

A Literal Review of Chinese Scholar Analysis on the Kant's Transcendental Logic and Formal Logic from the Critique of Pure Reason

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Abstract: The article analysis the Transcendental logic and the formal logic created by Immanuel Kant based on Kant's theory on the book "critique of Pure reason". The research focusses on the Chinese scholar and analysis the Transcendental logic and the formal logic. The article first analysis the original idea of the Transcendental logic and the formal logic in Kant's critique of Pure reason. Based on that idea, the analysis reviews the theory of the Chinese scholar through the discussion of the origin of the Transcendental logic and the formal logic and the relationship between them. Continuing the next part, the analysis discusses the related idea about Transcendental logic and the formal logic: the cognition awareness and the range of the Transcendental logic and the formal logic and its connection to the philosophers after Kant. The result reveals the contribution of Kant's Transcendental logic and the formal logic to the science subject aspect and comprehensive meaning in metaphysics.

Keywords: Kant, formal logic, Transcendental logic, critique of Pure reason

1. Introduction

The origin of the Kant's theory about the Transcendental logic and the formal logic of the epistemology probably is the imitation to the reasoning of the math and science. The period which Kant lived in is the enlightenment. The science has been largely improved at that period. The scientist gradually found out that the rational thinking become more and more important on the research of science [1]. The Copernicus, in his research about the telestial body found out that the strict and universal science knowledge is basically come from the leading of scientific hypothesis to combine with the observation of the phenomenon. This may give an inspiration to Kant: the epistemology of human is similar to the process of the science research, the "understanding" of Transcendental logic and the formal logic, which is congenital is leading the process of producing knowledge to combine with the experienced representation produce by the sensibility. Science promote the importance of reasoning as the origin of human's thinking make a foundation and direction of the philosophy of Kant, which is aim at a stable form of thinking, the logic. The science provides the model of theory for Kant, but the thing who gives the necessarily to build a new philosophy with the Transcendental logic and the formal logic is probably cause by the changeling to the old metaphysics [2]. The empiricism, which from the England leading by Loke is making a

skepticism to old metaphysics. The empiricism doubt that every thought of human is from the unstable experience, and it is impossible to have a stable and universal metaphysics build on the experience without any congenital certainty. Moreover, the metaphysics itself suck in the dogmatism. There is no such a united and universal standard to restrict the form of the metaphysics. Every philosopher is using their own standard to build the metaphysic. The situation gives Kant reason to build the metaphysics completely not come from unstable experiences and provide an invariable and firm standard for the metaphysics. Therefore, the creating of the Transcendental logic and the formal logic of Kant is something completely meet the requirement. The Transcendental logic and the formal logic are something congenital, which is from the cognition awareness and its form is same to every cognition awareness. Overall, Kant is the first person to build the metaphysics base on the foundation of science and Kant's metaphysic will answer the problem for the overall period of the enlightenment. Therefore, it is significant to analysis the core of Kant's philosophy, the Transcendental logic and the formal logic.

2. Transcendental Logic and Formal Logic

From the Kant's view, all the theory about the transcendental logic and the formal logic, are under the concept of the "understanding" [3]. From the Kant's explanation in his book: "critique of Pure reason", chapter transcendental logic, the understanding is defined as the ability of individual subject itself to spontaneously produce the representation, the "concept" made from the experience source. Understanding combines with the sensibility to serve the produce of the knowledge. The logic is the rule of how the understanding working generally.

About logic, Kant first separate logic into two different concepts: the "formal logic", which only contain the general ways of working of understanding and the "organon" which only contain specific ways of working of a certain object, the foundation of the different science subjects[3].

Based on the origin of formal logic, Kant define the formal logic as "abstracts from all contents of the cognition of the understanding and of the difference of its objects and has to do with nothing but the mere form of thinking". The definition means that the formal logic is a pure form, the object it contains cannot affect the working of the formal logic and the formal logic cannot make sure the rationality of the objects. To explain the aspect involved the formal logic, move one step further, Kant separate the formal logic into two status, pure logic and the applied logic. The separation shows the possibility of the formal logic. Formal logic can combine with the subjective using under the experienced rule of the psychology as the applied logic, it can also focus on itself with the rational using, as a pure relationship according to the pure logic.

