

## A PROSPECTIVE MEMORY OF FORMER DRUG USERS: A CRITICAL STUDY OF SCIENTIFIC INTERPRETATIONS OF HUMAN PSYCHOLOGICAL PHENOMENA

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### Abstract

The purpose of this study is to see to what extent the scientific interpretation of the Ministry of Religion of the Republic of Indonesia regarding the phenomenon of human psychology speaks about the effects of declining prospective memory in former drug users. Prospective Memory involves memory to complete an action in the future, such as remembering to buy bread on the way home, conveying a message to a friend, and so on. In writing this article, a critique of scientific interpretation in applied science in general is also presented. This study uses a qualitative method in the form of a literature review or library research. Meanwhile, to collect data, the author looks for several previous studies that are relevant to this article. After the data is collected, the author classifies it into two sources, namely primary and secondary sources. The primary source in this study is the book Tafsir Ilmi Kemenag RI which has the theme of the Phenomenon of Human Psychology. Second, secondary sources in this study consist of books and other scientific writings in the form of research, theses, dissertations, journals, and articles that are relevant to this study. The method used is the thematic interpretation method (maudu'i) by collecting verses of the Qur'an related to a particular theme. In this study, the author only focuses on the verses of the Qur'an in the book of Tafsir Kemenag RI which has the theme of the Human Psyche. In this study, it was found that in Tafsir Ilmi with the theme of human psyche phenomena, prospective memory and its impact on drug users and the like were not explicitly discussed, the division of memory mechanisms was also slightly different from the principles of science where in the interpretation of the Ministry of Religion of the Republic of Indonesia it was only divided into three, namely encode, storage and recall. While in scientific sources in general it is divided into intention formation or encode, intention retention or storage, intention initiation, and intention execution or recall.

**Keyword:** Criticism, Scientific Interpretation, Memory

### INTRODUCTION

The Quran is believed to be a great miracle in which we can find a wealth of knowledge and scholarship. In terms of science, the Quran, as the holy book of Muslims, highly values science and even honors the generation of scholars and scholars who use their minds to reflect on and study it. This is evident in the numerous derivations of the word "knowledge" (ilm), which appear hundreds of times in the Quran. Surah al-Baqarah also explains that the uniqueness of humans, enabling them to surpass the angels and become caliphs on earth, is due to the knowledge bestowed by Allah. This indicates the potential of humans to discover the secrets of nature and utilize them to fulfill this mandate. With the changing times and the needs of the people, later scholars compiled books in the form of scientific interpretations. Scientific interpretations are the *ijtihad* of the *mufassir* (interpreters) to reveal the relationship between the verses of the Quran and scientific discoveries, aiming to demonstrate the miraculous nature of the Quran. Equally important, in Indonesia, under the Ministry of Religious Affairs' Quranic Tafsir (Quranic Interpretation Institute), there is also a Tafsir Ilmi (Ilmi Tafsir), which focuses on various topics, including the ocean, astronomy, and human psychological phenomena. This Tafsir Ilmi book seeks to combine Quranic interpretation with scientific knowledge to produce a comprehensive understanding of the verses of the Quran. The book collaborated with LIPI (Indonesian Institute of Sciences), which then formed a compilation team consisting of scholars and scientists. The emergence of this Tafsir Ilmi certainly enriches the Indonesian tafsir treasury. It is interesting to study it in more depth, considering that this scientific interpretation is relatively new in Indonesia. Furthermore, the Ministry of Religious Affairs is an institution within the Indonesian government. However, it is

important to emphasize that discussions of scientific interpretation of the Quran are not free from unconfirmed pros and cons among scientists and religious experts regarding the use of this approach to interpreting the Quran. One reason is the difference in understanding the intent and purpose of scientific interpretation. Furthermore, there is still strong belief in the interpretations of early scholars, whose credibility and truth are certainly recognized. This opinion, as expressed by al-Syatiby, states that when a verse is connected to knowledge, there is a tendency to justify only personal opinions. Nevertheless, the activities of Quranic researchers have created a new climate that can develop human reason and eliminate obstacles that could hinder its progress. It is therefore not surprising that Muslims today seek to interpret the Quran in accordance with scientific advances to demonstrate its miracles or its truth as divine revelation. However, this interpretation often feels "coercive," one of which is the desire to demonstrate scientific truth through the Quran, rather than the other way around. Furthermore, the term "knowledge" in the Quran concerns not only religious teachings and the afterlife, but also other worldly and mundane issues.

