 doi:10.20944/preprints201905.0087.v1

The significance of constructive, reductive, and detection conceptual analysis methods for the postgraduate philosophy scholar at the Global Centre for Academic Research (G-CAR) in the 21st Century.

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Preprints: 2019
Article Type: Conceptual Analysis Methods

ABSTRACT

This article articulates the significance of conceptual analysis (CA) methods for the postgraduate philosophy scholar at the G-CAR institution. In order to clarify the significance, first the concepts were defined, their context examined and the problems posed by the concepts looked at. The activity of scholars who are bent on researching for concepts meaning, was highlighted and the methods scholars use in determining meaning were carefully examined. Three major methods discussed by philosophers, namely, constructive, reductive and detective were explained as well as their significance in helping philosophy scholars do qualitative research in meaning determination. Meaning was found to be a discovery of the observer's relationship to the objective reality as depicted by concepts. The common factor in these three methods was the dominant role both the observer and the human subjects played in determining meaning – a constructive engagement. It was clarified too, that the ability to explicate concepts' meaning is the tool kit or skill sets that all scholars need to navigate the semantic jungle in the 21st Century.

Key Terms: Conceptual analysis methods, constructive, reductive, detection methods.

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Introduction

The Global Centre for Academic Research (G-CAR) is a research oriented institution preparing the scholars for problem solving in line with the National Qualification Framework (NQF). This framework's baseline is competence, whose content range is articulated through Level descriptors from level 1 to 10. Levels nine and ten are concerned with postgraduate levels of competence. The scholars in this centre are groomed to qualify for Masters in Philosophy (MPhil) and Doctorate in Philosophy (PhD). These two qualifications span all disciplines called for in human existence.

(Kleinman, 2013) posits that through philosophy all humans are able to explore concepts like the meaning of life, knowledge, morality, reality, the existence of God, consciousness, politics, religion, economics, art, linguistics – Essentially, philosophy has no bounds in the treatment of content.

A former Oxford Philosophy Fellow Robert Rowland Smith (Smith, 2010) takes the reader through an ordinary day with great thinkers of the past articulating what they might have to say about our daily routine. He deals with issues of waking up, traveling to work, shopping, eating, etc. Great thinkers have linked our daily living as a philosophical existential encounter which emphasized the role philosophy plays in human life, let alone the role a philosophy scholar would play.

Another thinker (Cohen, 2003) hypothesized by posting a question: What would Aristotle do? By articulating the idea of self-control through the power of reason he illustrated how logic can be used to combat everyday maladies like guilt, loneliness, grief, anger, social anxiety and depression.

That is why the G-CAR scholar is on a path of solving human problems in all areas of life. With this said, it is clear that a philosopher bent on solving problems, must follow a specific method of doing so. It is for this reason that this article will articulate the significance of the framework or methods for problem solving that could be used in all content areas by all scholars in the G-CAR and globally.

The content areas are pointing to different contexts and viewpoints or perspectives thus calling for skills in understanding various content areas approaches to the examination of reality. A student of philosophy will thus be able to adapt intelligently in

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viewing different content and contexts to understand the explicit and implicit aspects of the reality encountered.

The Competent Scholar

The NQF has determined exit learning outcomes for all learners in the South African Educational Institutions. The philosophical underpinning of the National Qualifications Framework and the level descriptors is applied competence, which is in line with the outcomes-based theoretical framework adopted in the South African context. (Samuels, J., 2012)

Further the report asserts that the philosophical underpinning of the National Qualifications Framework and the level descriptors is applied competence. The demand for competence implies the call for the development of skills in performance. This is serious demand on the postgraduate philosophy G-CAR scholar! This competence, according to the report, has philosophical underpinnings which are in line with the outcomes-based theoretical framework adopted in the South African context for all educational and training platforms.

The applied competence has three constituent components: **Foundational competence** which embraces the intellectual/academic skills of knowledge together with analysis, synthesis and evaluation, including information processing and problem solving; **Practical competence** includes the concept of the operational context; and **Reflexive competence** incorporates learner autonomy in learning.

A careful examination of the Level descriptors with reference to the type of competence and the content range, the observer of the postgraduate G-CAR scholar can determine with exactness what the scholar is competent in. Further the Level descriptors embrace learning in a wide variety of contexts namely: vocational, occupational, academic, professional and also in environments such as classroom, laboratory, field, clinic, community, etc. Therefore contextual interpretation of the level descriptors within each of the three sub-frameworks across academic, professional and occupational contexts is encouraged. It will be clear later on that the sub-frameworks enhance analysis and the understanding of the ontology of reality. This perspective is a phenomenological stance on the ontology of reality.

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The postgraduate philosophy G-CAR scholar, in order to play the role he is destined for, must collect all the tools needed to navigate through life and specifically solve problems along the way. Without a tool box handy for issues resolution, the scholar's navigation will be arduous, retarded and possibly challenged. In order to enhance the postgraduate philosophy scholar's skill in the tool's usage, the question whose answer must be elucidated is: 'What is the significance of constructive, reductive and detection conceptual analysis methods for the postgraduate philosophy scholar at the G-CAR institution? The answers could be illuminating for enlightened and skilled life navigation – certainly applied competence evidenced.

Note below the philosophic jargon the G-CAR and global philosophy scholar must constantly grapple with and extract meaning that could enhance his problem-solving approaches. Note also, the concepts used. What do they mean, where do they apply what is the purpose of their usage and by whom? Does the reader understand this philosophic jargon? What skills does the reader need to comprehend the explication?

The philosophical aspect of constructivism contrasts the paradigm of positivist protagonists while creating convergence in a post-positivist genre state - the latter often being confused with the post-modernist school of thought. All scripture is mostly interpreted through the use of Interpretive Phenomenological Approach (IPA). The IPA has two divisions, namely Hermeneutical Phenomenology and Transcendental Phenomenology. All these have their Ontology based on Constructivism and the knowledge being interpreted based on interpretive epistemology. Interpretive epistemology, like all forms of epistemology is anchored on four constructs, Authoritative Epistemology, Intuitive Epistemology, Empirical Epistemology and Logical Epistemology. All the above form part of the theoretical taxonomy of one's cogent argument. The praxis of the above will be tested through examination of methodology and methods. Explaining theological concepts needs clear articulation of these established scientific pathways. (Costa, 2019)

Concepts Theories

Theories around concepts are key in understanding research findings, presentations, arguments and conclusions postulated by different writers. According to (Hiorland, 2009) concept theory is an extremely broad, interdisciplinary and complex field of research related to many deep fields with very long historical traditions without much consensus. This then is an indication of the wide field of content areas that concepts theory addresses. For the student of philosophy an understanding of concepts theory is critical. The student must be adept in using the tools called for in concepts usage

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and analysis for meaning grasp. It is also clear that specialists in different fields will come to concepts analysis with a particular background related to their experience and exposure.

(Hiorland, 2009) further argues that knowledge organizing systems (e.g., classification systems, thesauri, and ontologies) should be understood as systems basically organizing concepts and their semantic relations. In touching semantic relations examination, emphasis on conceptual analysis is seriously implied thus stressing the importance or significance of skill in concept analysis.

Purpose of the article

The purpose of this article is to outline the significance of different conceptual analysis methods in order to expose the philosophy scholar to methods or instructions on how to resolve problems encountered by all humans in all situations but specifically in reading and listening to conceptual expositions. The understanding of these methods could enable the scholar to select the right tool in proposing solutions with sound logic leading to sound and testable conclusions.

Further, this kind of understanding enables the scholar of philosophy to describe phenomena accurately leading to a fuller and more complete articulation and explication of encountered reality. The scholar will realize that such articulation of reality calls for expertise in the use of language that will accurately depict what he is observing without altering nor adding to observed objects.

Different theories of concepts have different implications for how to construe, evaluate, and use such systems (Hiorland, 2009). This is essentially an outline of methods or instructions for the scholar to follow. In the end, if all else fails, the philosophy scholar is forced back to reading the instructions.

Assumptions

It is assumed in this article that the philosophy scholar needs to hone his analytic skills in the use of language for simplicity and clarity in presentations and writing. The fact that (Samuels, J., 2012) in presenting and outlining the level descriptors to define the competency levels is conclusive support to the existent need for scholar's skills development. Applied competence according to Samuels embraces the

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intellectual/academic skills of knowledge together with analysis, synthesis and evaluation, which includes information processing and problem solving. If this competence is a requirement for scholars' qualifications, one would assume that there is need for such skills and that the examination of these conceptual analysis methods is a significant drive.