Furthermore, Kant states that the origin and the sensibility of pure formal logic is determine congenitally. The way of proving that conclusion is "transcendental logic". It is necessary to clear that the definition of the "transcendental" For Kant, transcendental is the knowledge to prove the exist of the congenital knowledge from congenital origin and the possibility about applying the congenital knowledge to experience for making knowledge congenitally. Only the thing meets the two conditions together can call the "transcendental". Therefore, the transcendental logic is the thing that analysis the applying of the pure formal logic to understanding for producing knowledge from experience. Because of the relationship between the understanding and reason, the transcendental logic will also potentially prove the impossible of apply pure formal logic in the area of reason.

Overall, to conclude the cognition of Kant for the transcendental logic and the formal logic, there are 2 main point. 1. Formal logic in analysis is the pure form and it always related to the producing of knowledge from experience. 2. The appearance of transcendental logic base on the pure formal logic, transcendental logic analysis the operation of pure formal logic and the range of using the pure formal logic.

3. Literal Review on Chinese scholar

3.1. The Origin of Transcendental logic and Formal Logic

The scholar XiaoMang have a comprehensive view on the Transcendental logic and the formal logic. The view start at that the form of Transcendental logic integrate two things, the formal logic and the “understanding”. XiaoMang acknowledge that when Kant was designing the Transcendental logic, Kant used the formal logic as a clue to build the Transcendental logic [4]. This is because all the Transcendental logic and the formal logic are origin in the “understanding” and the formal logic already have a clear structure since the Aristotle induct the idea. However, XiaoMang argues that it is not convince to states that Transcendental logic is totally extend from the formal logic. This is because that the Transcendental logic is following the category system from understanding. It is true that the category develops from the traditional structure of the formal logic, but the category system is totally new with the emphasis of “unity” and the 3 division judgement compare to the 2 division judgement of the formal logic. Therefore, it is possible that Kant first gain the Transcendental logic and then prove the connection to the formal logic. However, the scholar ChaoDu have some different explanation about the origin of the Transcendental logic than XiaoMang[5]. ChaoDu states that the formal logic is the foundation of the Transcendental logic. Firstly, from the history, the formal logic has been established by Aristotle in ancient geek earlier than the present of the Transcendental logic for a much longer time. The formal logic can be a prefect model which already have a stable and sophisticated system proved by the history development. Moreover, Kant himself teach the formal logic courses for 28 times in his life and Kant states that the reliable construction of the formal logic has been already establish by Aristotle completely. The facts mean that Kant is very familiar with the formal logic and very confident about the reliability of the formal logic. Although it is necessary to acknowledge the large effect of the formal logic on Kant and one of the targets of the Transcendental logic is to prove the credibility of the function of the formal logic in the area of producing knowledge from experience, the theory and the principle of the Transcendental logic is totally different which is not only embodied in the three division method but also on its target and its object. Building on the view of XiaoMang, Scholar XiuShan provide the specific distinction between the formal logic and the Transcendental logic[6]. From XiuShan’s view, Kant’s formal logic is the logic that be allowed to associate with the experienced object, but formal logic itself cannot determine the experience contents inside the structure of formal logic which is right or wrong. However, for the Transcendental logic, it also focuses and proves that the experience contents inside the structure of the formal logic also have some characteristic of congenital inevitability. Firstly, XiuShan states that Kant’s Transcendental logic make sure the experienced material which made by the sense organ turn into the content that can be thinking(the possibility about connects the experience content with the formal logic). The ability to achieve thinkable content is that the experience material united by the one cognition awareness positively and the process put the experience content under the 4 group of categories. In this way, the experience content has the potential possibility to formal logic predicate based on XiuShan’s view, the biggest difference between the Transcendental logic and the formal logic is that the Transcendental logic is the law to tie the experience content and formal logic together; Formal logic only keep itself itself as an unchangeable form. XiuShan also transfer focus point to the importance of the ability of the cognition awareness with the Transcendental logic.

