COMPUTER TERMS AS A RESULT OF DERIVATIONAL
PROCESSES IN THE GROUP OF NOUNS DENOTING A PERSON

A.N. Miftakhova, M.Y. Varlamova

Kazan Federal University (Volga Region) (RUSSIAN FEDERATION)

Abstract

Nowadays real life has become a “collaborator” and no more an antagonist of virtual reality that has long been very important for many people. The fact of interaction between man and the computer is evident. One of the levels of this interpenetration is the linguistic one. The links between cybernetics and linguistics are especially important since any newborn sphere must “arm itself” with necessary terminology. This article is devoted to the peculiarities of the emergence of modern computer terms, which are formed according to natural laws of the Russian language thus being samples of standardized lexis. This fact contradicts the opinion of those who believe that computer vocabulary has a negative influence on the language contaminating it. We prove in our work that it is possible to achieve a compromise settlement over the influence of the computer on language.

In the linguistics of the third millennium there are a number of problems that are unsolved or not studied enough. One of such problems is the status of semantic word-formation in the process of which a new nominative unit appears by means of reinterpretation of the meaning of the parent word. V.M. Markov and his followers develop in their works the idea of semantic word-formation and describe productive models of metaphoric and metonymic types. This point of view proves groundlessness of traditional views on polysemy and lexical-semantic variation in their relation to homonymy. This micro-investigation into one of the layers of lexis makes it possible to see the mechanism of semantic derivation of new words in Russian. We analyze nouns being in general use and special computer terms in order to justify a great role the personal computer plays in our life.

Keywords: Computer terms, derivational processes, nouns denoting a person.

1 INTRODUCTION

The nomination problem is one of the central issues in the field of linguistic research. It is especially interesting to study and understand the laws according to which new nominative units appear in the language on the basis of those available in the language. Parallel and equal existence of morphemic and semantic derivation allows us to investigate the initial and derivative.

Nowadays real life has become a “collaborator” and no more an antagonist of virtual reality that has long been very important for many people. The fact of interaction between man and the computer is evident. One of the levels of this interpenetration is the linguistic one. The links between cybernetics and linguistics are especially important since any newborn sphere must “arm itself” with necessary terminology. The study of the semantic features of nouns [1], verbs [2] and other parts of speech has already been the subject of scientific research by researchers, but the semantic changes within the names of persons phonematically similar to computer terms have not yet been the object of linguistic analysis. This article is devoted to the peculiarities of the emergence of modern computer terms, which are formed according to natural laws of the Russian language thus being samples of standardized lexis. This fact contradicts the opinion of those who believe that computer vocabulary has a negative influence on the language contaminating it. We prove in our work that it is possible to achieve a compromise settlement over the influence of the computer on language.

In the linguistics of the third millennium there are a number of problems that are unsolved or not studied enough. One of such problems is the status of semantic word-formation in the process of which a new nominative unit appears by means of reinterpretation of the meaning of the parent word. V.M. Markov [3] and his followers develop in their works the idea of semantic word-formation and describe productive models of metaphoric and metonymic types. This point of view proves groundlessness of traditional views on polysemy and lexical-semantic variation in their relation to homonymy. This micro-investigation into one of the layers of lexis makes it possible to see the mechanism of semantic derivation of new words in Russian. We analyze nouns being in general use and special computer terms in order to justify a great role the personal computer plays in our life.
It is difficult to imagine contemporary progressively developing science without the computer technology. Personal computers are used in all spheres with different aims. The representatives of different spheres of social life, first and foremost the scientists, long and tensely expected the appearance of the computer as the calculating machine. Most optimistic predictions came into being very early. Many of them have turned real and some have remained a dream. However, it is evident that machines to a considerable extent facilitate man’s work and accelerate processing of information. Moreover, if formerly the computer was considered a subsidiary tool designed to widen intellectual potentialities of a scholar now it has gradually become for millions of users a working instrument, a mediator in the process of communication, a guide to virtual reality.

