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A Cognitive Semantic Study on Conceptual Metaphor on Gender in *Umpasa* in Batak Toba Language

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ABSTRACT

Although many studies on *umpasa* have been carried out previously in the Toba Batak language; however, a study on gender-based conceptual metaphors from a cognitive semantic perspective has never been conducted before. This study discusses the conceptual metaphor of gender contained in the umpasa of Batak Toba. The theory of the study is oriented to the conceptual metaphor by Lakoff and Johnson (2003) as the main theory and Cruse and Croft (2004) for the image schematic. This descriptive qualitative research was conducted by using a thematic analysis design to describe the types of conceptual metaphors in the Toba Batak language. The results of this study reveal that there are three types of conceptual metaphors about gender contained in umpasa, as a form of oral tradition. Based on the analysis, 15 conceptual metaphors were found in the study, namely (1) 11 structural metaphors, (2) 3 orientational metaphors, and (3)1ontological metaphor. Furthermore, in the classification of source domains, four of the fifteen data presented conceptualize women as the source of money and economic transactions, then men as physical resources, and other source domains. The results of this study add to references on the topic of conceptual metaphors in regional languages in Indonesia in general, and in the Batak language specifically.

Keywords: Conceptual Metaphor, Gender, Batak Toba



1. Introduction

The revolution in metaphor studies has made it clear that people's use and comprehension of metaphorical language and gestures are motivated by underlying conceptual metaphors (Banaruee, Khoshsima, Zare-Behtash, Yarahmadzehi, & Zhang, 2019). Nowadays, metaphorical expression is often seen as the physical embodiment of metaphorical concepts that are intellectually represented. There seem to be metaphors everywhere across cultures in the world. Without the use of metaphors, it is practically impossible to communicate successfully in some languages, they add color and beauty to words. It is critical to comprehend the methods for understanding metaphors. Numerous times, these ideas can be figuratively explained and comprehended in terms of events that are in movement or are not in motion in three dimensions. Understanding metaphors requires classifying the topic of the metaphor into one or a maximum of multiple prominent semantic components (Xi, Chow, & Xia, 2022). It is concluded that potential processes may be utilized to process a variety of metaphors. For the past forty years, scholars have been debating how to describe the mechanisms of metaphor understanding. Finding a method that can characterize the steps taken in the understanding of distinct metaphors has proven to be one of the biggest obstacles.

The gender of participants affects how they perceive vertical metaphors for power, with male individuals exhibiting larger vertical biases than female participants (Baker, 2022). Etymologically, gender comes from English. It emphasizes the relationship between men and women anatomically. In Webster's New World

Dictionary, gender is defined as the visible difference between men and women in terms of values and behavior. On the other hand, gender can also be explained as a social construction that leads to the division of social roles based on gender. Gender is used as a concept that distinguishes femininity and masculinity (Varvantakis & Nolas, 2019). The concept is influenced by sociocultural which are based on community manipulation so it is not natural. The concept is based on the understanding that women are weak creatures so they need protection from strong men.

This understanding is not unreasonable, but it is based on several experts' opinions regarding gender. Oakley (1972) said that gender is a difference or gender that is not biological and not God's will. Furthermore, Caplan (1987) emphasized that gender is a behavioral difference between men and women apart from the biological structure, mostly formed through social and cultural processes. Then, Hilary M. Lips in her famous book Sex & Gender: An Introduction defines gender as cultural expectations for women and men.

The concept of gender decades ago has given discrimination which is manifested in the form of marginalization, subordination, stereotyped views, violence, and double burdens for women (Oktavianti, 2022). Like the previous research that underlies this research, the Toba Batak culture has also adopted the concept of gender so that there is a gap between men and women which can be seen in the following example.

matean ama/ magoan ulu/ 'kehilangan bapak/ kehilangan kepala/ matean ina/ matompas tataring/ kehilangan ibu/ tungku rubuh/

The excerpt shows that 'ama' (male) is conceptualized as 'the head', while 'ina' (female) is conceptualized as 'the furnace'. In this case, it is clear to see the difference between 'the head' and 'the furnace'. Of course, this explanation is groundless if it is not reviewed by theory (Sitompul, Lubis, Pakpahan, Munawir, & Ridwan, 2022). Therefore, the study will elaborate on the metaphorical expression that underlies the abstract concept of gender within the theoretical framework of conceptual metaphor. The study will show the effectiveness of conceptual metaphors in analyzing our conceptual and its correspondence to the social and cultural aspects of human cognition.

