



The Analysis and Critique of Cognitive Rationality from Rescher's Viewpoint

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Abstract

In Rescher's view, the cognitive rationality is using dialectic arguments for managing the acceptance of various beliefs and answering the individual's questions in the best way – an approach that can entail access to rational propositions and true knowledge. While believing in the limitation of rational faculties, Rescher maintains that the intelligence endowed in human being in an evolutionary way prepares the ground for his access to the authentic knowledge. The cognitive importance of the criterion of investigating the value of knowledge suggests the existence of an effective factor that can help us in qualitative and quantitative promotion of and deepening our essential information. Skepticism rejects the possibility of accessing authentic information and puts a seemingly strong obstacle on the way to implementing and realizing the goals of argument, and maintains that cognitive rationality is never possible. Rescher considers justification of skepticism based on

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the wrong assumption that the rational justification of a belief is restricted to the deductive reasoning founded on pre-justified propositions. However, in addition to this, we have the method of hypothetical justification that skeptics ignore.

Keywords

rationality, cognitive rationality, skepticism, Rescher

Introduction

The power of reasoning and its application in acquiring consciousness is a natural and innate matter. Inconvenience of not knowing is a natural sense, and unawareness of the surrounding environment is, from the evolutionary viewpoint, dangerous for the man. This is a useful natural sense, and awareness of the things and events occurring around one is of great practical importance (James, 1997, pp. 78-79). By proposing Aristotle's idea that 'All men by nature desire to know' (Aristotle, 1924, p. 101), Rescher says, "We as rational beings are not persuaded by any answer to our questions, and just those answers persuade us that are coherent and consistent. The motivation for acquiring cohesive information is one of the basic pillars of cognitive intelligence, and the cognitive gap or disorder is as discomforting for us as physical pain, and bafflement and ignorance cost us much" (Rescher, 1988, p. 65).

In the contemporary philosophy, discussion of rationality – as one of the most fundamental discussions of epistemology – has gained importance more than before and, instead of stressing on the ontological issues, rationality is considered as the main pillar of discussions on epistemology. The main issue regarding the rationality is the question of what 'being rational' and 'living rationally' are and on what foundation we can consider a belief or a behavior as reasonable or consider someone as wise. After centuries of discussions about 'rationality', the efforts for recognizing this concept is difficult and without achieving an agreement about the meaning of rationality, various definitions have been offered for it (Rabi'-nia, 1394 SH, p. 2). The question about *whatness* of 'rationality' plays a central role in the theory of rationality and it is a meta-epistemic question; and in the opposite direction, there is a practical or normative epistemological

question about what to be recognized and how to recognize them (Fumerton, 2006, p. 26).

Seemingly, it is necessary to introduce a coherent and consistent view about rationality by using an analytical and critical approach. Nicholas Rescher is among the prominent philosophers who deal with this discussion in a serious and detailed manner. He offers a coherent view with many strong points that make his view distinguished, and any inquiry about rationality needs to consider and investigate his view. Unlike the views of philosophers such as David Hume, Friedrich Nietzsche and Herbert Simon, Rescher believes that considering rationality as 'a slave to emotional feeling' is unacceptable. In his view, rationality has both a domain of method that investigates the way to achieve the goal and the cognitive and evaluative sphere that are used to discover and evaluate the matters. If we have improper and unconsidered goals, we will not be rational, no matter how effective and efficient our tools and methods are. On the other hand, Rescher cast doubts on the interpretation of rationality as 'maximizing utility' and argues that the type of 'economic rationality' based on pure and unevaluated desires are just nominally rational, for it is possible that – in principle – they seem quite irrational. In Rescher's view, the real rationality is seeking to realize the valuable goals. Among other important features of Rescher's theory of rationality is simultaneous acknowledgement of limitations of human rationality, which is considerable in the cognitive realm and perfect support of public and universal rationality. Accordingly, anything performing it, believing it or considering it as a value is rational for someone is necessarily rational to the same extent for any other person in the same conditions. Rationality is a universal concept, but it also depends on the environmental conditions and the situation.

Numerous works have been composed, in Persian, in expositing

and criticizing Rescher's opinions in the sphere of logics, but two articles have been published about Rescher's rationality as follows:

- Sate', M., Javadi, M. and Monfared, M. (1401 SH). "Aqlāniyyat-i Ahdāf az Dīdgāh Rescher" in *Zhihn Magazine*, no. 23. This article deals with the rationality of goals in a concentrated manner and does not investigate the cognitive rationality.
- Poli, R. (2007). "Rescher on Rationality, Values, and Social Responsibility" (Trans. 'Eydi, B.) in *Kitāb Māh-i Falsafa*, no. 3. This article falls in the category of introducing books and briefly introduces Moutafakis's book on Rescher's philosophical thought. The present article makes use of Moutafakis's opinions by precisely mentioning the source.

