



Iranian Journal of Applied Linguistics (IJAL)

Vol. 26, No. 1, March 2023, 50-70

**Lexical Chains of Sermons No. 87 and 191 of *Nahj al-Balaghah*
and their role in understanding the theme**

Somayyeh Modiri

PhD student, Arabic Language and Literature, Kharazmi University, Tehran, Iran

Adnan Eshkevari*

Associate Professor, Department of Arabic Language and Literature, Kharazmi University, Tehran, Iran

Isa Motaghizadeh

Professor, Department of Arabic Language and Literature, Tarbiat Modares University, Tehran, Iran

Abstract

"Lexical Chains" is one of the newest branches of statistical semantics, which is defined as the process of identifying words that have semantic relationship with each other, and help us to identify the topic and main content of the text. In this research, we aim to determine lexical chains of sermons No. 87 and 191 of *Nahj al-Balaghah*, based on the theory of "Saxena", as well as "Barzilay" and "Elhadad", using the descriptive-analytical and statistical method. The results show that in both sermons, the semantic relation "Antonym" has the most frequency. In sermons No. 87 and 191, respectively, 8% and 5% of the chains are "strong chains", and play the main role in determining the main themes of the sermons. According to the data, choosing the title "religious, ethical, scientific" for the sermon No. 87, and "moral, ethical, social, intellectual" for the sermon No. 191 -contrary to what "Mohammad Dashti" mentioned for them- seems more appropriate.

Keywords: Semantics, Lexical Chain, Saxena, Barzilay and Elhadad, *Nahj al-Balaghah*, sermons No. 87 and 191

* *Corresponding author:* Department of Arabic Language and Literature, Kharazmi University, Tehran, Iran.

Email address: eshkevari@khu.ac.ir

1. Introduction

Certainly, a coherent text or speech does not consist of separate and unrelated sentences, but there is a semantic and logical connection between the words and sentences that make it up. Simultaneously with the expansion of "New Rhetoric", and the use of various sciences, such as: computational linguistics and natural language processing to analyze literary texts, semantic experts tried to use these sciences to investigate the relationship between words used in texts. Therefore, for the first time, in the second half of the 20th century, the branch of "Statistical Semantics" was created, which analyzes the text, using artificial intelligence and statistical methods, and provides us with information about its theme and content.

In fact, Lexical cohesion occurs not only between two terms, but among sequences of related words called "Lexical Chains" (Morris and Hirst 18). A lexical chain is a sequence of related words (Wei et al. 2266) that provides a representation of the lexical cohesive structure of the text (Hirst and St-Onge 1997; Barzilay & Elhadad 2), and captures the cohesion that a person consciously or unconsciously follows when s/he writes or talks (Adarve et al. 4).

The lexical chains have been made by finding the relations among the words in the sentences. These relations are called "semantic relations" which provide the lexical cohesion among the words. Lexical cohesion works as the adhesive substance which sticks the sentences and words (Saxena & Saxena 47).

Textual continuity is vital for the reader's ability to construct meaning from the text (Halliday and Hasan). Coherent essays generally maintain focus over the main theme, so lexical chains constructed over such essays will have chains representing the central topic running through most of the length of the essay. These types of chains would presumably represent the main claim or position in persuasive texts, the main object or person in descriptive text, and the main story-line in narrative texts (Somasundaran et al. 951).

Since Imam Ali (pbuh) is considered the master of eloquence and rhetoric, and pays attention to the selection of words and the semantic connection between sentences, better than any writer and orator, so in this research, we decided to extract the lexical chains of sermons No. 87 and 191 of *Nahj al-*

Balaghah -which according to the "*Encyclopedia of General Topics of Nahj al-Balaghah*" have different topics, and are almost equal in length- to find out how they indicate the main themes of the sermons.

1.1. Questions

1. What are the lexical chains of sermons No. 87 and 191 of *Nahj al-Balaghah*?
2. What are the most semantic relationships used in the two selected sermons?
3. What are the strong chains of the sermons?
4. How do the strong chains of the two selected sermons indicate the main axis and purpose of delivering the sermons?

1.2. Related works

Silber & McCoy (2002) presented a linear time algorithm for lexical chain computation that makes lexical chains a computationally feasible candidate as an intermediate representation for automatic text summarization.

Doran et al. (2003) presented a comparative study of lexical chain-based summarization techniques to highlight the effect of lexical chain scoring metrics and sentence extraction techniques on summary generation. They used a task-orientated summarization evaluation scheme in their research that determines summary quality based on TDT story link detection performance, and concluded that the effect of the weighting scheme has little effect on the summaries.

Adarve et al. (2007) presented an implementation of topic segmentation on meeting text using more advanced lexical chains, utilizing synonymy and other relationships between distinct words. The results indicate that stemming plus grouping of roots performs as well as word sense disambiguation.

Waltinger et al. (2008) presented an application that incorporates the framework of a meta model of lexical chaining exemplified on three resources, and its generalized exchange format.

Berker & Gungor (2012) combined genetic algorithms and lexical chains for automatic text summarization, and concluded that combining different types of features and also including lexical chains outperform the classical approaches.

Tatar et al. (2013) presented a new method for text segmentation using Roget's thesaurus, and argued that the use of lexical chains distribution could be a powerful tool for text segmentation.

Wei et al. (2014) proposed a semantic approach for text clustering using WordNet and lexical chains, and the experimental results of their research showed that clustering performance improves significantly compared to several classical methods.

Somasundaran et al. (2014) presented an investigation of lexical chaining for measuring discourse coherence quality in test-taker essays. They declared that the best system performance is achieved when combining lexical chaining features with complementary discourse features, such as those provided by a discourse parser based on rhetorical structure theory, and features that reflect errors in grammar, word usage, and mechanics.

Mukherjee et al. (2019) investigated three types of lexical chains: exact, synonymous, and semantic, discovering of features for text simplification. In their research, the lexical chain features performed significantly better than the bag-of-words baseline across all classifiers with the best classifier achieving an accuracy of ~90%.

Ruseti et al. (2021) introduced and evaluated a novel method of identifying semantic chains using BERT. Their method argued for a more dense capturing of inner semantic links between words, and even compound words in contrast to classical methods of building lexical chains.

Since researches that have been carried out so far have mostly focused on application of lexical chains theory in summarizing texts, and extracting main concepts, and all the study samples have been selected from novels, stories or other Latin texts, so examining the lexical chains of the sermons No. 87 and 191 of *Nahj al-Balaghah*, and investigating how they imply the content of the sermons is a new and unique work.

2. Literature Review

2.1. Statistical Semantics

In linguistics, there are various methods to achieve the meaning and concept of words, but in order to understand what is happening in people's minds, we need a mental representation of the concepts; thus, it is necessary to create models to describe semantic representations. "Statistical Semantics" is one of the useful methods to create such models, using people's words and their meanings in Natural Language (Sikstrom & Garcia 4).

The term "Statistical Semantics" was first used by "Warren Weaver" in his well-known paper on machine translation (*Delavenay* 5), and is the study of "How the statistical patterns of human word usage can be used to figure out what people mean, at least to a level sufficient for information access" (Furnas

125). This method is based on semantic relations between words, and is a sub-branch of computational linguistics and natural language processing (NLP).

2.2. Lexical Chains

Lexical chains derived from the research in the area of textual cohesion in linguistics, and put forward by Halliday and Hasan first in 1976, is a kind of external behavior of the continuity of semantic relations between words, it has a corresponding relationship with the structure of the text, providing important clues of the structure and theme (Ma et al. 14).

Lexical chains are defined as clusters of semantically related words (Doran et al. 112) which tend to indicate portions of a text that form semantic units (Tatar et al. 394), and represents the repeated occurrence of a single word or of several closely related words over the course of some fraction of a document (Adarve et al. 2).

Lexical chains have been used to address a variety of Information Retrieval (IR) applications, such as term weighting for IR tasks, malapropism detection, hypertext generation and topic detection in broadcast news streams (Doran et al. 112; Hirst and St-Onge 1997; Barzilay & Elhadad 2), and are a tool frequently used in natural language processing (NLP), especially in the text summarization, the topic segmentation (Adarve et al. 4), and detect the emotions, event tracking, WSD etc (Saxena & Saxena 48).

2.3. Semantic Relations

In English texts, the semantic relations for extracting the lexical chains of the text are obtained by referring to the "WordNet" network. WordNet is a freely-available electronic dictionary of nouns, verbs, adjectives and adverbs that has been developed at Princeton University.

It is one of the most widely used and largest lexical databases of English. In general, as a dictionary, WordNet covers some specific terms from every subject related to their terms. It maps all the stemmed words from the standard documents into their specifies lexical categories (Wei et al. 2265).

In Persian texts, these relations are obtained by using "Farsnet" network. Regarding the Arabic language, there is a network called "Arabic Wordnet" (AWN), but some experts believe that it is not comprehensive, and it is necessary to make some corrections and changes in it. The most important semantic relations defined in these networks are:

1. Synonym: Words that have similar meanings.
2. Antonym: Words that have opposite meanings.

3. Identity: Repeating the same word in the text.
4. Hyponymy: A semantic relationship in which one word has a broader meaning and concept than another word. In other words, "A" is a form of "B". For example: horse is a kind of animal.
5. Co Hyponymy: Words that are all subsets and types of a more general word. For example: "dog" and "cat" are both types of "animals".
6. Meronymy: A semantic relationship in which a word is a part of another word. For example, "finger" is part of "hand".
7. Co Meronymy: Words that are all part of another word. For example: "finger" and "arm" are both parts of "hand".