One could not be concerned about the significance of conceptual analysis methods if there was no need for those skills. The development of the level descriptors could be considered an indictment for all scholars pursuing educational qualifications first in the South African context and that of the world's educational platforms. The scholars are indirectly sentenced to a life-long learning practice to develop the required conceptual analysis skills.

The focus of the article

The focus of this article is on the three methods of conceptual analysis in defining their scope and character in the analysis of concepts for enhanced description and explication of phenomena the scholars encounter. Also, the baseline for the three methods will be identified.

The G-CAR philosophy scholar – A representative of the global scholar

The Global Centre for Academic Research (G-CAR) philosophy scholar is enrolled either for a Master of Philosophy in Leadership and Management or Doctor of Philosophy in Leadership and Management. This special focus compels the scholar to have a sound background in philosophy. According to (Kleinman, 2013) a philosophy scholar is bound to explore concepts like the meaning of life, knowledge, morality, reality, the existence of God, consciousness, politics, religion, economics, art, linguistics etc.– philosophy has no bounds he says. This kind of exploration calls for special skills to unravel what has been written by different thinkers globally through the years. Such a philosophy scholar will explore metaphysics, logic, epistemology, aesthetics, politics, ethics, etc.

In order to navigate through the mass of information documented, the scholar must have an academically accepted method of examination that will meet the rigor of

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scholarship. It is for this reason that this article is developed to expose such a scholar to methodologies in navigating the semantic jungle.

This Fourth Industrial Revolution (Schwab, 2017) is characterized by a range of new technologies that are fusing the physical, digital and biological worlds, impacting all disciplines, economies and industries, and governments and even challenging ideas about what it means to be human. Schwab outlines the key technologies driving this revolution, discusses the major impacts on governments, businesses, civil society and individuals, and offers bold ideas for what can be done to harness it for the common good. Above all he aims to emphasize the way in which technology and society co-exist and take collective responsibility to ensure a better future for us all.

The fourth industrial revolution has exposed the human kind to methodologies of navigation and location finding through the GPS Google maps. Through these devices, the traveller follows well-articulated methodologies in the form of instructions on where to turn, all the way, to the designated destination. In the realm of scholarship, these instructions are described as methodologies. These methodologies are articulated in words that are in use in the language of the users. The understanding of language is the bedrock of all communication. Even before a child is born, a form of communication is in place with emitted signals that symbolise particular meanings. A new-born baby's cry symbolizes a number of things which the parent will endeavour to decode to determine what the cry denotes. This appears to be some kind of guesswork on the part of the parent but essentially is a parent's search for meaning of the articulated sound by the baby. From the beginning the parent will seek to find out the cause of the baby's noise whether or not it signals comfort or discomfort. The understanding of the sound codes depends solely on the background, exposure, knowledge and experience of the parent in dealing with babies.

The parent uses her experience to determine the origin of the kind of sound the baby is making. It is clear that the parent becomes the definer, the interpreter of the emitted sound's meaning. Once the meaning is caught, the parent seems compelled to act in a certain way to intervene in countering or supporting the baby's signals. These

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signals seem to be the baby's unconscious mode of expressing a wish, articulating or communicating the state of being.

With reference to a G-CAR philosophy scholar, the situation is no different. The scholar finds himself surrounded by situations that are myriad expressing needs or demanding particular reactions and attention from him. These expressions are commonly transmitted through words in a particular language and must be decoded for meaning extraction.

Very often these communications come in both verbal and written form. It is here that the philosophy scholar must now use their skills tool box (experience, exposure, background and literacy) to make sense of the communicated expressions.

Foundational Competence

According to (Samuels, J., 2012) articulation of the South African Qualification authority learning framework, with reference to competence is that all learners must be able to apply what they know. This is described as applied competence.

> "The philosophical underpinning of the National Qualifications Framework and the level descriptors is applied competence, which is in line with the outcomes-based theoretical framework adopted in the South African context." "Applied competence" has three constituent elements***: foundational competence embraces the intellectual/academic skills of knowledge together with analysis, synthesis and evaluation, which includes information processing and problem solving***; practical competence includes the concept of operational context; and reflexive competence incorporates learner autonomy."

It does not matter at what level the learner is, the level descriptors for competence are the same. The only difference is the depth of application according to the demands of the level of educational exposure. In this instance, the philosophy scholar at the G-CAR institution must have intellectual and academic skills of knowledge to be able to do analysis, synthesis and evaluation with the intention of solving problems in the real world. That kind of know-how calls for literacy skills, i.e., be able to read and write. The ability to read in the particular language calls for word definitions for enhanced meaning grasp. This is all in the realm of linguistics which obviously thrusts the philosophy scholar into the jungle of words decoding for direction seeking.

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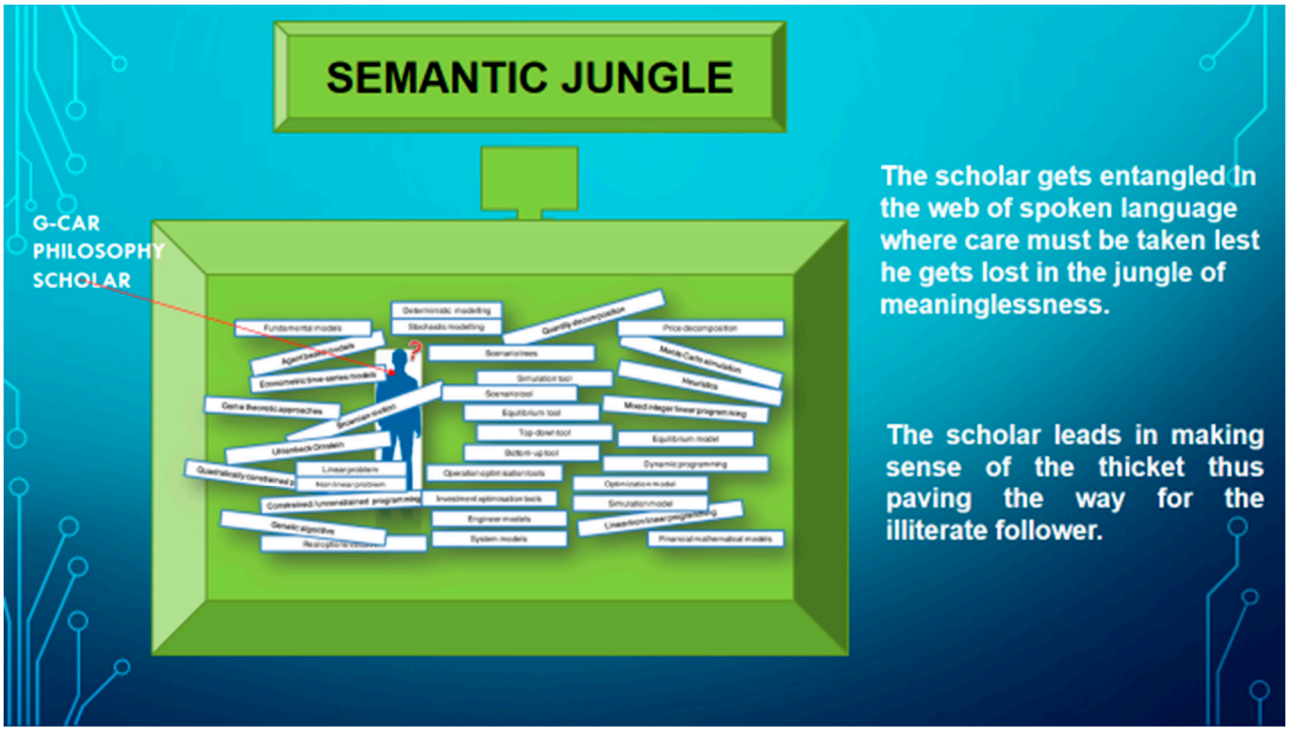

Figure 1
Source: Researchgate.net

The great concern for the philosophy scholar is navigation through the semantic jungle. This is the world the scholar lives in. It is critical that this scholar be equipped with tools needed for this life-long journey through the semantic jungle he never exits from.