1. Rescher's Theory of Rationality

In Rescher's view, rationality is a broad concept including all states of life divided into practical and theoretical sections. Rescher accepts the limitations of rationality and its importance in the cognitive realm and rejects the concept of 'maximizing' which includes all existing possibilities. Instead, he offers the concept of 'optimizing', which means recognizing limitations, and guides our decision towards the best we can do in a real situation (Amanda, 2015, p.1). Optimization is certainly a theory in the sphere of studying the ultimate wisdom and considers reality as having a certain goal called 'optimization' (Rescher, 2006, p. 3). Rationality means wise search for proper goals and includes three interconnected argumentative methods as follows: cognitive argumentation related to information; practical argumentation related to actions; and evaluative argumentation related to values, goals and proprieties (Rescher, 1988, pp. 12-13). Evaluative argumentation specifies the properness of goals, and cognitive and practical argumentations make possible the wise search for them through inciting the actions in

the light of the best information acquired, which ultimately leads us to proper goals. Thus, rationality is related to both goals and means, and it has both individual and public aspects. Its individual aspect specifies what action is reasonable for a certain person in certain conditions; and its public aspect specifies what the logical and reasonable matter is for every individual. In the ideal state, these two aspects conform to each other. The extent to which these two aspects deviate in sub-ideal states is equal to the extent to which certain individuals cannot behave in completely reasonable way (Kekes, 1994, p. 2).

Rationality necessitates 'intelligent pursuit of proper goals' and having 'persuasive arguments' and applying good arguments (Rescher, 1988, p. 3). In his explanation of rationality, Rescher stresses on its normativity, and considers goodness or persuasiveness of the arguments that rationalize the beliefs, actions and evaluation as the origin of this normativity (Siegel, 1992, p. 3). The sayings originated from rationality have a normative format and tell us how to go forth to find the answer to the questions of what to believe, what to do, and what to consider valuable. Thus, 'a rational person is the person who decides on the basis of argumentation in his beliefs, actions and evaluations, and attempts to take and enforce all his decisions with consideration of the strongest arguments' (Rescher, 1988, p. 10).

Rationality necessitates having ability for 'giving a description' wherein the individual uses his intelligence to present the 'logic' for what he does as a proper action. The individual must be able to describe the reasons for what he does sufficiently so that others can understand him and accept that going forth like him is reasonable. Wherever the agent has a deficiency in managing his beliefs, assessments and actions, whenever the agent's information or his evaluations or decisions are improper in an environmental condition, rationality fails.

There are three types of rationality pertaining to three domains of rationality: theoretical or cognitive rationality (related to information), practical rationality (related to actions), and evaluative rationality (related to values, goals and preferences). In Rescher's view, a systematic unity governs these three types of rationality and they overlap one another in a way that one cannot separate them. The rational justification of what we do, we believe or we consider as a value must come out of the layers of the process of rational selection, i.e. from the layer of concrete and objective items to abstract principles of rationality that enjoy universal validity (Moutafakis, 2007, p. 30).

2. The Cognitive Rationality

Every human being has some beliefs about himself and his surroundings, is able to manipulate his beliefs, and can change them. Thus, it is necessary for the 'process of making belief' and the 'process of adjusting belief' to define and adjust certain methods, foundations and logic to specify believing in what propositions is rational. The goal of the theoretical rationality is believing in right beliefs and not believing in errors. The theoretical rationality pertains to the issue of value and limits of knowledge and ability of its realism, and discusses issues such as the criterion of distinguishing between knowledge and non-knowledge, how to evaluate the epistemic theories and choosing their best. As a result, we can consider it as specified to the sphere of theory, beliefs, reasoning and argumentation with the main question of what causes the theoretical procedures and practices to be rational (Pollock and Cruz, 1999, p. 320). Max Weber believes that the theoretical rationality is dominance over reality through the most precise abstract concepts (Bahman-pur, 1297 SH, p. 480). And for Howard Sankey, the rational belief is the belief that plays the role of normative and value criteria (Sankey, H., 1994, p. 124). Sometimes, the

irrational beliefs is considered as a belief that is clearly in conflict with what the person must know and is a kind of illusion. According to this account, any belief that is not irrational is a rational belief. Rescher maintains that 'cognitive rationality' is using the persuasive arguments for managing various beliefs and answering the individual's question in the best way. The commitment of argument for cognitive inquiry is an absolute commitment and causes the generation of insatiable demand for development and deepening of the information. Argumentation cannot leave alone an issue that – to some extent – is going forth well; rather, it insists on our non-stop perception of the surrounding world and ourselves. (Rescher, 1988, p. 48).

The man is an inquirer seeking for answers to his questions. The need for information and cognitive knowledge about the surrounding environment is, like the need for food, among the man's immediate needs. We as rational animals must provide the food for our mind and have to be satisfied with the best thing at our disposal in search for information, just like in our search for food. This need for acquiring information and understanding forces us to make all-out effort to fulfill it.

Without having information about our surrounding, we cannot act. This motivation for acquiring coherent information is one of the fundamental bases of cognitive intelligence. The cognitive knowledge must be formed of understandable materials and present a comprehensive and coherent explanation of what are there in our environment. Cognitive gap or disorder is just as painful as physical pain, and confusion and ignorance will cost us much (Rescher, 1988, p. 65).

