenger	**Divine Glory**
اَلْحَيُّ	Al-Hayy	The Living	**Beauty**	اَلْعَفُوُّ	Al-ʻAfu	The Pardoner, The Effacer, The Forgiver	**Beauty**
اَلْوَارِث	Al-Waarith	The Heir, The Inheritor of All	**Beauty**	اَلْرَّءُوفُ	Ar-Ra'uf	The Kind, The Pitying	**Beauty**
ذُوالفَضْل	Zu-lfazl	The Possessor of bounty	**Beauty**	ذُو اَلْجَلَالِ	Zul-Jalali wal-Ikram	The Owner, Lord of Majesty	**Divine Glory/**

				وَٱلْإِكْرَامُ		and Honour	**Beauty**
الْنَصيرْ	Al-Nasir	The Helper	**Beauty**	ٱلْغَنِىُّ	Al-Ghani	The Rich, The Independent	**Divine Glory**
شَديدُ العِقابْ	Shadid-Al- eghab	The Severe in penalty	**Divine Glory**	ٱلْهَادِى	Al-Hadi [Al-Haadi]	The Guide, The Way	**Beauty**
شَديدُ الْعَذابْ	Shadid-Al-azab	The Severe in punishment.	**Divine Glory**	ٱلْبَدِيعُ	Al-Badi	The Originator, The Incomparable, The Unattainable, The Beautiful	**Beauty**
سَريعُ الْحِسابْ	Sarie-Al-hesab	The Swift in account	**Divine Glory**	اَصْدَق	asdagh	More truthful	**Beauty**
الْقَيّومْ	Al-Qayyum	The Sustainer of existence	**Beauty**	الْقَريبْ	Al-gharib	The Near	**Beauty**
الْمَاكِرْ	Al-Maker	The Devisor	**Divine Glory**	المُخْزِي	Al-mokhzey	The Humiliate	**Divine Glory**
الْمُحيطْ	Al- Mohit	The Encompasses	**Divine Glory**	الْفَالِق	Al-falegh	The Cleaver	**Beauty**
اشد بآساً	Ashada-baasan	The Greater in might	**Divine Glory**	الْشَفيعْ	Al-shafie	The Intercessor except	**Beauty**
اشد تنكيلا	Ashada-tankila	The Stronger in punishment	**Divine Glory**	الْحَاكِم	Al-hakem	The Judge	**Divine Glory**
ذى الْطُول	Ze-Al-tuol	The Owner of abundance	**Beauty**	الْغَالِب	Al-ghaleb	The Predominant	**Divine Glory**
رَفيعُ الْدَرَجَات	Rafe-Al-darajat	The Exalted above degrees	**Beauty**	شَديدُ الْمِحَالِ	Shadid-Al-mehal	The Severe in assault	**Divine Glory**
ذُوالْعَرشْ	Zu-Al-arsh	The Owner of the Throne	**Beauty**	الْكَفيلْ	Al-kafiel	The Witness	**Beauty**
ذُو الْعِقَابْ	Zu-Al-eghab	The Owner of penalty	**Divine Glory**	اَبْقَى	abgha	More enduring	**Beauty**
ذُو الْقُوَّةِ	Zu-Al-ghovat	The Firm possessor	**Divine Glory**	الْمُسْتَعَان	Al-mostaan	The Sought for help	**Beauty**
قَابِلِ التَّوْبِ	Ghabel-Altowb	The Acceptor of repentance	**Beauty**	الْفُاعِلْ	Al-fael	The Doer	**Beauty**
الْفَاطِر	Al-fater	The Creator	**Beauty**	الْمُنْزِل	Al-monzel	The Accommodator	**Beauty**

Table 2: Descriptive statistics for traits of God

Sura		N	Minimum	Maximum	Mean	Std. Deviation
Meccan	Divine Glory	87	0.00	10.00	1.40	2.21
	Beauty	87	2.00	44.00	7.32	7.54
	Total Traits	87	2.00	50.00	8.72	8.99
Medinan	Divine Glory	27	0.00	19.00	4.19	5.26
	Beauty	27	2.00	96.00	19.56	23.74
	Total Traits	27	2.00	115.00	23.74	28.31
Total	Divine Glory	114	0.00	19.00	2.06	3.39
	Beauty	114	2.00	96.00	10.22	14.15
	Total Traits	114	2.00	115.00	12.28	16.94

As can be seen in Table 2, the Quran contains of 114 suras; 87 Meccan suras and 27 Medinan suras. The mean of divine glory traits in Meccan and Medinan suras were 1.40 and 4.19, respectively. Also the mean of beauty traits in Meccan and Medinan suras were 7.32 and 19.56, respectively.