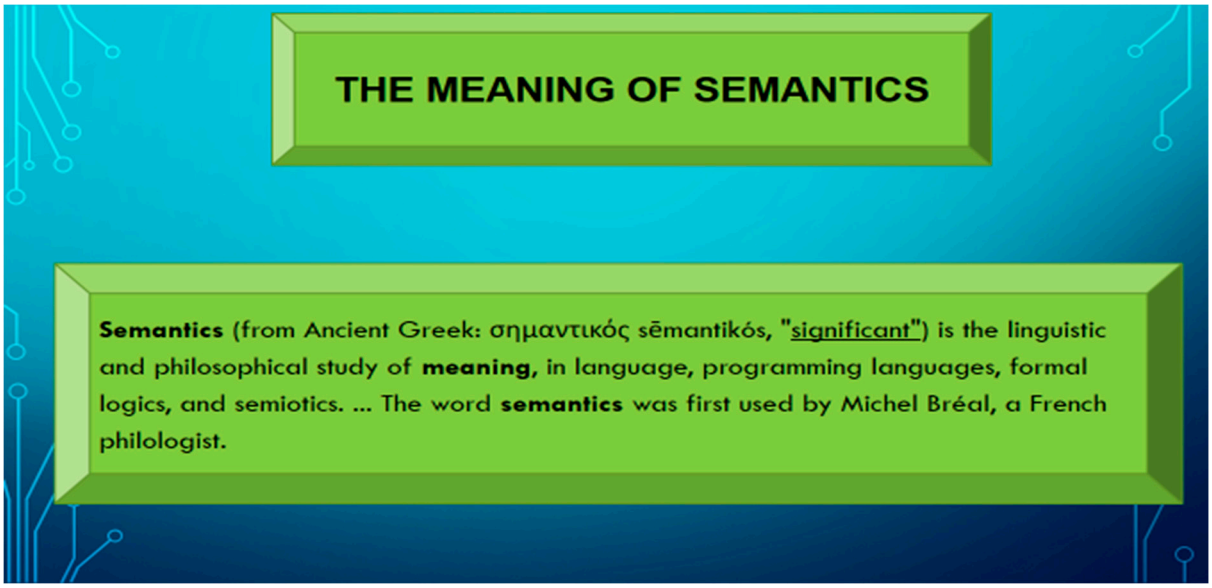

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Figure 2 Source: Author

From the definition in figure 2, it is clear that meaning search is the major goal of the philosophy scholar in the semantic jungle. This scholar needs to address the phenomena appearing in this jungle in accepted and acceptable methodologies.

The scholar in the current context or semantic jungle is not the initiator of this journey. This has been the drive of philosophers in the days of yore such as will be seen in the figure 3 below.

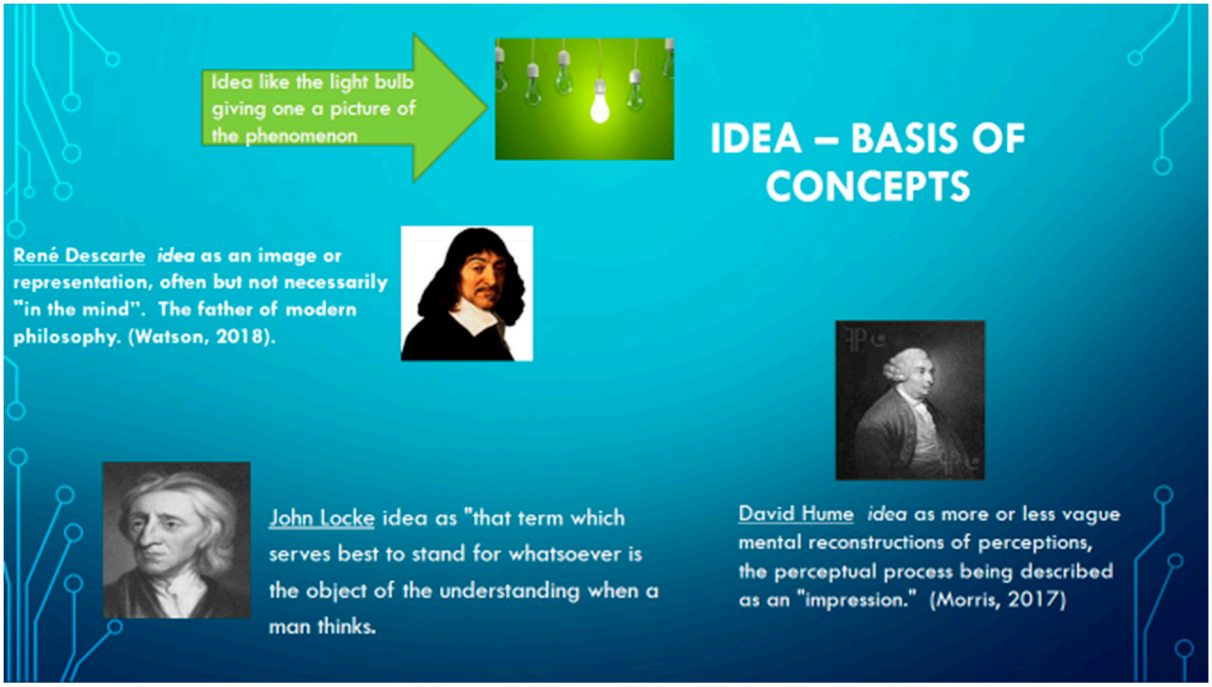

Figure 3 Source: Author

These philosophers dabbled with phenomena as encountered in the semantic jungle. Their observation led them to figure out where images portrayed in the languages they and others were using came from. All seemed to agree that their origin was in the concept of an idea. They would describe this idea as pigmentation of the mind when a man thinks. They also noticed that the thinking process led them to depict these ideas in pictures or images. These images then were labelled in words common to the language in use by both common folks and scholars in their particular context.

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The Word-Acaid System as a framework for conceptual analysis methods

The Word-Acaid System philosophy developed by (Lebese, 2018) articulated the system fully as an idea on a journey to impacting behaviour. The basis of the Word-Acaid System is in words and these words are preceded by ideas. Words are deciphered thus causing the reader to see pictures depicted and catching the attention, triggering thought processes, decision-making, action, ownership of the idea, and duplication of the idea for dissemination through networks. The figure below graphically depicts this journey.

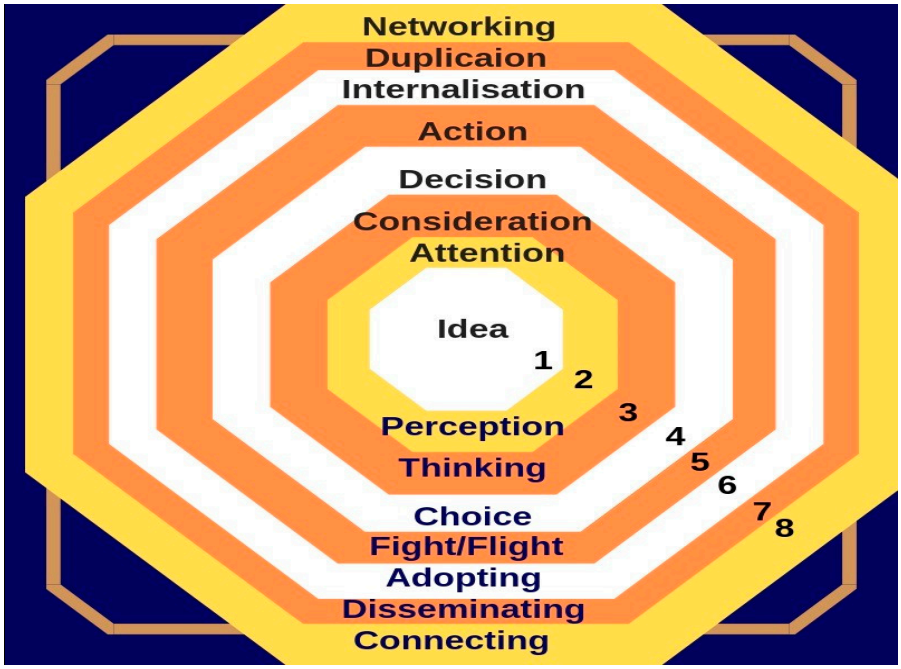

Figure 4: Source - Author

Theories of Language

Theories are explanations of a natural or social behaviour, event, or phenomenon. More formally, a scientific theory is a system of constructs (concepts) and propositions (relationships between those constructs) that collectively present a logical, systematic and coherent explanation of a phenomenon of interest within some assumptions and boundary conditions." (Bacharach, 1989)

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Thinkers and students of human developmenmt have come up with ideas on the theory of language. The way children grow and acquire language was one focus of interest from which to infer about the theory or pattern of language development.

(Sanders & Bingham-Newman, 1984) have studied how children think and acquire language. That modus operandi is articulating a theory of language development culminating in a theory of language proposed. She articulates the fact that the kind of information adults make available to the child and the precise way it is made available can do more than make a particular concept comprehensible. They emphasizes that these factors actually influene when and how developmental progress is made. They further claim that the child does not know less than the adult but the child uses a different system for interpreting the world. She asserts that what the child does with the information acquired supports Piaget's theory of language development. It is essentially change in the organization of information. This organisation suggests some kind of pattern of thinking or schema as Piaget puts it. This theory emphasized the role the child places in determining the meaning of reality.

