On the Naming of Contemporary World Weapons from the Semantic Perspective

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ABSTRACT. *here is a wide variety of weapons and their corresponding names in today's world. These names not only have certain military and cultural significance, but also contain extremely abundant research content in linguistics. Most of their sources are words, some are phrases. And their part of speech belongs to proper names, which can be classified and analyzed from the specifically referred subjects. For some weapons, their names are very rich in iconicity, and for most of them, their names contain certain emotional coloring.*

Keywords: weapon's name; belonging of part of speech; source, vividness; emotional coloring

1. **Introduction.** Many weapons were invented in the history of humankind, such as stone knives and stone axes of the primitive society, bronze swords and bronze halberds of the early civilization, side arms of the nomadic tribes, crossbows, shields and armor of the farming nations. After the industrial revolution in modern times, rifles, rifle cannons, ironclads, tanks and warplanes came out in succession. Especially after the Second World War, promoted by the new technological revolution and motivated by some countries' political and military purposes, all kinds of new weapons were continuously invented, put into production and use, and constantly improved. At present, the weapons of the armed services have formed a large weapon family.

Generally speaking, every country has certain codes and names for its weapons (There are also exceptions. For the former Soviet Union, mostly, its weapons just have codes, while for both France and Germany, their weapons only have names.). For some countries or military organizations, such as NATO, it may endow the weapons of other countries with codes and names in order to share valuable information, carry out intelligence work or prepare combat doctrines.

In military terms, weapon codes usually refer to a group of letters (Chinese characters), Arabic numerals and other symbols, which are used to reflect certain weapons' categories and characteristics. "The naming of China's military aircrafts employs codes. The codes

consist of model code, sequence code and modification code." For example, a main fighter of China's Air Force is coded as "F-8II". "F" is its model code; "8" is its sequence code, which makes it different from other fighters (China's Air Force also has a kind of fighter with "F-7" as its code); the Roman numeral "II" is its modification code, which shows that it is an improved type for the second time. In short, "F-8II" refers to the fighter with "8" as its sequence code and "II" as its modification code.

The combination of a weapon's type and name is its full name. When relevant military departments endow a weapon with a full name, certain procedures and methods should be obeyed, and this process is defined as naming. There are no unified international standards on the naming of weapons. Every country or military organization has its own methods and procedures. In general, the determination of weapon codes will follow strict standards, rules and established criteria, which contain much technological content, while the determination of weapons' names is more subjective, selective and significant. From the linguistic perspective, these names also contain abundant content, which can be classified and analyzed based on their specifically signified subjects. For some weapons, their names are very rich in iconicity, and for most of them, their names contain certain emotional coloring.

2. **Source Analyses of the Weapons'Names.** Whether a word or a phrase, once chosen as the name of a weapon, it will be used as a proper name and its part of speech will be categorized into proper names. Usually, countries or military organizations prefer to choose a noun as the name of a weapon. Only in a few cases will verbs be chosen. For example, NATO chooses "Scud" as the name of SS-1 type ballistic missile and "Grumble" as the name of SA-10 type ground-to-air missile of the former Soviet Union; Russia chooses "Hate" and "Protect" as the names for some of its naval ships.

Based on specific subjects, the sources of weapons' names can be classified as follows:

2.1. **Names of the Animals as Source Words.** In Chinese, simple words as weapons' names are very rare. Here are some examples of simple words as weapons' names in English:

COUNTRIES/REGIONS/ORGANIZATIONS THAT NAME IT	WEAPON TYPE	CODE	NAME	CHINESE TRANSLATION
US	Attack Helicopter	AH-1Z	Viper	蝰蛇
NATO	Strategic Bomber	Tu-95	Bear	熊
US	Ground-to-Air Missile	MIM-23	Hawk	鹰
UK	Fighter	AV-8B	Harrier	海鹞
Netherlands	Anti-Ship Missile	AGM-119	Penguin	企鹅

2.2. **Names of the Plants as Source Words.**   For example:

COUNTRIES THAT NAME IT	WEAPON TYPE	CODE	NAME	CHINESE TRANSLATION
Israel	Fire Control Radar		Green pine	绿松树
US	Ground-to-Air Missile	MIM-72	Chapamal	小懈树
Russia	Ground-to-Air Missile	9K37		山毛榉

2.3. **Names of the Natural Phenomena as Source Words.** For example:

COUNTRIES/REGIONS/ORGANIZATIONS THAT NAME IT	WEAPON TYPE	CODE	NAME	CHINESE TRANSLATION
NATO	Ship-to-Air Missile	SA-N-3	Storm	风暴
UK, Germany, Spain	Fighter	EF-2000	Typhoon	台风

2.4. **Names of the Tools and Other Things as Source Words.** For example:

COUNTRIES/ ORGANIZATIONS THAT NAME IT	WEAPON TYPE	CODE	NAME	CHINESE TRANSLATION
US	Anti-Ship Missile	AGM-84	Harpoon	捕鲸叉
NATO	Ground-to-Air Missile	SA-15	Gauntlet	护手套
UK	Anti-Tank Missile		Spike	长钉
Israel	Ground-to-Air Missile		Arrow II	箭 II

2.5. **Names about the Myths and Legends as Source Words.** Such names can be divided into three kinds: the names of persons, animals, and tools or weapons in ancient myths and legends.