2 METHODOLOGY

Research methods: descriptive-analytical, social-pedagogical; study and problem analysis of psychological, pedagogical, methodological sources of theoretical and practical nature.

3 RESULTS

Enthusiastic predictions and praises for the computer have recently changed into suspicion and, sometimes, negative attitude towards the influence of the personal computer over the Russian language as a system, over the stereotypes of speech activity, and over the linguistic consciousness of individuals. Nevertheless, in order to avoid jumping to conclusions about a negative impact of the computer over the language one should have a clear idea of the process of formation of lexical units operating in the realm of the computer.

Unconditionally, there exist points of intersection between informational technologies and natural language. The vocabulary used by people connected with computers can be conventionally divided into neutral terminology being in general use and computer slang. The formation of new words within the terms operating in the computer sphere goes on in accordance with the rules of word-formation in the contemporary Russian language. This thesis is consistently proved by the investigation into the group of nouns, whose graphical equivalents outside the computer lexicon are words denoting a person by their occupation, profession, position or certain kind of activity. Words denoting people are a group of nouns within which the process of formation of new words is very active. This is due to the fact that man is an active participant in everything going on around. The active process of word-formation results in various transformations in the words denoting a person. While analyzing computer terminology and words denoting a person and looking for their graphical equivalents we found borrowed words, as well as primordial Russian words. Among the words of foreign origin those finishing with -атель predominate, while Russian words are predominantly formed with the help of morphemes which have always been the most productive in the process of derivation of words denoting a person, namely: -тель, -ник, -ик, -чик. Many of these words at certain stage of the development of the language were subject to the laws of morphological derivation owing to the capability of the affixes to bring in a new meaning related to the meaning of a producing stem. Then the transfer “a person – an object” took place in the lexemes. It so happened that forms ending with –тель with the meaning of “a person performing an action” became semantically producing for those nouns with the suffix –тель that function with the instrumental meaning (распознаватель ‘identifier, recognizer’ – a person > распознаватель ‘identifier, recognizer’ – a device). Words with the suffix –ник in the contemporary Russian language denote a person by some “property, attribute with relation to an object, an occupation, or an activity”. Semantic derivation within these forms has resulted in the fixation of the “secondary” forms ending with –ник with a general objective or instrumental meaning.

