COMPARATIVE ANALYSIS OF AMERICAN AND RUSSIAN ROCKET NAMES

Research article

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Abstract

The article is devoted to the comparative analysis of American and Russian rocket names. The etymology and meaning of the verbal rocket names of the two countries are considered to identify linguistic and cultural features. The relevance of the research is due to the increased interest of linguists in the issues of military nominations, as well as the need to identify trends in the assignment of verbal names of rockets and the use of military terminology in the field of professional communication. In the course of the research, the author conducted a comparative analysis of American and Russian rockets names. To achieve this task, the following methods were used: the continuous sampling method (the names of 44 American rockets and 81 Russian ones were selected), the statistical method for calculating, the comparative method for identifying differences and common characteristics, the method of etymological analysis. The material of this study was the lists of rockets of the United States and Russia, published in various Internet sources, reference publications. As a result of a comparative analysis, classifications of American and Russian rockets names were identified according to their etymology and meaning, differences and common trends of the two linguistic cultures were identified. The analysis allows us to conclude that in two linguistic cultures there is a connection between the name and the named military object both in terms of technical characteristics and purpose, and external resemblance. The practical significance lies in the fact that the analysis of the aeronautonyms and their classification will reveal specific features of this group of onomastic units. The results of the work can be useful for linguists studying the field of professional communication, as well as for students of aviation specialties.

Keywords: nomination, onomastics, rocket names, comparative analysis, etymology, aircraft.

Introduction

The problem of studying the names of American military equipment in comparison with Russian ones is of interest, both from a linguistic and linguistic-cultural point of view and is poorly studied. The issues of the military nomination have become relevant not only in the research field, but also in the mass media. Earlier, we studied the processes of Russian and American aircraft nomination [2], where aircraft designation systems were considered (on the example of airplanes and helicopters). However, it is worth noting that recently there has been a dominance of the «nominal» element of the name of units of military equipment and weapons over the alphanumeric [7, P. 306]. One of the reasons for this trend is that the media actively cover the appearance of military space innovations and analyse their characteristics with military samples of a potential enemy. Verbal names are not secret and can be simple and understandable to a wide audience. It should be highlighted that in 2018 the
Russian Federation Defence Ministry actively attracted Internet users to participate in the voting for the names for new types of weapons that have replenished the lexical and semantic field of "military equipment". The purpose of this study is to conduct a comparative analysis of American and Russian rockets names.

**Methods**

To achieve this task, the following methods were used: the continuous sampling method (the names of 44 American rockets and 81 Russian ones were selected), the statistical method for calculating, the comparative method for identifying differences and common characteristics, the method of etymological analysis. The material of this study was taken from the lists of US and Russian rockets published in various Internet sources [13], [15], [20], [21] etc., reference publications [11], [12], [14]. As a result of a comparative analysis, classifications of American and Russian rocket names were identified according to their etymology and meaning, differences and common trends characteristic of the two linguistic cultures were identified.

The theoretical basis of the article was the scientific research on onomastics [4], [9], [16], [18] etc. Proper names occupy an essential place in the vocabulary of any language and play a crucial role in intercultural communication. The study of the structure of proper names in general and aeronautonyms (aircraft names) in particular are represented in the works of Muzyakova M.A. [8], Korotaya E.K. [6], Yakovleva E. A., Imnazarov E. N. [19], Uskova A.I., Miroshnichenko D.V. [17], Putova I.N. [10], Kalashnikova O.A. [5], Grishko D.K. [3] etc. It should be highlighted that official nomination and slang names of military equipment are under consideration. Moreover, comparative analysis (English and Russian nomination in particular) provides understanding linguocultural peculiarities and reflects the specific historical and social and economic development of each country.

**Results**

After analysing the names of Russian rockets, we identified 11 groups depending on their meaning. The most numerous are the names that reflect external similarities and determine the purpose (33%). Here are examples from each group (the total number of names in this group is indicated in parentheses).