2.5.1. **The names of persons as the source words of weapons' names.** For example:

COUNTRIES THAT NAME IT	WEAPON TYPE	CODE	NAME	CHINESE TRANSLATION
US	Tactical Transport Aircraft	C-130	Hercules	大力神
US	Strategic Bomber	XB-70	Valkyrie	女武神
UK	Aircraft Carrier	R-12	Hermes	竞技神
India	Main Battle Tank		Arjun	阿琼

Hercules as the name of a weapon is taken from an ancient Greek myth, Valkyrie is the maid of the god of war Odin in ancient myths of Northern Europe, Hermes is the name of commercial and competitive god in ancient Greek myths, and Arjun is the god of war in ancient Indian myths.

2.5.2. **The names of animals as the source words of weapons' names.** For example:

COUNTRIES THAT NAME IT	WEAPON TYPE	CODE	NAME	CHINESE TRANSLATION
China	Fighter	FC-1	枭龙	
Swede	Fighter	Saab-35	Dragon	龙
US	Air-to-Air Missile	AIM-54	Phoenix	不死鸟
US	Space Rocket		Hydra	九头蛇

Dragon, which is a kind of ugly and evil animal in ancient western myths, is born with wings and is able to spray fire. It is different from Chinese dragon or Long, which symbolizes luck and wealth in ancient Chinese myths; phoenix is originated from ancient western myths, it would burn itself every five hundred years and then it could live permanently; Hydra is the name of a snake in ancient Greek myths, which has nine heads, if one of them is cut off, it would regenerate.

2.6. **Source Words Can Be Proper Names, Such as the Names of States, Cities, Mountains, Rivers, Straits, Islands, etc.** Such cases are quite common among the names of naval vessels in every country. Let's take the name of the United States Navy Virginia-class attack submarine for example, which is named after Virginia. The attack submarines of this class are all named after the states of the United States.

SIDE NUMBER	NAME	CHINESE TRANSLATION
SSN-776	Hawaii	夏威夷
SSN-777	North Carolina	北卡罗来纳
SSN-778	New Hampshire	新罕布什尔
SSN-779	New Mexico	新墨西哥

The rules about the naming of China's naval vessels are as follows: "The cruisers are named after the administrative provinces (regions) or phrases, the destroyers and frigates after the large- or medium-sized cities, the mine-sweepers after the city-level states, the submarine chasers after the counties, both the dock landing ships and the tank landing ships after the mountains, the infantry landing ships after the rivers, all the subsidiary crafts after the sea and its nature plus the forms of serial numbers." The names of China's new navy destroyers are as follows:

SIDE NUMBER	NAME	SIDE NUMBER	NAME
112	Harbin	113	Qingdao/Tsing Tao
115	Shenyang	116	Shijiazhuang

All these naval vessels are named after China's large- or medium-sized cities.

The names of naval vessels named after the mountains. In Japan, the "Kumgang"-class destroyers of its maritime self-defense force are all named after its mountains, such as "Kumgang", "Kirishima", "Myoko" and "Chokai".

In Russia, most of the air defense weapons are named after its rivers, such as "Pechora", "Desna", "Dvina", "Volga", "Argun", "Yenisei", etc.

2.7. **Names of the Persons as Source Words**

2.7.1. **The weapons named after specific persons.** In some countries, such as the United States, there are special rules and standards to choose a specific name for some weapon. For example, the main battle weapons of the US Army are usually named after famous generals or war heroes in the history of the United States.

COUNTRIES THAT NAME IT	WEAPON TYPE	CODE	NAME	CHINESE TRANSLATION
US	Main Battle Tank	M60	Patton	巴顿
US	Main Battle Tank	M1	Abrams	艾布拉姆斯
US	Infantry Fighting Vehicle	M2	Bradley	布雷德利
US	Wheeled Armored Vehicle		Stryker	斯特赖克
US	Attack Helicopter	AH-64	Apache	阿帕奇
US	Scout Helicopter	OH-58	Kiowa	基奥瓦
US	Transport Helicopter	CH-47	Chinook	支努干
US	Stealth Helicopter	RAH-66	Kamanche	科曼奇

Patton, Abrams and Bradley are famous distinguished generals in the history of the United States Army; Stryker is a combat hero of the United States, who had won the Congressional Medal of Honor; while Apache, Kiowa, Chinook and Kamanche are legendary heroes in the history of American Indians.