Thus, in the sphere of computer terminology semantic derivation takes place, which results in appearance of homonyms. It is homonyms that the new lexemes should be called since they function as independent nouns and not as lexical-semantic variants of one word. This point is proved by the fact that many computer terms are grammatically united with other words and do not operate independently. The examples of such nouns are as follows: хозяин ‘owner; master; host’ (as «вторичный хозяин» official server, literally ‘secondary owner/master’; «хозяин именования доменов» domain controller, literally ‘master/owner of the naming of domains’; «хозяин инфраструктуры» domain controller, literally ‘infrastructure owner/master’; «хозяин операций» domain controller, literally ‘operations master/owner’; «хозяин относительных кодов» domain controller, literally ‘relative codes owner/master’; «хозяин схемы» domain controller, literally ‘scheme owner/master’; «хозяин эмулятора PDC» domain controller, literally ‘owner/master of the PDC emulator’); диспетчер ‘dispatcher, controller’ (as «диспетчер задач» ‘task manager’, «диспетчер
So, as a result of semantic derivation one can observe the transfer from one person to another, from a person to an object, from a person to a computer command on the basis of similarity or contiguity of the compared phenomena and/or their functions. Moreover, we can often observe parallel operation of the laws of morphemic and non-morphemic word-formation. Close interaction of morphological and semantic derivation is reflected in homonymy of such words as владелец ‘owner, possessor’ – somebody who owns something/somebody, who has something/somebody as their property, possession [3] and владелец ‘owner’ – (in the system of Windows) ‘a user administering the authorization of the object and giving the permission to other users (also возможные владельцы ‘possible owners’). The first word was formed morphologically (владеть > владелец own > owner) by attachment of the suffix –ель, the second word is a result of the semantic reinterpretation of the first one (владелец > владелец owner > owner); the words накопитель ‘accumulator, amasser’ (from накопить ‘accumulate, amass’) – somebody who accumulates, amasses something (things, money etc.) [4] and накопитель ‘storage, drive, pool’ (from накопитель’accumulator, amasser’) – a device for storage of the data which is connected to a computer; носитель ‘carrier’ (from носить ‘carry’) – old-fash. somebody who carries something [4]; носитель ‘carrier, repository’ (from носитель ‘carrier’) – any stationary or removable object fit for storage of the data; обозреватель ‘author of survey’ (from обозревать ‘to survey’) – a journalist who writes articles or prepares broadcasts in the genre of survey [4] and обозреватель ‘browser’ (from обозревать ‘author of survey’) – software; обработчик ‘a worker processing something’ (from обработка ‘processing’) – somebody who treats something in a special way [4] and обработчик заданий печати ‘print tasks handler’ (from обработчик ‘a worker processing something’) – a component that works together with the driver of a printer; помощник ‘helper, assistant’ (from помощь ‘help, assistance’) – a person who helps and supports somebody [4] and удаленный помощник ‘remote help’ (from помощник ‘helper, assistant’) – an assisting program; счётчик ‘counter, teller’ (from считать ‘count’) – somebody who counts [4] and системный счётчик ‘system counter’ (from счётчик ‘counter’) – an element of the data of the system monitor; участник ‘participant, member’ (from участие ‘participation, membership’) – somebody who takes part in something, who is engaged in team-work [4] and участник безопасности ‘security member’ (from участник ‘participant, member’) – an account owner; координатор ‘coordinator’ (from координация ‘co-ordination’) – a person coordinating something [4] and координатор MS DTC ‘MS DTC dispatcher, coordinator’ (from координатор ‘coordinator’) – a controller coordinating transactions; редактор ‘editor’ (from редактировать ‘edit’) – somebody who edits some text [4] and редактор способов ввода (IME) ‘input medium editor’ – programs designed to enter hieroglyphs.

Being formed this way the words владелец, накопитель, мастер, обозреватель, обработчик etc. are not related to the producing words for the primary homonyms in each pair, they are semantically isolated from them, which is the reason for the homonymy of the words considered.

Among the Russian words and words of foreign origin there are those formed “immediately” as a result of a single action of word-formation according to the semantic models of derivation and on the basis of constant associations.