Data shows that approximately 4.8 million rural and urban drug users in Indonesia have used drugs. This is due to the existence of drug-prone areas, which are characterized by key indicators: drug crime, high levels of violence or criminal activity, drug dealers, drug production activities, high numbers of drug users, evidence of drug use, drug entry routes, and drug couriers. In addition to these main indicators, there are also indicators that support drug-prone areas, such as: The abundance of entertainment venues, the high rate of dormitories or private accommodations, high poverty rates, the lack of public facilities, and the lack of social interaction with the community. One of the detrimental impacts on former drug users is the loss of prospective memory, which is the ability to remember to carry out desired actions in the future, such as remembering to take medication and turning on and off devices. Damage to prospective memory can have serious implications for the ability to carry out daily life independently. The Indonesian Ministry of Religious Affairs' Scientific Interpretation on human psychological phenomena discusses memory and forgetting. However, the discussion and classification of memory are not explicitly addressed.

## LITERATURE REVIEW

The study of prospective memory, particularly in the context of former drug users, has attracted increasing attention in both psychological and interdisciplinary research. Prospective memory (PM) refers to the ability to remember to perform intended actions in the future, which is essential for daily functioning and independent living. According to cognitive psychology literature, PM is not a single process but involves multiple stages, including intention formation, retention, initiation, and execution. This multi-phase mechanism highlights the complexity of human memory systems and emphasizes the role of executive control and long-term memory in supporting future-oriented tasks. Previous studies have demonstrated that prospective memory is highly vulnerable to neurological and psychological disturbances. For instance, research in neuroscience indicates that substances such as alcohol and drugs can impair hippocampal function, which plays a crucial role in memory processing. Chronic exposure to such substances may lead to long-term potentiation disruption, ultimately reducing memory performance. Similar findings are reported in studies on former drug users, where impairments in prospective memory significantly affect their ability to carry out planned actions, such as remembering schedules or responsibilities. These findings underline the importance of examining cognitive decline in this population, especially in relation to rehabilitation and reintegration into society.

In addition to scientific perspectives, the concept of memory is also discussed within religious and philosophical frameworks, particularly in Islamic scholarship through Tafsir Ilmi. Tafsir Ilmi represents an effort to interpret Qur'anic verses using scientific approaches, aiming to harmonize revelation with empirical knowledge. Within this framework, memory is generally understood as a divine gift that enables humans to store, process, and recall information. The classification of memory in Tafsir Ilmi, however, is relatively simplified, consisting of encoding, storage, and recall processes. This differs from modern scientific models, which propose a more complex structure involving additional phases such as intention initiation and execution. Scholarly discussions on Tafsir Ilmi reveal significant debates among researchers. Some scholars support the integration of science and Qur'anic interpretation, arguing that it enhances understanding and demonstrates the relevance of the Qur'an in modern contexts. However, others strongly criticize this approach, suggesting that scientific interpretation may lead to forced or biased readings of the text. Critics such as al-Syathibi and al-Syaltut argue that the Qur'an is not a scientific textbook and that imposing scientific theories onto it risks misinterpretation, especially considering that scientific knowledge is constantly evolving. This debate highlights an ongoing tension between tradition and modernity in Islamic intellectual discourse.

Furthermore, existing literature indicates that the discussion of memory within Tafsir Ilmi, particularly related to human psychological phenomena, remains limited. While the Qur'an addresses general aspects of memory and forgetting, such as the natural decline of memory with age, it does not explicitly elaborate on specific cognitive mechanisms like prospective memory. In addition, Qur'anic narratives that illustrate forgetting—such as those found in Surah Al-Kahf and Surah Yusuf—are not comprehensively analyzed in relation to modern psychological theories. This suggests a gap in the literature where interdisciplinary integration between cognitive science and Qur'anic interpretation is still underdeveloped.