The duty of cognitive rationality is assessing verity and rightness of propositions. The desirable point in our effort for achieving valid cognition is accessing the standards that make possible acquiring more

fundamental and more authentic knowledge. Among these standards, we can refer to integrity, strength and simplicity. The closer is the knowledge produced in our mind to these items and the more internal order it enjoys, the more convincing and assuring it will be.

3. The Dialectic Argument

Since Aristotle's time, the deductive argument has been the only type of argument enjoying a high level of importance and validity for providing reliability and certainty of the propositions. The result of such an attitude is the tendency of philosophers towards the deductive arguments furthering in a linear form and turning away from other types of proofs unable to provide validity for propositions. Rescher, while opposing this view, considered dialectic argument more proper for the condition of acquiring knowledge. He puts away linear arguments and turns to circular or dialectic arguments. The importance of Rescher's emphasis on dialectic arguments is clarified when, with some reflections, we find out that we are stuck in the wrong belief of the ancient Greeks that only those spheres whose rational patterns are developed through mathematical arguments and in a linear form are strong and coherent; and that only when we argue on the basis of inferential method, the results are reliable and cohesive. On the contrary, in any sphere wherein we develop and progress with circular and dialectic arguments, they have a lower degree of validity (Rescher, 1988, p. 90).

The dialectic argument, according to Rescher's definition, deals with repeated examination of the previous results and findings in the light of new results and findings. This model of argumentation is in the multi-stage form and during it, one subject is examined from various inconsistent angles, going forth in annular or circular form. It

repeatedly returns to this certain issue and examines it from various angles. Repeated investigation of an issue from various cognitive views, which are interchangeably inconsistent, is the very feature that distinguishes, more than anything else, the dialectic argument from the inferential linear arguments. Such circular methods deepen the individual's understanding of the subject under discussion and lead to achieving results that are more precise. Through continuous reconstruction of information, the person investigates information each time from a special aspect and evaluates them from various angles, using a variety of premises and even inconsistent ones for proving them (Rescher, 1988, p. 83). The processes of inferential and dialectic argument, though they are different from one another in different ways, are not different in that one of them is related to considered thinking and the other to irresponsible carelessness, one is quite scientific and the other is merely simple and trivial. The general tendency towards the mentality that humanities are non-scientific disciplines is rooted in the too much limited and backward perception of strong and solid argumentation. The claim is not that there is no difference between formal sciences and natural sciences on the one hand and the humanities on the other hand. Rather, the main idea is that their difference is not in a way that we can consider, on that basis, the former group of disciplines quite scientific and the latter group non-scientific (Rescher, 1988, pp. 89-90).

The unique feature of the dialectic arguments is that, in addition to repeated examination of new results and findings and going forth in annular and circular form, they cause the possibility of inconsistency in macro and general level of mental information. Such a circular method deepens the individual's understanding of the subject and causes his access to precise results. Inconsistency in the

sphere of exclusive and specific beliefs and opinions does not occur for one proposition, because such a state leads to conjunction of contradictory ideas. This inconsistency and non-harmony among the data or, so to speak, inconsistency among the premises is just a local disorder, not necessarily overall, and will lead to no anarchy. By referring to various degrees of inconsistency, Rescher believes that inconsistency of the weak type is not so much far from the mind and occasional contradictions are possible to occur. We must be ready to face these occasional inconsistencies in the general structure of our knowledge, not in the local scale, but in the macro scale. It is in such a case that, from the rational viewpoint, we can accept the occurrence of 'A' in one state and the occurrence of 'other than A' in another state. Such an attitude to inconsistency is the result of the reality that although consistency is an important cognitive principle, it is not the basic prerequisite for logical beliefs and thoughts, and it is not necessary that, from the very onset and before starting any task, we emphasize it unconditionally.

The event occurring in the moment of facing the inconsistent information is that, instead of suspending the judgment or preferring one source to the other, we can be hopeful, by temporary acceptance of and considering the data obtained from all sources, that more issues will be clarified upon going forth. This necessitates the acceptance of inconsistency with the hope to achieve the desirable reality. In acquiring authentic and valid information, we always hope to achieve our scientific ideal – which is the harmonious, cohesive and consistent information – in the near future. Thus, consistency is something that we must attempt to achieve at the end. We must expect its occurrence, not demanding it from the onset. In this way, consistency is the ultimate ideal, not an immediate requirement.

4. The Cognitive Importance

The cognitive importance means a foundational criterion for examining the value of knowledge. That is, an effective factor exists that can help us in qualitative and quantitative promotion and deepening our essential information. The cognitive importance is determined on the basis of factors such as essential validity, centrality, publicity, and fruitfulness. Similarly, the cognitive validity is the extent of efficiency and efficacy of a cognitive issue in acquiring comprehensive and compiled information about the surrounding world. Rational qualification in studying the criterion of knowledge is specified in the following way: the descriptive-informational theories or value judgments have the rational acceptable or valid cognitive conditions that optimally formulate our cognitive information, and this formulation continues under the support of the real-descriptive generalities (Rescher, 2001, p. 7). In cognitive validity, the knowledge is valuable just to the extent it fulfills our need for understanding. In Rescher's view, no informational data enjoys absolute importance; rather, all data are tools for producing knowledge and, depending on the environmental conditions, they are considered important in gradational form. The importance of information is generally the product of systemic factors, not separate factors. As a result, in time of examining the cognitive importance, we must look at issues beyond the cognitive reality separately and must pay attention to its real position in a larger scale. The cognitive importance depends on the fact that to what extent an informational item can make difference and to what extent it can clarify other issues (Rescher, 2017, pp. 103-104).