This study aims to describe the process of forming structural, orientational, and ontological metaphors in the Toba Batak language as well as contextualize the use of these three types of metaphors in the context of the Toba Batak people's communication.

2. Literature Review

Metaphors have been the subject of curiosity for scientists from various fields of newly developed cognitive linguistics provided giving fresh meaning to metaphors and investigating them from various perspectives (Zachou, Panhofer, & Bareka, 2022). Consequently, studies of metaphors come from an Anthropological perspective: Humans are The factor is a significant contributor to the development and emergence of any kind of Linguistic and cognitive units. In the piece, the theoretical model of conceptual metaphor and universals in cognitive metaphor have been diverse linguistic analyses.

Conceptual metaphor is the result of mental construction based on the principle of analogy that involves conceptualizing an element to another (Belkhir, 2021). The conceptual metaphor includes the transfer from the source domain to the target domain. The source domain is usually in the things that are obtained in daily life and they are concrete. The metaphorical model is expressed by how B is mapped to A in the conceptual structure; this relationship is confirmed by the function B as A, with the pattern X as Y; X as Y. For example, 'life is a journey. The expression 'life is a journey consists of the source and target domain. The word 'journey' includes the source domain, and the word 'life' is the target domain. So, it can be understood that 'life' has similarities with 'journey'. Life has a starting and ending point; birth and death (Aulia and Tajudin, 2020).

Furthermore, Lakoff and Johnson in Tay (2022) argued that a metaphor occurs if: a) a word or phrase in a narrow sense in the context relevant to the speech expression has more than a literal meaning, b) the literal meaning comes from a concise meaning area (area of source), c) and at the same time moved to the second area, it is often more abstract area (target area). Lakoff & Johnson in Coll-Florit et al., (2021) identified three types of metaphors, namely structural metaphors, orientational metaphors, and ontological metaphors. A structural metaphor is a conventional metaphor in which one concept is understood and expressed in terms of another structured, sharply defined concept. The structural metaphor is based on two domains, namely the source domain and the target domain. Structural metaphors are based on systematic correlations in daily experience.

Orientational metaphors are a method in which concepts are spatially related to each other, in the following ways:up-down, in-out, front-back, on-off, deep-shallow, and central-peripheral (Wang & Sun, 2021). The

spatial orientation appears based on human physical experience in regulating the orientation of the direction in life. The experience is integrated into the human mind so that it concretizes the abstract into reality. For example, concretize the abstract by using the dimensions up-down. Happy and sad are mapped in the up-down dimension. Orientational metaphors reflect different spatial concepts based on the physical experience or community culture so this phenomenon exists in all languages (Nuryadin, 2021).

In addition to the types of conceptual metaphors, there are also image schemes formed from a metaphor. Boccagni (2022) said that an image schema is an important form of the conceptual structure of cognitive semantics. In addition, the image scheme is a structure of meaning that is obtained from experience resulting from how humans interact with the world. This experience is useful for abstract and reasoning understanding. An image scheme can be said to be an unconscious mental framework of forms, actions, dimensions, and so on that will repeat and comes from perceptions and feelings. The imaging scheme according to Cruse & Croft (2004) is divided into seven parts which are listed in table 1.

	Table 1. Image Schematic by Cruse & Croft
Space	Up-Down, Front-Back, Left-Right, Near-far,
	Centre Periphery, Contact
Scale	Path
Container	Containment, In-Out, Surface, Full-Empty, Content
Force	Balance, Counterforce, Compulsion, Restraint, Enablement,
	Blockage, Diversion, Attraction
Unity/Multiplicity	Merging, Collection, Splitting, Iteration, Part Whole, Mass-
	Count, Link
Identity	Matching, Superimposition
Existence	Removal, Bounded Space, Cycle, Object, Process

Kovecses (2006) classified the domain of the general resource into 13 types, including (1) humans, (2) plants, (3) animals, (4) plants, (5) buildings and construction, (6) machines and tools, (7) games and sports, (8) money and economic transactions, (9) cooking and food, (10) heat and cold, (11) light and darkness, (12) style, and (13) movement and direction. While the general target domains are categorized into 13 types, namely (1) emotions, (2) desires, (3) morality, (4) thoughts, (5) society/nation (6) politics, (7) economics, (8) human relationships, (9) communication, (10) time, (11) life and death, (12) religion, and (13) events and actions.