In Piaget's view, (Sanders & Bingham-Newman, 1984) say children construct systems of knowing by using the available materials and arrange them into some form. The materials spoken of here are the children's persceptions of the world or of reality. Children have a tendency to focus on the explicit objects around them and ignore others. This is bias or 'tendency' formation.

(Reilly, 1998) in her article noted that language development of children with early focal brain injury generally go on to acquire language that is wthin the normal range of their development although there are suttle differences.

It is interesting to note Piaget's theory of language development as articulated by (Hendrick, 1988) that children acquire three kinds of knowledge as they grow, first, Social/conventional knowledge. This is information that society has agreed on and that is often learned through direct social transmission. The second kind is physical knowledge which is information gained by children acting on objects in the real world. The third kind is knowledge **constructed i**n the mind of the child as he thinks about objects. Piaget calls this kind logico-mathematical knowledge. This ability is less tangible compared to the other two. It, however, implies the ability to reason, ultimately enabling them to develop ideas of relationships between objects. In these

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relationships children assign common names to the objects they see and thus classify and group them together. This is the basis of conceptual analysis at this stage of development essentially operating in the field of constructivism.

Conceptual Analysis

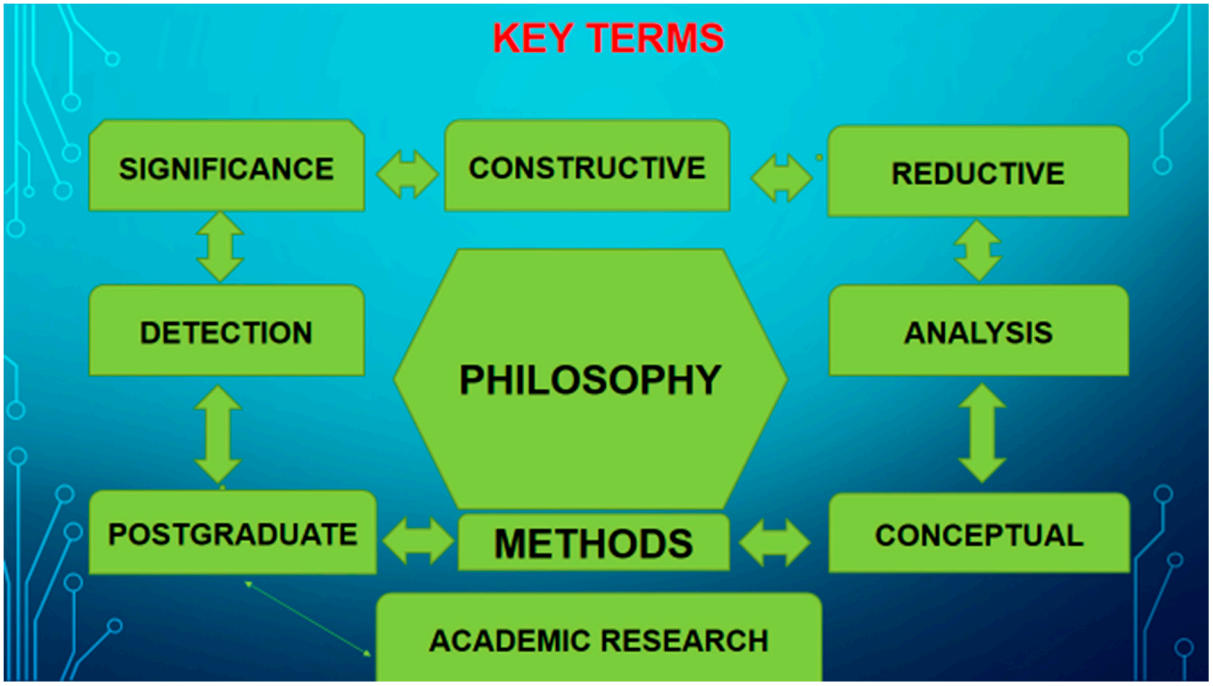

Figure 5: Source: Author
Key concepts to be dealt with in conceptual analysis methodology

Figure 5 presents key concepts as appear in the title of this article involved for meaning clarification. Each concept in the section is articulating an instruction on how to deal with it.

The key concepts involved are: Significance, philosophy, analysis postgraduate philosophy scholar, conceptual analysis, constructive, reductive and detective conceptual analysis method, and theory of language. Under method, three methods hinted by (Kosterec, 2016) are dealt with.

Conceptual analysis is a technique that treats concepts as classes of objects, events, properties, or relationships. The technique involves precisely defining the meaning of

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a given concept by identifying and specifying the conditions under which any entity or phenomenon is (or could be) classified under the concept in question. (Furner, 2004)

The word conceptual is an adjective from the word concept. From a philosophical stand point concepts as defined by the oxford dictionaries are ideas or mental images which correspond to some distinct entity or class of entities, or to their essential features, or determine the application of a term in the use of reason or language. (Stevenson, A.,, 2018). Conceptual, then, means relating to concepts as embedded in the language used.

(Merriam-Webster, 1828) and (OED, 2019) defines analysis as a detailed examination of anything complex in order to understand its nature or to determine its essential features. So, conceptual analysis will be an examination of the elements of a concept by breaking it down into its constituent elements. This is a rational logical process to determine the meaning of the presented conceptual image.

It is not looking at the constituent elements only but to identify the common features evident among them. The common feature characteristic helps in grouping or classifying the observed language elements. The scholar is here encountering images or a phenomena he must describe. The images portrayed have been labelled in words that are carefully chosen to correctly depict them. Therefore the understanding of that language is critical to provide a clear and correct view of the images presented by the concepts.

It should be understood that the presented images in the concepts cannot be fully described as they are. The description in the words used is limited by the language, background, exposure and knowledge of the observer. If one were to read the conceptual description of the images as they appear at the present, and then two or three years later read the same concepts, it is very likely that the meaning will be greatly magnified because of the language, experience and exposure of the reader. The common dictum ‘meaning is in the eyes of the beholder’ is applicable here.

According to (Nuopponen, 2010) the aim of linguistic analysis is to provide insight into how a term is used within a specific field or domain, while the aim of conceptual analysis is to examine the **place** of a concept in the conceptual network of a language or a theory. (Nuopponen, 2010)

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Concept analysis was defined earlier as an activity where concepts belonging to a whole, their characteristics and the relations that they hold within systems of concepts are clarified and described. (Nuopponen, 2010)

In figure 4 below highlights of Conceptual Analysis (CA) as a guide for looking at concepts for meaning grasp are captured.