A new “independent lexical-grammatical unit denotes another phenomenon in this or that respect close to the original one” [4]. The following are the samples of such words: администратор ‘administrator’ [Germ. Administrator < Lat. administrateur – manager, ruler] – an official managing something, an executive manager [4] and администратор – a user; администратор клетера ‘cluster administrator’ – application; администратор компьютера ‘computer manager’ – a user managing a computer; администратор сети ‘network administrator’ – a user responsible for planning, adjustment and control of everyday functioning of the network; агент ‘agent’ – a person authorized by somebody to fulfill an official or business commission [4] and агент ‘agent’ – application; агент восстановления ‘recovery agent’ - a user; агент ретранслирования DHCP/BOOTP ‘DHCP relay agent’ – a component providing message transfer; диспетчер – [Engl. - dispatcher] – a worker regulating traffic or course of work of a plant from a central office [4] and диспетчер задач ‘task manager’- Windows application
providing the data about computer programs and processes; диспетчер очереди печати 'print queue dispatcher' - software component receiving a document to be printed and storing this document on the disk or in the main memory until the printer can print it; диспетчер устройств 'controller of devices' – administrative means of controlling the computer devices; клиент 'client' – [Germ. klient < Lat. clientis – under-wardship] – somebody who is served (in the bank, tailor's shop, hairdressers), also a person or an institution served by some credit, trade or industrial organization [4] and зависимый клиент literally ‘dependent client’ – a computer in the “Message queue” system requiring a synchronous access to the queue server for any standard operations such as sending and receiving messages or making queues; клиент 'client' – any computer or a program connected to the services of another computer or a program; клиент DHCP ‘DHCP client’ – any network device capable of interaction with DHCP server with the aim of getting an IP-address and additional parameters; клиент эмуляции локальной сети literally ‘client of the local network emulation’ – a client in the ELAN network sending the data, giving permission to receive addresses and performing other controlling operations; манипулятор ‘manipulator’ – tech. term used to name some mechanic devices designed to perform complex motions, actions [4] and пневматический манипулятор ‘pneumatic manipulator’ – a subsidiary computer technology for people with impaired motor function; медийтор ‘mediator’ – anim. and inanim., dipl. a state or a person mediating in the international dispute [4] and медиатор ‘mediator’ – a process used for controlling other processes for saving the data when some service is stopped or launched; оператор ‘operator’ – anim. a specialist operating or serving some device or apparatus [4] and оператор ‘operator’ – a symbol or sign indicating that one or several elements are being processed; оператор архива literally ‘archive operator’- a type of a local or global group; хозяин ‘master, boss’ - a leader, somebody who has power over somebody/something; хозяин ‘owner, proprietor’ – an owner, proprietor [4] and computer terms such as вордичный хозяин literally ‘secondary owner/master’- official server; хозяин именования доменов literally ‘master/owner of the naming of domains’- domain controller; and other domain controllers (хозяин инфраструктуры literally ‘infrastructure owner/master’; хозяин операции literally ‘operations master/owner’; хозяин относительных кодов literally ‘relative codes owner/master’; хозяин схемы literally ‘scheme owner/master’; хозяин эмулятора PDC literally ‘owner/master of the PDC emulator’), whose semantics within the limits of this research is less important than the fact that all of them denote a program not a person.

Thus, the analysis of the computer terms and homonymous forms within the group of nouns denoting a person shows that new words in the field of computer vocabulary appear according to the laws of a natural language. This reduces a possibility of deterioration of language culture of people connected with the computer. It is up to a person either to use standardized vocabulary or to use shortened and/or modified forms of words for the purposes of economy. Language is obviously able to avoid contamination with “fashionable” words. It affords an opportunity to supplement computer vocabulary with the words emphasizing the importance of the personal computer in our life, words created in accordance with the laws of derivation.

The computer should not be considered as a harmful and independent reality; it is a reaction of a social organism to increasing informational demands. The study showed that a comprehensive analysis of lexical units serving the computer field, «intensifies the process of a foreign language mastering largely, and promotes the development of communicative and linguistic culturological competences» [9].

From our point of view, it is desirable that the representatives of different branches of the Humanities should hold this opinion in studies of social-cultural aspects of man-computer interaction. This approach is efficient in itself since it binds us to study the active processes of the development of language, to teach them, and to try to foresee the tendencies of their development.

4 CONCLUSIONS

The research into the terminology makes it possible to illustrate the unity of morphological and semantic ways of derivation and their constant interaction. In particular, the typical character of homonyms, that is their belonging to groups of words sharing the same typical meaning, can be clearly seen. The transfer from a person to an object or a mechanism is characteristic of homonyms found within the group of computer terms. It is also evident that new words are independent and isolated in a sense. Certain degree of isolation of computer terminology from the Russian literary language proves the fact that these lexemes appeared directly in the computer sphere for denoting the phenomena existing in this very sphere.
A new way of functioning of the homonyms should also be noticed. It is clear that the collocation of the nouns is different as well as their ability to form nouns denoting a female person from the nouns denoting a male person. This process is not typical of computer lexis since there are certain limitations in the field of word-formation, lexical and grammatical collocations of terminological words. Thus, it is necessary to admit the theses testifying to the existence of the semantic word formation. Despite the fact that the status of homonyms formed semantically is still a mute point the consistent analysis proves their existence, independent functioning and makes it possible to refute the statement of those scholars who do not approve of such a formulation of a question.

REFERENCES