1. Names derived from phytonyms-names of plants (2): "Bagulnik" — a hypersonic anti-aircraft guided missile (after the name of shrubs), "Verba" ("willow") — an experimental ballistic missile.
2. From zoonyms-names of animals (11): "Aist" (stork) — an anti-tank guided missile, "Bars" ("leopard") — an unguided aviation missile, "Belka" (squirrel) — a target missile, "Kondor" (condor) — an aviation anti-submarine missile, "Korshun" (kite) — an aviation anti-ship missile, "Sobol" (sable) — a target missile, "Sokol" (falcon) — a sea cruise missile, etc.
6. From mythonyms — names of fictional objects of any category in myths and legends (2): "Aurora" — a carrier rocket, "Burlak-Diana" — an aircraft carrier rocket (Diana is a Roman goddess who corresponded to the Greek Artemis, the goddess of hunting, childbirth and the moon).
7. From the names of the gun (2): "Pishchal" — a target rocket (the name of a heavy rifle and an artillery piece that were in service with Russian troops in the XV-XVII centuries), "Kop'yo" (spear) — a ballistic missile (project).
8. Names reflecting external similarities, common characteristics and determining the purpose (27): "Cactus" — an experimental ballistic missile, "Karanash" (pencil) — a solid-fuel rocket Topol — M, "Oblako" (cloud)-a 125-mm anti-hail missile, "Projektor" (searchlight) - an air-to-ground X — 25 aircraft missile, "Rokot" (boom) — a carrier rocket, "Sikhval" (squall) — a high — speed underwater missile, "Energia" (energy) - a superheavy launch vehicle, "Sputnik" (satellite) — a launch vehicle, etc.
9. From the names of natural phenomena (14): "Buran" (blizzard)— a strategic cruise missile, "Burya" (storm) — an intercontinental cruise missile,"Volna" (wave) — a launch vehicle, "Grom" (thunder) — an air-to — ground aviation missile,"Raduga" (rainbow) - a hypersonic laboratory rocket, "Shtil" (calm sea) — a launch vehicle,"Tsiklon" (cyclone) — a launch vehicle.
10. From the names of the outer space zone (5): "Kometa" (comet) — an anti-ship aircraft cruise missile, "Kosmos" (space) — a launch vehicle, "Luna" (the moon) — a launch vehicle, "Neptun" (Neptune) — an experimental tactical missile.
11. From the names of the type of activity, job (3): "Burlak" — a carrier rocket launched from an airplane (burlak-a worker on river vessels), "Kombat" — a 125-mm anti-tank guided missile (kombat-a battalion commander), "Chernomoret" - an aviation torpedo rocket (experienced) - a sailor of the Black Sea fleet.

The American names were divided into 10 groups, which is considered traditional in the American military nomination. The most numerous names derived from mythonyms (25%), which is considered traditional in the American military nomination.

1. Derived from mythonyms (11): "Ares I" is a heavy — class US launch vehicle (Ares is the name of the ancient Greek god who corresponds to Mars in ancient Roman mythology (flight to Mars is the next goal of the Constellation program after the Moon)) [23], «Atlas» is a family of American launch vehicles for launching military and commercial payloads (the name is given in honor of the titan Atlas from ancient Greek mythology, as well as in honor of the Atlas Corporation) [23], «Athena» — the light American launch vehicle, «Minotaurus» is a family of American, fully solid-fuel launch vehicles, «Pegasus» is a light-class cruise launch vehicle with the possibility of air launch (Pegasus is a mythical creature in the form of a winged horse), «Titan» is a family of American military ballistic missiles and launch vehicles based on them (in ancient Greek
mythology, the gods of the second generation)[23], «Thor DSV-2U»— light-class launch vehicle (in Norse mythology, the god of thunder and lightning, protecting gods and people from giants and monsters), «Juno-I»— a four-stage launch vehicle (from the name of the ancient Roman goddess of marriage and birth, was the sister and wife of Jupiter, the king of the gods), «Titan CT-3» (Commercial Titan III )— the American two-stage medium-class launch vehicle (the name is from Roman mythology: the Titans were giants who inhabited the earth even before the creation of humans) [23], "Minotaur-C" former Taurus (the name of the constellation) — a four-stage solid-fuel space launch vehicle, "Sea Dragon"—a hypothetical project to create a two-stage superheavy sea-based launch vehicle.

2. From the anthroponyms (5): "Little Joe" a family of American launch vehicles (the nickname, and also after the name of the dice game) [23], "Thor-Burner" — a light-class launch vehicle, "New Glenn"— a projected two-or three — stage heavy orbital launch vehicle (named after NASA astronaut John Glenn), "New Shepard" — a reusable spacecraft for suborbital flights (named after Alan Shepard — the first American astronaut to make a suborbital flight).

