

Original Paper

Define “Innovation” in Semantic Field by Means of Textual Research

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Abstract

Targeting the discursive power of innovation, “innovation” as philosophical category is discovered in textual research that different from “creation” by the subject of “innovation” could only be human or its collective, and the object could only be nonhuman. As the semantic fields of “practice” or “innovation” displayed, innovation is manifested from different perspectives through the notions of “practice”, “creation”, “labor”, “invention”, “discovery” and “establishment”, etc. The essence of “innovation” is the creative practice increased the total amount of benefits, and its essential feature is worthiness reflected from the subjective and objective dimensions.

Keywords

Marxism, innovation category, creation and invention, discovery, essence

1. Introduction

General secretary Xi Jinping proposed soon after his office assumption, we should strengthen our international communication capacity and build a discourse system (Xinhua News Agency, 2013). “Discourse” is the linguistic conceptual system of work, and discursive power is the requirement of working together with international community to build a “community with a shared future for mankind”. Adhere to the core position of innovation in the overall situation of China’s modernization, should obtain the discourse right of “innovation”, enhance Marxist power of speech, and realize the right to make decisions. Whereas, the fact is western soft power and discourse right makes “innovation” limited in technology-economic field by Schumpeter’s innovation theory. What overemphasized is the market realization of new products and the commercial application of

technology process and equipment (Freeman, 2006). Thus, innovation is defined invention plus development (Roberts, 1988), targeting monopolistic position in the market for excessive marginal profit (Henry, 2003). Meanwhile, Marx related textual research divides technological innovation into labor saving innovation and capital saving innovation (Mark, 1998). These are far away from “innovation” in Marxist context by means of textual research. The deep study of Marxist classic texts is then required to manifest the essence and characteristics of “innovation”.

2. “Innovation” Is a Philosophical Category More than a Concept

2.1 “Innovation” Is a Purposeful Concept

The importance of “innovation” is exemplified in the economics of technological innovation, represented by Mansfield, studied technological innovation from the aspects of technology promotion, diffusion and transfer, and the relationship between technological innovation and market structure (Freeman, 2006). This is micro “innovation”. “Innovation” in macro level, has been expressed as “the soul of national progress” “inexhaustible driving force for prosperity” “decisive factors in economic and technological competition” (Selected Works of Jiang Zemin, 2006). Being the first driving force of development, “Innovation” is compared as “the bellwether of the overall situation of economic and social development”. What’s more, “the spirit of the times with reform and innovation as the core is the soul of rejuvenating the country and strengthening the country” (Xi, 2020). And the spirit of the times viewed by Marx, is the object of philosophical research, “philosophy is the essence of the spirit of the times”. “Innovation” can then serve the purpose of constructing “innovative practical materialism”, which is the historical mission of contemporary Marxist philosophy theorists.

2.2 “Innovation” Is a Philosophical Category

As to “innovative practical materialism”, constructionism insists verify “how does innovation actually work”, emphasizes the being of innovation; however reconstructionism contests study “how to innovate”, emphasizes the sullen of innovation. “Innovation” as the basic philosophical category of Marxism, combines these two aspects of understanding, should become an idea guiding all the benefactive practice of revolution, construction, reform or transform. Specific disciplines define the concept of “innovation” in their respective research fields, in contrast, “innovative practical materialism” abstracts commonness from various “innovation” concepts to define “innovation” a philosophical category.

“Innovation” as a philosophical category, can dominate all kinds of innovative practices by “discourse right” functioned on according “innovation” notions. The worthiness of defining “innovation” philosophical category lies in practice as well. China is discovered suffering “middle zone of innovation swamp”: all sorts hype concept of “innovation” brings the flood of false information, serious waste of social resources, and misleads policies, value orientation and practice orientation (Li, 2020). It is obvious that the real problem is the absence of defining “innovation” as a philosophical

category to master the essence and characteristics of innovation. Only apply philosophical reflection and abstraction, can all kinds of “innovation” notions be unified under a universal “innovation” category. Related study describes “innovation” a totality category emerging Marxist Philosophy system. The urgent work is to establish philosophy “innovation” view as the latest development result of philosophy practice view. Hence within Marxist context, one can see that “innovation” is not only an economic category, but also a philosophic category under philosophy practice view.