2.4. Theories of Lexical Chains

There are various methods for extracting and calculating the lexical chains of a text. However, the most important of these methods are theories that analyze the text based on the calculation of the importance of the chain, and determination of “strong chains”. "Saxena" (2016) has defined the way of scoring lexical chains, and the effective factors in it as follows:

After making the lexical chains, it needs to score them. For Scoring, this algorithm applied some formulas. The formulas are:

$$\text{Length (LC)} = \text{total number of the particular chain members} \quad (1)$$

The significance of the chain (LC) specifies that how randomly a lexical chain is present in the document:

$$\text{Sig(LC)} = \frac{\text{Length(LC)}}{\sum_{l \in D} \text{length}(l)} * \frac{\log_2 \text{length(LC)}}{\sum_{l \in D} \text{length}(l)} \quad (2)$$

Where:

“Sig” means significance of lexical chain in document, “LC” is lexical chain, “D” is the document; “l” is each chain in document D. After finding the significance of the chains, it has some numerical values for each chain. Now the Utility of each chain will find. For Utility it needs to find relation, that the word “w” belongs to the chain “LC” or not.

$$\begin{aligned} \text{Related (w, LC)} &= 1, \text{ if they are related} \\ &= 0, \text{ if they are not related} \end{aligned} \quad (3)$$

Here the related means whether the word “w” has any semantic relation with the chain L (synonym, Hyponym etc). So, Utility specifies the contribution of the lexical chain in text document:

$$\text{Utility (LC, D)} = \text{Sig (LC)} \cdot \sum_{\text{all } w \in D} \text{related}(w, \text{LC}) \quad (4)$$

After applying these three formulas on each chain, some numerical value is found which is used for finding the strong chains among them (Saxena & Saxena 48-49). Strong chains are those which satisfy Barzilay & Elhadad' s "Strength Criterion" (Barzilay & Elhadad 6):

$$\text{Score(Chain)} > \text{Average (Scores)} + 2 * \text{StandardDeviation (Scores)} \quad (5)$$

Where:

Average = average of scores of lexical chain (utility of each chain)

StandardDeviation = Standard deviation of the utility of each lexical chain.

2.5. Sermon No. 87 of Nahj al-Balaghah

Imam Ali (pbuh) mentioned this sermon about the characteristics of pious and wicked people, and according to the "*Encyclopedia of General Topics of Nahj al-Balaghah*" authored by Mohammad Dashti, its topic is "religious, ethical, political", and has 462 words.

2.6. Sermon No. 191 of Nahj al-Balaghah

This sermon is about praising God and the Prophet (pbuh), as well as recommending asceticism and piety, and according to the "*Encyclopedia of General Topics of Nahj al-Balaghah*" authored by Mohammad Dashti, its topic is "religious, ethical", and has 425 words.

3. Methodology

In this research, we intend to extract the lexical chains of sermons in *Nahj al-Balaghah*. *Nahj al-Balaghah* has 241 sermons, which Mohammad Dashti has placed in 70 categories, and assigned titles to them in the "*Encyclopedia of General Topics of Nahj al-Balaghah*". Since the theory of lexical chains is often used for summarizing texts, we decided to select samples from sermons that have more than 400 words (21 sermons).

On the other hand, these sermons have different topics and lengths, and we need criteria to select the case study among them. Therefore, we chose two sermons No. 87 and 191, which had the same length and different topics. After determining the lexical chains of each of these two sermons - based on the semantic relationships between their words - we will determine the "strong chains", and discuss how it implies the main themes of the sermons.

4. Results

The lexical chains of the sermon No. 87 are according to table No. 1:

Table 1: Lexical chains of sermon 87

Semantic Relationship	Words	Number of chains	Frequency
Synonym	(نَظَرَ، أَبْصَرَ، أَبْصَرَ، أَرَبْتُنْكُمْ) (سَبِيلًا، طَرِيقَةً، سَبِيلَهُ، مَوَارِدُهُ) (الْغُرَى، الْجِبَالَ، حَبَائِلِ) (أَوْتَقِيهَا، أَمْتِنِيهَا) (أَمَّهَا، فَصَدَّهَا) (يَخْلُ، يَنْزِلُ، مَنزَلُهُ، أَنْزَلُوهُمْ، مَنَازِلِ) (مَنَازِرَهُ، الْأَعْلَامُ، الْأَيَاتِ، الْمَنَازِ، رَايَةً) (بِنَاءِ، تَعْمَهُونَ) (أَهْلُ، عَثْرَةٌ) (الْعَظَائِمِ، كَبِيرِ) (زَهْرَ، ضَوْءِ) (يُفْهِمُ، يَدْرِكُ، تَتَعَلَّلُ، وَقَفُّكُمْ) (نَصَبَ، نَصَبَ، مَنْصُوبَةً، رَكَزَتْ) (دَرَّهَا، صَفَّوْهَا) (الرَّأْيِ، آرَائِهِ، الْفِكْرِ) (يَدْعُ، أَنْزَلَ)	16	26%
Antonym	(اسْتَشْعَرَ، تَجَلَّبَبَ، سَرَابِيلِ) (قَرَبَ، الْبَعِيدِ) (هُوِّنَ، يَهْوِنُ، الشَّدِيدِ، سُهِّلْتَ) (السَّهْوَاتِ، الْهَوَى، الْهُدَى، الْهُدَى، الرَّدَى، الْهَوَى، أَهْوَانِهِ، الْهُدَى، أَضْاللِيلِ، ضَلَّالِ، تُؤْفِكُونَ) (مَفَاتِيحَ، مَغَالِيِقَ، مِفْتَاحَ، مَبْهَمَاتِ، أَقْفَالِ) (فُرْعَ، أَصْلِهِ) (مَصْنَبَ، مَصْنَبَ، طَلَمَاتِ، كَشَافَ، عَشْوَاتِ) (دَقَّاعَ، مَعْضَلَاتِ، قَطَعَ، غَمَارَهُ) (دَلِيلَ، فَلَوَاتِ) (عَالِمًا، جَهَائِلِ، جُهَالِ، الْعَمَى، الْعَمَى، غُرُورِ) (بَيِّنَةً، يَصَدِّ) (مَيِّتَ، يَمُوتُ، مَاتَ، مَيِّتَ، الْأَحْيَاءِ، الْعَيْشِ) (الْحَلَالِ، الْحَرَامِ) (يَتَطَعَمُونَهَا، يَلْفِظُونَهَا) (مَظِنَّةً، يَظُنُّ، الظَّنُّ، الظَّنُّ، سُنْهَاتِ، الْيَقِينِ، يُؤْمِنُ، الْإِيمَانَ، حُجَّةً) (كَذَبَ، الصَّدْقَ) (إِصْدَارَ، وَارِدَ، رَدُّهُمْ، وَرُودَ، ثُورُهُمْ) (انْفِرَدَ، مُشَارَكَةً) (يَقُولُ، قَوْلَ، يَقُولُ، يَقُولُ، يَقُولُوا، قَوْلِي، يَسْكُتُ) (الْعَدْلَ، عَدْلِهِ، عَدْلِي، الزَّمَّ، الْحَقَّ، الْحَقَّ، الْحَقَّ، الْحَقَّ، عَزَفَ، يَعْرِفُ، تَعْرِفُونَ، تُنْكَرُونَ) (الْأَكْبَرَ، الْأَصْغَرَ) (مَجَّهَ، لَذِيذِ) (يُرْهَهُ، جُمْلَةً) (أَعْتَزَلَ، يَعْمَلُ، أَعْمَلَ، فِعْلِي، خُدَّوْهَا)	25	41%
Hyponymy	(قَائِدُهُ، إِمَامُهُ، أَرْمَةٌ) (نَبِيَّكُمْ، النَّبِيِّينَ، عِبَادَ، عِبَادَ، النَّاسِ، النَّاسِ، لِلنَّاسِ، الْأُمَّةِ) (إِنْسَانِ، حَيَوَانَ) (الْكِتَابِ، الْكِتَابِ، الْقُرْآنِ) (الْجَزَائِمِ، الْبِدْعِ) (مَعْقُولَةً، أَشْرَاكَأ) (خَلَعَ، تَخَلَّى) (دَبِينِهِ، الدِّينِ، الْمَغْرُوفِ، كَرَامَةِ الْأَخْلَاقِ، أَخْلَصَ، اسْتَخْلَصَتْهُ، ذَكَرَ) (يَسْلَمُ، الْعَاقِبَةَ) (اقْتَبَسَ، تَسْتَعْمَلُوا) (سَلَكَ، سَلَكَ، تَذَهَّبُونَ) (أَعَاتَهُ، اسْتَمْسَكَ) (وَقَعَ، اصْطَجَعَ) (قَائِمَةً، وَاصِحَّةً) (أَعَدَّ، تَمَنَّحُهُمْ)	15	25%
Co Hyponymy	(الْقَرَى، ارْتَوَى، عَذَبَ، فَرَاتِ، شَرِبَ، نَهَلَ) (سَوَّطَهَا، سَيَّفَهَا) (الْحُزْنَ، الْهُمُومَ، هَمًّا، الْخَوْفَ) (الْبَسْتُنْكُمْ، فَرَشْتُنْكُمْ)	4	7%
Meronymy	-----	0	0%
Co Meronymy	(الصُّورَةُ، صُورَةٌ، الْقَلْبُ، الْقَلْبُ، قَلْبِهِ، الْبَصَرُ، أَلْسِنَةً)	1	1%
Total		61	100%

According to the table, the sermon No. 87 has 61 lexical chains, among which the semantic relationship of “antonym” (41%) is the most frequent, and the semantic relationship of “synonym” (26%), and “hyponymy” (25%) are used equally in this sermon, with very little difference.