3. Methods

The distributional method was used to investigate the elements contained in its language (Djajasudarma, 2006, p. 60). This method was used to formulate the linguistic elements that form the metaphor. Furthermore, the referential method is used to show and compare the references contained in the types, sources, and targets of metaphors that wanted to be analyzed. The cognitive semantic theory is used to answer the problem of the research. Cognitive semantics is an approach based on experiential, namely how language is used.

4. Results and Discussion

The score of male students' agility for each type can be seen in the table below. The subtotal score in mental agility is 1581; people agility is 1666; change agility is 1665, and result agility is 1886. Hence, the total score for all types of agility is 6798.

The following are some of the data collected in revealing the conceptual metaphor on gender in the Batak Toba language. The data was obtained based on umpasa used in the Batak Toba tradition.

No.	Data	Source Domain	Target	Types of	Conceptual
			Domain	Metaphors	Meaning
1	sada do lada di anak / sada	marmeme 'feeding'	anak/ boru	Structural	Love
	lada di boru/ dompak		'son/	Methapor	
	marmeme anak/ dompak		daughter'		
	marmeme boru				
2	laklak dohot singkoru/ di	arta 'treasure'	anak/ boru	Structural	Wealth
	dolok purbatua/ anak dohot		'son/	Methapor	
	boru/ i do arta na balga		daughter'		

3	tinallik landorung/ bontar gotana/ dos do pahompu sian anak dohot sian boru/ nang pe	dos 'equal'	prompt 'grandchild'	Structural Metaphor	Equally
4	pulik margana Eme piniarpiar/ na jinomur ni pardegean/ sai tubu ma di hamu angka anak na pistar/ dohot angka boru na boi pangunsandean	Pangunsandean'Place to lean on'	anak/ boru 'son/ daughter'	Ontological Methapor	Support
5	habang sirubaruba/ tu sosor naimbaru/ sidoli pande ruma/ siboru modom di jabu	Pande ruma 'have a skill to build house'	Si doli 'son'	Structural Methapor	Hard worker
6	andung ni anak sabulan di dalan/ andung ni boru sataon	hamatean 'death'	anak 'son'	Orientational Metaphor	Sadness and
7	di dalan/ anak do hamatean/ boru do hangoluan dangka ni bulu godang parasaran ni pidong na dua/ sai simbur ma ibana	hangoluan 'life' Sipajoloan 'prioritized'	boru's daughter' a 'son'	Structural Metaphor	happiness sources Brought forward
	magodang songon ullusan/anak sipajoloan ma ibana huhut siboan tua/ sai saur leleng mangolu sahat tu saurmatua	Sabian tua "bearer of blessing'			
8	marasar ulok dari/ di toru duhut sirumata/ sai tubu ma di	Malo mansari 'hard worker'	anak 'son'	Structural Metaphor	Lots of luck/
	hamu angka anak na malo mansari/ dohot angka boru sioloi hata	Si oloi hata 'obedient'	boru's daughter'		prosperous Obedient
9	tangki ma jala ualang/ galinggang jala garege/ sai	Partahi 'have planning	Anak's son'	Structural Metaphor	Leader, Hero, Rich
	tubu ma di hamu angka anak, partahi jala ulubalang/ dohot angka boru parmas jala pareme	Ulubalang 'warrior' Paris 'having gold'	boru 'daughter'		
10	ander halumnang ma / togu	Pareme 'having rice' Talaga 'kitchen'	anak 'son'	Orientational	Front and
10	andor halumpang ma / togu togu ni lombu / boru hundul i talaga anak hundul i halang	Halang ulu 'front	boru	Metaphor	Back
11	ulu seak-seak borhu/madabu tu bonana/ tanda ni anak na burju/ paturehon ni amana	room' Paturehon 'tidy up'	'daughter' amana 'his/her father'	Structural Methapor	Care
12	Tubu ma simarhora-hora/ di topi ni tapian/ tubu ma di hamuna anak na mora/ dohot boru parbalian	Barbarian 'people who often go to field'	Boru's daughter'	Orientational Metaphor	Front and Back
13	inanta soripada/ na so ada bada/ di ruma marhuraja/ manggomgom ma ibana	Marhuraja 'dominate' Manggonggom 'take	Boru's daughter'	Structural Metaphor	become king and reign
14	tabotabo ni lombu/ tabo ginambirian/ sai horas ma hamu boru/ asa adong paulean	control' Paulean 'gift'	Boru 'daughter'	Structural Methapor	Generous