The cognitive importance is discernable just when the consequences of an informational item are manifested more and more, and the extent of its participation in improving and completing the body of our previous knowledge is specified. Besides, the practical

importance of a proposition is subordinate to what the person must do, considering the principles of logic and rationality, due to being aware of that proposition. And this, in itself, can be different from what occurs in practice and in the real world. Whether in the sphere of knowledge or in the sphere of practice, importance is something dependent on reason. Importance is not determined just on the basis of the personal views of the individual receiving the information. Rather, what is decisive constitutes the conditions and features of the situation wherein the individual is, and they are objectively explicable and describable. In this way, the cognitive importance is an objective matter, and it has no homogeneity with the individuals' personal desires and is specified based on the objective criteria and norms. The formal importance does not necessarily mean the real importance, because in the formal importance, personal views have a decisive role, but this is not the case in real importance (Rescher, 2017, p. 106).

5. The Cognitive Rationality and Skepticism

The limitation of informational sources is an inescapable reality that leads to formation of the skepticism approach and denial of cognitive rationality. Using definite proofs in accessing theoretical and practical goals is what philosophers always wish, but what hinders achieving this exalted goal is deficiency of information, weakness of mental faculties, and human's particularistic look at the surrounding issues, which –sometimes – causes human's distance from objective reality. By rejecting the possibility of accessing the reliable information, skepticism puts an apparently definite obstacle in the way of making the goals of argument operational and realizing them, and it maintains that cognitive rationality is never possible. The fanatic skepticism insists that there is never a convincing justification for accepting various beliefs.

In Rescher's view, justification of skepticism is based on a wrong assumption based on which, the rational justification of a belief is restricted to a way founded on the pre-justified propositions. In this method of justification, always there must be another pre-justified belief on which the present belief is founded and, by considering it, the rightness of the current belief is proved. The argumentative justification is homogeneous, wherein some justified beliefs must be used as inputs so that one can achieve justified beliefs as outputs (1988, p. 49).

However, the idea that this rational justification can be originated from a former rational justification is quite wrong. In addition to argumentative justification, we have another method called hypothetical justification, easily ignored by skeptics. Unlike argumentative justification, the hypothetical justification is not based on intermediacy of pre-justified beliefs; rather, it originates directly and immediately from a presupposition. A belief is justified through a hypothetical method when there is a presupposition in its favor and there is no justified rational argument based on not accepting it. The rational rightness of a belief that is justified through a hypothetical method is based on the reality that there are some 'proper and desirable evidence' for it, and there is no justified evidence against it. For instance, if after precise examination, I conclude that there is a cat on the mat, I can accept quite logically the claim that 'there is a cat on the mat', not based on pre-proved premises, but merely on the basis of my own objective perception. The basic consideration here is that there is no justified argument based on which I have not to confirm such an objective perception and not to consider it as valid (Rescher, 1988, p. 50).

The beliefs that are justified hypothetically constitute the raw materials for knowledge and show claims that are acceptable in the absence of justified evidence against them and, consequently, make possible the cognitive justification of affairs without using pre-

justified beliefs and propositions. This type of beliefs are always subject to risk of invalidation, but just those beliefs that enjoy strong evidence can invalidate them. As a result, the unwelcome consequences of the idea that all processes of rational justification must be based on propositions already justified on the basis of rational processes are removed.

The role of hypothetical justification in cognitive rationality is quite a fundamental one. In this type of justifications, rationality consists of two parts: the argumentative (or ‘conditioned’) part, and the essential (or ‘absolute’) part. The argumentative rationality stresses on the principle that ‘if you accept certain propositions, you must also accept their consequences as well’. But this principle alone cannot be fruitful unless the person has obtained and accepted acceptable propositions elsewhere. This is where the essential rationality enters and enables us to take definite measures. Presuppositions specify our basic and initial commitments and thereby enable us to start the process of cognitive rationality. According to this process, more arguments may be formed in the next stages (Rescher, 1988, p. 50). Rescher states that a skeptic cannot afford to explain the hypothetical justification. This is while exactly this aspect of rationality makes possible the formation of the process of cognition. The hypothetical beliefs lead to ‘the beginning of the process of cognition’, without impairing our desire for increasing understanding and awareness of the world (Moutafakis, 2007, p. 43). Adopting the approach of hypothetical justification is desirable also from the viewpoint of cost-benefit. The hypothetical justification launches an inquiry plan to which we are already committed. This is an initial stage based on which massive achievements of systematic study and achievements related to the sphere of rational cognition are realized (Moutafakis, 2007, p. 44).