According to "Saxena"’s theory, the Length, Sig, and Utility of each of these chains are according to the following table:

Table 2: Length, Sig, and Utility of sermon 87

Number	Lexical Chain	L	Sig	Related (w,L)	Utility
1	نَظَرَ، أَبْصَرَ، أَبْصَرَ، أَرَبْتُنْكُمْ	4	0.0163	16	0.2608
2	سَبِيلًا، طَرِيقَةً، سَبِيلَهُ، مَوَارِدُهُ	4	0.0163	19	0.3097
3	الْغُرَى، الْجِبَالَ، حَبَائِلِ	3	0.0106	6	0.0636
4	أَوْتَقِيهَا، أَمْتِنِيهَا	2	0.0054	7	0.0378

5	أَمَّهَا، فَصَدَّهَا	2	0.0054	22	0.1188
6	يَحُلُّ، حَلَّ، يُنزِلُ، مُنْزَلُهُ، أَنْزَلُوهُمْ، مَنَازِلَ	6	0.0293	8	0.2344
7	مَنَازِرُهُ، الْأَعْلَامُ، أَعْلَامُ، الْآيَاتِ، الْمَنَازِلَ، رَايَةً	6	0.0293	12	0.3516
8	يُنْتَاهُ، تَعْمَهُونَ	2	0.0054	34	0.1836
9	أَهْلًا، عِزَّةً	2	0.0054	7	0.0378
10	الْعِظَائِمِ، كَبِيرَ	2	0.0054	8	0.0432
11	رَهْرَ، صَوءَ	2	0.0054	11	0.0594
12	يُفْهَمُ، يُدْرِكُ، تَتَغَلَّقُ، وَقَفْنُكُمْ	4	0.0163	35	0.5705
13	نَصَبَ، نَصَبَ، مَنُصُوبَةً، رَكَزَتْ	4	0.0163	2	0.0326
14	دَرَّهَا، صَفَّوْهَا	2	0.0054	7	0.0378
15	الرَّأْيِ، آرَائِهِ، الْفِكْرِ	3	0.0106	38	0.4028
16	يَدْعُ، أَثْرَكَ	2	0.0054	6	0.0324
17	اسْتَشْعَرَ، تَجَلَّبَبَ، سَرَابِيلَ	3	0.0106	6	0.0636
18	قَرَّبَ، الْبَعِيدَ	2	0.0054	4	0.0216
19	هَوَّنَ، يُهَوِّنُ، الشَّدِيدَ، سَهَّلَتْ	4	0.0163	7	0.1141
20	السَّهْوَاتِ، الْهَوَى، الْهُدَى، الْهُدَى، الرَّدَى، الْهَوَى، أَهْوَائِهِ، الْهُدَى، أَضَالِيلَ، ضَلَالٍ، تُؤَفِّكُونَ	11	0.0669	43	2.8767
21	مَفَاتِيحَ، مَغَالِيقَ، مِفْتَاحَ، مُبْهَمَاتِ، أَفْهَالَ	5	0.02262	13	0.2941
22	فَرَعَ، أَصْلَهُ	2	0.0054	12	0.0648
23	مِصْنَبَاحَ، مِصْنَبَاحَ، ظَلَمَاتِ، كَشَافَ، عَشَوَاتِ	5	0.02262	24	0.5429
24	دَفَاعَ، مُغْضِلَاتِ، قَطَعَ، غِمَارَهُ	4	0.0163	13	0.2119
25	ذَلِيلَ، قَلَوَاتِ	2	0.0054	11	0.0594
26	عَالِمًا، جَهَائِلَ، جُهَالِ، الْعَمَى، الْعَمَى، غُرُورِ	6	0.0293	42	1.2306
27	يَتَّبِعُهُ، يَصَدُّ	2	0.0054	26	0.1404
28	مَيِّثَ، يَمُوتُ، مَاتَ، مَيِّتَ، الْأَحْيَاءِ، الْعَيْشِ	6	0.0293	7	0.2051
29	الْحَلَالِ، الْحَرَامِ	2	0.0054	20	0.108
30	يَتَطَعَّمُونَهَا، يَلْفِظُونَهَا	2	0.0054	8	0.0432
31	مَظِنَّةً، يَظُنُّ، الظَّانُّ، الظَّانُّ، شُبُهَاتِ، الْبَيِّنِ، يُؤْمِنُ، الْإِيمَانَ، حُجَّةً	9	0.0511	36	1.8396
32	كَذَّبَ، الصِّدْقَ	2	0.0054	32	0.1728
33	إِصْدَارَ، وَارِدَ، رَدُّوهُمْ، وَرُودَ، ثُورِدُهُمْ	5	0.02262	4	0.0905
34	انْفِرَدَ، مُشَارَكَةً	2	0.0054	6	0.0324
35	يَقُولُ، قَوْلَ، يَقُولُ، يَقُولُ، يَقُولُ، تَقُولُوا، قَوْلِي، يَسْكُتُ	7	0.0363	21	0.7623
36	الْعَدْلَ، عَدْلَهُ، عَدْلِي، أَلَزَمَ، الْحَقَّ، الْحَقَّ، الْحَقَّ، الْحَقَّ، زُورَ	9	0.0511	47	2.4017
37	عَرَفَ، يَعْرِفُ، تَعْرِفُونَ، تُنْكِرُونَ	4	0.0163	46	0.7498
38	الْأَكْبَرَ، الْأَصْغَرَ	2	0.0054	5	0.027
39	مَجَّةً، لَذِيذَ	2	0.0054	8	0.0432
40	بُرْهَةً، جُمْلَةً	2	0.0054	2	0.0108
41	أَعْتَزَلَ، يَعْمَلُ، أَعْمَلَ، فِعْلِي، خُدَّوْهَا	5	0.02262	16	0.3619
42	قَائِدُهُ، إِمَامُهُ، أَرْمَهُ	3	0.0106	35	0.371
43	نَبِيِّكُمْ، النَّبِيِّينَ، عِبَادَ، عِبَادَ، عَبْدًا، النَّاسِ، النَّاسِ، لِلنَّاسِ، الْأُمَّةَ	9	0.0511	39	1.9929
44	إِنْسَانَ، حَيَوَانَ	2	0.0054	23	0.1242
45	الْكِتَابَ، الْكِتَابَ، الْقُرْآنَ	3	0.0106	49	0.5194
46	الْجَزَائِمِ، الْبِدْعَ	2	0.0054	32	0.1728
47	مَعْقُولَةً، أَشْرَاكَأَ	2	0.0054	10	0.054
48	خَلَعَ، تَخَلَّى	2	0.0054	16	0.0864
49	دِينِهِ، الَّذِينَ، الْمَعْرُوفَ، كَرَائِمِ الْأَخْلَاقِ، أَخْلَصَ، اسْتَخْلَصَهُ، ذَكَرَ	7	0.0363	62	2.2506
50	يَسْلَمُ، الْعَافِيَةَ	2	0.0054	4	0.0216
51	أَقْبَسَ، تَسْتَعْمَلُوا	2	0.0054	13	0.0702
52	سَلَّكَ، تَذْهَبُونَ	3	0.0106	17	0.1802

53	أَعَانَهُ، اسْتَمْسَكَ	2	0.0054	8	0.0432
54	وَقَعَ، اضْطَجَعَ	2	0.0054	12	0.0648
55	قَائِمَةً، وَأَصْحَةَ	2	0.0054	7	0.0378
56	أَعَدَّ، تَمَنَّحُهُمْ	2	0.0054	8	0.0432
57	الْقَرَى، ارْتَوَى، عَذَبَ، فُرَاتٍ، شَرِبَ، نَهَلًا	6	0.0293	3	0.0879
58	سَوَّطَهَا، سَيَّفَهَا	2	0.0054	5	0.027
59	الْحُزْنَ، الْهُمُومَ، هَمًّا، الْخَوْفَ	4	0.0163	22	0.3586
60	الْبَيْسُوكُمْ، فَرَسُوكُمْ	2	0.0054	11	0.0594
61	الصُّورَةَ، صُورَةَ، الْقَلْبِ، قَلْبِهِ، الْبَصْرَ، اللسنة	7	0.0363	6	0.2178

According to the table, and based on the theory of "Barzilay" and "Elhadad", 8% of the lexical chains that make up this sermon, ie the chain number 20, 31, 36, 43, and 49 which are marked with green color, and their constituent words are related to the "ethical" and "religious" issues are "strong chains", and play the main role in determining the main themes of the sermon. Also, the chain number 26 which is marked with pink color, and its constituent words indicate "knowledge and avoidance of ignorance and misguidance" is stronger than other lexical chains of this sermon.