15 of martumbur ma salaon/ Si parundung 'Netter' Boru's Structural Lots marbatu antong singkoru/ daughter' Metaphor luck and sorang boru siboan tua/ boru Sisuan padan 'Pandan Succesful sipandurung jala sisuan planter' pandan

4.1. Structural Metaphor

Structural metaphors for linguistic markers on gender in the Batak Toba language are expressed in several metaphorical expressions. The first dataWOMEN and MEN as RELATIONSHIPS, the second data WOMEN as MONEY and ECONOMIC TRANSACTIONS because the metaphor of arta'wealth' is interpreted as a source of money, the third data WOMEN and MEN as BOND because in this case the metaphorical expression dos 'equal' is used in binding (balancing) male and female. Then, data (5) MEN as BUILDING AND CONSTRUCTION is indicated by the metaphorical expression panderuma 'expert in building', the seventh dataMEN as MOVEMENT and DIRECTION are indicated by the metaphorical expression sipajoloon 'to be put forward, then the eight data MEN -MEN as a source of MONEY AND ECONOMIC TRANSACTIONS are marked by the metaphorical expression malo mansarii 'smart looking' in this case what is meant is sustenance, the ninth data MEN as PHYSICAL POWER is marked by the metaphorical expression of partahi Jalal ulubalang 'leader and hero' while WOMEN as a source of MONEY and ECONOMIC TRANSACTIONS are categorized by the metaphorical expression parmas jala pareme 'having gold and rice.

The eleventh data MEN as PHYSICAL POWER because of the metaphorical expression *paturehon* 'make good'. The thirteenth data that the metaphorical expressions of *marhuraja* and *manggonggom* dominate and make WOMEN conceptualized as PHYSICAL POWER. Then, fourteenth data WOMEN are conceptualized as a source of MONEY AND ECONOMIC TRANSACTIONS because there is a metaphorical expression *paulean* 'giver' in this case what is meant is material. The last data, WOMEN are conceptualized as a source of MONEY AND ECONOMIC TRANSACTIONS marked by the metaphorical expression *sipandurung jalasisuan pandan* 'the netter and pandan planter' in this case which also refers to the material.

One's deployment of a structural metaphor is referred to as using one concept to build another so that the source domain's structure can be copied to the conceptual area of interest (Moore, 2022). Conceptual metaphors in the Batak Toba language suggested that metaphor is a fundamental component of the human mind, not just a feature of language. In actuality, the majority of metaphorical language derives from previous metaphorical thought patterns or conceptual analogies. The study's findings evaluate the linguistic and psychological evidence in favor of conceptual metaphors in the Batak Toba language and address some of the critics who have raised these issues among cognitive science experts. Additionally, some novel approaches to conceptual metaphor thinking from the viewpoints of embodied simulations and dynamical systems theory are provided.

4.2. Orientational metaphor

Orientational metaphors reflect different spatial concepts based on the physical experience or community culture so this phenomenon exists in all languages (Nuryadin, 2021). In Batak Toba culture, the metaphorical concept is characterized by the terms *anak do hamatean* 'sons are death' and *boru do hangoluan* 'daughters are life' (data 6). Thus, it appears the metaphor of WOMEN as LIGHT and MAN as DARKNESS. Furthermore, *boru hundul i talaga* 'women sit in the kitchen and *anak hundul i halang ulu* 'men sit in the front room' (data 10). The metaphorical expression is characterized by WOMEN and men as BUILDING AND CONSTRUCTION. Then, data (12) is called *boru parbalian* 'field women' as a metaphorical expression for linguistic markers *parbalian*. Thus, WOMEN as a source of MONEY AND ECONOMIC TRANSACTIONS.