3. “Innovation” Category Revealed by Marxist Classic Texts

3.1 The Range of Marxist Classic Texts

Some research result restricted in theoretical thinking says that Marx “did not put forward an concept of innovation”. “It is through the established scientific practice concept that the essence of innovation is revealed, that is, the practical activities of subject to carry out change” (Zhou & Li, 2019). However, Marx prized Adam Smith “make an innovation to the science of finance” (Selected Works of Marx and Engels, 1995, p.35). This reveals Marx has his own concept of innovation, and made judgement by his understanding. To make correct research result, theoretical thinking should be based on classic texts. To make sure that the textural research result is countable, Marxist classic texts should cover Complete Works of Marx and Engels at least. The sole text contents the keyword “innovation” within Selected Works of Lenin: “Resolutely give play to local initiative and innovative spirit, to expand their independence (Selected Works of Lenin, 1992, p. 254)” is in consistence with the “innovation” concept of Marx. Complete Works of Lenin are then left outside the textural research, being afraid of the difficulty in big data keyword searching. So, the textual research of “innovation” is carried out through keyword searching the Complete Works of Marx and Engels literally.

3.2 The Essence of “Innovation” is Creative Practice Increased the Total Amount of Benefits

Although, some researchers define “innovation” the practical activities of subject to carry out change, by applying the scientific practice concept that run through all Marxist notions, this definition maybe not accurate. It is the right direction that define “innovation” among the context of the scientific practice. If only one is his practice has requirement or needs, according innovation is attempted constantly to solve the problem blocking satisfaction. The textual research find out when Marx and Engels proved capitalist industry replaced the feudal mode of operation by texts: The market is always expanding, demand is always increasing. Even the workshop handicraft can no longer meet the needs. Thus, steam and machinery revolutionized industrial production. At this time, manual machines such as spinning machines were constantly improved, and the technologies of hydraulic machines and steam engines were constantly innovated to meet the strong social need (Selected Works of Marx and Engels, 1995, p. 273). What is manifested here is that Marxist classic texts interlink “innovation” with needs, requirement, define “innovation” under the purpose of subject satisfaction. All technologies are innovated to meet the strong social need, express clear the understanding of “innovation” that at least

technology innovation is not targeting monopolistic position in the market for excessive marginal profit.

Since Marx once clearly pointed out: Once “thoughts” leave “benefits”, they will make a fool of themselves (Complete Works of Marx and Engels, 1957, p. 103). To define “innovation”, we should abide the principle of “benefits”. The basic principle of Marxism Leninism is to make the masses understand their own benefits, and unite the masses to fight for their own benefits (Selected Works of Mao Zedong, 1991, p. 1318). The concept “benefits” instead of interests is applied here to describe needs, requirement, hobby, opportunity or resources etc. related to subject satisfaction. The reasons may be “benefits” concept indicate some profits or good things cannot be contained by “interests”. And Habermas explained, the term “benefits”, should indicate the unity of “life connection”, this is embedded in cognition (Habermas, 1991b, p. 243). The conclusion can be drawn that “innovation” away from “benefits” is anti-Marxist, “innovation” of litter “benefits” is non-Marxist, only if “innovation” for “benefits” and innovate according to the requirements of human nature, can it be Marxist. To embody the unity of “benefits”, “innovation” can be defined the creative practice that increased the total amount of benefits.

This definition indicates subject satisfaction differ, though, “innovation” has the common essence of creative practice increased benefits. All practice cannot be counted “innovation” unless meet the two conditions of “creating new things” and “increasing the total amount of benefits”. The textual research of “innovation” definition is mainly via the methods of keyword searching, and comparing with group terms in the semantic field is to be furthered respectively.