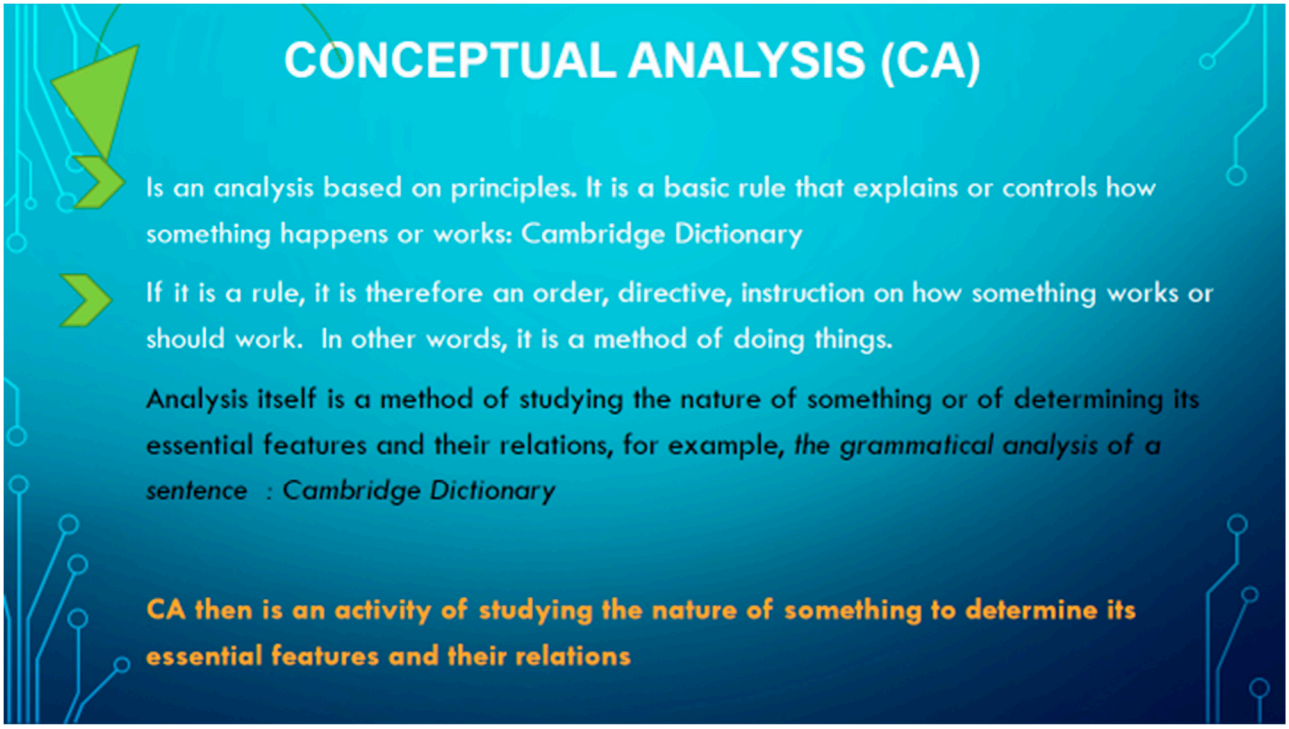

Figure 5: Source: Author
Conceptual analysis concept

Conceptual View of CA

According to (Kosterec, 2016) the aim of conceptual analysis is to examine the place of a concept in the conceptual network of a language or a theory and to get a better knowledge of that particular language. He further argues that such an aim could be considered vague because a competent speaker should already know his language. His observation after careful thought is that a person can be a competent speaker without knowing all the parts of a language or having a complete correct theory of that language.

He then proceeds to articulate his three methods of conceptual analysis, namely: Constructive, Reductive and Detective conceptual analyses. It must be noted that at

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the centre of this methodological explication the scholar is the prime actor. If he is the prime actor, his philosophical perspective cannot be side-lined. That perspective is normally labelled as a bias. This approach belongs to interpretive paradigm called interpretivism.

The Constructive Conceptual Analysis Method

Right at the beginning of this explication, two key concepts pop up: Explicit and Implicit. The scholar at the centre of CA is faced with a phenomenon with explicit and implicit features. That which is explicit is clear and obvious complying with the positivist approach to epistemology. The implicit is not clear but must be implied and inferred. In order to apply the implicit concept, the scholar must use logic to show the rationality of that CA method. In doing constructive conceptual analysis this activity happens only when implicit features of a phenomenon are under consideration and fully understood.

(Kosterec, 2016) posits that the reason for this method is lack of explicit relation among terms or concepts of a language. This then leads the scholar to broaden the conceptual theory, either by postulating a new relation or stating that some already known relation holds among previously unrelated parts of the language. Constructive analysis thus enables one to introduce new terms or concepts which were lacking in the initial explicit conceptual theory. Clearly, certain definitions (namely, prescriptive ones) will surely be a part of constructive analysis which, from the writer's perspective, is another example of explication. The scholar is bound to deal with definiendum's – a word, symbol or phrase which is the subject of a definition - and definiens – a word or phrase or a symbolic expression used to define something - to figure out how he should be related to the phenomenon encountered.

As noted earlier in the discussion by (Hendrick, 1988) about Piaget's theory of language development, hinted that children use the third kind of knowledge development by constructing in the mind as they think about objects. Piaget called it logico-mathematical knowledge. This ability is less tangible compared to the other two. It implies the ability to reason, ultimately enabling them to develop ideas of relationships between objects. In these relationships children assign common names to the objects they see and thus classify and group them together. This is the basis of constructive conceptual analysis not only by children but by scholars too. At this

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stage of development, the children determine meaning by declaring emphatically “It’s mine”. The meaning grasp shows how they are related to what they see or handle.

The scholar will make sure that the broadened analysis of the concepts and go on to make a decision on how he is related to the phenomenon. He must, however not alter the theory of that language. Therefore, a coherent constructive analysis either does not postulate new concepts or terms in the theory, or postulate a new relation but simply broadening the meaning of the explicit concept. This is a descriptive approach to concepts explication of both the explicit and the implicit. Whatever is articulated must make sense and convincing to the observer/scholar.

Another Cambridge University philosopher Bertrand Russell in discussing constructive conceptual analysis came up with his own extension of the theory as postulated by (Beaney, M., 2007) on the theory of descriptions where Russell articulated the theory of conceptual analysis as a transformative or explicatory conception. He came up with his concept of rephrasing the sentence thus broadening it for enhanced clarity.

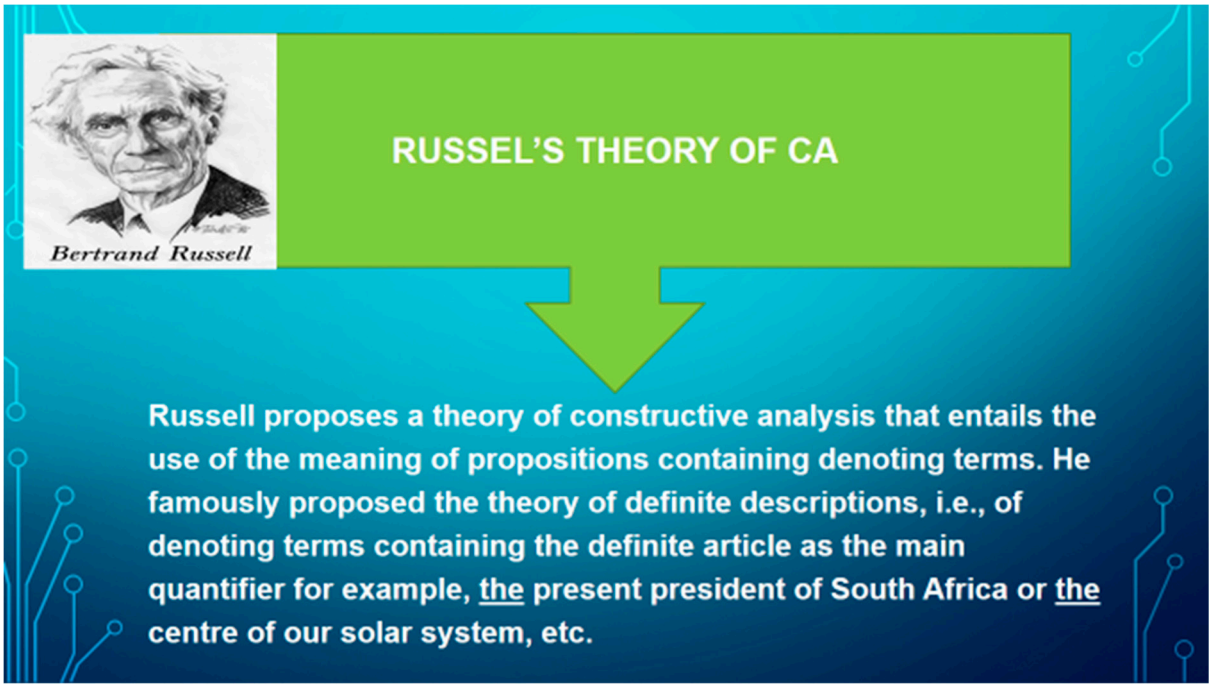

Figure 6: Source: Author
Bertrand Russell’s Theory of constructive conceptual analysis

In order to broaden the meaning of the concept or theory he suggested the use of definite articles. These do not change the concept but clarify the implicit utterances.

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(Beaney, M., 2007) claims Frege and Russell proposed another form of conceptual analysis, quantificational logic which Frege originated and Russell further developed and applied. Quantificational logic was offering a far more powerful way of representing propositions and inferences by claiming that ordinary language could be transformed by mere formalizing them.

According to (Beaney, M., 2007), because of Frege and Russel's theory of quantificational logic, many questions about language were raised some of which examined the relationship of propositions in a sentence. He emphasized the fact that these philosophic questions about language gave shape to the analytic tradition. Russell as a philosopher introduced another feature as an extension to the quantificational logic which he called decompositional analysis as the ultimate level of analysis. This was the attempt to reveal the real form of logic used in the sentences propositions analysis. (Beaney, M., 2007)

In the figure below (Kosterec, 2016) establishes his own constructive conceptual analysis which he proposed could aid a scholar in his own conceptual analysis journey.