Therefore, it seems that the topic of this sermon -contrary to what Mohammad Dashti mentioned for it- is "religious, ethical, scientific"; because according to the output of "Saxena"'s theory as well as the theory of "strong chains" of "Barzilay" and "Elhadad", words indicating "politics" issues do not play a decisive role in this sermon.

In fact, the mentioned lexical chains include the enumeration of attributes such as: faith, certainty, guidance, knowledge, justice and sincerity for the pious people, and attributes such as: lust, misguidance, suspicion and lies for the wicked people, and Imam Ali (pbuh) only in the final sentences of this sermon refers to the political issues: *تَمَنَّحُهُمْ دَرَّهَا وَ تُورِدُهُمْ صَفْوَهَا وَ لَا يُرْفَعُ عَنْ حَتَّى يَطْنُ الظَّانُّ أَنَّ الدُّنْيَا مَعْقُولَةٌ عَلَى بَنِي أُمَيَّةَ* (هَذِهِ الْأُمَّةُ سَوَّطَهَا وَ لَا سَيَّفَهَا وَ كَذَّبَ الظَّانُّ لِيَذَلَّ بَلْ هِيَ مَجَّةٌ مِنْ لَذِيذِ الْعَيْشِ يَنْطَعَمُونَهَا بُرْهَةً ثُمَّ يَلْفُظُونَهَا جُمْلَةً).

The purpose of expressing these phrases was not to explain political issues, but Imam Ali (pbuh) mentions the Umayyad rule as an example of evildoers who enjoy the world and its pleasures for a short period of time, but they will not have a good fate. In fact, the mention of this example was to eliminate the suspicions in the mind of some people, so that instead of following the Qur'an, they would be seduced by the splendor of the Umayyad rule for a few days; not expressing political issues. Therefore, the title "religious, ethical, scientific" is more compatible with the main purpose of this sermon which was describing the pious and wicked people.

The sermon No. 191 consists of the following lexical chains:

Table 3: Table of lexical chains of sermon 191

Semantic Relationship	Words	Number of chains	Frequency
Synonym	(الجرز، الجئة، حافظ) محروبة، حرب، سلب، مسلوية، نهب، عطب (بعمه، آليه) (فات، فأت، ذهب، ذهب، مصت، يمضي، مضي، الماضي) (الحين، الحما) (الجامع، الحرون) (أفديتهم، قلوبكم، بالها) (الطريق، مسلكها، سالكها، مداها) (يقول، نطقها) (مبتدع، منسبهم، صانع) (استغلقت، أقال، الصدود) (مهاربها، مناص) (المتعالي، جده، العظام، عظم) (بادروا، أهطوا) (تستضيئوا، بارقها، إشراقها، برقها) (المائنة، كاذب)	16	25%
Antonym	(اليوم، غد، غدا) (سلف، خلفا) (مخالف، موافقا) (أيقظوا، نومكم) (داؤوا، الأسقام) (عزها، ذل) (جديكم، جدها، هزل) (غلوها، سفن) (أذبرت، أقبلت) (الجيله، الغيلة) (الدنيا، الدنيا) (صونوها، تصونوا، أطوا، نراها، الحيود، ولاها) (تصنعوا، رفعتها، ترفعوا، رفعتها) (الحاق، فراق، لفظتهم) (راجع، عزمه) (أصاعها، أطاعها) (الشكور، الكنود) (الغابرين، اسدى) (أعاد، أخذ، أعطى) (حق، حقا، حق، الجحود) (الفاشي، أقل، الأفلون، قليل) (التوام، اغتاضوها) (سأل، حاجتهم، مطالبها، نجيبوا)	23	35%
Hyponymy	(جندة، الناس، الأمم، ملا، أهلها، أهل) (عبادي، الخلايق، الخلق، عبده، عباد، رسولة) (تسبموا، تفتنوا، خالب) (علم، علمه، حكمه، حكيم) (اقتداء، تعليم، اختداء، تستعيبوا، تستعيبوا) (أموالها، أعلقها، أعلقها) (تخبرت، أعجزت) (المعاقل، المنازل، دار) (انقال، زلزال، المنبؤ) (ناطقها، ناعقها) (الرين، ثوبكم، خطا) (يضربون، يمجون) (عمره، خير) (وطأتها، المحاول) (العنود، المتصديه، عارضه، أشعروها) (ابتغته، قادتهم)	16	25%
Co Hyponymy	(جلمه، عفا، عدل، تقوى، التقوى، أشهد، منظرين) (اعتبروا، أوصيكم، يعتبرن، أرخصوا) (أحمده، الحمد، حمده، سبحانه) (الخنون، العنود) (الغالب، رايح، ناج) (قضى، أبدى، الموجبه) (مستودعها، قبلها، حملها، حملها) (معفور، مجرور، مندوح، عاصن، دم مسفوح، شيلو) (صافق، مرتفق، زار، خابت، أعيتهم، أسلمتهم، بكت)	9	14%
Meronymy	-----	0	0%
Co Meronymy	(يديه، كفيه، خديه، لحم، تسعوا، أسماعكم)	1	1%
Total		65	100%

According to the table, the sermon No. 191 has 65 lexical chains, among which the semantic relationship of “antonym” (35%) is the most frequent, and the semantic relationship of “synonym” (25%), and “hyponymy” (25%) are equally used in this sermon. According to "Saxena"s theory, the length, significance, weight and utility of these chains are according to the following table:

Table 4: Length, Sig, and Utility of sermon 191

Number	Lexical Chain	L	Sig	Related (w,L)	Utility
1	الجرز، الجئة، حافظ	3	0.0109	17	0.1853
2	محروبة، حرب، سلب، مسلوية، نهب، عطب	6	0.0302	25	0.755
3	بعمه، آليه	2	0.0056	7	0.0392
4	فات، فأت، ذهب، ذهب، مصت، يمضي، مضي، الماضي	8	0.045	28	1.26
5	الحين، الحما	2	0.0056	11	0.0616
6	الجامع، الحرون	2	0.0056	18	0.1008
7	أفديتهم، قلوبكم، بالها	3	0.0109	13	0.1417
8	الطريق، مسلكها، سالكها، مداها	4	0.0169	32	0.5408
9	يقول، نطقها	2	0.0056	19	0.1064
10	مبتدع، منسبهم، صانع	3	0.0109	19	0.2071
11	استغلقت، أقال، الصدود	3	0.0109	4	0.0436
12	مهاربها، مناص	2	0.0056	27	0.1512