Based on the review of previous studies, it can be concluded that although there is substantial research on prospective memory and its impairment due to substance abuse, and a growing body of work on Tafsir Ilmi, there is still a lack of studies that critically connect these two domains. Most existing works focus either on scientific explanations of memory or on theological interpretations independently, without providing a comprehensive synthesis. Therefore, this study aims to fill this gap by critically analyzing the scientific interpretation of the Ministry of Religious Affairs regarding human psychological phenomena, particularly in relation to prospective memory in former drug users, and by evaluating its compatibility with contemporary scientific findings.

## **METHOD**

This research employs a qualitative method based on library research. This type of research utilizes library data, such as books, journals, articles, encyclopedias, and online sources. To collect the data, the author sought out several previous studies relevant to this article. After collecting the data, the author classified them into two sources: primary and secondary. The primary source in this study is the book "Tafsir Ilmi" (The Interpretation of the Scientific Methods of the Indonesian Ministry of Religious Affairs), which focuses on the Phenomenon of the Human Psyche. Secondary sources in this study include books and other scholarly writings, including research, theses, dissertations, journals, and articles relevant to this research.

## **RESULTS AND DISCUSSION**

### **A. Regarding Memory in Scientific Interpretation: A Phenomenon of the Human Psyche from the Perspective of the Qur'an and Science**

According to M. Quraish Shihab, interpretation is the result of human thought regarding the explanation of the meaning of Allah SWT's words, according to human capabilities, which are influenced by several factors, resulting in many differences in interpretation, both from time to time and from one place to another. Meanwhile, the word "ilmi" here is an adjective related to the word "science." Science comes from the Arabic words 'alima - ya'lamu - 'ilman with wazn fa'ila - yaf'alu - fa'lan, meaning to understand, to truly comprehend. Thus, the definition of science is knowledge about a field structured in a systematic manner. Systematic interpretation using specific methods that can be used to explain specific phenomena. Therefore, Tafsir Ilmi (ilmi interpretation) is defined as an attempt to interpret the Qur'an using scientific theories, where there is a harmony between the Qur'an and science, allowing the interpreter to reconcile the two through a work called Tafsir Ilmi (ilmi interpretation). The object of this Tafsir Ilmi is the Kauniyah verses, namely verses of the Qur'an that provide clues about the reality of the universe or the scientific creation of all things.

As an effort to improve the quality of understanding, appreciation, and practice of Islamic teachings (the Qur'an) in social, national, and state life, the Lajnah Pentashihan Mushaf Al-Qur'an of the Research, Development, and Training Agency of the Ministry of Religious Affairs of the Republic of Indonesia conducted a study and compilation of Tafsir Ilmi (ilmi interpretation) or Tafsir Ayat-ayat Kauniyah (literary interpretation) in 2015. The method applied in the study and compilation of this commentary is similar to that used in the study and compilation of Thematic Commentaries. Scientific commentary focuses on the scientific study of the kauniyah verses in the Quran. In the scientific commentary on the human psyche, it is discussed that memory is one of the extraordinary blessings bestowed by God upon humans: the ability to store information. From the moment humans are born and interact with their environment, they gradually store various information in their brains, becoming stored knowledge for later use when needed. Memory also has three stages in how information is remembered: encoding (assigning a code, label, or meaning), storage (retention), and recall (recall). When an object or information is received by the senses, it is transmitted to the brain to be stored, managed, and reproduced when necessary. The verse used to describe memory is:

وَاللَّهُ خَلَقَكُمْ ثُمَّ يَتَوَفَّاكُمْ ۗ وَمِنْكُمْ مَن يُرَدُّ إِلَىٰ أَرْذَلِ الْعُمُرِ لِكَيْ لَا يَعْلَمَ بَعْدَ عِلْمٍ شَيْئًا ۗ إِنَّ

اللَّهُ عَلِيمٌ قَدِيرٌ

*And Allah created you, then He causes you to die. Some of you will be returned to old age, so they will not know anything they knew. Indeed, Allah is All-Knowing, All-Powerful. (anNahl/16:70)*

The above verse is a sign from the Qur'an that memory is a very important and valuable gift that Allah SWT has bestowed upon His people, starting from the moment humans were born.

We are gifted with the ability to store memory, or a storage phase, which fades with age. This storage also gradually disappears, allowing it to be recalled as the human body weakens.