On the contrary, the skeptical approach eliminates any probability of obtaining information for supporting logical claims from the very onset, and this is a great deficiency (Rescher, 1988, p. 64). The one who risks with considerations is more successful than the one who avoids risking, because the risk-taking person gets more answers for questions than the risk-evading person (Moutafakis, 2007, p. 44). For a better understanding of the possibility of realizing cognitive rationality in contrast to skepticism, it is useful to investigate three completely different approaches to risk.

- Risk-avoidance approach, meaning avoidance of any risk with the motto of ‘Never take a risk!’
- Risk-calculation approach, which is a more moderate view based on essential cares and calculations. This approach is divided into two approaches: cautious calculation and bold calculation. In the former type, negative matters affect taking risk, but these negative matters can be marginalized by the considerable benefits of risk-taking. The motto of this approach is ‘avoid risks unless it is relatively clear that you gain a benefit great enough from that risk.’ The latter type considers taking risk under the influence of positive matters, but negative matters can marginalize these positive matters. The motto of this approach is ‘take risks unless it is relatively clear that taking risks will have a great and unexpected harm for you.’
- Risk-seeking approach, which recommends going after risks. The motto of this approach is ‘all events will lead to desirable results’.

These three approaches to risk are related to three different attitudes. ‘Pessimism’ is related to risk-avoidance, ‘realism’ is related to risk calculation, and ‘excessive optimism’ is related to risk-seeking.

What seems rational and logical to do is adopting a moderate method, a method that, in general, minimizes the probability of occurrence of all kinds of error.

Thus, the first and third approaches, in general, cannot be optimal ones from the rational viewpoint. In the moderate approach, calculating risks and considering their negative and positive effects is the basis of action, in a way that errors are reduced to the least level in general. Thus, argumentation invites us to logical calculation and cautious management, and advises us to follow Aristotelian idea of 'moderation' and to avoid extremism or negligence in avoiding and seeking risks (Rescher, 1988, pp. 55-56).

6. The problems of Skepticism

The beneficial function of skepticism is remembering the extent of avoidable risk in knowledge and remembering the essential risks of claims that speak of definiteness, knowledge and absolute truth. We cannot say that a certain claim is quite definite, right, proved and free from any errors and mistakes merely due to being authentic, plausible and justified from the cognitive viewpoint (Rescher, 1988, p. 72).

Despite this positive function, skepticism suffers from many difficulties, including the following ones:

6-1. Paying a Heavy Price for Failure from the onset.

The skeptics simply ignore the goals of cognitive efforts. The goal of rational quests is not merely preventing the occurrence of errors; rather, they aim at finding the answer to questions and obtaining necessary information about the universe. In skepticism, immunity from errors is obtained at a very high price; i.e. not starting from the onset. But if we

never start a task, we definitely and certainly will not reach anywhere. This is the situation where the all-out forbiddance of accepting various beliefs by the skeptics leads (Rescher, 1988 p. 61).

6-2. Considering all Claims as Equal

Perhaps no other critique and objection to radical skepticism is more influential than the fact that for a skeptic, who rejects everything, all claims pertaining to the objective reality of the universe must be considered equal. For him, no claim is more correct than other claims, and there is no difference between two claims from the rationality viewpoint. The best way to confront skepticism is to start from method (standards and criteria) instead of certain propositions or claims (Rescher, 1977, Oxford). Accepting the presupposition in order to use rationality, including the cognitive rationality, is rationally inevitable. Perhaps this presupposition leads to the conclusion that accessing a pleasing knowledge about objective realities is impossible. But until we reach that last stage, we can and must go forth based on the idea that accessing such knowledge is quite possible (Rescher, 1988, p. 62).

6-3. Not Taking Action and Establishing Relationship

Skepticism must enter to action for the human's living and growth in the universe. But they say this action is not necessary to be based on knowledge. Rather, non-cognitive guidance such as appearance, manners and customs, public consensus, and instinct are sufficient for action. Another problem of skepticism is here, because although it is possible to have foundations for action, it cannot defend its own

actions, it cannot justify why instead of doing 'B' it has done 'A'. Indeed, skepticism eliminates any probability of presenting rational evidence for practical processes, while any framework that negates the possibility of existence of authentic cognitive claims shows its own inefficiency and unacceptability, not of cognitive claims.

A radical skeptic not only lags behind in attempting to obtain information, but also loses the possibility for establishing relationship. The skeptic rejects the basic rules of establishing relations with others by rejecting the basic rules of argumentation. Entering a dialogue necessitates accepting rules and regulations that make the dialogue possible. But if we cannot accept anything, no rule can be created. As a result, no dialogue is formed (Rescher, 1988, p. 71).

For example, understanding the speeches and utterances of the members of the society 'A' requires us, before and more important than anything, to understand what they are speaking about. If any member states a different matter using common words, we will have no way to understand their language. Besides, we must be able to discern, rightly, what they mean, because understanding something in their language depends on the fact that they can successfully refer to the concept they have in mind and can distinguish right and wrong interpretations. Besides, the members of the society 'A' must be committed to rules such as 'no transgression', because without it, our intellectual system will do nothing and will be entangled in the logical dilemma. As a result, the possibility of any precise and considered judgment and, consequently, the possibility of any effective relationship will vanish (Yoon, 2020, p. 2).