13	المُعَالِي، جُدُّهُ، العِظَام، عَظْم	4	0.0169	27	0.4563																																																																																																																																																					
14	بَادِرُوا، أَهْطُوا	2	0.0056	16	0.0896																																																																																																																																																					
15	تَسْتَصِيبُوا، بَارِقَهَا، إِشْرَاقَهَا، بَرَقَهَا	4	0.0169	3	0.0507																																																																																																																																																					
16	المَائِنَةُ، كَاذِبٌ	2	0.0056	42	0.2352																																																																																																																																																					
17	اليَوْم، غَدٌ، غَدًا	3	0.0109	9	0.0981																																																																																																																																																					
18	سَلَفٌ، خَلْفًا	2	0.0056	15	0.084																																																																																																																																																					
19	مُخَالِفٌ، مُوَافِقًا	2	0.0056	10	0.056																																																																																																																																																					
20	أَيُّظُوا، نَوْمَكُمْ	2	0.0056	4	0.0224																																																																																																																																																					
21	دَاوُوا، الْأَسْقَام	2	0.0056	12	0.0672																																																																																																																																																					
22	عَرَّهَا، ذَلَّ	2	0.0056	31	0.1736																																																																																																																																																					
23	جَجَّكُمْ، جَدُّهَا، هَزَلٌ	3	0.0109	15	0.1635																																																																																																																																																					
24	عَلُّهَا، سَفَلٌ	2	0.0056	10	0.056																																																																																																																																																					
25	أَدْبَرْتُ، أَقْبَلْتُ	2	0.0056	22	0.1232																																																																																																																																																					
26	الجِيلَةُ، العِيلَةُ	2	0.0056	11	0.0616																																																																																																																																																					
27	الدُّنْيَا، الدُّنْيَا، الْأَجْرَةَ	3	0.0109	36	0.3924																																																																																																																																																					
28	صُوئُوهَا، تَصَوَّنُوا، الْبُظَا، نُرَّاهَا، الْحَيُودُ، وَلَاهَا	6	0.0302	28	0.8456																																																																																																																																																					
29	تَضَعُوا، رَفَعْتُهُ، نَزَعُوا، رَفَعْتُهُ	4	0.0169	9	0.1521																																																																																																																																																					
30	لَحَاقٌ، فِرَاقٌ، لَفِظْتُهُمْ	3	0.0109	24	0.2616																																																																																																																																																					
31	رَاجِعٌ، عَزَمَهُ	2	0.0056	12	0.0672																																																																																																																																																					
32	أَضَاعَهَا، أَطَاعَهَا	2	0.0056	44	0.2464																																																																																																																																																					
33	الشُّكُورُ، الْكُتُوبُ	2	0.0056	20	0.112																																																																																																																																																					
34	العَابِرِينَ، أَسَدَى	2	0.0056	13	0.0728																																																																																																																																																					
35	أَعَادَ، أَخَذَ، أُعْطِيَ	3	0.0109	12	0.1308																																																																																																																																																					
36	حَقٌّ، حَقَّكُمْ، حَقٌّ، الْجُحُودُ	4	0.0169	38	0.6422																																																																																																																																																					
37	القَاسِي، أَقْلٌ، الْأَقْلُونَ، قَلِيلٌ	4	0.0169	5	0.0845																																																																																																																																																					
38	التَّوَامٌ، اعْتَاضُوهَا	2	0.0056	5	0.028																																																																																																																																																					
39	سَأَلَ، حَاجَتِهِمْ، مَطَالِبِهَا، تُجِيبُوا	4	0.0169	16	0.2704																																																																																																																																																					
40	6	0.0302	9	0.2718	41	عِبَادِي، الْخَالِيقُ، الْخَلْقُ، عِبْدُهُ، عِبَادَ، رَسُولُهُ	6	0.0302	32	0.9664	42	تَشِيمُوا، تُفْتَنُوا، خَالِبٌ	3	0.0109	29	0.3161	43	عَلِمَ، عِلْمُهُ، حُكْمُهُ، حَكِيمٌ	4	0.0169	49	0.8281	44	أَقْبَدَاءٌ، تَعْلِيمٌ، اخْتِذَاءٌ، تَسْتَعِينُوا، تَسْتَعِينُوا	5	0.0234	45	1.053	45	أُمُورِهَا، أَخْلَاقِهَا، أَخْلَاقِهَا	3	0.0109	11	0.1199	46	تَحَيَّرَتْ، أَعْجَزَتْ	2	0.0056	22	0.1232	47	المَعَاوِلُ، المَنَازِلُ، دَارٌ	3	0.0109	7	0.0763	48	انْتِقَالَ، زَلْزَالَ، المَيُودُ	3	0.0109	12	0.1308	49	نَاطِقِهَا، نَاعِقِهَا	2	0.0056	8	0.0448	50	الرَّيْنُ، دُنُوبِكُمْ، خَطِيءٌ	3	0.0109	21	0.2289	51	يَضْرِبُونَ، يَمْجُونَ	2	0.0056	3	0.0168	52	عَمْرَةَ، حَيْرَةٌ	2	0.0056	14	0.0784	53	وَطَائِفِهَا، المَحَاوِلُ	2	0.0056	20	0.112	54	العُنُونُ، المُنْتَصِبِيَّةُ، عَارِضَةٌ، أَشْعَرُوهَا	4	0.0169	11	0.1859	55	اِبْتِغَاءُهُ، قَادَتْهُمْ	2	0.0056	49	0.2744	56	جَلْمُهُ، عَفَا، عَدَلَ، تَقْوَى، التَّقْوَى، التَّقْوَى، أَشْهَدُ، مُنْظَرِينَ	8	0.045	64	2.88	57	اعْتَبِرُوا، أَوْصِيكُمْ، يَعْتَبِرُونَ، ارْحَضُوا	4	0.0169	22	0.3718	58	أَحْمَدُهُ، الْحَمْدُ، حَمْدُهُ، سُبْحَانَهُ	4	0.0169	58	0.9802	59	الْحَنُونُ، العُنُودُ	2	0.0056	40	0.224	60	العَالِبُ، رَاحٌ، نَاجٌ	3	0.0109	14	0.1526	61	قَضَى، أَيْدَى، المُوَجِّبَةُ	3	0.0109	23	0.2507	62	مُسْتَوْدِعُهَا، قَبْلِهَا، حَمَلِهَا، حَمَلِهَا	4	0.0169	14	0.2366	63	مَعْفُورٌ، مَجْزُورٌ، مَذْبُوحٌ، عَاضٌ، دَمٌ مَسْفُوحٌ، شَبَلُو	6	0.0302	24	0.7248	64	صَافِقٌ، مُرْتَفِقٌ، زَارٌ، خَابَتْ، أُعْيِيَهُمْ، أَسْلَمْتُهُمْ، بَكَتْ	7	0.0375	62	2.325	65	يَدِيهِ، كَفِيهِ، خَدْيِهِ، لَحْمٌ، تَسْمَعُوا، أَسْمَاعِكُمْ	6	0.0302	10	0.302
41	عِبَادِي، الْخَالِيقُ، الْخَلْقُ، عِبْدُهُ، عِبَادَ، رَسُولُهُ	6	0.0302	32	0.9664																																																																																																																																																					
42	تَشِيمُوا، تُفْتَنُوا، خَالِبٌ	3	0.0109	29	0.3161																																																																																																																																																					
43	عَلِمَ، عِلْمُهُ، حُكْمُهُ، حَكِيمٌ	4	0.0169	49	0.8281																																																																																																																																																					
44	أَقْبَدَاءٌ، تَعْلِيمٌ، اخْتِذَاءٌ، تَسْتَعِينُوا، تَسْتَعِينُوا	5	0.0234	45	1.053																																																																																																																																																					
45	أُمُورِهَا، أَخْلَاقِهَا، أَخْلَاقِهَا	3	0.0109	11	0.1199																																																																																																																																																					
46	تَحَيَّرَتْ، أَعْجَزَتْ	2	0.0056	22	0.1232																																																																																																																																																					
47	المَعَاوِلُ، المَنَازِلُ، دَارٌ	3	0.0109	7	0.0763																																																																																																																																																					
48	انْتِقَالَ، زَلْزَالَ، المَيُودُ	3	0.0109	12	0.1308																																																																																																																																																					
49	نَاطِقِهَا، نَاعِقِهَا	2	0.0056	8	0.0448																																																																																																																																																					
50	الرَّيْنُ، دُنُوبِكُمْ، خَطِيءٌ	3	0.0109	21	0.2289																																																																																																																																																					
51	يَضْرِبُونَ، يَمْجُونَ	2	0.0056	3	0.0168																																																																																																																																																					
52	عَمْرَةَ، حَيْرَةٌ	2	0.0056	14	0.0784																																																																																																																																																					
53	وَطَائِفِهَا، المَحَاوِلُ	2	0.0056	20	0.112																																																																																																																																																					
54	العُنُونُ، المُنْتَصِبِيَّةُ، عَارِضَةٌ، أَشْعَرُوهَا	4	0.0169	11	0.1859																																																																																																																																																					
55	اِبْتِغَاءُهُ، قَادَتْهُمْ	2	0.0056	49	0.2744																																																																																																																																																					
56	جَلْمُهُ، عَفَا، عَدَلَ، تَقْوَى، التَّقْوَى، التَّقْوَى، أَشْهَدُ، مُنْظَرِينَ	8	0.045	64	2.88																																																																																																																																																					
57	اعْتَبِرُوا، أَوْصِيكُمْ، يَعْتَبِرُونَ، ارْحَضُوا	4	0.0169	22	0.3718																																																																																																																																																					
58	أَحْمَدُهُ، الْحَمْدُ، حَمْدُهُ، سُبْحَانَهُ	4	0.0169	58	0.9802																																																																																																																																																					
59	الْحَنُونُ، العُنُودُ	2	0.0056	40	0.224																																																																																																																																																					
60	العَالِبُ، رَاحٌ، نَاجٌ	3	0.0109	14	0.1526																																																																																																																																																					
61	قَضَى، أَيْدَى، المُوَجِّبَةُ	3	0.0109	23	0.2507																																																																																																																																																					
62	مُسْتَوْدِعُهَا، قَبْلِهَا، حَمَلِهَا، حَمَلِهَا	4	0.0169	14	0.2366																																																																																																																																																					
63	مَعْفُورٌ، مَجْزُورٌ، مَذْبُوحٌ، عَاضٌ، دَمٌ مَسْفُوحٌ، شَبَلُو	6	0.0302	24	0.7248																																																																																																																																																					
64	صَافِقٌ، مُرْتَفِقٌ، زَارٌ، خَابَتْ، أُعْيِيَهُمْ، أَسْلَمْتُهُمْ، بَكَتْ	7	0.0375	62	2.325																																																																																																																																																					
65	يَدِيهِ، كَفِيهِ، خَدْيِهِ، لَحْمٌ، تَسْمَعُوا، أَسْمَاعِكُمْ	6	0.0302	10	0.302																																																																																																																																																					

According to the table, and based on the theory of "Barzilay" and "Elhadad", 5% of the lexical chains of this sermon, ie the chains number 4, 56, and 64 which are marked with green color, and their constituent words indicate longing and sadness from the past as well as some moral issues, including: tolerance, justice and piety, are "strong chains", and play the main role in determining the main themes of the sermon. Also, the chain No. 28, 41, 43, 44 and 58 which are marked with pink color, and the words that make up them indicate devotional and spiritual, moral, social and intellectual issues, are stronger than other chains of this sermon.

Therefore, according to the data, it seems that the topic of this sermon -contrary to what Mohammad Dashti mentioned for it- is "moral, ethical, social, intellectual"; because according to the output of "Saxena"'s theory, as well as the theory of "strong chains" of "Barzilay" and "Elhadad", words that indicate "religious" issues do not play a decisive role in this sermon.