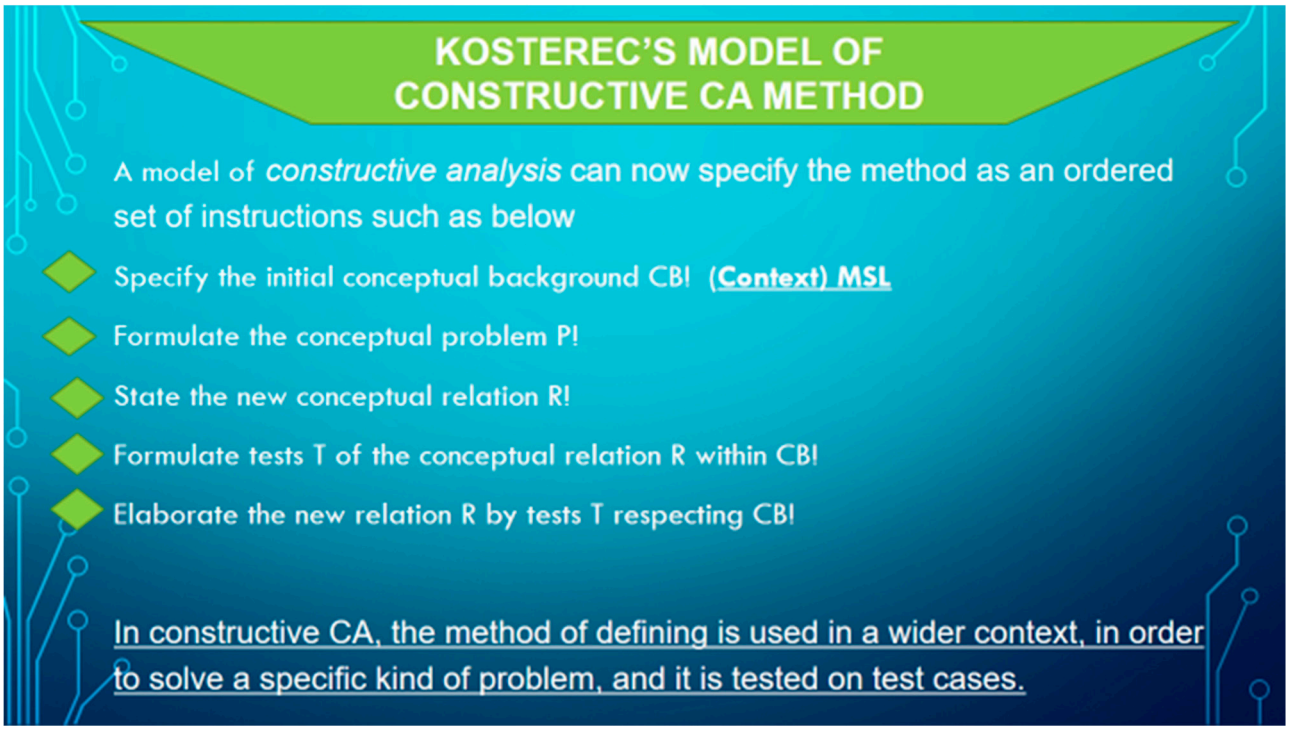

Figure 7: Source: The Author
Kosterec's model of constructive conceptual analysis

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It is clear from the figure above that the scholar's involvement in constructive conceptual analysis is not passive. He is very active in following a method or set of instructions to achieve a particular goal. This goal is essentially 'meaning' as articulated by the concepts. Scholar's view of the concepts leads him to broaden the explicit properties of the concepts. In a sense, the scholar must first place the concept in its context to determine the contextual meaning because the explicit could not fully give him the true reality as observed. The placing of the concept in its context is some kind of broadening the concept to catch another aspect of the observed reality. The context adds colour or clarification of what the concept means in that situation. This is essentially a constructive activity by the scholar in order to unveil the meaning pursued.

The network of a language is the connection and ordering of the sentence's elements logically to emphasize the focus of the given instruction. The place to be examined is the context within which the instruction is given. The context explicates the meaning of the word which could mean something else in another context. (Kosterec, 2016)

Once the context has been defined, the scholar must now articulate the problem or the issue under consideration. That issue could be considered as a problem to be resolved or the meaning to be caught. It is now apparent that the scholar looks carefully at the conceptual relations in order to justify the unveiled meaning. The scholar then looks back at the context to determine whether or not the conceptual theory has not been altered or tampered with.

It is also apparent that the caught meaning is based on the perspective of the scholar. This constructive activity is fully dependent on the scholar's background, development, exposure, language development and many other views he has been exposed to up to that point. Essentially that view is a phenomenological interpretation of the reality as encountered. At this point the scholar joins the interpretive philosophers and plays in the interpretivsm field. Another scholar from a different view point could come up with a meaning understanding that may seem deviant. All this is the scholar's bias which must be tested for soundness through deductive and inductive reasoning activity.

(DeVries & Kohlberg, 1987) visited Piaget's constructivist view and came up with an exposition of this theory. Their theoretical application of the constructivist view was

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articulated in the context of young children who observe physical phenomena as objects to be acted on – positivists in the making. In this context children are not passive in their search for meaning. In order to discover what the concept or object of observation is or the gaining of the knowledge - epistemology of the observed reality, the child is led by his curiosity to act on the objects. This activity leads the child to some knowledge – epistemic aspects of objects themselves. The reader might label this kind of examination of phenomena as experimentation. This is the kind of activity physicists engage in by experimenting in order to discover the real nature of what they are studying. That discovery leads them into the 'aha' moment where meaning has been caught. You will do well to watch their reaction as an exultation of their achievement in successfully using a method/set of instructions to arrive at a meaningful convincing conclusion.

(DeVries & Kohlberg, 1987) went on to interpret Piaget's theory for the child's activity on objects for meaning grasp as simple or empirical abstraction. The kind of knowledge gained by the child is expressed as physical knowledge – a physicist in the making. That physical knowledge enables the child to describe or talk about the physical properties which become the basis for mental abstractions or the implicit articulation of the explicit properties of the phenomenon thus leading him into the field of abstractivism.

According to (DeVries & Kohlberg, 1987) Piaget thinks that the physical knowledge is the basis for logico-mathematical experience which transcends the observed physical characteristics. The observation enables the child to come up with implicit aspects of the observed reality which is the unique view of the child thus developing the bias which could be the basis for interpretation of similar objects later on in life. I see this ability in adults too as they engage in constructivist conceptual analysis.

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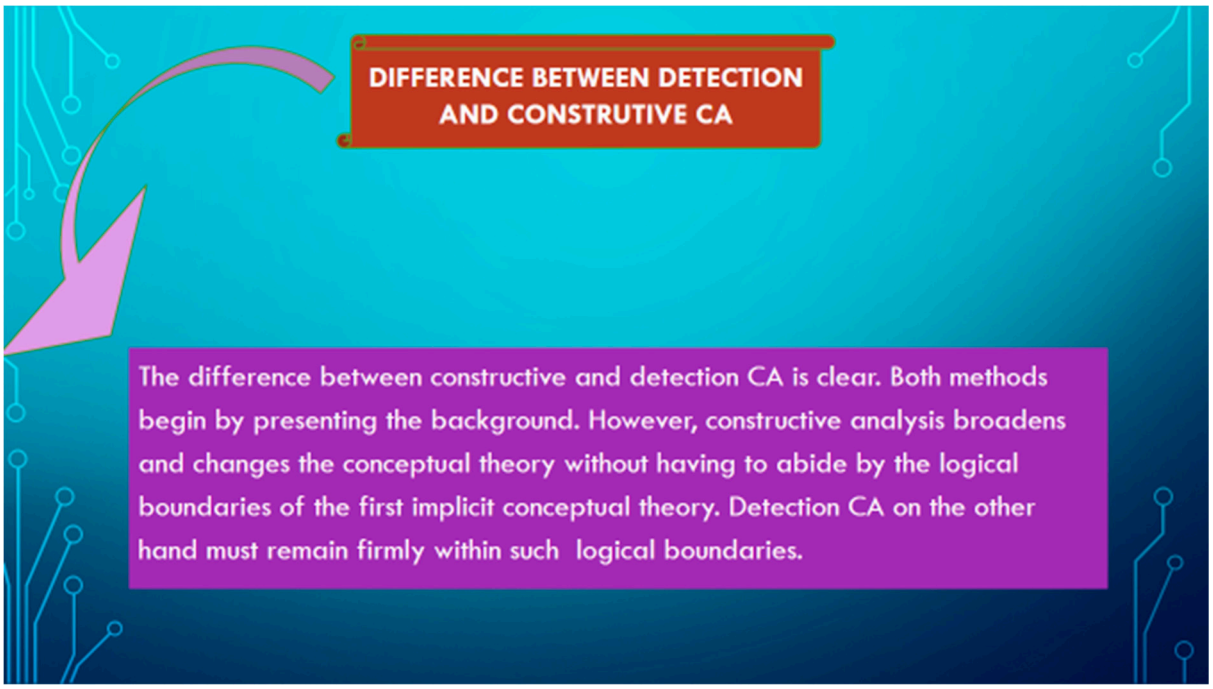

Figure 8, Source: The Author
Differences between constructive and detective conceptual analysis

Sentence structure

There are major basic facts about sentence structure. The first one is that each sentence has emphatic positions i.e. the end of the sentence is the most emphatic position, the beginning of the sentence is next in emphasis and the middle of the sentence is least emphatic. It follows therefore that the most important words in the sentence are usually positioned at the beginning or end. The least important words are placed toward the middle. The second major fact is that the word order in English is relatively fixed. The English sentences follow a pattern of subject-verb-object (or complement) and many sentence elements cannot be moved without either causing confusion or radically changing meaning, (Daiker, et al., 1979).

