

Metaphoric Conceptualisations of Knowledge among Students of the Kwame Nkrumah University of Science and Technology (KNUST), Ghana.



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ABSTRACT

This study aimed at identifying any underlying conceptual metaphors of knowledge in the written expressions of students at the Kwame Nkrumah University of Science and Technology (KNUST), within the framework of the Conceptual Metaphor Theory proposed by George Lakoff & Mark Johnson. It sought to explore the types of metaphors and to discover if they are motivated by any of the Ghanaian cultures or the class levels of the students. One hundred and five students were purposively sampled from the Department of English to provide their descriptions of knowledge. The analysis revealed thirteen conceptual metaphors of knowledge out of which six were structural and eight were ontological. It also showed how the students' conceptualisations of knowledge are entrenched in Ghanaian cultures. Lastly, it revealed that many of the students recognize knowledge's ability to render economic success more than its ability to help in critical thinking. This paper concludes that studies into conceptual metaphors are helpful in revealing ideas that are deep-rooted in conceptualisations derived from experiences.

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Publication History

Received 28th February, 2022
Accepted 9th May, 2022
Published online 27th May, 2022

Keywords: *Knowledge, Conceptual Metaphor, Conceptualisation*

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INTRODUCTION

In recent years, a significant number of studies focusing on the conceptualisations of different experiences of life have concentrated on their metaphoric conceptualisations. These studies have offered a deeper understanding of the relationship between domains of experiences and the mind. In this respect, conceptual metaphor studies need to be applied to different domains of experiences to overtly reveal the strong relationship between human experiences and the human conceptual structure. Knowledge is one of such domains of experiences which has hardly been explored by scholars of conceptual metaphors in Ghana and therefore motivates the researchers' purpose for the study which is to explore the conceptual metaphors of knowledge in the written expressions of students of the Kwame Nkrumah University of Ghana (KNUST), Kumasi. This is in order to find out if there is any relationship between their culture and their conceptualisations. It also seeks to examine if there is any relationship between their class levels and their conceptualisations. Knowledge as used in this paper is what Ryle has described as *knowledge that*. This is propositional knowledge and it is the type of knowledge acquired through learning or the acquisition of facts.¹

¹ Gilbert Ryle, *The Concept of Mind*, (London Routledge, 2009): 16-47, 117-118

Studies on Conceptual Metaphors of Knowledge

Studies on conceptual metaphors have explored areas such as body parts, human beings and learning. Knowledge, in whose reasoning metaphor is always employed has not been left behind.

Hidasi examined fifty-five (55) selected proverbs and metaphoric sayings that are related to the acquisition and transmission of knowledge in Hungary and in Japan.²

The researcher found KNOWLEDGE IS POWER, and KNOWLEDGE IS A GOOD TRAVELLING COMPANION as metaphoric conceptualisations of knowledge similar to Hungary and Japan. Greve explored the metaphoric conceptualisations of knowledge in the conversations of six groups of people in different companies in Aarhus, Denmark.³ The metaphors of knowledge identified were:

- KNOWLEDGE IS A TOWER
- KNOWLEDGE IS FOUNDATION AND RELATION
- KNOWLEDGE IS A PLANT
- KNOWLEDGE IS A VESSEL
- KNOWLEDGE IS FRAGMENTS

The analysis revealed that there is not one but diverse metaphors for knowledge present in each knowledge-intensive group.

Maalej studied the conceptual metaphors of learning and knowledge that underlie the metaphoric expressions of learning, the learner, knowledge and learner–teacher relations in a Tunisian education reform report called “Program of Programs 2002”.⁴ The conceptual metaphors he inferred were:

- THE LEARNER IS A BUILDER
- KNOWLEDGE/LEARNING IS A CONSTRUCTION
- KNOWLEDGE/LEARNING IS A VALUABLE RESOURCE
- KNOWLEDGE / LEARNING IS A BUILDING JOURNEY
- LEARNING IS A PROFITABLE BUILDING JOURNEY

Maalej found that the concept of learning in Tunisia has been shown to be undergoing an enormous substitution of the existing conceptual metaphors in the cultural model of learning by new, politically imposed ones.