6-4. Promoting Despair and Human's Adverse Situation

The skeptic's view necessitates performing the lowest task possible from human's viewpoint; that is, complete despair from improving the conditions, distrust in others' rational actions and benevolence, and not trusting in the limited knowledge we have obtained with perfect consideration. While rationality wants us to take risks, a skeptic is even unable to think of it (Moutafakis, 2007, p. 42).

By rejecting skepticism and accepting evidence essentially indefinite as a foundation for justifying the acceptance of beliefs, Rescher adopts the pragmatic position that just as performing logical actions is useful for a conservative person in any conditions, this is true for accepting beliefs as well. This is because accepting beliefs is one of the human's actions and helps in realization of cognitive goals – both practical and theoretical – more than before. Therefore, the basic desire to obtain information and perceive our surrounding environment puts pressure on us and we must do anything to fulfill that desire. From the pragmatic view, this needs justification, and we must put aside skepticism as a theoretical position, with all kinds of its advantages and disadvantages, by adducing practical evidence (Moutafakis, 2007, p. 66).

7. Evaluation of Rescher's Theory of Cognitive Rationality

One of the main foundations of Rescher's theory of rationality is the principle of evolution in the nature. In explaining numerous issues, Rescher makes use of this principle. Among them are the following ones:

A) Comprehensibility of the nature and emergence of intelligence. By posing the question of 'why is the nature

comprehensible for the man?’ Rescher proposes his fundamental discussion on the central role of evolution in making possible the emergence of human’s intelligence and considers evolution as the oldest known system in the universe without which life is impossible. He believes that through evolution as dynamic and ordered system, it is possible to explain rationality. The nature of rationality as a general concept has a close tie with our understanding of the systematic process of our evolutionary changes and our situation as an inseparable part of this process (Rescher, 1988, p. 176).

Rescher’s position on the function of intelligence has been criticized. Rescher’s “qualified idealism” and “qualified realism” infuses a sense of contrast and conflict between these two beliefs: (a) our knowledge of the universe is a reflection of our interaction with the universe as it is, regardless of our theories about it. (2) All what can be said about this real universe is what our theorizations let us discover and perceive. The question is why we must believe in the existence of a pre-theoretical universe that sends information to our mind, while all we know about it is due to our theorizations. Rescher considers the critics’ doubts because they could not have considered the ‘retrospective’ aspect of the issue under discussion. When we are inquiring and theorizing about the universe, the above question is never posed. But when we expand knowledge and reach a general image and a theoretical description of the universe, then we can think about the essence of the real pre-theoretical universe retrospectively. Just in such a condition, we start to pose question about the real universe. But the previous experience of theorization shows that this image can evolve in some details and aspects, and this happens frequently. According to what experience shows, we know that regardless of the extent of precision of our descriptions of the universe, the final description is always revocable, and it will never be

perfect and free from deficiencies. Rescher believes what preserves the integrity of the separation between the appearance and the reality is the acceptance of the 'real universe beyond our understanding' after describing the universe through theorization. Thus, 'idealism' as a concept is explained by 'the reality beyond the appearances' (Moutafakis, 2007, p. 12).

B) Compatibility of nature with mathematics: the reality that the universe is 'compatible with mathematics' does not necessarily mean that the universe and the nature must precisely conform to mathematical formula. The universe is compatible with mathematics, not because it is comprehensible for us, but because there is something common for both we as intelligible beings having mathematical knowledge and for the universe as the evolutionary process compatible with mathematics. Mathematics is sentenced to be compatible with the nature, because it is in itself the product of a natural process. Mathematics is compatible with and appropriate for the nature, because it is the reflection of a method wherein we are placed as part of the constituent parts of the nature and formed as a product of an evolutionary process running in the scope of the nature (Rescher, 1988, p. 182).

Rescher believes that the success of a mathematical mind in understanding the method of the nature is not a wonderful mystery. When the practical and objective factors related to both sides of the mind and the nature are explained properly and desirably, the individual easily notices that there is no dualism and no platonic intelligence – the intelligence that is essentially perfect from the viewpoint of knowledge, but is separate from the natural universe from the ontological viewpoint. The mind Rescher speaks of is an evolving mind with an inextricable relationship with the nature due to evolutionary processes.

Hypothesizing the mutual interaction of the intelligence and the natural world, Rescher says that we can say, in our part, that the mathematics in its essence and foundations is based on our experience of the natural world. By gaining and having this ‘experience’, in principle, we react to the nature that surrounds us, to the universe consisting of solid stable bodies that we can measure. Definitely, mathematics is not a natural science, but it is a science dealing with things that Rescher calls ‘imaginable constructions’. And this image is formed in the very mind evolved in the nature and surrounded by it. In addition, this mind forms the probable images on the basis of which probabilities are consistent and harmonious with the nature and which ones are not. This does not mean that we use our thinking faculty in relation to the universe we know and, then, we place the mathematical patterns obtained from this process in a broader theoretical framework. Thus, it is not surprising that the mathematics we have discovered and found so much useful can – in effect – be applicable in our understanding of the nature in a very useful manner.