3.2. Data Analysis

As mentioned in Section 3.1, the frequencies of different traits of God have been considered. The data gathered computing was fed into the computer item by item according to their corresponding sura and category, and were analyzed using the Statistical Package for Social Sciences (SPSS) Version 24, and R software. First, to compare the frequency of Quran's suras with more divine glory traits and the frequency of Quran's suras with more beauty traits, a set of Wilcoxon signed rank test were applied. Then, a set of goodness of fit test (Chi-square test) were applied to compare the frequency of divine glory traits and beauty traits in Quran. Finally, crosstabs tests were used to compare the Meccan and Medinan suras based on using divine glory traits and beauty traits.

4. Results and Discussion

This section is regards to the results of Wilcoxon signed rank test, Chi-square test and crosstabs tests.

4.1. Comparing the Quran's suras based on using divine glory traits and beauty traits

This subsection summarizes the results of Wilcoxon signed rank test, to compare the frequency of Quran's suras with more divine glory traits and the frequency of Quran's suras with more beauty traits. As Table 3 indicates that in Meccan, Medinan and total suras of Quran, the frequencies of suras with more beauty traits are more than the frequencies of suras with more divine glory traits ($p<0.05$).

Table 3: Wilcoxon signed rank test, to compare the frequency of Quran's suras with more divine glory traits and the frequency of Quran's suras with more beauty traits

Sura		N	Mean Rank	Sum of Ranks	P
Meccan	Divine Glory>Beauty	2	12.25	24.50	<0.001
	Divine Glory<Beauty	82	43.24	3545.50	
	Divine Glory=Beauty	3			
	Total	87			
Medinan	Divine Glory>Beauty	1	1.00	1.00	<0.001
	Divine Glory<Beauty	26	14.50	377.00	
	Divine Glory=Beauty	0			
	Total	27			
Total	Divine Glory>Beauty	3	10.67	32.00	<0.001
	Divine Glory<Beauty	108	57.26	6184.00	
	Divine Glory=Beauty	3			
	Total	114			

4.2. Comparing the frequencies of divine glory traits and beauty traits in Quran's suras

This part summarizes the results of Chi-square test, to compare the frequency of divine glory traits and beauty traits in Quran. Table 4 shows that in Meccan, Medinan and total suras of

Quran, the frequencies of beauty traits are more than the frequencies of divine glory traits ($p<0.05$).

Table 4: Chi-square test, to compare the frequencies of divine glory traits and beauty traits in Quran

Sura		Observed	Expected	Sum of Ranks	P
Meccan	Divine Glory	122	379.5	349.44	<0.001
	Beauty	637	379.5		
	Total	759			
Medinan	Divine Glory	113	320.5	268.68	<0.001
	Beauty	528	320.5		
	Total	641			
Total	Divine Glory	235	700.0	617.79	<0.001
	Beauty	1165	700.0		
	Total	1400			

4.3. Comparing the Meccan and Medinan suras based on using divine glory traits and beauty traits

This part summarizes the results of the crosstabs test, to compare the Meccan and Medinan suras based on using divine glory traits and beauty traits. As can be seen in Table 5, although the frequencies of both divine glory and beauty traits in Meccan suras were more than Medinan suras, but the proportions of using divine glory traits (16.1% and 17.6%) and beauty traits (83.9% and 82.4%) in Medinan and Meccan suras was not significantly different ($P>0.05$).

Table 5: Crosstabs test, to compare the Meccan and Medinan suras based on using divine glory traits and beauty traits

			Traits		Total
			Divine Glory	Beauty	
Sura	Meccan	Count	122	637	759

		Percent	16.1%	83.9%	100.0%
	Medinan	Count	113	528	641
		Percent	17.6%	82.4%	100.0%
Total		Count	235	1165	1400
		Percent	16.8%	83.2%	100.0%

5. Conclusion

The fact about the way God has described himself or how Muslims regard God's traits is a significant point because that is the path to know the truth about God in his own words and the verification of Muslims understanding of God through their thoughts and behaviors in accordance with Quran can be studied. In Islamic mysticism, the names and traits of God are categorized into two groups: beauty and divine glory. Although there have been widespread studies in regard to God's traits, casting a statistical view on these traits can help with the understanding of God, because it would ease the recognition of the way God has introduced himself or envisages traits he most used for himself which in its turn will enlighten the path a Muslim should take. Therefore, with regard to statistics in this work we have studied the idea that which group of God's traits (beauty or divine grace) is more repeated or what the proportion of the two is, and also what difference there is between the Meccan and Medinan suras in the description of God. The Wilcoxon signed rank test indicated that in Meccan, Medinan and total suras of Quran, the frequencies of suras with more beauty traits are more than the frequencies of suras with more divine glory traits. Chi-square test showed that in Meccan, Medinan and total suras of Quran, the frequencies of beauty traits are more than the frequencies of divine glory traits. The crosstabs test also indicated that although the frequencies of both divine glory and beauty traits in Meccan suras were more than Medinan suras, but the proportions of using divine

glory traits (16.1% and 17.6%) and beauty traits (83.9% and 82.4%) in Medinan and Meccan suras was not significantly different.

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