The following are the names of ten active aircraft carriers of the United States Navy:

SIDE NUMBER	NAME	CHINESE TRANSLATION
CVN68	Nimitz	尼米兹
CVN69	D. Eisenhower	艾森豪威尔
CVN70	Carl Vinson	卡尔·文森
CVN71	Theodore Roosevelt	西奥多·罗斯福
CVN72	Abraham Lincoln	亚伯拉罕·林肯
CVN73	George Washington	乔治·华盛顿
CVN74	John C. Stennis	约翰·斯坦尼斯
CVN75	Harry S. Truman	哈里·杜鲁门
CVN76	Ronald Reagan	罗纳德·里根
CVN77	George H. W. Bush	乔治·布什

D. Eisenhower, Theodore Roosevelt, Abraham Lincoln, George Washington, Harry S. Truman, Ronald Reagan and George H. W. Bush are former presidents of the United States; while Carl Vinson, John C. Stennis and Nimitz are famous generals in the history of the United States Navy.

2.7.2. **The use of vague figure nouns as the names of weapons.** For example:

COUNTRIES/ ORGANIZATIONS THAT NAME IT	WEAPON TYPE	CODE	NAME	CHINESE TRANSLATION
US	Attacker	A-12	Avenger	复仇者
US	Attacker	A-6	Intruder	入侵者
US	Scout Helicopter	MQ-9	Reaper	掠夺者
US	Tanker	KC-10	Extender	补充者
NATO	Fighter	Su-27	Flanker	侧卫者
Germany	Armored Car		Boxer	拳击者

The nouns listed above do not refer to specific persons. But, because of their vagueness, when translated, they will show the rule of "so-and-so person".

3. **The Vividness of the Names of Weapons.** Once the weapons are named after certain animals, plants, natural phenomena, tools and fairy tales, they will take on a kind of vivid look.

3.1. **Some Names Can Vividly Present the Weapons' Shapes or Forms.** Fighters are usually named after all kinds of raptors or birds. When these birds spread their wings, they look quite like airplanes; for some bulky and heavy weapons, they are always named after large animals. For example, a German tank, which weighs several tons, is named as

"Elephant"; according to its wide body, NATO names the former Soviet Mi-8 helicopter "Hippo".

Missiles are always named after trees. Because, the shapes, forms and sizes of various trees look like different types of weapons named after them. For example, the Russian SS-27 type strategic missiles are named after poplars, because poplar's straightness and loftiness can easily associate people with the hugeness and straightness of this type of missiles; while, when the broad wings of the American MIM-72 type ground-to-air missile is matched with the little and dainty missile, it looks quite like a "Chapamal", so it is named after this kind of tree.

3.2. **Some Names Can Vividly Reflect the Action or Dynamic of a Weapon When It Is Used.** For example, after the launching of the French anti-ship missile "Exocet", it will reduce its height to an ultra-low-altitude before it hits the waterline of its enemy warship. This series of movements are quite like the Exocet's gliding into water, so this type of missile is named after it. And when the American AH-1 type armed helicopters are in battle, they always fly close to the target with the tree height altitude, and then launch missiles to destroy the targets with a sudden and vertical rise. This series of movements are similar to a Cobra raising its head, so this type of helicopters is named after Cobra.

3.3. **Some Names Can Vividly Reflect the Design Philosophy or Bionic Principle of a Weapon.** For example, the guidance tracking devices of the American AIM-9 type air-to-air missile just copy the sidewinder's infrared induction system. In the design principle, the former is quite close to the latter, which can be easily learned from its name. And the detection of the American E-2 type surveillance aircraft can cover a distance of more than 600, 000 kilometers, and display more than 2,000 targets. Its name "Hawkeye" shows that its on-board SAR is designed to borrow the structural features and working principles of a hawk's eyes.

3.4. **Some Are Named After Certain Tools Which Can Vividly Refer to the Weapon's Function.** For example, it is easy to know that the American AGM-84 type missile is a kind of anti-ship missile by its name "Harpoon". While the name of BGM-109 type air-raid cruise missile is even more vivid compared with the others, "Tomahawk" is just a frequently-used tool used by the American Indians in their daily life, when the fight between Indians begins, this small and light axe will be thrown at their enemies. As a weapon's name by striking first, it implies that this weapon enjoys the position of "one's speciality".