Rescher’s position on the nature’s comprehensibility and its consistence with the nature is also under criticism. The proposition that ‘the nature has laws necessarily consistent with mathematics’ is never a definite and axiomatic idea. This is while Rescher never proves that nature has laws and, in addition, he does not prove that these laws are essentially and necessarily consistent with mathematics (Moutafakis, 2007, p. 27).

In completing this critique, George Gill argues that Rescher ignores the Pythagorean possibility that ‘the mathematics may have been devised into the nature’. Based on Dirac’s proposition that ‘the physical universe has been determined and completed through an arithmetic principle in its essence’, Gill states that there is a

mathematical feature in the nature. According to this proposition, there is – in principle – one possible mathematics in the universe, just as there is a physical universe. According to Gill's opinion, if Rescher encountered this theory early in his discussion, it was possible for him to revise his separation of the pure math from the physical math or his hypothesis about evolutionary interactionism.

Gill maintains that the old proposition conveys the meaning that there is a universal mathematics and it is the pure mathematics. Unlike Rescher's claim, no matter what effect the environmental factors have, or what features – say – a strange life has, ultimately that intelligent being will reach – like his human counterpart – that mathematics, because both extract the mathematical concepts from the common world wherein the mathematics is placed (Rescher, 1988, p. 28).

It seems that, in this critique, Gill is not right and cannot invalidate the distinction between applied and pure math offered by Rescher because he has not taken the Pythagorean proposition seriously. The fact that the natural order of discoveries in mathematics has a historical course is still running and confirmed by astute thinkers since Plato's time. It means that we firstly encounter processes and then observe the rules and repetitions existing in processes. We, then, identify the regular patterns and, finally, we arrive at enumeration. Perhaps the completion of human's understanding can show that this process has been an accidental event or that these repetitive patterns are accidental events with no generality in the whole universe. However, none of these consequences focused on future is related to the present reality and the fact that we can consider those orders and rules as laws and classify them in the form of mathematical formulas.

Rescher's account of reliability of knowledge and rejection of skepticism also faces numerous critiques. Rescher's use of hypothetical

argumentations as a method for rejecting skepticism proves that following skepticism makes impossible one of the basic aspects of human's florescence, i.e. acquisition of theoretical knowledge and cognitive understanding. This kind of rejection of skepticism by Rescher is based on his pragmatic defense of cognitivism and, as a result, Rescher's invalidation of skepticism is not a theoretical invalidation (Moutafakis, 2007, p. 51). It is as if Rescher, with his pragmatic thought, presents a reasonable criterion for evaluating the desert of our cognitive products (ideas, theories, methods, and trends), the criterion whose foundation is beyond the pure theory. Using the capability of successful practical application and implementation of such intellectual tools, he steps in the realm of reality and real world in regard with the issues of the scientific society and intellectual scholars.

According to the proposed critique, Rescher's defense against skepticism is not a direct critique and challenge against it, because his critique does not answer the key question of whether it is possible to acquire knowledge at all or not, while this is a very important issue for skeptics. Although Rescher has well shown that skepticism is not a beneficial and fruitful philosophical position and that its adaptation in indeed is opposition to human's essence, who is always seeking to know, this does not have anything to do with the basic claim of skepticism that 'no knowledge is possible'. Neither hypothetical argument nor any other alternative of the same breed in the future – founded on stronger evidence – can change the fact that we will have with us the 'unwelcome doubt' that perhaps all what we think we know are in principle wrong. This kind of doubt is easily exacerbated by resorting to the so-called 'skeptical probabilities'.

We must note that all our judgments about the universe are

subject to revision or nullification, and the importance and validity of skeptical challenge in facing the cognitive rationality precisely originates from this fact; and this is what Rescher did not deal with in his critique of skepticism. There is no vivid and direct conceptual link between the cognitivists' approach to the obligatory quest for knowledge and their hidden hypothesis that knowledge is possible in principle.

In confronting with the skeptics, Rescher attempts to return his question to cognitivists themselves, and maintains that cognitivists consider the possibility of knowledge as presupposition *a priori* and implicitly and, accordingly, they seek to prove that acquiring knowledge can systematically lead to successful action (Rescher, 2005, p. 5). Accordingly, Rescher's statement in criticizing skepticism to the effect that there are two definite choices, i.e. skepticism and cognitivism, and that cognitivism has a high validity, is a misleading discussion. In effect, there are no such choices, because the fate of the proposition of the possibility of knowledge, which the cognitivists assume and the skeptics completely reject, has not been specified.

Rescher does not accept the above critique and, in his answer, states the argument proposed against cognitivism as follows: (1) Skepticism may be a right approach. (2) Since it is possible that skepticism is a right approach, then nothing can be proved definitely. (3) If nothing can be proved definitely, then knowledge is also not possible. He then considers the problem of argumentation in its third premise wherein he claims that only those claims are accepted as knowledge that can be proved definitely. Rescher says he has supported a standard interpretation in this regard in all his writings. This standard interpretation, like skeptics, does not define knowledge as something proved definitely. Thus, he considers the above critique

invalid and without relations to his own concerns (Rescher, 2005, p. 52).