Conceptual Metaphor Theory

Cognitive scientists and philosophers have argued and proven the conceptual dimension of metaphor other than its poetic and imagistic dimension. As far back as the 1900s, the idea that metaphors had conceptual and cognitive dimensions had been made explicit by McTaggart when he wrote that “it is very usual to present time under the metaphor of spatial movement”.⁵ In recent years, Lakoff & Johnson have also argued that metaphors do not operate just at the linguistic level.⁶ They are the results of the imaginative processes the mind goes through in order to make sense of the environment. In the scholars’ view, metaphor is “rooted in our experiences”. The experiences could be bodily, cultural or social. It follows then that a conceptual metaphor is a metaphor which arises out of a *conceptual mapping* between two domains of experiences where one domain is understood in terms of another. In a conceptual metaphor, the domain of experience (usually a concrete one) which provides meaning to another domain of experience is referred to as the *source domain*. The other domain of experience (usually an abstract domain) which scholars try to understand in terms of the source domain is referred to as the *target domain*.

² Judit Hidasi, *Cultural Messages Of Metaphors. Erich A Berend In Metaphors For Learning*, (Amsterdam: John Benjamins Publishing Company 2008), 103-122.

³ Linda Greve, ““Metaphors for Knowledge in Knowledge Intensive Groups–An Inductive Study of How and Which Metaphors Emerge in Conversations”.” *Fachsprache* 38, No. 1-2 (2016): 90-94.

⁴ Zouhair Maalej. “Metaphors of Learning and Knowledge in the Tunisian context.” *Metaphors for Learning: Cross-Cultural Perspectives* 22 (2008): 205.

⁵ J. Ellis McTaggart, “The Unreality of Time.” *Mind* (1908): 457-474.

⁶ George Lakoff and Mark Johnson. *Metaphors We Live By*, (Chicago: University of Chicago Press, 1980), 3-6.

They provide an example of a conceptual metaphor as AFFECTION IS WARMTH which occurs in the expression “she greeted me warmly”.⁷ Here, AFFECTION is the target domain that one tries to understand in terms of the source domain, WARMTH. According to Lakoff & Johnson, conceptual metaphors are classified into orientational metaphors, ontological metaphors and structural metaphors.⁸ In orientational metaphors, concepts are understood in terms of spatial orientation. An example is SAD IS DOWN which occurs in the expression “I’m feeling down”. In ontological metaphors, the experiences which provide understanding to other experiences are understood as concrete entities or substances. An example is THEORIES ARE BUILDINGS which occurs in an expression like “what is the foundation of your theory?” They define structural metaphors as metaphors that help to use highly structured and clearly defined concepts to structure others. Ansah provides an example of a structural metaphor as LOVE IS A JOURNEY which occurs in the expression, “This relationship isn’t going anywhere”.⁹ The linguistic theory which works with conceptual metaphors as its pivot is the Conceptual Metaphor Theory (CMT) in which underlying conceptual metaphors are deduced from non-literal linguistic expressions. It is pertinent to discuss conceptual metaphors because the Conceptual Metaphor Theory is the theoretical framework for the study.

It is also important for Kövecses’s views to be discussed because the discussions of the relationship between the metaphors and the culture and class levels of the students are based on the views of Kövecses.¹⁰ In many of his works, Kövecses has stressed the cultural and contextual grounding of conceptual metaphors.¹¹ The scholar acknowledges that primary metaphors are metaphors that are common to all humans and are rooted in universal human experiences. There could however be variations of a particular primary metaphor and these variations may be influenced by factors such as “physical environment, social context, cultural context, communicative situation, physical setting, differences in social and personal history, differences in social/personal concerns and interests”¹² As Ghanaians, a reflection of cultural values in the conceptualisation process has been noted by Okyere.¹³ He indicated that the modern or European system of education includes African cultural values which are “extracted from our beliefs, practices, institutions, myths, folktales and proverbs”. The discussions of the influence of these factors on conceptual metaphors make it easy to account for the relationship between the conceptual metaphors and the culture and class levels of the students.

METHODOLOGY

A sample size calculator was used to sample (105) undergraduate Ghanaian students from the Department of English, KNUST to answer a questionnaire. The researcher chose undergraduate students for the exercise because they were easily accessible as compared to postgraduate students. The sample size calculator was used as the basis to sample thirty (30) students from the first year and twenty-five (25) each from the second, third and fourth year. Each questionnaire required a student to give five (5) different metaphoric descriptions of knowledge and give a simple reason for the description given. The metaphoric descriptions were supposed to be their own views but not from any material. All one hundred and five (105) questionnaires that were distributed were returned.