On the other hand, the main focus of this sermon is to draw the audience's attention to ethical and moral issues, to solve social pains, learning from the fate of the past, and to use intellectual power to build a bright future; therefore, choosing the mentioned title seems more suitable for it.

5. Discussion

Imam Ali (pbuh) begins this sermon with praise and thanks to God (الْحَمْدُ لِلَّهِ الْفَاشِي فِي الْخَلْقِ حَمْدُهُ). The interpretation of (الْفَاشِي فِي الْخَلْقِ حَمْدُهُ) which informs about the spread of God's praise among all creations, may be a reference to the fact that all the believers praise him (Makarem Shirazi 322). It is also possible that the meaning of the word (الْفَاشِي) is the cause of praising God, which is his many blessings (Ibn Abi Al-Hadid 1302) that are successive and plentiful (أَحْمَدُهُ عَلَى نِعْمِهِ التُّوَامِ وَالْآيَةِ الْعِظَامِ).

Then, Imam Ali (pbuh) strongly advises people to be ascetic and pious, and he introduces "piety" as a shield to be protected from worldly calamities and dangers, as well as the way to heaven (عِبَادَ اللَّهِ أَوْصِيكُمْ بِتَقْوَى اللَّهِ فَإِنَّهَا حَقُّ اللَّهِ عَلَيْكُمْ وَالْمُوجِبَةُ عَلَى اللَّهِ حَقِّكُمْ، وَأَنْ تَسْتَعِينُوا عَلَيْهِ بِاللَّهِ وَتَسْتَعِينُوا بِهَا عَلَى اللَّهِ، فَإِنَّ النَّقْوَى فِي الْيَوْمِ (الْحِرْزُ وَالْجَنَّةُ وَفِي غَدِ الطَّرِيقُ إِلَى الْجَنَّةِ يَقُولُ "وَمِنْ كُلِّ مَخَالِفٍ مُوَافِقًا، أَيْقِظُوا بِهَا نَوْمَكُمْ وَأَقِطَعُوا بِهَا يَوْمَكُمْ وَأَشْعِرُوا بِهَا قُلُوبَكُمْ وَأَرْحَضُوا بِهَا دُنُوبَكُمْ وَدَاوُوا بِهَا الْأَسْقَامَ (قَلِيلٌ مِنْ عِبَادِي الشَّاكِرُونَ").

Therefore, the person - to be among the grateful on such an important day- must practice piety in his life with all his heart and wake up from the sleep of neglect, avoid sins and cure diseases through piety and prepare himself for the journey to the hereafter (فَاهْطِعُوا بِأَسْمَاعِكُمْ إِلَيْهَا وَأَلْطُوا بِحَدِّكُمْ عَلَيْهَا وَاعْتَاذُوا بِهَا مِنْ كُلِّ سَلْفٍ خَلْفًا وَمِنْ كُلِّ مُخَالِفٍ مُوَافِقًا، أَيْقِظُوا بِهَا نَوْمَكُمْ وَأَقِطَعُوا بِهَا يَوْمَكُمْ وَأَشْعِرُوا بِهَا قُلُوبَكُمْ وَأَرْحَضُوا بِهَا دُنُوبَكُمْ وَدَاوُوا بِهَا الْأَسْقَامَ (وَبَادِرُوا بِهَا الْحِمَامَ).

The phrase "الْطُّؤَا بِجِدِّكُمْ" means "insistence and pressure in everything" (Ibn Abi Al-Hadid 1303), and the word (أَهْطِعُوا) means "to hasten", and therefore the meaning of Imam Ali (pbuh) from the interpretation (فَأَهْطِعُوا بِأَسْمَاعِكُمْ إِلَيْهَا وَالطُّؤَا بِجِدِّكُمْ عَلَيْهَا) is to try to acquire piety in such a way that you don't miss any wisdom and preaching that leads to piety (Mughniyah 3: 105), and with all your strength, seek to acquire this moral virtue.

The meaning of the phrase (أَيْقِظُوا بِهَا نَوْمَكُمْ) is to wake up from sleep due to piety, and the meaning of "الْأَسْقَامَ" is social pains that are cured by piety (Makaram Shirazi 7: 337-338), and the interpretation (بَادِرُوا بِهَا الْجَمَامَ) means to practice piety before you definitely die (Raawandi 424), and before the time of God's reckoning arrives, improve your social ethics, in addition to trying to follow the right path and attain God's pleasure.

Then, Imam Ali (pbuh) says that it is up to you to learn from the fate of those who did not practice piety so that you do not become an example to others (وَاعْتَبِرُوا بِمَنْ أَضَاعَهَا وَلَا يَعْتَبِرَنَّ بِكُمْ مَنْ أَطَاعَهَا). In this part, Imam Ali (pbuh) ironically -which is a warning to the listener- has forced his companions to abandon sin, and pay attention to the attribute of piety; as is usual, sometimes when a person wants to advise another person, he says: Don't make people laugh at you; it means doing the wrong thing to make others laugh (Al-Bahrani 3026-3027).

Imam Ali (pbuh) advises people to withdraw from this world and turn to the hereafter (وَكُونُوا عَنِ) (الدُّنْيَا نُرَاهَا وَإِلَى الْآخِرَةِ وُلَاهَا وَأَمْوَالُهَا فَإِنَّ بَرَقَهَا خَالِبٌ وَتُطْفَأُ كَاذِبٌ) because the world and its splendor are deceptive, its dignity and position are humiliation, and its valuable goods and property are to be plundered (مَخْرُوبَةٌ وَأَعْلَاقُهَا مَسْلُوبَةٌ. أَلَا وَهِيَ الْمُتَصَدِّبَةُ الْعُنُونُ وَالْجَامِحَةُ الْحَرُونَ وَالْمَائِنَةُ الْخُنُونُ وَالْجَحُودُ الْكُنُودُ وَالْعُنُودُ الصَّدُودُ وَالْحَيُودُ الْمَيُودُ؛ (حَالَهَا انْتِقَالٌ وَوَطَائِئُهَا زَلْزَالٌ وَعِزُّهَا ذُلٌّ وَجِدُّهَا هَزْلٌ وَعُلُوُّهَا سُفْلٌ؛ دَارٌ [حَرْبٍ] حَرْبٍ وَسَلْبٍ وَنَهْبٍ وَعَطَبٍ).

Although the words "حَرْب", "سَلْب" and "نَهْب" all mean "looting" and "taking someone's property", there is a precise difference between them. "حَرْب" is to take all of someone's property, but "سَلْب" is often interpreted as "taking people's clothes and what they have in their hands. "نَهْب" which literally means "taking booty and looting", may refer to group looting; therefore, the meaning of the words of Imam Ali (pbuh) is that: sometimes the world takes the whole existence of a person and sometimes a part of it, and sometimes a group of looters come to work, and loot the property of groups of people (Makarem Shirazi 7: 346). Therefore, it is impossible to get attached to the valuable goods of this world and spend your precious life accumulating possessions that will not be permanent for humans, and therefore, the only way to happiness is to save your baggage for the hereafter; not accumulating wealth for this world.

In addition, Imam Ali (pbuh) has pointed out a subtle and precise point by using the expression (حَالَهَا انْتِقَالَ). This means that: time is divided into three categories: past, present and future. The past and the future have no real presence, and only the "present" time is real. In order to exaggerate the description of the decay of the world, Imam Ali (pbuh) refers to the transmission of its states; this means that what people perceive as ready, does not actually exist, but is fluid and unstable (Ibn Abi Al-Hadid 1304).

The instability of the world has made Imam Ali (pbuh) consider the luck and turning away of the world -that appear in a serious way to people- as a joke (وَجِدُّهَا هَزْلٌ); because as long as a person wants to benefit from its pleasures, it goes away from him, and as soon as he goes to get used to his hardships and sufferings, it changes. So, it seems that this world plays, and jokes with people (Ibn Meysam 3034).

In the final part of the sermon, Imam Ali (pbuh) depicts the fate of those who were deceived by the glory and grandeur of the world and were attached to it, and describes how they remember the past with regret, but there is no way for them, and they will have no chance to make up for the past:

(فَمِنْ نَاجٍ مَعْفُورٍ وَلَحْمٍ مَجْزُورٍ وَشَلْوٍ مَدْبُوحٍ وَدَمٍ مَسْفُوحٍ وَعَاصِرٍ عَلَى يَدَيْهِ وَصَافِقٍ بِكَفَيْهِ وَمُرْتَفِقٍ بِخَدَيْهِ وَزَارٍ عَلَى رَأْيِهِ وَرَاجِعٍ عَنْ عَزْمِهِ وَقَدْ أَدْبَرَتِ الْجَيْلَةُ وَأَقْبَلَتِ الْغَيْلَةُ وَلَاتَ جَيْنَ مَنَاصٍ. هَيْهَاتَ هَيْهَاتَ قَدْ فَاتَ مَا فَاتَ وَذَهَبَ مَا ذَهَبَ وَمَضَتِ الدُّنْيَا لِحَالِ بِأَلْيَا، «فَمَا بَكَتْ عَلَيْهِمُ السَّمَاءُ وَالْأَرْضُ وَمَا كَانُوا مُنظَرِينَ»)

The interpretation (فَمَا بَكَتْ عَلَيْهِمُ السَّمَاءُ وَالْأَرْضُ) refers to the fact that they were not worshipers (Ibn Meysam 3040), and they did not have any righteous deeds, and the purpose of Imam Ali (pbuh) in using this interpretation is to exaggerate their humiliation and baseness. because when Arabs want to express the greatness of the position of someone who has been lost, it is common to say: "The sky and the earth wept over him", and "the sun and the moon became dark because of his loss". Therefore, the mentioned phrase is a mockery that Imam Ali (pbuh) used in describing them (Makarem Shirazi 7: 350; Raawandi 427). And by the interpretation (وَمَا كَانُوا مُنظَرِينَ), he says that God will punish them immediately in this world, and will not leave it to the hereafter (Raawandi 427).