3.3 *The Semantic Field of “Innovation” within “Practice”*

Considering philosophy showed a trend to the linguistic analysis, semantic field is used in the textual research of “innovation”. Semantic field is a systematic way of analysis in terms meaning, using a certain semantic feature to divide group of words and phrases. These words and phrases explain each other, and define semantic features, can then be convenient to distinguish from words and phrases in other semantic field. The textual research of “innovation” in Marxist classic texts reveals the semantic field of “innovation” contains many subordinates and the superordinate of practice. The “innovation” being creative practice increased the total amount of benefits, constructs the common semantic field of practice with “creation” “labor”, etc.

3.3.1 The Semantic Field of “Practice”

In Marxist classic texts, “creation” and “labor” share the same semantic field of practice with “innovation”, can all has human as the subject. However, “creation” differs from “innovation” with a wider subject range. “Man created religion, religion created man is not true”. “This state power was created by the bourgeoisie (Selected Works of Marx and Engels, 1995, p. 93).” These texts reveal that “creation” can have non-human subjects, such as abstract things. “Labor creates man himself” “Man creates the environment, so does the environment” are also found in Marxist classic texts. “We should

never underestimate the contribution made by the Curran Daily in innovation (Complete Works of Marx and Engels, 1982, p. 305)” can be used to prove that “innovation” differs from “creation” in having human or human’s collective as the sole subject. And from the angle of practice, the object of “innovation” could only be nonhuman, in contrast, human can be created.

Marx’s relevant argumentation confirms, human is the only being in the world that can engage in independent and comprehensive innovative activities, which are apparently worthier than creative labor. The reasons lay in that “The more goods a worker creates, the cheaper he becomes.” The appreciation of the products of labor is directly proportional to the depreciation of the world of worker. “The object produced by labor, that is, the product of labor, as an alien existence, as a force independent of the producer, is opposite to labor (Selected Works of Marx and Engels, 1995, pp. 40-41).” It is clearly displayed that the result of “creation” may be harmful, and the result of “labor” may be an alien existence to labor. There is no positive correlation exists between “labor” “creation” and their results. Although share the same semantic field of practice with “labor” and “creation”, “innovation” being creative practice increased the total amount of benefits, brings worthy result to the subject, and eliminates alienation. The harmful creation or alien labor contained in “creation” or “labor”, cannot be contained by “innovation” category. From the perspective of practice result, “innovation” differs from “creation” or “labor” by being useful to the subject. The semantic field can be displayed in Table 1.

Table 1. The Semantic Field of “Practice”

	innovation	creation		labor	<i>Etc.</i>
<i>Practice subject</i>	human	human	nonhuman	human	
<i>Practice object</i>		nonhuman	human	nonhuman	nonhuman
<i>Practice result</i>	useful	useful	harmful	useful	harmful

3.3.2 The Semantic Field of “Innovation”

The key subordinates of “innovation” are “invention” “discovery” “establishment”, and with according textual research, the connotation of “innovation” is explained from different angles.

“In 1787, Dr. Cartwright invented the power loom, which was improved many times before it could be put into practical use in 1801 (Selected Works of Marx and Engels, 1995, p. 28)”. “Newton founded scientific astronomy by inventing the law of universal gravitation (Selected Works of Marx and Engels, 1995, p. 18).” These texts indicate that “invention” refers to scientific and technological innovation, is the foundation of science such as “scientific astronomy”. And “invention” becomes useful to the subject after “improved many times”. “The objective world provides an imaginary sample for all

inventions (Selected Works of Marx and Engels, 1995, p. 365)” being considered in, we can say that the methods of “invention” involve improvement and observation, especially the objective world imitate. What’s more, “Science relies on these inventions to drive natural forces to serve labor (Selected Works of Marx and Engels, 1995, p. 71)” sets labor serving the purpose of “invention”, to be particular, improve labor productivity. For example, Jenny spinning machine is a labor-serving invention. “This kind of machine can spin 15 times more than the old-fashioned spinning wheel as long as one worker operates it”. The labor-serving here, is actually time-saving, which values technological innovation.

