

**ҚАЗАҚСТАН РЕСПУБЛИКАСЫ ҒЫЛЫМ ЖӘНЕ ЖОҒАРЫ БІЛІМ МИНИСТРЛІГІ**

**«Л.Н. ГУМИЛЕВ АТЫНДАҒЫ ЕУРАЗИЯ ҰЛТТЫҚ УНИВЕРСИТЕТІ» КЕАҚ**

**Студенттер мен жас ғалымдардың  
«GYLYM JÁNE BILIM - 2024»  
XIX Халықаралық ғылыми конференциясының  
БАЯНДАМАЛАР ЖИНАҒЫ**

**СБОРНИК МАТЕРИАЛОВ  
XIX Международной научной конференции  
студентов и молодых ученых  
«GYLYM JÁNE BILIM - 2024»**

**PROCEEDINGS  
of the XIX International Scientific Conference  
for students and young scholars  
«GYLYM JÁNE BILIM - 2024»**

**2024  
Астана**

**УДК 001**

**ББК 72**

**G99**

**«ǴYLYM JÁNE BILIM – 2024» студенттер мен жас ғалымдардың XIX Халықаралық ғылыми конференциясы = XIX Международная научная конференция студентов и молодых ученых «ǴYLYM JÁNE BILIM – 2024» = The XIX International Scientific Conference for students and young scholars «ǴYLYM JÁNE BILIM – 2024». – Астана: – 7478 б. - қазақша, орысша, ағылшынша.**

**ISBN 978-601-7697-07-5**

Жинаққа студенттердің, магистранттардың, докторанттардың және жас ғалымдардың жаратылыстану-техникалық және гуманитарлық ғылымдардың өзекті мәселелері бойынша баяндамалары енгізілген.

The proceedings are the papers of students, undergraduates, doctoral students and young researchers on topical issues of natural and technical sciences and humanities.

В сборник вошли доклады студентов, магистрантов, докторантов и молодых ученых по актуальным вопросам естественно-технических и гуманитарных наук.

**УДК 001**

**ББК 72**

**G99**

**ISBN 978-601-7697-07-5**

**©Л.Н. Гумилев атындағы Еуразия  
ұлттық университеті, 2024**

8. Тупикова, С. Е. Формирование жанра современной англоязычной научно-популярной лекции (на материале видео-лекций TEDx Talks) / С. Е. Тупикова, Т. С. Климова // Иностранные языки в контексте межкультурной коммуникации : Материалы докладов XIV Всероссийской научно-практической конференции с международным участием, Саратов, 24–25 февраля 2022 года. – Саратов: «Саратовский источник», 2022. – С. 93-99.
9. Чалова, О. Н. Лекции TED talk как жанр медийного дискурса / О. Н. Чалова, А. С. Севдалева // Актуальные вопросы современной лингвистики : Материалы IX Региональной научно-практической конференции (с международным участием), Москва, 24 сентября 2021 года / Редколлегия: М.Н. Левченко (отв. ред.), О.О. Сорокина (отв. сек.). – Москва: Московский государственный областной университет, 2022. – С. 72-76.
10. Севдалева, А. С. Отличие лекций TED-talk от других дискурсивных жанров / А. С. Севдалева // Актуальные проблемы романо-германской филологии и методики преподавания иностранных языков : Материалы XI международной научной конференции, Гомель, 22 октября 2021 года. – Гомель: Гомельский государственный университет им. Франциска Скорины, 2021. – С. 166-173.
11. Севдалева, А. С. Адресатные характеристики лекций формата TED-talk / А. С. Севдалева // Вестн. Полоц. гос. ун-та. Сер. А, гуманитарные науки. – 2022. – №9. – С. 140–144.
12. History of TED [Электронный ресурс] // TED: Ideas worth spreading. – Режим доступа: <https://www.ted.com/about/our-organization/history-of-ted>. – Дата доступа : 15.03.2024.
13. Викторова Е. Ю. Дискурсивно-прагматическая специфика жанра лекции ted talk (сквозь призму функционирования в ней дискурсивов) / Е.Ю. Викторова // Жанры речи. – 2019. – №4 (24). – С. 254–266.
14. Lee, E. H. An analysis of Online Lecture Discourse of a Korean NNS Teacher and an American NS teacher / E. H. Lee // Linguistic research. – 2010. – №27. – pp. 209–229.
15. Лапченко, Е. П. Принципы использования синхронной и асинхронной коммуникации при организации дистанционного обучения в ВУЗе / Е. П. Лапченко // Труды Братского гос. ун-та. Серия: гуманитарные и социальные науки. – 2021. – №1. – С. 68–71.