As a first step in the analysis, the researchers identified a set of linguistic metaphors which according to Cameron are “expressions with the potential for metaphorical interpretation”.¹⁴ After identification, they

⁷ George Lakoff and Mark Johnson. *Philosophy In The Flesh: The Embodied Mind And Its Challenge To Western Thought*, (New York, Basic Books, 1999).

⁸ Lakoff, and Johnson. *Metaphors We Live By*, 14-68.

⁹ Gladys Nyarko Ansah, “The cultural basis of conceptual metaphors: The case of emotions in Akan and English.” In *Lancaster University Postgraduate Conference in Linguistics & Language Teaching*, 5, (2010): 2-25.

¹⁰ Zoltán, Kövecses. *Metaphor And Emotion: Language, Culture, And Body In Human Feeling*. (Cambridge University Press, 2003).

¹¹ Kövecses. *Metaphor And Emotion: Language, Culture, And Body In Human Feeling*.

¹² Zoltán, Kövecses. *Metaphor In Culture: Universality And Variation*. (Cambridge University Press, 2005).

¹³ Philip Kwadwo, Okyere. “African Humanities and the Paradox of Western Education in Ghana.” *E-Journal of Humanities, Arts and Social Sciences*, 2 no.10 (2021): 139-148.

¹⁴ Lynne Cameron, “Metaphor in the construction of Metaphors for Learning” *Cross-cultural Perspectives*, 22 (2008): 159.

eliminated three categories of responses from the data. The categories of responses that were eliminated were:

1. Responses in which there was no metaphoric relation. This means there was no mention of metaphor at all. For example, “Knowledge is accumulated because it widened”.
2. Responses that had a metaphoric relation but the reasons given after the mention of the metaphors were illogical. For example “knowledge is a door because it is acquired”.
3. Responses that were well-structured metaphors but appeared only once. These responses were eliminated because the researchers could not form conceptual groups out of them.

The second part of the analysis involved inferring conceptual metaphors from linguistic metaphors. After arriving at a set of analysable data, similar linguistic metaphors were grouped. The researchers then inferred cross-domain mappings from each group.

This cross-domain mapping is what is referred to as conceptual metaphor (presented in capital letters in line with the conceptual metaphor tradition). In the analysis, linguistic expressions extracted from the data are also provided for illustration. For the purposes of the analysis, each linguistic expression was marked with a code. The first two items in the code represent the class level of the respondent. For example, Y2 stands for a script from someone in year two. The second two or three items represent the student number. For example, S5 stands for student 5 and S10 stands for student 10. Therefore, an example marked with the code Y2– S10 for instance means that the example is coming from the 10th student in the second year. Lastly, the researchers discussed the type of each conceptual metaphor. They also tried to find if there is any relationship between any Ghanaian culture and the conceptual metaphor provided as well as any relationship between the class level of the students and the conceptual metaphor provided.

ANALYSIS AND DISCUSSIONS

Below are discussions on the conceptual metaphors of knowledge that the researchers inferred from the data collected.

1. Knowledge is a Key

In this metaphor, knowledge is conceptualised as a key. The metaphor was inferred from the expressions of students from the first year, second year and final year in the examples below:

- “Knowledge is a key. It opens the doors of opportunities.” (Y1 - S6)
- “Knowledge is a key. It opens doors for better opportunities.” (Y1 - S28)
- “Knowledge is a key because new doors of ideas open.” (Y2 – S20)
- “Knowledge is a key because it unlocks doors of opportunities” (Y2 – S19)
- “Knowledge is a key because it unlocks doors of opportunities.” (Y4 - S4)
- “Knowledge is a key because it opens a lot of avenues.” (Y4 - S21)

From the examples above, the metaphor suggests that knowledge is a key that is used to open doors of opportunities in life. Following Lakoff & Johnson, this metaphor is seen as an ontological metaphor because knowledge, which is abstract, is understood in terms of a key, which is a physical object.¹⁵ Here, knowledge is not being seen as any kind of key but a key to success in life. It is reflected in students from almost all of the year groups probably because many of the students link their acquisition of knowledge in school to their success in the future. Knowledge which is acquired as information but being conceptualised as a key has direct roots in the Ghanaian context. In the Akan language, not only doors possess keys but also, information. This is reflected in the Akan proverb *asem bi safoa bue asem bi pono* (the key of one information opens the door to another).