3.2. Connection to the Cognition Awareness

Besides the discussion of origin of the Transcendental logic, XiaoMang also emphasis that one of the special characteristics of Kant’s Transcendental logic is the importance of the connection of the

representation and the unify of the self-awareness[4]. XiaoMang induces that Kant believe that there are 2 premises of the judgement of the formal logic (also the function of the “understanding”): firstly, the self-awareness of the cognition subject has already unified. The statement means that the representation from the experience can show up under if and only if one cognition subject.

Secondly, before the judgment of the formal logic, the cognition subject has already connected the subjects in the judgement together in an objective way. To summary that, the ability of connection and the unify are both from the function of the cognition awareness. And the function of the cognition awareness becomes the premises of the Kant’s Transcendental logic. Base on the view of the Xiushan and the XiaoMang on the function of the Transcendental logic and formal logic, the scholar ZhenYu provide a comprehensive summary about the function[7]. Zhen Yu states that the Transcendental logic is the combination of the ontology and epistemology. Transcendental logic is an ontology because the function of Transcendental logic is determined by the one exist cognition awareness. Transcendental logic is an epistemology because Kant’s believe that the all knowledge is the knowledge about the representation and Transcendental logic remove all the relationship with the unstable experience but contain the relationship between the knowledge and the representation.

ZhenYu also states that the relationship between the Transcendental logic and the formal logic is that the two different functions of the one united “understanding”: The Transcendental logic dealing with congenital synthetic unity judgement; the formal logic dealing with the congenital analysis judgement.

3.3. The Range and the Regulation of Transcendental Logic

XiaoMang’s Idea about the connection of the representation and the unify of the self-awareness are originally from the idea of Kant’s “understanding” [8]. In other research about the intellectual intuition, XiaoMang states that Kant’s understanding is not about using the congenital formal logic concept to prove passively, it is all about human’s subjective initiative to produce a concept. Moreover, Xiaomang states that even through Kant did not accept to apply the intellectual intuition to the general object from the understanding, Kant keep the possibility of the intellectual intuition. The statement gives an explanation about the characteristic of Transcendental logic which the Transcendental logic is tied with the understanding, thus subjective initiative of the Transcendental logic is proved by the “understanding” and Kant gives the possibility about the applying function of Transcendental logic in the area intellectual intuition. Moreover, the awareness of the intellectual intuition brings the direction of the analysis Transcendental logic and formal logic from analysis the relation to the experience object to identify the specific range of the understanding between the experienced knowledge and the world of reason with the Transcendental logic and formal logic provide by Kant [4]. Move one step further, XiaoMang states that when the formal logic applies to general subject, formal logic will always produce false illusion of the explanation, which cause by the nature pursue of the “reasoning” to the infinite unconditional object. The applying will not produce any knowledge because no experience objects are engaged. Therefore, in order to avoid the situation, Kant states that the purpose of the Transcendental logic is to bring the formal logic back to the cognition awareness, which only serve for producing the knowledge from the experience area. XiaoMang clearly identify the range of the formal logic is only under the area of the experience objects and the processing of the knowledge. XiaoMang also explain one of the purposes of the Transcendental logic is restrict the range of the formal logic and Kant potentially preserve the possibility of the Transcendental logic in the area of the reasoning. Based on the induction of the XiaoMang, ChaoDu explain the specific process about using Transcendental logic to restrict the range of the formal logic[5]. ChaoDu states that the in order to restrict the formal logic as the pure form to only serve for knowledge, Kant use the Transcendental logic to remove the formal logic

from the metaphysics by separating the simultaneity from the formal. Kant states that formal logic cannot include the simultaneity to break the law of contradiction because the knowledge can only be a certain representation which is true or false, not both of them. However, Kant found that some formal logic judgement put the two contradicted predicates to make a judgement that like “it is not possible for a false thing is true simultaneously.” Therefore, in order to avoid the breaking law of the contradiction caused by the simultaneity, Kant change the statement to double negating: “it is not existing a false thing is true”. ChaoDu’s explanation reveals that Kant consider that the range of all the rules of the formal logic must be under the law of the contradiction and Kant potentially acknowledge that the simultaneity of the contradiction is the range of the Transcendental logic. This separation give knowledge a stable representation and provide a space for the metaphysics in the area of the Transcendental logic.