UDC 8.81.81-13

## A COGNITIVE FRAMEWORK FOR COMPREHENDING THE PHENOMENON OF “PRIMING”

Tamash Aydyn Erlankyzy

[tamashaidyn@gmail.com](mailto:tamashaidyn@gmail.com)

L.N. Gumilyov Eurasian National University

Master’s student at the department of Foreign philology, Astana, Kazakshtan

Scientific supervisor – A.E. Bizhkenova

Human consciousness is a unique phenomenon. Its uniqueness lies, first of all, in its integrity. Consciousness is within us and permeates everything around us. For centuries, scientists have explored the possibilities of consciousness and determined its limits, which opens up new dimensions for us. Many studies in various fields do not provide clear scientific answers to many questions about consciousness. Every day we receive confirmation that we know much more than we can describe or explain in words. All information we receive and actions we perform are subject to our body's assessment. F. Ungerer and G.J. Schmid propose to use the term “context” to refer to the cognitive representation of the interaction between mental concepts or cognitive categories.[1] Such cognitive representations and contexts are created in the process of human interaction with the real world and

come into direct contact with personal knowledge stored in long-term memory. Cognitive categories thus depend not only on the current context of use, but also on the entire set of associated internal cognitive contexts. When interacting with completely new objects or in situations where one has no cognitive representations, one relies on the nearby context, uses all available features for identification, and new cognitive patterns are formed instantaneously. It follows that the identification process never takes place in a “decontextual vacuum”.

Since the origins of psychology as the science of consciousness, scientists have believed that consciousness is responsible for understanding events that are happening or have already occurred at a particular moment, and that a source of behavior is responsible for every action. A typical and quite illustrative example showing the unconscious effects of perception and semantisation of information is priming, because it manifests itself independently of a person's intentions.

The phenomenon of priming has been investigated in cognitive science. Under priming, following A.Y. Koifman, we understand « a change in the speed or accuracy of the task solution...observed after presentation of information (prime), close to the object of the problem solution (target stimulus) for any characteristic, but not directly related to the purpose and requirements tasks, or as an increase in the likelihood of spontaneous reproduction this information under suitable conditions.» In other words, it has been proven dependence of the productivity of mental or motor reactions on anticipatory stimulus information.[2]

According to Baddeley, priming “refers to the observation that words or objects seen or heard more than once are more easily perceived in the future” [3]. However, the term is ambiguous. Priming refers to both “the influence itself, which requires more accurate or faster problem solving relative to the same or similar influences, and the methodological approach based on such influences”. Also “unexpected effects in everyday life or the consequences of using technology in experiments, i.e. qualitative (presence/absence) or quantitative (speed, accuracy) parameters of human response (behaviour) as a reaction to “changing things”. [4]. If we distinguish between these two phenomena, the first one is more accurately called “preadjustment”, and the second one – “priming effect”. The first object of this pair, stimulating the priming effect, is called “prime”, and the second object is called «target stimulus».[5]

This method was originally proposed in a cognitive research paradigm to study visual perception and was used in experiments on hand-eye coordination, but over time it became clear that the experimental capabilities of priming wider. In other words, the method involves capturing, storing, processing and retrieving meaningful information, so it can be used as a method to study involuntary memory. Thus, priming is an objective experimental method, since it is aimed at studying the active, spontaneous visual-motor activity of a person and involves involuntary memory. Additionally, it is possible to record the influence of involuntary memory on a person’s active activity. Moreover, the procedure itself (in this case, large randomized samples, precise timing) reduces the possibility of distortion of the results both on the part of the subjects and on the part of the experimenters.