¹⁵ Lakoff and Johnson, *Metaphors We Live By*.

If information is conceptualised in Akan as an entity that has a key, then it is not surprising that knowledge is also conceptualised as a key. This is because knowledge may be considered as information.

2. Knowledge is Power

In this metaphor, knowledge is understood as power. The metaphor was inferred from the expressions of students from all the class levels. This suggests that students from all the year groups consider knowledge as an entity which moves people to powerful positions in life. It was inferred from examples such as the ones below:

- “Knowledge is power. It determines your stand.” (Y1 - S2)
- “Knowledge is power. It gives you authority.” (Y1 - S4)
- “Knowledge is power because it boosts your capabilities or your ego.”(Y2 - S15)
- “Knowledge is power because it gives one authority.” (Y3 - S16)
- “Knowledge is power because with it you can do exploits.” (Y3 - S23)
- “Knowledge is power. You can rule with it.” (Y4 - S20)
- “Knowledge is power. It gives you authority over people and things.” (Y4 - S22)

This is a metaphor that was expectant mainly because though a metaphor, it has become a famous saying in the English language. It can be gleaned from the examples above that by conceptualising knowledge as power, the students understand it as an entity which gives authority, boosts capabilities and enables one to do exploits. Following Lakoff & Johnson, the researchers regard this metaphor as a structural metaphor since knowledge is understood in terms of power, which is also another concept.¹⁶

According to Rodríguez García, the phrase, “knowledge is power” was coined by Francis Bacon in his work *Meditationes Sacrae* published in 1597.¹⁷ The scholar discussed some implications of Bacon’s “knowledge is power”; one of which is highlighted due to its direct connection with how this metaphor is conceptualised by the students.

He explained that by using the phrase “knowledge is power”, Bacon implied that those who have acquired skills in practical matters are more deserving of executive offices than the aristocracy of lineage. This implication is reflected in Ghana’s democratic system where power is vested into the hands of the group which the citizens deem as possessing the requisite expertise to govern the nation.

In the opinion of the researchers, this governance system and the attainment of most official positions could be a reason for the occurrence of this metaphor in the students’ conceptualisation since they continuously witness people attaining high offices through merit instead of blood.

3. Knowledge is Wealth

In this metaphor, knowledge is conceptualised as wealth. The metaphor was inferred from the expressions of students from the first year, third year and final year. It was inferred from expressions such as the examples below:

- “Knowledge is a jewel. It is precious.” (Y1 - S8)
- “Knowledge is money. It is through knowledge that we can get jobs and get money.” (Y1 - S28)
- “Knowledge is precious because it is a person’s self-esteem.” (Y3 - S1)
- “Knowledge is gold because it is precious.” (Y3 - S6)
- “Knowledge is gold because it is hard to find but valuable.” (Y4 - S6)
- “Knowledge is diamond because it is precious.” (Y4 - S21)

The source domain of wealth is ascertained through the use of words like “jewel”, “money”, “gold” and “diamond” which are all precious just like wealth. Students from almost all class levels have likened

¹⁶ Lakoff and Johnson, *Metaphors We Live By*.

¹⁷ José María Rodríguez García. “Scientia Potestas Est—Knowledge is Power: Francis Bacon to Michel Foucault.” *Neohelicon* 28, no. 1 (2001): 109-121.

knowledge to wealth probably because many of them find it very hard in accessing knowledge just as wealth is hard to find. From Lakoff & Johnson, this metaphor is considered as an ontological metaphor.¹⁸ This is because, knowledge, which is an abstract concept is understood in terms of wealth, which is mostly represented by physical entities.