Forgetting, in general, is the inability to recall past knowledge or experiences. This can occur naturally (forgetting) or as a result of illness (amnesia). Natural forgetting is experienced by all humans as part of an internal process that affects memory, while disease-induced forgetting is caused by disorders such as severe mental trauma, brain injury, or diseases that affect brain function. The duration of forgetting varies, from temporary to permanent, depending on the cause. In the Quran, there are examples of temporary forgetting, such as the Prophet Moses (peace be upon him) and his servant forgetting about the fish in the story of Surah Al-Kahf, verses 61-63, as well as long-lasting forgetting, such as the Prophet Yusuf's companions in Surah Yusuf, verse 42, who forgot about the Prophet Yusuf's affairs for several years and only remembered them when triggered by an urgent need. Recorded memories are not completely lost; they can be recalled with certain stimuli. The Quran also indicates that Allah SWT sent the Prophet Muhammad (peace be upon him) to remind humanity of faith, monotheism, the resurrection, and the teachings of previous prophets that had been forgotten. These two verses should be included in the discussion of memory and the classification of forgetting.

## **B. Prospective Memory in Former Drug Users**

Prospective memory (PM) is the ability to carry out a desired action after a delay, without explicit instructions to do so. PM can be divided into two main types: event-based prospective memory (EBPM) and time-based prospective memory (TBPM). EBPM refers to the memory for performing an action when a specific external event occurs, such as remembering to take medication before bed. TBPM is the memory for performing an action at a specific time in the future, for example, remembering an appointment at 8 a.m.

## **C. PM Mechanism**

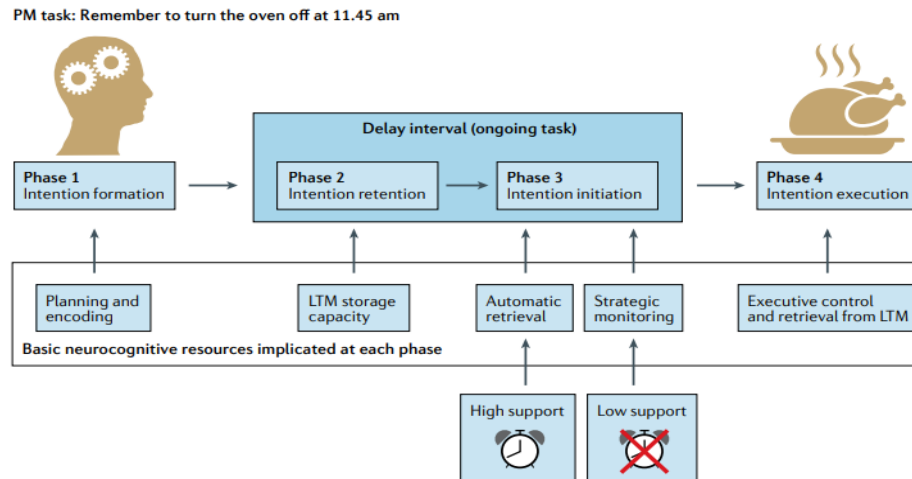
Prospective memory (PM) is not a straightforward process, but rather a multi-step process. This process involves intention formation, retention, initiation, and execution, each of which relies on different neurocognitive resources. The prospective aspect involves remembering that a The action must be performed, while the retrospective aspect involves remembering specific actions and when they should be performed.

The mechanisms involved in the PM formation process are divided into several phases, namely:

**Intention formation phase:** This phase refers to the initial formation of an intention for the future and involves the creation and encoding of an action plan through episodic memory encoding (creating a memory representation) and planning (a core component of executive control).

**Intention retention phase:** This phase is the delay period between intention formation and intention initiation, during which the task content must be retained in long-term memory (LTM). During this period, the completion of other activities (ongoing tasks) prevents explicit rehearsal of the PM task.

**Intention initiation phase:** This phase refers to the retrieval of the PM intention from LTM in response to a PM signal and requires signal recognition and intention retrieval. This phase can be supported by spontaneous retrieval or strategic monitoring, involving varying degrees of environmental support. In the high-support scenario (Figure 1) shown, an external alarm should automatically trigger the PM intention. In the absence of salient external cues (when the scenario requires only low support), careful strategic monitoring of time is required. **Intention execution phase:** refers to task execution and requires executive control to disengage from the ongoing task to complete (and avoid errors) the PM task. Phase 4 also requires episodic memory to retrieve PM content.