The first scientific explanation and justification for the priming phenomenon came from John Bargh and his colleagues. They considered this term a preliminary expression of instruction. J. Bargh studied the role of automatism and unconscious analysis of the social aspects of behavior. J. Bargh and his colleagues from New York University. The experiments were carried out by Burroughs and M. Chen. College graduates were asked to decipher 30 phrases of five words each and told that their language skills were being tested, but in reality the focus was on priming effects. Each participant received one of two versions of the task, differing in groups of words. The first version included the words “brave,” “intervening,” “aggressive,” “disruptive,” “rude,” “meddling,” and “meddling.” The word «pain» was used, second “admit”, “patient”, “respect”, “polite”, “tactful”, “yielding”, courteous.” All other words in the task were the same, so students couldn’t guess that they were “ready.” After completing the transcription, students were asked to go to J. Bargh’s office and speak with him. However, when the student approached the office, J. Bargh was talking tensely with the assistant at the door of the office, as if not noticing it. This was done intentionally to see if there was a difference in the behavior of students who were “accustomed” to aggressive language and those

who were “used” to polite language. and whether there is a difference in the time it takes for students to decide to interrupt a conversation between a supervisor and an assistant. This means that subjects “trained” to politeness never interrupted the conversation, while subjects «trained» to aggression most often (82%) intervened after an average of 5 minutes [6].

The theoretical basis for explaining the priming phenomenon can be social-cognitive theory, in particular the triple reciprocity model. The three components of this model - behavior, individual characteristics, and environmental phenomena—interact and influence each other at different levels, from intrapersonal to social. Foreign scientists Higgins, Bargh and Lombardi tried to find differences and the similarities of these models and find out which of them can most clearly confirm priming effect.

The application of the priming paradigm in creativity research is relatively rare, but the available data provide interesting insights into the nature of creative abilities. One important basis for understanding the workings of a prime is its ability to improve (positive prime) or impair (negative prime) the processing of a stimulus. In one series of studies led by K. Martindale and L.Y. Dorfman, the peculiarities of information processing by creative subjects in tasks with negative priming were studied. The Negative Priming Task, in which stimuli were associated with certain colours, was used for this purpose. The results showed that the severity of the negative priming effect wasn't related to creativity, but reaction time in all conditions, regardless of the type of priming, was positively related to creativity. The authors believe that this indicates that more creative subjects are prone to cognitive disinhibition in response to an interfering stimulus. Negative priming is associated with slower or an increase in the number of errors in responses to recently ignored stimulation compared to controls to explain the effects of negative priming, small models of the “labels” in memory, and to explain the positive priming - theories like the composite key model.[7] The most common are activation models, based on the notions of semantic network and principles of activation propagation. According to the theory of lexical processing A. Collins and E. Loftus, information about words and their meanings is stored in two separate networks: one contains phonetic and orthographic features of words, the other the phonetic and orthographic features of words and in the other, semantic, are the concepts, they denote and the relations to the words denoting them. The links between networks are as easily activated as those within the network. The basic assumptions of activation propagation theory are that activation: a) weakens with “distance” (i.e., the number of connections between the concepts from the original to the given one) and b) occurs over some period of [8].

Another study by A. Gruszka and E. Necka examined sensitivity to priming in the context of associative memory processes. In their experiment where subjects were asked to identify associations between words, it was shown that more creative participants were more likely to see both close and distant associations between words, especially if the preceding stimulus was positive or neutral. They also exhibited longer responses. The authors suggest that presenting a positive stimulus activates associated network nodes, which facilitates better performance on cognitive tasks such as association seeking. With a neutral pre-stimulus, the activation of the associated node can't go directly to the node associated with the testing stimulus, but is mediated through intermediate nodes in the network. More creative participants, due to their rich semantic network, should have an advantage in this situation. The longer reaction times of creative individuals may be due to their more extensive semantic network, which makes activation processes take longer.[9]