3. Abbreviations (4): "NOTS-EV-1 Pilot" (unofficial name "NOTSNIK")- launch vehicle and anti-satellite weapons, the world's first air-launched launch vehicle (NOTS-Naval Ordnance Test Station; nik—from sputnik) [20].

4. describing the purpose and some characteristics (7): "Vanguard" is a three-stage launch vehicle developed to orbit the satellites (means "out ahead, in the forefront"), "Redstone" is a family of American missiles consisting of combat ballistic missiles, launch vehicles and geophysical missiles (for the Army installation Redstone Arsenal at Huntsville, Alabama, where it was developed; the name referred to the rock and soil at Huntsville), "Thor-Able"— a launch vehicle of the Thor family (the name signified "A" or "first") [23], "Thor-AbiStar" (also known Thor-Epsilon) is a light-class launch vehicle, "Launcher One" is an air launch vehicle, "Space Launch System" (SLS) is an American two-stage superheavy rocket.

5. From cosmonyms (5): "Antares"— a single-use launch vehicle (named after one of the brightest stars), "Nova"-a series of NASA superheavy launch vehicles (from the astronomical term describing the explosion of a star), "Thor-Agena"— the American launch vehicle (for the star Agena in the constellation Centaurus), "Saturn"-a series of American launch vehicles (the name "Saturn" was significant for three reasons: Saturn was the next planet after Jupiter; the planet Saturn appeared brighter than a first-magnitude star, so the association of this name with such a powerful new booster seemed appropriate; and Saturn was the name of an ancient Roman god [23], "Thor Delta" (Delta DM-19; Delta) is a conversion space rocket of a light class (one of the ancient names of the constellation).

6. From the name of the weapon (5): "Magnum"— superheavy launch vehicle, "The Harpoon" is a U.S.-designed subsonic antiship cruise missile that has been in service since 1977 (throwing gun — a spear on a long rope, used when hunting large marine fish and animals), "The MGM-52 Lance" was a road-mobile, short-range ballistic missile designed by the United States, "Tomahawk" a family of American multi-purpose high-precision subsonic cruise torpedoes (KR) of short range strategic and tactical purposes under/overwater, surface, land and air-based (battle axe of the Indians of North America), "Triad II " is a three-stage, solid-fueled submarine-launched intercontinental-range ballistic missile.

7. From toponyms (1): "Sparta" is a light-class launch vehicle (an ancient state in Greece, a city).

8. From the names of the type of activity, job (3): "Scout " — a family of US light-class launch vehicles (originally-a soldier engaged in field exploration — the name seemed appropriate for a vehicle with payloads performing similar tasks- [23], "The Martin MGM-1 Matador" was the first operational surface-to-surface cruise missile designed and built by the United States (matador in bullfighting — the main fighter delivering a fatal blow to the bull), " Minuteman I" was an intercontinental-range, silo-based ballistic missile (the name comes from the word "minuteman" — a militia of the North American colonists).

9. From zoonyms (2): "Falcon" is a series of launch vehicles. The rocket received its name in honor of the starship "Millennium Falcon" from the fantastic epic "Star Wars" [21], " Falcon Heavy " is a superheavy- class launch vehicle, is one of the largest launch vehicles in the history of world space rocket engineering along with Saturn-5, H-1, the Space Shuttle system and "Energy".

10. From the names of natural phenomena (1): Vulcan (Volcano) is a heavy-class launch vehicle (LV).

Conclusion

The analysis made it possible to draw the following conclusions:

1. The military nomination is inextricably linked to national values, features of the geographical and social environment, national and cultural characteristics and historical events.

2. Some names of military equipment are the result of the inventive imagination of weapons designers, for example, the anti-tank missile "Malyutka" or the solid-fuel rocket "Karandashik" have diminutive suffixes and do not reflect their purpose.

3. The verbal names of missiles are formed mainly by secondary nomination and are considered precedent. They reflect the national linguistic culture and the peculiarities of historical development. The US military nomination is traditionally associated with mythical names, unlike the Russian one. Another difference is the most frequent use of abbreviations in the names of American rockets. Among the selected Russian names there are phytonyms, hydronyms and names of minerals and rocks, while American names include abbreviations and anthroponyms. However, most semantic groups are similar and reflect strong qualities and characteristics, for example, names in honor of dangerous predatory animals and birds, natural phenomena, strategically and historically important geographical objects, etc.
SpaceX's rockets and spacecraft have really cool names. But what do they mean?