It seems that such a defense of the validity of knowledge is not successful and, at best, it can claim that trust in reason and acquired knowledge has more efficacy and benefit than suspension of knowledge, especially considering that the question about possibility of acquiring knowledge is a theoretical question that pragmatic defense of it is not justified and cannot present the requested answer.

By reflecting on the meaning of truth and its being two-faceted, we can say that truth means the conformation of the mental form with the identifiable and accessible thing. But if we consider the truth as the depth of the thing to be identified, that is, if in studying the identifiable thing, we transfer all its epistemic aspects into the mind, such a recognition is not possible. The cognitive limitation refers to the limitation of each source of knowledge, and identifying the accidents and requirements of a thing is identifying *min wajh* ('in some respect'), and identifying *min wajh* is not identifying *wajh al-shay'* ('the aspect of the thing'). And this originates from the limitation of cognitive sources – including sense, reason and other sources – under the guise of truth and reporting it to human's perceptive system. In other words, the aspect of the thing is out of the human's perceiving ability. But what is proved about the mental existence is that perceiving the thing 'in some respect' is always possible for the human. Thus, what is really perceived is nothing except 'truth', but it is the truth that is always revealed for humans in some respect. Considering this fact, although the cognitive sources and the specific realm of each are limited, knowing and realizing them is possible, realizable and unimpeachable, just as adducing the principle of 'no contrast' puts the skeptic in the junction of 'silence and turning away' or 'acknowledging a certain fact'; in each case he has to give up skepticism.

Conclusion

The cognitive rationality pertains to ‘the process of making belief’ and ‘the process of adjusting belief’, aiming at believing in the right belief and not believing in error. Rescher considers understanding the surrounding environment as one of the most fundamental requirements of being human and regards access to definite, cohesive and errorless knowledge as impossible and considering a percent of error due to limitation of rational faculty as the very order of reason.

According to the findings of the study, to explain the possibility of the rational cognition, Rescher puts the dialectic argument in contrast to the Aristotelian linear argument. In this type of argumentation, the person investigates and evaluates the claim, each time from a certain aspect and angle, through continuous reconstruction of information. And for proving them, he uses various and even inconsistent premises. By the inconsistent premises, we mean a merely local disorder without leading to logical anarchy. The philosophy of using such premises is that no informational data, judged as being inconsistent and non-harmonious, is put aside in one’s mind and all data – whether consistent or inconsistent – are re-explored and re-investigated equally so that no informational source is left without investigation in the acquired knowledge.

By reflecting on Rescher’s opinions, it is clarified that the common point between his approach and that of the skeptics is the belief in human’s no access to definite knowledge and probability of error in human’s knowledge. This is while the skeptics stop here and question the foundation of knowledge. While accepting these limitations, Rescher speaks of the possibility of cognitive rationality and validity of knowledge by adducing the ‘hypothetical justifications’. A belief is justified in a hypothetical manner when there is a

presupposition in favor of it and there is no justified rational argument for not accepting it. The hypothetical justification makes possible the formation of the process of recognition and leads to the 'start of process of recognition'. On the contrary, the skeptical approach faces the challenges of considering all beliefs as equal, fault in efforts for acquiring knowledge and cognition, not founding action upon knowledge and cognition, and promoting lack of motivation and lack of enthusiasm in acquiring knowledge and, somehow, promoting despair in human beings.

Rescher's theory of rationality presupposes the feature of the nature's comprehensibility for validating cognitive rationality, and by adducing the theory of evolution, it introduces the human's minds as evolving, which has an inextricable link with the nature. Rescher says, "After the development of knowledge and accessing a general image and a theoretical description of the universe, we can think about the real essence of the pre-theoretical universe retrospectively". As Rescher believes, what preserves the integrity of the separation between appearance and reality is the acceptance of the existence of 'the real universe beyond our understanding' after describing the universe through theorization. Thus, 'idealism' as a concept is accounted for by 'the reality beyond the appearances'.

It seems that Rescher has proved neither the existence of natural laws nor the essential consistency of those laws with mathematics. Besides, presupposing the theory of evolution inflicts a basic critique upon his theory, because the theory of evolution is still under disputes and researches in the natural sciences and it leads to making a completely philosophical and theoretical issue dependent on the varying empirical sciences. And if that empirical theory is invalidated, all the comprehensive structure and the scope of his philosophical view is shattered.

On the other hand, Rescher's position about the exclusively commercial essence of intelligence is another serious critique on Rescher's theory focused on the tension between 'qualified idealism' and 'qualified realism'. According to this critique, there is a contrast and conflict in Rescher's view that although our universe is a universe known to us due to various theorizations, we still feel that we must accept it in a realistic manner. Why must we believe in the existence of a pre-theoretical universe that transfers some information into our mind while all what we know about it is because of our own theorizations?

The ultimate conclusion, which is worth noting, is stressing on the critique that Rescher does not present sufficient evidence based on which one can be satisfied with investigating the practical successes of the claims for specifying the theoretical verity of those claims. Rescher cannot justify the usage of one criterion related to the 'practical/ emotional' aspects of the cognitive quests in the 'cognitive/ theoretical' aspects, establishing the necessary cohesion among these various spheres.

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