According to Aldasheva K.S priming is a phenomenon of implicit memory to clarify some of the decisions that are observed after information is provided and change the decision as soon as possible, having received this information in advance when the situation is favorable refers to the possibility of use without preparation. For instance, a computer - program - keyboard - mouse - internet - social network. Technology terms quickly penetrate the mental lexicon based on systematically presented information.[10]

Futher, according to Bizhkenova A.E. the model of a word has a significant role in its linguistic structure and communicative function. The model is a stable standard structure, which includes word-formation and inflectional components that help distinguish the semantics of a word. The author also highlights the importance of the communicative aspects of the model, such as

repetition, frequency and stability, which are determined by the priming property. Priming, according to the author, increases a person's willingness to perceive or interpret a word when encountering it again. Therefore, the basic idea is that the model of a word not only determines its structure, but also plays an important role in communication, ensuring understanding and effective interaction between speakers.[11]

Thus, priming effects, relating to the unconscious stages of information processing, by virtue of their specificity, open up to us the possibility of studying unconscious experiences through conscious ones. The whole of the development of psychology in the twentieth century shows that in order to explain conscious experience, it is necessary to go beyond it. The discovery the regularities of consciousness is connected with the necessity of theoretical postulation and experimental study of unconscious cognitive structures and processes that provide conscious experiences.

The review allows us to say that priming can be regarded as an integrative mechanism between all levels of our psyche and as a behavior resulting from the integration and coordinated work of all higher mental functions at the unconscious level. The priming effect is a kind of experience, which differs in the nature of awareness of its acquisition, which, in its turn, does not diminish its significance in any way.

### Literature

1. Ungerer F. & Schmid H.-J. An introduction to cognitive linguistics. London; New York: Longman, 1996
2. Falikmain M.V., Koifman A.I. Виды прайминг-эффектов в исследованиях восприятия и перцептивного внимания. *The Moscow University Herald. Series 14. Psychology*. 2005. pp. 86–97; (4), pp. 81–89.
3. Бэддели, 2001 – Бэддели А. Ваша память. Руководство по тренировке и развитию. М., 2001.[Your memory. A user's guide]. Moscow, 2001.]
4. Ratcliff R., McKoon G. A retrieval theory of priming in memory // *Psychological Review*. 1988. 95. 385–408.
5. Величковский, 1982 – Величковский Б.М. Современная когнитивная психология. М., 1982.[Modern cognitive psychology]. Moscow, 1982.]
6. Bargh, J. A. (2006). What have we been priming all these years? On the development, mechanisms, and ecology of nonconscious social behavior. *Eur. J. Soc. Psychol.* 36, 147–158.
7. Rothermund K., Wentura D., Hower J.D. Retrieval of incidental stimulus-response associations as a source of negative priming // *Journal of Experimental Psychology: Learning, Memory, & Cognition*. 2005. 31. 3. 482–495.
8. Collins A.M., Loftus E.F. A spreading activation theory of semantic processing // *Psychological Review*. 1975. 82. 407–428.
9. Gruszka A., Necka E. Priming and acceptance of close and remote associations by creative and less creative people // *Creativity Research Journal*. 2002. 14. 2. 193–205.
10. Алдашева К.С. «Жаңа сөздердің менталды лексикондағы кумулятивтенуін зерттеудің алғышарттары»
11. Бижкенова А.Е. «Модельная парадигма и ее прайминг в коммуникации (на примере моделей современного казахского языка)»
12. Mayr S., Buchner A. Negative priming as a memory phenomenon: A review of 20 years of negative priming research // *Journal of Psychology*. 2007. 215. 1. 35.
13. Neill W.T. Episodic retrieval in negative priming and repetition priming // *Journal of Experimental Psychology: Learning, Memory, & Cognition*. 1997. 23. 6. 1291–3105
14. Валуева Е.А., Белова С.С. Активационная парадигма в исследованиях творчества // *Творчество: от биологических предпосылок к культурным феноменам / Под ред. Д.В. Ушакова. М.: Изд-во «Институт психологии РАН», 2011. С. 219–262.*
15. Фаликман М.В. Прайминг и прайминг-эффекты (эффекты предшествования) <https://old.virtualcoglab.ru/projects/priming.html>