4. Knowledge is Security

In this metaphor, knowledge is conceptualised as security. The metaphor was inferred from the expressions of students from the first year, second year and third year with the examples below:

- “Knowledge is a shield. It’s our defence to attacks.” (Y1 - S1)
- “Knowledge is a weapon. We use it to fight ignorance and poverty.” (Y1 - S27)
- “Knowledge is security. It protects you.” (Y2 - S10)
- “Knowledge is a wall. It protects you.” (Y2 - S12)
- “Knowledge is a weapon because it is all you can use to fight for your wants.” (Y3 - S21)
- “Knowledge is safety because it protects.” (Y3 - S11)

From the reasons given, the metaphor suggests that knowledge provides one with physical security and financial security. Knowledge is therefore viewed as security due to its bearers’ ability to defend themselves against physical attacks and poverty. Knowledge’s ability to give wealth helps to fight poverty. Following Lakoff & Johnson’s views, this metaphor is considered a structural metaphor since knowledge, which is an abstract concept is understood in terms of security, which signifies protection, an abstract entity.¹⁹ In Ghana, the acquisition of knowledge leads people to high official positions and subsequently to riches. Thus, many of the students see knowledge as the backbone of life and this must have influenced its occurrence in the conceptualisation of many of the students.

5. Knowledge is a Guide

In this metaphor, knowledge is conceptualised as a guide. The metaphor was inferred from the expressions of only first-year students. This is probably because their new era of knowledge acquisition must have started regulating their endeavours. The metaphor was inferred from examples such as the ones below:

- “Knowledge is a map. It guides you on every step in life.” (Y1 - S26)
- “Knowledge is a guide. It teaches us how to conduct ourselves.” (Y1 - S12)

From the examples, the metaphor suggests that knowledge is an entity which directs the activities of people and also teaches people how to conduct themselves. Following Lakoff & Johnson, this metaphor is regarded as an ontological metaphor because knowledge, as an abstract entity, is structured in terms of a guide, which is a physical entity.²⁰ Knowledge is considered a guide, and has roots in Ghanaian society. For example, The Akan proverb *obi nnim a obi kyere* which literally means “if one does not know, one teaches” suggests that in Ghana, the guidance role of knowledge is acknowledged. The researchers opine that this could also be a reason for its occurrence in the students’ conceptualisations.

6. Knowledge is Light

In this metaphor, knowledge is conceptualised as light. The metaphor was inferred from the linguistic expressions of students from all the year groups with the following examples:

- “Knowledge is light. It brightens dark ideas.” (Y1 - S4)
- “Knowledge is light. It shows the way.” (Y1 - S8)
- “Knowledge is light. It brightens our path.” (Y2 - S4)

¹⁸ Lakoff and Johnson, *Metaphors We Live By*.

¹⁹ Lakoff and Johnson, *Metaphors We Live By*.

²⁰ Lakoff and Johnson, *Metaphors We Live By*.

- “Knowledge is torchlight. It shows us where to go at any point in time.” (Y2 - S17)
- “Knowledge is light because it illuminates.” (Y3 - S4)
- “Knowledge is like a star because it brightens your life.” (Y3 - S6)
- “Knowledge is light because it makes you shine among others.” (Y4 - S5)
- “Knowledge is light because it makes you bright.” (Y4 - S25)

From the examples, the metaphor suggests that the presence of knowledge takes one out of the darkness of ignorance. Following Lakoff & Johnson’s line of thought, the researchers consider this metaphor as an ontological metaphor since knowledge is understood in terms of light, which is a physical entity.²¹ This notion of ignorance as darkness exists in Ghanaian society and thus, must have influenced the students’ conceptualisation. According to Wiredu & Gyekye, in Ghanaian society, ignorance is linked to darkness and knowledge is linked to light.²² This conceptualisation is reflected in the Ewe proverb “*Nu manyamanya fe akadi tra ame za*” which means “the lamp of ignorance misleads in the night”.

7. Knowledge is Liberty

In this metaphor, knowledge is conceived as an entity that brings freedom to individuals. The metaphor was inferred from the expressions of only first-year students probably because the ability to be independent is one of their motivations for being in school. Since they are in their first year, this motivation is still new in their minds and hence, its occurrence in their conceptualisations. The metaphor was inferred from expressions such as the following examples:

- “Knowledge is liberty. It releases you from mental slavery.” (Y1 - S11)
- “Knowledge is independence. With knowledge, we can do things on our own.” (Y1 - S25)

The words “independence”, “freedom” and “liberty” motivated the choice of the source domain. From the examples, this metaphor implies that knowledge empowers one to be liberated both mentally and physically. Using the submissions of Lakoff & Johnson, this metaphor is considered as a structural metaphor. This is because knowledge, which is an abstract term, is understood in terms of liberty, which is also another concept.²³ According to Gyekye, the Ewes of Ghana conceptualise freedom as something which emanates from knowledge.²⁴ This notion is reflected in the Ewe maxim “the freedom that comes from ignorance enslaves the one who entertains it.” The researchers believe that, the existence of the idea that true freedom is acquired through knowledge in a Ghanaian language means it has roots in the Ghanaian context and could be a reason for its existence in the students’ conceptualisations.