3.4. Related Philosopher

Based on the empty space of function of the Transcendental logic in reasoning, the philosophers after Kant can build their metaphysics on the foundation of Kant.

XiaoMang provide the analysis about how other philosophers build on the theory of the Transcendental logic and formal logic of Kant [4]. About Hegel, XiaoMang states that Hegel inherit the separation of the Transcendental logic and the formal logic. But Hegel push subjective initiative one step further. Firstly, Hegel states that the function of the Transcendental logic is not about cognition awareness provide the concept by the ability of the connection and the synthetic unity; the concept itself has the subjective initiative to “urteilen” to the two sides of the judgment. Hegel states that the judgment, form, and the justification of the formal logic is all from this dialectical logic. Therefore, for the epistemology of the Hegel: the knowledge is come from the category and the concept itself, not the connection and the synthetic unity. Even through Hegel neglect the Kant’s explanation about the Transcendental logic and the formal logic, Hegel’s theory is on the structure of the Transcendental logic and the formal logic and give his own definition. Moreover, based on the XiaoMang’s explanation about the Hegel’s inheriting of the Kant’s theory of the Transcendental logic, Yihua explain the inheriting of the Transcendental logic in a different way and expand the inheriting to the Marxism [9]. Yihua states that the most importance of Kant philosophy is that under the restricting the range of the formal logic in “understanding” by Transcendental logic, Kant insist the openness of the Transcendental logic compared to the dogmatism of the absolutely truth given by the former philosophers. YiHua criticize that even through Hegel finds dialectics as the origin of the function of the Transcendental logic, Hegel closes the epistemology built on Transcendental logic because Hegel still insist the priority of the absolutely truth base on the idealism. Therefore, YiHua believes that Kant’s theory about the relationship between the Transcendental logic epistemology is more advanced than the theory of Hegel. Move one step further, Kant’s Transcendental logic theory closely connects to the Marxism because only Marxism combine the materialism and the dialectics and identify the epistemology itself as an dialectical system which remain developed and open. Both XiaoMang and Yuhua show a distinct way of inheriting the Transcendental logic of Kant, the varied developed on the Transcendental logic of Kant emphasis Kant’s Transcendental logic creates a new direction of the developed of philosophy which not only transform the old metaphysics completely but also make a foundation of the contemporary philosophy.

4. Conclusions

Overall, the text reviews the Chinese scholar research on the Kant’s theory about Transcendental logic and formal logic base on the critique of Pure reason. The discussion begins at the origin of the

Transcendental logic. The lots of discussion about the Kant's Transcendental logic and formal logic of producing systematic knowledge shows that Kant's philosophy of epistemology attaches importance to the rational thinking process inside the brain. Logic, from the view of Kant constitute not only the function of producing the experiencing knowledge but also the metaphysics which about the value and truth. This shows a tendency that philosophers start to focus on the rational thinking and the exploration of the inner cognitive ability compared to research on the external objective like god and the first mover in history. The tendency may prove that the Kant is affected by the enlightenment movement in period he lived in and the appeal of the research of psychology and cognitive behavior of science. Next, the text views the theory about the importance of the cognition awareness about applying to the function of the Transcendental logic and formal logic. As the cognition awareness is the leading of the function of the Transcendental logic and formal logic, in the view of Kant's epistemology, the free willing as the humanity is potentially proved. The all the knowledge human gets tied with the objective activity of the cognition awareness, thus human's thinking hard to completely control by other objects. However, It is necessary Kant did not provide more profound explanation about the origin of the cognition awareness which seems a bias. On the last part, the text reviews the range of the Transcendental logic and formal logic and the connection to the philosophers' theory after Kant. The strict and completely separation of between the epistemology of experience and the metaphysics prove the authority of the science which is under the range of the phenomenology. Moreover, the meaning of the metaphysics become a systematic epistemology about realization of the world and the explanation of the origin awareness[10]. Overall, as the words from Yihua, the Kant's foundation both on the phenomenology and metaphysics provide a complete structure for the appearance of the modern western philosophy.

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