“A large amount of waste paper in the archives of the Patent Office proves that in many cases, inventions and discoveries do not necessarily improve labor productivity (Selected Works of Marx and Engels, 1995, p. 566)” indicates that “invention” and “discovery” are different types of innovation. The “invention” mainly refers to technological innovation, when particularly refers to scientific innovation, “discovery” is the more accurate term. The method of “discovery” is first observation and then experiment, such as to see whether it improves labor productivity. If “discovery” is examined correct recognition of the objective, it equals the scientific innovation. While “discovery” tested the correct recognition of the objective law, it is truth. “The creation of art and science is only possible through a greater division of labor (Selected Works of Marx and Engels, 1995, p. 525)”. Here, division of labor is viewed a prerequisite for scientific innovation.

“The bourgeoisie destroyed the feudal system and established a bourgeois social system on its ruins (Selected Works of Marx and Engels, 1995, p. 618)”. This text indicates, “establishment” contributes to social innovation by the method of systematization. When the systematization is about ownership of means of production, it refers to economic innovation. Whereas, the text “Let the civil society and the media establish their own organs that do not rely on the power of government (Selected Works of Marx and Engels, 1995, p. 624)” interlinks “establishment” with political organ, which protects the right of political innovation. Hence, it can be concluded that “establishment” describes social innovation, striving for social benefits such as economic benefits or political power and right. Superordinate “establishment” is observed here has the economic innovation, the political innovation and so on as its subordinates.

In conclusion, “invention”, “discovery”, “establishment” in terms of technological innovation, scientific innovation and social innovation respectively, reconstruct the semantic field of “innovation” as the following Chart 2. These “innovation” subordinates embedded with according benefits, methods, prerequisite, each contributes partial semantics for “innovation”, with other relevant concept of innovation. The prerequisites of social innovation and semantic concerns are still left unknown though, the theory of semantic field provides reliable guidance for further textual research.

Table 2. The Semantic Field of “Innovation”

	invention	discovery	establishment	<i>Etc.</i>
<i>Innovation type</i>	technological innovation	scientific innovation	social innovation	
<i>Innovation methods</i>	imitation, improvement	experiment	systematization	
<i>Innovation benefits</i>	serve labor, time-saving improve productivity	correct recognition, truth	economic benefits, political power and right	
<i>Innovation prerequisites</i>	observation	division of labor		
<i>Other concerns</i>				

4. The Essential Feature of “Innovation”

Marx once commented literary works: “If we leave aside some new rhythms, then, even a little desire to innovate, which can’t be dispensed with, has come to naught (Complete Works of Marx and Engels, 1982, p. 28)”. The meaning of this comment here is that, “innovation” is viewed by Marx the earnest desire to be satisfied, “innovation” belongs to kind of indispensable practice. Thus, “innovation” is embedded with great value in the dimension of subjective feeling. And “innovation” is embedded with great value in objective dimension. If he wants to use the only script to pave a path to the stage of success for himself, the script should based on innovation (Complete Works of Marx and Engels, 1982, p. 100). This commentary of Marx indicates that, “innovation” is valued the base of success, and has great value in the objective dimension as well. Just because of its worthiness, “innovation” in fact has become the common requirement of Chinese revolution, construction and reform. It is obvious that the value of “innovation” exemplified from both subjective and objective dimensions, and embodied in the subject satisfaction. And the worthiness make “innovation” unique from “practice”, which is its superordinate, and make “innovation” different from “creation” and “labor”, which are its near-synonyms, then become the essential feature of “innovation”.

In summary, “innovation” being creative practice increased the total amount of benefits, is revealed by Marxist classic texts the practice of highest value. All practice, even creative practice cannot become “innovation”, except “increased the total amount of benefits”. There exists a positive correlation between innovation and value: Whether there is value determines whether a creative practice is innovation, and the magnitude of value determines the degree of innovation.

5. Discussion

Observed clearly in the textual research of Marxist classic texts is that the superordinate of practice, the synonyms of “creation” and “labor”, and the subordinates of “invention”, “discovery”, “establishment” support each other, in reconstructing the semantic field of “innovation”. The essence of innovation can serve standard in obtaining the discourse right of “innovation”, all discourses irrelevant with total benefits and creative practice are counted outside innovation. And the essential feature of innovation can also be applied in judging all sorts hype concept of “innovation”, so as to enhance Marxist power of speech. Interested readers can take clarifying the theoretical system and academic boundary of innovation as the central work of constructing the discourse system.

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