In fact, Imam Ali (pbuh) stated the final part of the sermon as an emphasis for the beginning and middle parts of it; this means that first by enumerating God's infinite blessings, he creates a spiritual atmosphere and then encourages the audience to asceticism and piety and to prioritize spiritual and afterlife matters. At the end, he states the fate of ignoring this advice and remaining in the valley of error so that the listeners of the sermon can learn from such a fate and turn to piety. Also, most of the words of the "strong chains" of this sermon (فَاتَ، فَاتَ، ذَهَبَ، ذَهَبَ، مَضَتِ، مُنظَرِينَ، صَافِقٍ، مُرتَفِقٍ، زَارٍ، بَكَتْ) are used in this section, and as explained, the main section, and defining part of this sermon is its final part.

In the sermon No. 87, there is a logical connection between the strong chains and the main purpose of its objection; in this way, Imam Ali (pbuh) begins this sermon by enumerating the attributes of the pious and the best servants of God: (عِبَادَ اللَّهِ إِنَّ مِنْ أَحَبِّ عِبَادِ اللَّهِ إِلَيْهِ عَبْدًا أَعَانَهُ اللَّهُ عَلَى نَفْسِهِ فَاسْتَشَعَرَ الْحُزْنَ وَ تَجَلَّبَبَ الْخَوْفَ فَرَهَرَ مَصْنَبَاخُ الْهُدَى فِي قَلْبِهِ).

"نفس" refers to the lusts that cause the destruction of human beings, and it means that a pious person, with God's help, overcomes the ego that orders evils (Mughniyah 1: 434), and such success is due to struggles and efforts he made to deal with sin (Shirazi 144); not that it is a certain victory that will be given to every person.

"تجلبب" means "tent", or "covering clothes", and (تَجَلَّبَبَ الْخَوْفَ) refers to the fact that these faithful people are constantly taking care of themselves, and are afraid of making mistakes, or they do actions that remove their names from the scroll of the sincere (Makarem Shirazi 3: 544), and as a result, the success of overcoming the ego that orders evils -with God's help- will be taken away from them.

The word "الْفَرَى" means the food that is prepared for the guest, and in this sermon, it means "decent deeds" (Ibn Meysam 1495). Also, "يَوْمَ نَزَلَ" is an allusion to the Day of Judgment (ibid. 1500-1499); therefore, the interpretation (وَاعْدُ الْفَرَى لِيَوْمِهِ النَّازِلِ بِهِ) means that the Day of Judgment is so pleasant for the pious person that it is like the time that a worthy guest enters the house of a generous host (Makarem Shirazi 3: 544 -545).

Such a servant has purified himself for God, and God has accepted his sincere actions (قَدْ أَخْلَصَ (لِلَّهِ فَاسْتَخْلَصَهُ). This interpretation may indicate that there are two types of human spiritual and moral impurities: a part of it is visible to him, and he can remove it by means of self-improvement, but a part of these impurities can not be easily removed. God helps those who win in the first stage and removes their impurities in the second stage (Makarem Shirazi 3: 555), and this phrase confirms and emphasizes the phrase (أَعَانَهُ اللَّهُ عَلَى نَفْسِهِ) which means that God does not give his help to his servants easily.

Then, Imam Ali (pbuh) goes on to describe the characteristics of the transgressors; people who are called "scholars" (وَآخِرُ قَدْ تَسَمَّى عَالِمًا وَلَيْسَ بِهِ). The interpretation of "تَسَمَّى" shows that knowledgeable people do not consider him a scholar, and he is not a scholar in the presence of God, but he considers himself a scholar according to his own opinion (Makarem Shirazi 3: 562), and his knowledge is nothing but ignorance and misguidance that he acquired from people like him (فَأَقْتَبَسَ جَهَائِلَ مِنْ جُهَالٍ وَأَضَالِيلَ مِنْ ضَلَالٍ).

The two words "جَهَائِلَ" and "أَضَالِيلَ" have a subtle difference in meaning. "جَهَائِلَ" means "compound ignorance"; that is, even though he is ignorant of his ignorance, he is not aware (he does not know that

he does not know), but "أَصَالِيل" means misleading things that one consciously goes to. Also, the word "اِقْتَبَسَ" means "learning"; therefore, Imam Ali (pbuh) means that this person who appears to be a scholar learns the method of misleading from those who have experience in this work, and instead of spending this effort on the path of science and knowledge, he uses this detour (Makarem Shirazi 3: 562-563).

Such a wicked person interprets the Qur'an according to his opinion (قَدْ حَمَلَ الْكِتَابَ عَلَى آرَائِهِ وَ عَطَفَ) and based on his whims and fancies, he changes the decrees of God (Ibn Abi Al-Hadid 675), and he claims to refrain from committing doubts and heresies, but he is drowned in them (يَقُولُ أَقْفُ) .
عِنْدَ الشُّبُهَاتِ وَفِيهَا وَقَعَ وَيَقُولُ أَعْتَزَلُ الْبِدْعَ وَبَيِّنَهَا اضْطَجَعَ .

The main cause of such behaviors is the ignorance of the wicked person; Because he does not recognize doubt and heresy to avoid them (Ibn Abi Al-Hadid 675). "الْعَمَى" means the blindness of ignorance (Ibn Meysam 1503); therefore, due to his ignorance of the principles of religion and how to distinguish branches from principles, he takes refuge in heresies (ibid. 1514). And he is so entertained by them as if he is immersed in them, but a pious person is far away from lust and ignorance, and on the contrary, a wicked person who causes others to go astray, he is the key to guidance and an obstacle to going astray: (قَدْ خَلَعَ سَرَابِيلَ الشَّهَوَاتِ وَتَخَلَّى مِنَ الْهُمُومِ إِلَّا هَمًّا وَاحِدًا انْفَرَدَ بِهِ فَخَرَجَ مِنْ صِفَةِ الْعَمَى وَمُشَارَكَةِ أَهْلِ الْهَوَى وَصَارَ : (مِنْ مَفَاتِيحِ أَبْوَابِ الْهُدَى وَمَعَالِيْقِ أَبْوَابِ الرَّدَى .

The expression "قَدْ خَلَعَ" is an allusion to the fact that a pious person discards lusts and does not pay attention to them that would lead him out of moderation (ibid. 1502-1503), and the certainty is as clear as day to him (فَهُوَ مِنَ الْيَقِينِ عَلَى مِثْلِ ضَوْءِ الشَّمْسِ) (Mughniyah 1: 437), and unlike the wicked person, there is no doubt in his heart.

Then, Imam Ali (pbuh) says that despite the existence of the Qur'an, and the Ahl al-Bayt, and such pious people among you who are the light of the darkness, and the guide for the misguided, why are you wandering and deviating from the right path? (فَأَيَّنَ تَذَهُبُونَ وَأَيُّ تُوَفِّكُونَ وَالْأَعْلَامُ قَائِمَةٌ وَالْآيَاتُ وَاضِحَةٌ) (وَالْمَنَارُ مَنْصُوبَةٌ فَأَيَّنَ يُتَاهَا بِكُمْ وَكَيْفَ تَعْمَهُونَ وَبَيِّنْتُكُمْ عِنْرَةَ نَبِيِّكُمْ وَهُمْ أَرْزَمَةُ الْحَقِّ وَأَعْلَامُ الدِّينِ وَالسِّنَّةُ الصِّدْقِ) . You should turn to them like a thirsty camel that is looking for water, and by following them as an example in all matters of life, you will be saved from going astray, and find the path of guidance (رُدُّوهُمْ وَرُودَ الْهَيْمِ الْعِطَاشِ) .

The meaning of the expression (رُدُّوهُمْ وَرُودَ الْهَيْمِ الْعِطَاشِ) refers to the sea of knowledge of those great ones (Sobhi Saleh 1100), which is like a spring of water of life, and you are in dire need of what they have (Makarem Shirazi 3: 579). Therefore, you should refer to them like a thirsty camel, with greed and passion, in scientific and religious matters (Ibn Abi Al-Hadid 676), so that he will be among the best servants of God, and help you in dealing with hardships and lusts.

Therefore, as the output of theories and the strong chains extracted from this sermon, the main focus and purpose of its objection is to express the moral characteristics of believers and sinners, as well as the necessity of acquiring knowledge and avoiding ignorance, and therefore choosing the title "religious, ethical, scientific" is more suitable for it.