What (Daiker, et al., 1979) are suggesting agrees with Nuopponen in addressing the place of a concept in the network of a language. This network of a language is the sentence structure. The place of that concept determines emphatic positions which are articulating the expressed meaning of the writer. The emphatic positions therefore are rearrangements of the word order to emphasize important points and of producing interesting effects. (Daiker, et al., 1979).

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The scholar therefore must be aware of the given deviant arrangements which have a tendency to violate normal sentence order invariably construing meaning of the writer.

The broadening of the concept in search of meaning is based on two concepts: the definiendum - an expression that is being defined - and the definiens - something that defines as seen in the Oxford dictionaries. The definiendum is a word, phrase, or symbol which is the subject of a definition and the definiens is a word, phrase or symbolic expression used to define something introducing a word or symbol into a logical system by providing a statement of its meaning. Oxford Dictionaries. (OED, 2019) This approach to concept definition facilitates the unlocking of the meaning of the concept in the broader context.

Detection conceptual analysis

The concept of detection according (Peters, P., 2014) is to notice something that is partly hidden or not clear or to discover something, especially using a special method. This definition introduces two key terms in detection conceptual analysis, namely 'explicit' and 'implicit'. The concept of 'explicit' articulates concepts and facts and characteristics of the objects as they are. It describes just what 'is' without 'reading in between lines'. The concept of 'implicit' according the same dictionary suggests to communicate or show an idea or feeling without stating it directly. The Longman Dictionary defines implicit as suggested or understood without being stated directly. As such, something implicit demands interpretation and this approach is replete with bias or idiosyncrasies. This is navigation in the field of interpretivism which is one form of qualitative methodology. This method relies heavily upon both the skilled researcher scholar and the human subject involved as instruments to articulate the phenomena encountered.

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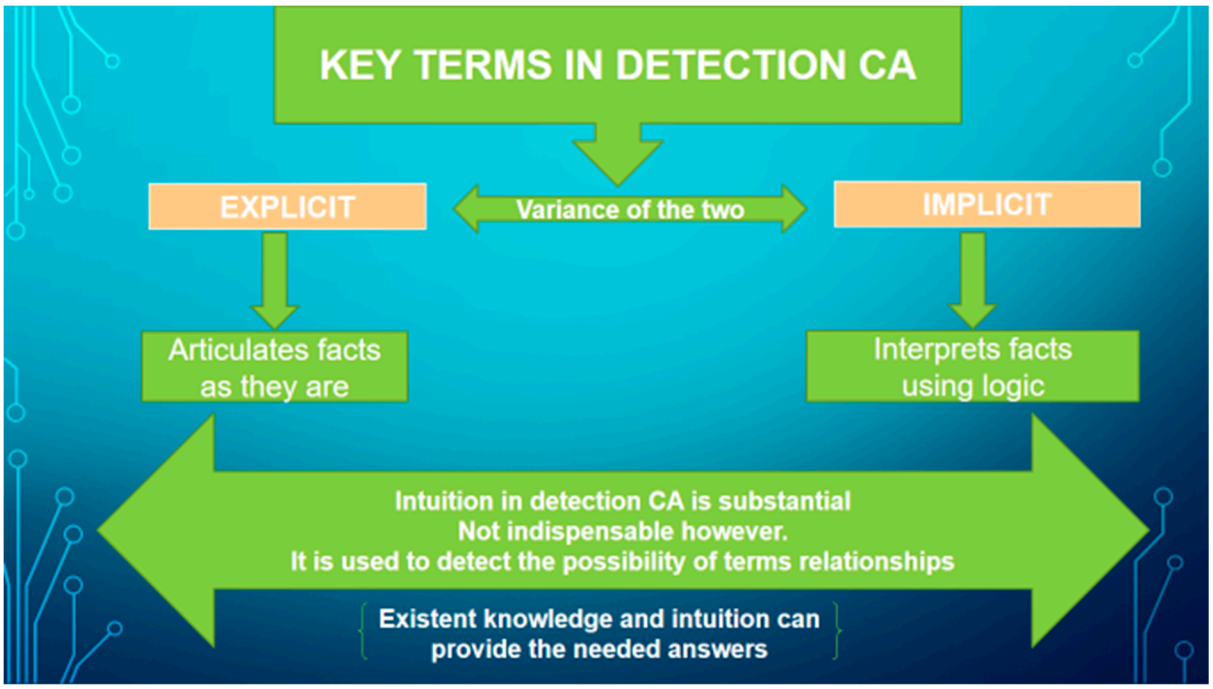

Figure 9: Source: Author
Key Terms in detection conceptual analysis

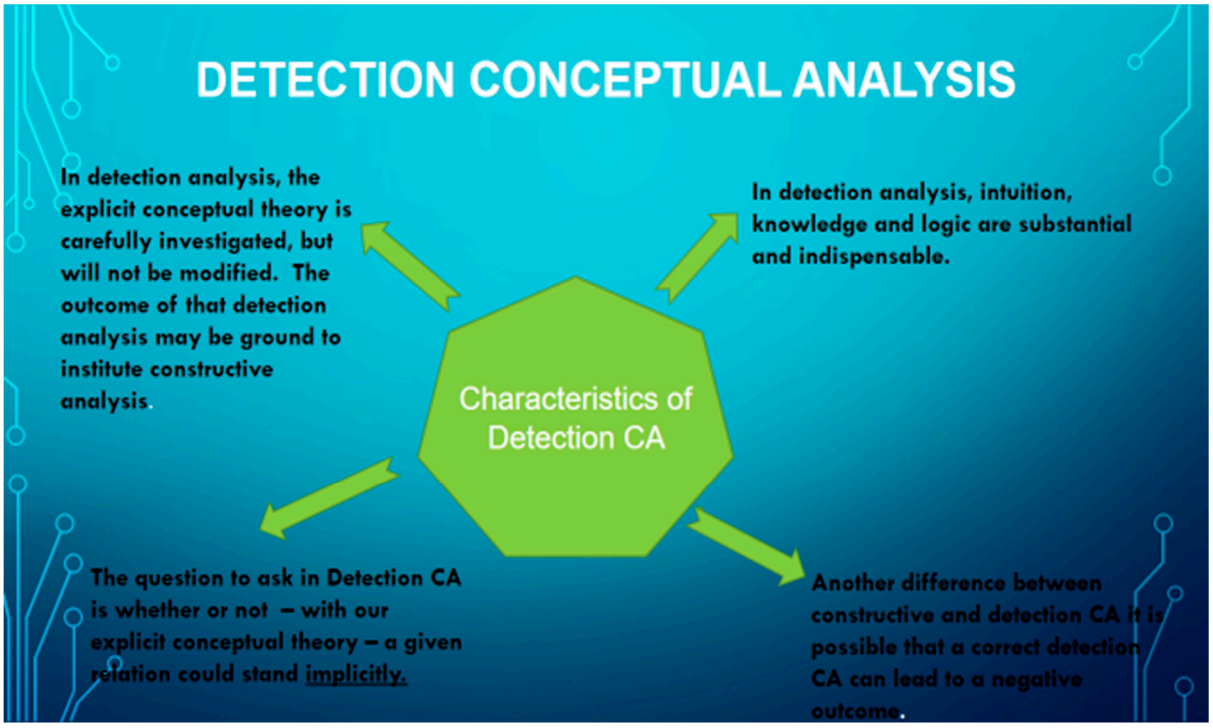

Figure 10, Source: Author
Figure 10 outlines the significant characteristics of detection conceptual analysis method

In conceptual analysis, one detects or infers from the 'given' about existent relationships. The relationships here are not clearly stated. Even here the individual's

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experience becomes the tool to unpack the terms' relationships. Without this empirical exposure, it is unlikely for the individual scholar to detect what is possible in that encounter. Intuition and insight are substantial in detection conceptual analysis although not indispensable. The implicit conceptual theory is the explicit conceptual theory closed under logical laws. (Kosterec, 2016). Further, the following example is an articulation of the detection conceptual analysis: If the term A is equivalent to the term B and the term B is equivalent to the term C, then A is equivalent to C. Logic implies it.