8. Knowledge is Life

In this metaphor, knowledge is construed as life. The metaphor was inferred from the expressions of first-year students with the examples below:

- “Knowledge is life. You cannot live without it.” (Y1 - S2)
- “Knowledge is life. Virtually everything in life revolves around it.” (Y1 - S23)

From the examples, the metaphor suggests that knowledge is the pivot of one’s existence. First-year students comparing knowledge to life may indicate that it is the class level where students give the highest reverence to their knowledge acquisition. Using the views posited by Lakoff & Johnson, this metaphor may be considered a structural metaphor since knowledge is understood in terms of life, which is not a concrete object.²⁵

²¹ Lakoff and Johnson, *Metaphors We Live By*.

²² Kwasi Wiredu and Kwame Gyekye “Knowledge And Truth: Ewe And Akan Conceptions” (2010) <https://www.abibitumi.com/community/akan-twi-language-resources/knowledge-and-truth-ewe-and-akan-conceptions/>.

²³ Lakoff and Johnson, *Metaphors We Live By*.

²⁴ Kwame Gyekye, *African Cultural Values: An Introduction* (Accra: Sankofa Publishing Company, 1996).

²⁵ Lakoff and Johnson, *Metaphors We Live By*.

9. Knowledge is Sight

In this conceptual metaphor, knowledge is understood as an entity which gives the ability to see. It was inferred from the expressions of students from the third year with the following examples:

- “Knowledge is a spectacle because it gives a good view of the world.” (Y3 - S24)
- “Knowledge is a lens because we see through it.” (Y3 - S16)

Sight as a source domain is captured through the use of the words “spectacle” and “lens” which both give the ability to see. From Lakoff & Johnson’s view, this metaphor is considered as a structural metaphor since knowledge, which is abstract is understood in terms of sight, which is another concept.²⁶ Lakoff & Johnson have already noted the connection between knowing and seeing with the metaphor KNOWING IS SEEING.²⁷ Ibarretxe-Antuñano also identified the metaphor UNDERSTANDING IS SEEING which maps the domains of visual perception and mental processing.²⁸

Since the metaphor KNOWLEDGE IS LIGHT is rooted in the Ghanaian society, it is not out of order to say the metaphor KNOWLEDGE IS SIGHT is also rooted in the Ghanaian society and must have been a reason for its occurrence in the students’ conceptualisation. This is because sight cannot be achieved in the absence of light.

10. Knowledge is Food

In this metaphor, knowledge is understood as food or an entity which fills the human body. The metaphor was inferred from the expressions of third-year students with the examples below:

- “Knowledge is food because it feeds the mind.” (Y3 - S13)
- “Knowledge is food because it feeds our brain.” (Y3 - S14)

The researchers opine that this metaphor may be said to be a complex metaphor derived from the primary metaphor, IDEAS ARE FOOD from Lakoff & Johnson.²⁹ This is because just as ideas are ingested into the brain, knowledge is also taken in through a medium and into the human body. Following the scholars, this metaphor is seen as an ontological metaphor. This is because knowledge, which is abstract, is structured in terms of food, which is a physical entity.

The conceptualisation of knowledge as an entity which fills the human body exists in the Akan language in the sentence below:

Nimdee ahye ne ma (Knowledge has filled him/her or he/she is filled with knowledge).

In the sentence above, knowledge is conceptualised as an entity which fills the human body. According to the researchers, this conceptualisation of knowledge in Akan must have influenced its occurrence in the students’ conceptualisations.

11. Knowledge is a Plant

In this metaphor, knowledge is conceptualised as a plant which can grow when given the required attention. The metaphor was inferred from the expressions of students from the third year with examples below:

- “Knowledge is a plant because it can grow in the right environment.” (Y3 - S4)
- “Knowledge is a plant because it grows.” (Y3 - S20)

From the examples above, the metaphor implies that knowledge is not static but develops in size and value. Since patience and time are requirements for growth, students in their third year must have experienced their acquisition of knowledge has grown over a period and this must have influenced their conceptualisation. From Lakoff & Johnson, this metaphor is considered as an ontological metaphor. This is

²⁶ Lakoff and Johnson, *Metaphors We Live By*.