6. Conclusion

In this research, we extracted the lexical chains of sermons No. 87 and 191 of *Nahj al-Balaghah*, based on the theory of "Saxena", and determined the strong chains of them based on the theory of "Barzilay" and "Elhadad", in order to discover the relationship between the lexical chains of the sermons of *Nahj al-Balaghah* and their main themes. The results show that:

- The sermon No. 87 has 61 lexical chains, among them, the semantic relationship of "Antonym" (41%) is the most frequent, and the semantic relationship of "synonym" (26%) and "hyponymy" (25%) -with a very small difference- are used equally in this sermon.
- The sermon No. 191 has 65 lexical chains, among them, the semantic relationship of "Antonym" (35%) is the most frequent, and the semantic relationship of "synonym" (25%) and "hyponymy" (25%) are equally used in this sermon.
- In the sermon No. 87, chains number 20, 31, 36, 43 and 49 whose constituent words refer to "moral" and "ethical" issues, are "strong chains", and play the main role in determining the main themes of the sermon. Also, the chain number 26 whose constituent words indicate "knowledge and avoidance of ignorance and misguidance" is stronger than the other lexical chains of this sermon.
- In the sermon No. 191, chains number 4, 56 and 64 whose constituent words indicate longing and sadness from the past, as well as some moral issues, including: tolerance, justice and piety, are "strong chains", and play the major role in determining the main themes of the sermon. Also, chains number 28, 41, 43, 44 and 58 whose constituent words refer to devotional, spiritual, moral, social and intellectual issues are stronger than the other lexical chains that make up this sermon.
- In both sermons, the strong chains indicate the main purpose of their objections by Imam Ali (pbuh); so that, in the sermon No. 87, the data confirms that the main focus and purpose of the sermon is to express the moral characteristics of believers and sinners, as well as the need to

acquire knowledge and avoid ignorance, and the words indicating "political" issues do not play a decisive role in this sermon. Therefore, choosing the topic of "religious, ethical, scientific" - contrary to what Mohammed Dashti mentioned for it- seems more appropriate for it.

- In the sermon No. 191, the words that make up the strong chains indicate that the main focus of this sermon is to attract the attention of the audience to spiritual and moral issues, for removing social pains, learning from the fate of the past and using intellectual power, to build a brilliant future and destiny, and the words indicate "religious" issues do not play a decisive role in this sermon; therefore, choosing the title "moral, ethical, social, intellectual" -contrary to what Mohammed Dashti mentioned for it- seems more appropriate.

References

- Adarve, F.; Kwong, H. & Speriosu, M. "Topic Segmentation of Meetings Using Lexical Chains". *Linguistics*, 2007. Pp. 1-13.
- Barzilay, R. & Elhadad, M. "Using Lexical Chains for Text Summarization". *Intelligent Scalable Text Summarization*, 1997. Pp. 1-9.
- Berker, M. & Gungor, T. "Using Genetic algorithms with lexical chains for automatic text summarization". 2012. Pp. 595-600.
- Dashti, M. *Dictionary of general topics of the Nahj al-Balaghah*. Qom: Farhangi Foundation for Investigations of the Amir Al-Mo'menin. 2016. [In Persian]
- Delavenay, E. *An Introduction to Machine Translation*. New York, NY: [Thames and Hudson](#). 1960.
- Doran, W.; Stokes, N.; Carthy, J. & Dunnion, J. "Comparing Lexical chain-based Summarisation Approaches Using an Extrinsic Evaluation". 2003. Pp. 112-117.
- Eshkevari, Adnan; Motaghizadeh, Isa; Piranishal, Ali; Mozafari, Soudabeh; Modiri, Somayyeh. "Lexical Chains of the Sermons No. 111 and 221 of Nahj al-Balaghah Based on the Theory of "Barzilay" and "Elhadad". *Language Related Research*. 2024.
- Eshkevari, Adnan; Motaghizadeh, Isa; Piranishal, Ali; Mozafari, Soudabeh; Modiri, Somayyeh. "Semantic Lexical Chains of the Sermons No. 190 and 210 of Nahj Al Balaghah based on the "Saxena"'s theory". *Research in Arabic Language*. 2024.
- Furnas, G.W.; Landauer, T.K.; Gomez, L.M.; and Dumais, S.T. "Statistical Semantics: Analysis of the potential performance of keyword information systems". *Bell System Technical Journal*, 62(6), 1983. Pp. 1753-1806.

- Furnas, G.W. *Faculty Profile: George Furnas*, University of Michigan, School of Information, URL verified on October 2, 2006.
- Halliday, M. A. K. & Hasan, R. *Cohesion in English*. Routledge. 2014.
- Hirst, G. & St-Onge, D. *Lexical chains as representations of context for the detection and correction of malapropisms*. In Christiane Fellbaum, editor, *WordNet: An Electronic Lexical Database and some of its applications*. The MIT Press, Cambridge, MA. 1998.
- Ibn Abi Al-Hadid. *The Explanation of the Nahj al-Balaghah*. Research: Mohammad Abolfazl Ibrahim. Qom: The Library of the Great Ayatollah Al-Marashi Al-Najafi. 2006. [In Arabic]
- Ibn Meysam. *The Explanation of the Nahj al-Balaghah*. Translate: Muhammad Sadeq Aref. Mashhad: Islamic religious buildings. 1996. [In Persian]
- Ma, J.; Wu, F.; Li, Ch. And Zhu, H. “The Topic Tracking Based on Modified VSM of Lexical Chain’s Sememe”. *Journal of Engineering Research and Applications*, 4(6), 2014. Pp. 13-19.
- Makarem Shirazi, N. *Message of Imam Amir al-Mo'menin (PBUH)*. Qom: Ali Ibn Abi Talib (PUH) Publications. 2011. [In Persian]
- Morris, J. & Hirst, G. “Lexical cohesion computed by thesaural relations as an indicator of the structure of text”. *Computational Linguistics*, 17(1), 1991. Pp. 21-48.
- Mughniyah, M. *In the shadows of Nahj al-Balaghah*. Beirut: House of Knowledge for Millions. 1979. [In Arabic]
- Mukherjee, P.; Leroy, G. and Kauchak, D. “Using Lexical Chains to Identify Text Difficulty: A Corpus Statistics and Classification Study”. *IEEE J Biomed Health Inform*, 23(5), 2019. Pp. 2164-2173.
- Raawandi, Gh. *Minhaj Al-Bara'ah in explaining of Nahj Al-Balaghah*. Ayatollah Marashi Najafi Public Library, Qom. 1984. [In Arabic]
- Ruseti, S; Dascalu, M.; Corlatescu, D.; Dascalu, M.; Trausan-Matu, S., & McNamara, D. “Exploring Dialogism Using Language Models”. *LNAI 12749*, 2021. Pp. 269-301.
- Samaha, S. *Dictionary Al-Mobassat*. Tehran: Sabzkhama. 2004. [In Arabic]
- Saxena, Sh. & Saxena, A. “An Efficient Method based on Lexical Chains for Automatic Text Summarization”. *International Journal of Computer Applications*, Vol.144, No.1, 2016. Pp. 47-52.
- Sharif Razi, M. *Nahj al-Balaghah*. Translation: Mohammad Dashti. Tehran: Message of Justice. 2015. [In Persian]
- Shirazi, M. *Explanation of Nahj al-Balaghah*. Qom: Islamic Thought Foundation. 1988. [In Arabic]

- Sikstrom, S. & Garcia, D. *Statistical Semantics, Methods and Applications*. Switzerland: Springer Nature Switzerland AG. 2020.
- Silber, H.G. & McCoy, K. “Efficiently Computed Lexical Chains as an Intermediate Representation for Automatic Text Summarization”. *Computational Linguistics*, 28(4), 2002. Pp. 487–496.
- Sini, M.; Abd Al-Aziz, N.; Suleiman, M. *Contemporary Arabic Thesaurus*. Beirut: Lebanon Library Publishers. 1993. [In Arabic]
- Sobhi Saleh. *Nahj al-Balaghah*. Cairo: The Egyptian Book House. 2004. [In Arabic]
- Somasundaran, S.; Burstein, J. & Chodorow, M. “Lexical Chaining for Measuring discourse quality in test-taker essays”. *The 25th International Conference on Computational Linguistics*, 2014. Pp. 950-961.
- Tatar, D.; Inkpen, D. & Czibula, G. “Text Segmentation using ROGET-based weighted lexical chains”. *Computing and Informatics*, 32, 2013. Pp. 393-410.
- Trad, Majid. *The detailed dictionary of antonyms in the Arabic language*. Beirut: Scientific Books House. 1971. [In Arabic]
- Trad, Majid. *The detailed dictionary of synonyms in the Arabic language*. Beirut: Scientific Books House. 2009. [In Arabic]
- Waltinger, U; Mehler, A. & Stührenberg. “An integrated model of lexical chaining: application, resources and its format”. *Textressourcen und lexikalisches Wissen*, 2008. Pp. 59-70.
- Wei, T; Lu, Y.; Chang, H., Zhou, Q & Bao, X. “A Semantic approach for text clustering using WordNet and lexical chains”. *Expert Systems with Applications*, 42, 2014. Pp. 2264-2275.