Another thinker (Gettier, 1966) in his short conceptual analysis paper, presented a short article as a question: Is Justified True Belief Knowledge? This was an explicit statement of the problem in the form of a question, namely, a question about the existence of a semantic relation among concepts

The difference between Detection and Constructivist conceptual analysis is simply this: Both methods begin by presenting the background. However, constructive analysis broadens and changes the conceptual theory without having to abide by the logical boundaries of the first implicit conceptual theory. Detection CA on the other hand must remain firmly within such logical boundaries.

Reductive conceptual analysis

The term reductive is an adjective indicating to simplify or abridge. Further, Dictionary.com adds the following definitions of reductive: Serving to reduce or abridge or relating to change from one form to another and employing an analysis of a complex subject into a simplified, less detailed form. Dictionary.com

The English Language Learners' Dictionary defines reductive as dealing with or describing something complicated in a simple or too simple a way. This is articulating a form of data analysis where large data has been collected in the research activity but to make it simple, manageable and meaningful it will be reduced to simple forms to enhance clarity.

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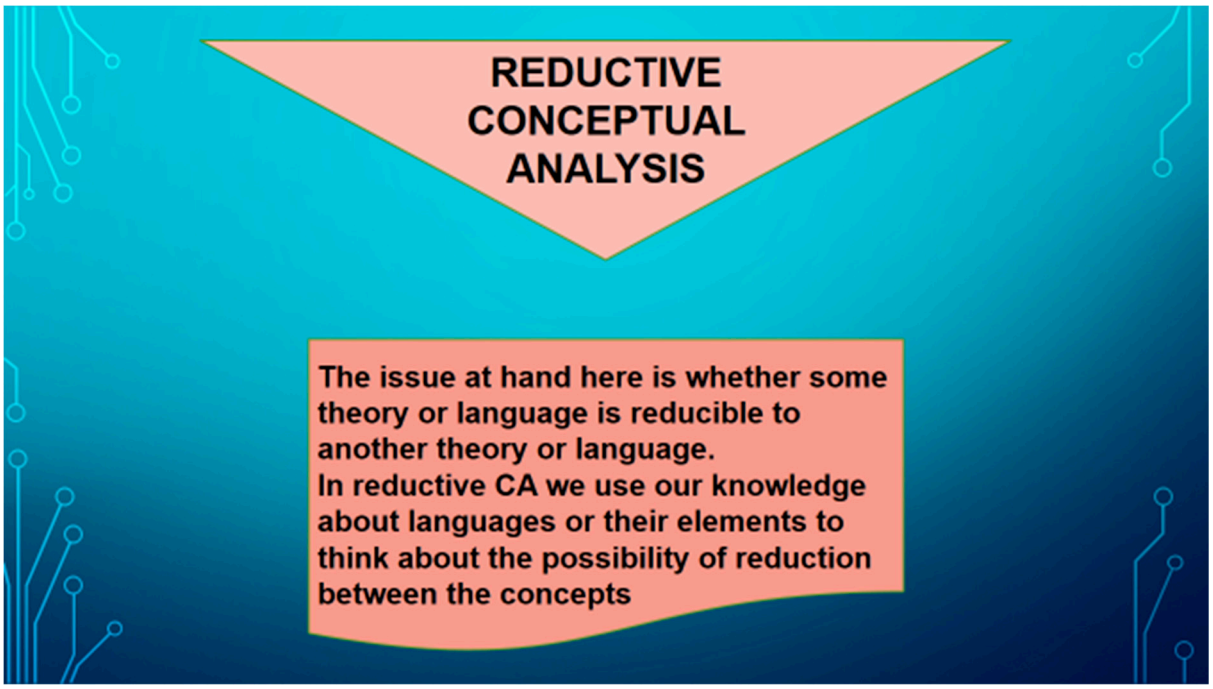

Figure 10, Source: Author
Sums the reduction conceptual analysis method in dealing with big data

(Maddalena, 2019) In his article on Data Reduction and Analysis Techniques in discussing National Radio Astronomy Observatory data collection strategies, outlined a number of approaches in Reductive Data Analysis.

He looked at continuum observations which collected large data and suggested a reductive strategy of fluctuating frequencies by creating a baseline concept in simplifying that massive data. He also advocated averaging as a reductive strategy in determining the mean of the collected data. He looked at the frequencies of radio signals and created a baseline of common occurrences as well as equations as a summarisation approach to reductive analysis.

In extended sources of data the reduction strategy used was a grid mapping and calibration of data. Whereas one could not deal with all the observed data, he decided to use a sampling strategy for simplification. Sampling was then a fitting strategy advocated in making data manageable in a reduced fashion.

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Big Data Dynamics

(Rehman, 2016) in network theory observed the amount of data yielded and grappled with approaches of reduction methods. He observed that big data is a very complex process due to its inherent big data complexity. He used scale-free networks and random network theory-based methods which he claimed could effectively reduce complex big datasets.

He further grappled with the issue of inconsistent and missing data. He asserts that big data systems contain many small and manageable datasets but to find connections among them is a crucial task. His reduction method strategy therefore, was to use the similarity measure to group and categorise this massive data using graphs. He went on to further reduce graphs by merging similar datasets to reduce the number of nodes. He concluded by asserting that the similarity-based big data reduction methods are a good choice for network extraction and reduction. However, a range of new similarity measures, he noted, are required to deal with the evolving complexity of big data.

Conclusion

The big concern in this article was to articulate the significance or the importance of conceptual analysis in dealing with difficult concepts in research and to find strategies of making difficult issues and concepts simple. Scholars have a tendency to display what they know by using big terms that mean a lot to a select group of people. The approach in this article was to address these difficult philosophy jargon and approaches to assist the already confused postgraduate philosophy scholars navigate reality intelligently, methodically and to enhance application and adherence to clarified instructions through real life situations. The question touted in the beginning of the article follows: ***"What is the significance/importance of constructive, reductive and detection conceptual analysis methods for the postgraduate philosophy scholar at the G-CAR in the 21st Century."***

In order to answer the question of articulating the significance, an approach of broadening the meaning, the use of the definiendum through the definiens was used.

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Through this, the meaning of difficult and uncommon concepts were unveiled. The dynamic of conceptual analysis methods were clarified as strategies of identifying the place of concepts in the networks of language theories to determine the writer or the speaker's emphasis thus to detect what the communicator was conveying.

It was further shown that conceptual analysis is an endeavour to discover the meaning of reality in the world humans live in. This was shown by the active involvement of the scholar's activity in search of meaning to identify how the researcher is related to the objective reality encountered.

The postgraduate philosophy scholar at the G-CAR institution was shown as a representative of the global postgraduate philosophy scholar in the 21st century when the fourth industrial revolution kicks in to usher observation strategies that generate big data that confuses many 'before technology' born free scholars. It was observed that the big data was presented through words that the scholar has to wade through to discover meaning. The wading process was articulated as strategies of following instructions described as methodologies.

The foundational dynamics of learning as advocated by the South African Qualification Authority for competence achievement were examined. It was noted that the drive to enhance and equip all learners and scholars is founded on literacy issues where reading and writing are core in achieving competence in the educational and practical platforms.

The idea of significance spells the importance and the importance unveils the dynamics of meaning in the search for ontology grasp and application of the spelt-out methodologies in solving encountered challenges and problems. It was articulated that method is a form of given instructions that lead to a scientifically researched solved problem. Therefore the ability to solve problems is what the workplace pays big money for. Anything for which big money is paid indicates the value and significance placed on that thing.

Knowing how things are done and the application of the 'how' in problem-solving is what the South African Qualification Authority (SAQA) describes as applied

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competence which, when used continuously becomes reflexive competence. At this stage of development, the competent philosophy scholar has become the ideal and the product of scholastic achievements.

The three conceptual analysis methods proposed by (Kosterec, 2016) – constructive, reductive and detective were discussed and noted that they all emphasize a qualitative method of research. The main agent or instrument in the three methods is the researcher and the human subject involved. Both instruments navigate in the sphere of interpretivism where idiosyncrasies reign.

The G-CAR scholar in the 21st century is a representative of scholars on the global platform. All need to be equipped to navigate through the semantic jungle of words, concepts and theories. The philosophy scholar's competent navigation is what evidences reflexive competence demanded by all learning platforms globally.

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