²⁷ Lakoff and Johnson, *Philosophy In The Flesh*.

²⁸ Iraide Ibarretxe-Antuñano. “Mind-As-Body As A Cross-Linguistic Conceptual Metaphor.” *Miscelánea* 25,no.1(2002):93-119.

²⁹ Lakoff and Johnson, *Metaphors We Live By*.

because knowledge, which is abstract, is understood in terms of a plant, which is a physical object.³⁰ The metaphor implies that in Ghanaian society, knowledge is conceptualised as an entity that grows when given the necessary attention.

12. Knowledge is an Endless Entity

In this metaphor, knowledge is conceptualised as an endless entity. The metaphor was inferred from the expressions of third-year students with the examples below:

- “Knowledge is a sea because it is limitless.” (Y3 - S12)
- “Knowledge is sand because it is infinite.” (Y3 - S19)

From the examples, the metaphor suggests that knowledge acquisition is an entity which never ends. Following Lakoff & Johnson’s position, this metaphor is regarded as a structural metaphor because knowledge, which is abstract, is understood in terms of an endless entity, which is also another concept.³¹ Knowledge being conceptualised as an endless entity must have been influenced by the fact that it is something that is acquired throughout the lives of individuals.

13. Knowledge is a Vehicle

In this metaphor, knowledge is construed as a vehicle which transports people to their goals in life. The metaphor was inferred from expressions such as the examples below:

- “Knowledge is a vehicle because it drives you very far in life.” (Y4 - S18)
- “Knowledge is a vehicle because it takes you places.” (Y4 - S23)

From the examples, the metaphor suggests that knowledge is an entity which takes one far and also to different places of life. Following the views of Lakoff & Johnson, this metaphor is considered as an ontological metaphor because knowledge, which is an abstract concept is structured in terms of a vehicle, which is a physical object.³² The metaphor was inferred from the expressions of only final year students probably because as final year students, they have experienced the journey of knowledge acquisition more than students in the other year groups. It may also be because since they are in their final year, they have been more confronted with how far knowledge will take them in life, hence, its occurrence in their conceptualisations.

FINDINGS

The analysis revealed thirteen conceptual metaphors of knowledge out of which six were structural metaphors and eight were ontological metaphors. This finding implies that the students consider knowledge as an object that can be handled more than they consider it as an ordinary concept. In the view of Lakoff & Johnson, the students’ understanding of this notion as a physical object suggests that they are able to refer to it, categorize it, group it and quantify it.³³ The analysis has also revealed how certain Ghanaian proverbs and sayings are directly mirrored in the students’ conceptualisations of knowledge. This enforces Kövecses’s idea of the cultural and contextual grounding of conceptual metaphors.³⁴

Lastly, the analysis has revealed eight conceptual metaphors which allude to economic success. These are those with the source domains of key, power, wealth, security, guide, liberty, food and vehicle. In the opinion of the researchers, this denotes that many of the students recognise knowledge’s ability to render economic success more than its ability to help in critical thinking which is reflected in source domains such as light and sight.

³⁰ Lakoff and Johnson. *Metaphors We Live By*.

³¹ Lakoff and Johnson. *Metaphors We Live By*.

³² Lakoff and Johnson. *Metaphors We Live By*.

³³ Lakoff and Johnson. *Metaphors We Live By*.

³⁴ Kövecses. *Metaphor And Emotion: Language, Culture, And Body In Human Feeling*.

CONCLUSION

Considering the importance of conceptual metaphors in the revelation of deeply entrenched ideas, the present study was carried out to explore the conceptual metaphors of knowledge in the written expressions of students of the Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana. This was to find out if there is any relationship between their culture and their conceptualisations. It also sought to examine if there is any relationship between their class levels and their conceptualisations. The study revealed that certain proverbs and sayings in some Ghanaian languages are reflected in most of the conceptual metaphors identified. The paper also revealed that many of the students give recognition to knowledge's role in rendering economic success more than its role of helping in critical thinking. These findings contribute to the understanding of how this concept is structured in the minds of the students and it may help stakeholders of education to understand the students' attitude towards it.

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