3.5. **The Names That Can Vividly Reflect the Weapons' Characteristics, Such as Power, Speed, Smartness and Precision.** The weapons with birds' names show their characteristics, such as hovering, fast speed, ferocity and flexibility. For example, the American Navy F-22A type fighter is named after the most powerful bird "Raptor", showing its labeled world-leading fighting capacity; the AIM-7 type air-to-air missile

named after "Sparrow" shows its flexibility in flight; the weapons named after "Lion", "Tiger", "Leopard" or "Bear", show their power, speed or flexibility. For example, the German active main battle tank equipped with an advanced fire-control system which makes it smart, quick and flexible has a 120 mm diameter of powerful main gun, and can run at the maximum highway speed of 65 k/p, so all of its advantages can be summarized by the name "Leopard".

　　The weapons that are named after the persons, animals, tools or weapons in ancient myths would deify the weapons' power and combat effectiveness. For example, the carrier-based "automatic operations command and weapon control system" of the American Navy, which can organize effective defense against a large number of missiles from all the directions, is considered as the solid shield of its fleet. In ancient Greek myths, Zeus was the "God of gods", he had not only an invincible javelin in his hand, but also a peerless shield Aegis, which could keep him safe from certain doom. It was said that Zeus gave the shield to his daughter Athena and the latter used the head of Medusa, the Gorgon to decorate that shield, which became her amulet. Anyone who saw it would immediately turn into a stone. When this system is named after "Aegis", its power and combat effectiveness have already been deified.

4. **The Emotional coloring of weapons' names.** The weapons' names contain emotional projection entrusted by certain organizations who name them, and emotional coloring, too.

4.1. **Some Names Contain Commendatory Emotions.** Some names show the praise given by certain organizations that name them, and contain commendatory emotions as well. Most of the weapons that are named after beasts, raptors, natural phenomena and myths contain pride and praise about their own power, speed, agility and precision; the weapons that are named after historical figures, famous presidents and distinguished generals contain strong historical sense, state or national sense of honor, and these names also contain strong sentimental value. While the weapons that are named after war heroes are supposed to encourage and motivate the morale and play an important role in improving the will power, cohesive strength and combat effectiveness of an army.

4.2. **Some Names Contain Neutral Emotions.** Most of the names that are named after tools, states, cities, mountains, etc. are neither commendatory nor derogatory.

4.3. **Some Names Given by NATO Contain Derogatory Emotions.** During the Cold War, the bi-polar pattern made it impossible to keep military communications between the two military blocs. By means of certain investigation, NATO found that the Soviet Army had been equipped with a new weapon, but failed to know its standard code, and then NATO decided to give it a code and chose a word as its name so as to facilitate the communication between NATO countries. Because, most of the former Soviet weapons only had codes but no names, most of the names that continue to this day were given by NATO. Out of the differences in hostility and ideology, most of these names are quite derogatory. For example:

WEAPON TYPE	NATO CODE	NATO NAME	CHINESE TRANSLATION
Fighter	Mig-15	Fagot	柴捆
Fighter	Mig-19	Farmer	农夫
Fighter	Mig-21	Fishbed	鱼窝
Fighter	Mig-23	Flogger	鞭挞者
Attacker	Su-25	Frogfoot	蛙足
Attack Helicopter	Mi-24	Hind	雌鹿
Attack Helicopter	Mi-28	Havoc	浩劫
Anti-Submarine Helicopter	Ka-27	Helix	蜗牛
Ground-to-Air Missile	S-200	Gammon	腌猪腿
Ballistic Missile	SS-15	Scrooge	吝啬鬼

These names are either very funny, such as "Fagot", "Fishbed", and "Gammon"; or very sarcastic, such as "Farmer", "Frogfoot", "Hind", "Helix"; or quite evil, such as "Flogger", "Havoc", "Scrooge". In short, they not only play a role in magnifying itself against its opposite psychologically, but also are used to damage the reputation of Soviet-made weapons.

5. **Conclusion.** To sum up, the naming of weapons in today's world can not only reflect a county's military strength and concepts, but also reflect its history, culture, political intentions and value orientation. They are also rich in both number and sources, which can be classified and analyzed from the specifically referred subjects. For some weapons, their names are very rich in iconicity, and for most of them, their names contain certain emotional coloring. In addition, they contain extremely abundant research content in linguistics. At present, there in linguistics has been little academic research involved in this field. While the research of military circles mostly focus on the codes of weapons. Therefore, much still needs to be done in linguistic studies of the naming of weapons in today's world.

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