Gambar 1 - The complex process of prospective remembering (Henry. 2021)

Kyriacou's 2021 study on the acute and chronic effects of alcohol consumption concluded that even moderate doses of alcohol can substantially impair prospective memory function. This decline in memory retention may be due to exposure of the hippocampus to the main ingredient in alcohol, also known as ethanol, which can cause cell necrosis. Chronic ethanol can also inhibit hippocampal long-term potentiation, which may underlie the decline in hippocampal-dependent memory. A similar trend is also observed in long-term drug users or former drug users.

#### D. General Criticism of Scientific Interpretation in Applied Sciences

In the development of the science of interpretation, there are groups who reject scientific interpretation, such as al-Syathibi, Muhammad Husayn al-Dhahabi, Muhammad Izzat Darwaza, Bint al-Syathi, Subhi al-Salih, and Muhammad Shalthut. According to al-Syathibi, the Quran was revealed to the Ummiyah (learned) people, adapted to their level of knowledge. Thus, it is untrue that the Quran explains matters beyond the comprehension of the Arabs at that time. Similarly, al-Syalthut, who argued that science in the Quran is erroneous, argued that the Quran is not a scientific book. At the time the Quran was revealed, the first generation of Muslims were familiar with science, but never applied it to their interpretations. The use of science in the Quran encouraged them to employ methods that transcended limits. Thus, scientific interpretations of the Quran can be damaging.

Furthermore, this error stems from the stigma of those who employ scientific interpretations of the Quran. If commentators were to apply and interpret Quranic verses to ever-changing natural phenomena, this would indirectly confirm their claim that the Quran is also subject to change. In addition, among the scholars who also reject the presence of scientific interpretation are Abu al-Hayan Al-Andalusi, Muhammad Rasyid Ridha, Mahmud Syaltut, M. Izzah Ad-Darwizah, Syauiqi Dhaif and Amin Al-Khulli. Meanwhile, in this era, criticism of the presence of scientific interpretation is that in fact science will always tend to experience changes, errors, and even revisions, if then the verses of the Qur'an are attached to the results of prevailing science and then experience these changes. There are concerns that it will give the impression that the Quran is no longer relevant for use.

However, there is also a moderate group. This group does not reject the use of scientific interpretation, but requires limitations on its use. According to them, scientific interpretation requires the use of several general rules of interpretation, which also take into account the context of the verse, linguistic meaning, and siyaq. And of course, it is imperative to be able to distinguish between theory and scientific fact. Muhammad Mustafa al-Maragi, Ahmad Umar Abu Hajar, Ayatullah Makarem al-Syirazi, and Ayatullah Ja'far Subhani are among the scholars who are moderate in their response to the emergence of scientific interpretation.

#### E. Critique of Scientific Interpretation: Human Psychological Phenomena in the Case of Memory Perspective

In its discussion of memory perspectives, the LPMQ scientific interpretation only addresses the principle of memory, which is a gift from God. The discussion of human memory mechanisms differs slightly from the commonly known classification in neuroscience, which classifies memory through four phases: intention formation or encoding, intention retention or storage, intention initiation, and intention execution or recall. However, the scientific interpretation only addresses encoding, storage, and recall. This difference is not significant because, in essence, intention retention and initiation are processes within the storage process itself.

In the discussion of memory, the scientific interpretation only discusses verses about the human process of going from weak to strong and then back to weak, which is a natural law for human memory. However, it does not discuss signs of forgetfulness in the Qur'an related to prospective memory and the classification of forgetting, such as in Surah Al-Kahf verses 61-63 and Yusuf verse 42.

## CONCLUSION

The emergence of scientific interpretation, especially in the field of applied science, has generated pros and cons among scholars from its inception to the present day. Among the criticisms is that the results of scientific and applied research are frequently subject to change, even revision. There is concern that if verses are used to legitimize certain fields and then change, this raises concerns about the very existence of the Quran. In the LPMQ's scientific interpretation, which discusses human psychological phenomena, the study of memory perspectives is not explicitly discussed. It only addresses memory in general. The only verse discussed in the discussion of memory is An-Nahl verse 70, which addresses the natural ability of memory. However, it does not address the Quranic indications regarding forgetting, as depicted in Al-Kahf verses 61-63 and Surah Yusuf verse 42.

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