Communication in daily life frequently uses orientation metaphors (Hendricks, Demjén, Semino, & Boroditsky, 2018). It is well known to aid individuals in comprehending complex subjects, communicating effectively, and influencing others. The research findings give a summary of the literature on the utility of metaphor, presenting significant findings and disputes while underscoring current experimental and theoretical developments. The research findings also provide a brief introduction to metaphor and provide a critical evaluation of the assertion made by Lakoff and Johnson in their seminal conceptual metaphor theory that common metaphors in language reflect underlying conceptual representations and processing. By highlighting some of the cognitive, affective, and social dynamics that limit the influence of metaphors on decision-making, one can study whether and how metaphors influence attitudes and reasoning (Finefter-Rosenbluh, 2022). An orientational metaphor is a way to grasp another topic in the up-down, front-back, deep-shallow, far-near, and other directions. These precise instructions map one's feelings, well-being, social standing, etc.

These results place a significant restriction on theories like orientation metaphors, which are unable to forecast these varied patterns of behavior only based on linguistic analysis. This implies that extensive testing is required to ascertain whether (and when, and how) verbal metaphors represent underlying conceptual mappings. Future studies in this area could focus on creating more exact theoretical explanations for the incomplete character of metaphoric mappings.

4.3. Ontological Metaphor

To determine whether or not a phrase is utilized metaphorically, research in conceptual metaphor theory has typically relied on researcher intuition. To support a human judgment in metaphor recognition, criteria have been heavily standardized during the past ten years by depending on rules that are supported by dictionary entries confirming a potential metaphor in a specific setting. However, unlike metaphor identification, determining the source domain a metaphor comes from has not been standardized.

Kovecses in Arimi (2015) says that ontological metaphors are metaphors that map language expressions into basic or essential concepts, generally mapped in the form of personification. In personification, human qualities are used for non-human entities. In this case, the linguistic marker for Batak Toba *pangunsandean's* place to lean on is a non-human entity that is used as a women's quality. Women are expected to be a place to lean on for the whole family. So WOMEN as OBJECT is a metaphorical concept in the Batak Toba language.

Three separate groupings of metaphors are examined to illustrate this notion. Metaphors that are used to describe extremely abstract notions are included in the first group (Vervoort, Bendor, Kelliher, Strik, & Helfgott, 2015). These abstract ideas are frequently explained in terms of motion or non-motion occurrences occurring in three dimensions. The metaphors employed to describe concepts with a higher level of concreteness are included in the groups. These metaphors are frequently comprehended by assigning a significant characteristic of a metaphorical category to the metaphor's subject. The first group of metaphors can be interpreted as a set of objects in a three-dimensional space due to their nature (Peng, 2021). This can be accomplished by mapping relationships from the source domain to those in the destination domain.

5. Conclusion

The findings of the study imply that the brain regions involved in performing the same physical movements are used to comprehend metaphorical descriptions of abstract notions in terms of physical movements in three dimensions. Here, the subject of why metaphors are so frequently used is brought up as a crucial one. How can metaphors help us grasp our world more deeply if that is what they are supposed to do? How can we better understand the first notion by illustrating it in terms of the second concept? These inquiries will be addressed in the sections that follow. Based on the analysis, 15 conceptual metaphors were found in the study, namely (1) 11 structural metaphors, (2) 3 orientational metaphors, and (3) 1 ontological metaphor. Furthermore, in the classification of source domains, four of the fifteen data presented conceptualize women as the SOURCE OF MONEY and ECONOMIC TRANSACTIONS, then men as PHYSICAL RESOURCES, and other source domains. The authors advocate for a more nuanced categorization of metaphor types that considers some complementing taxonomic viewpoints, such as the nature of the source and destination as well as the generality and complexity of the metaphoric action. The paper also looks at concerns with conceptual interaction and cognitive dominance concerning metaphor. The research concludes by addressing the issue of metaphoric restrictions in the Batak Toba language and making a suggestion for three complimentary types of constraints.

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References

Baker, W. (2022). From intercultural to transcultural communication. *Language and Intercultural Communication*, 22(3), 280–293. https://doi.org/10.1080/14708477.2021.2001477

Banaruee, H., Khoshsima, H., Zare-Behtash, E., Yarahmadzehi, N., & Zhang, L. J. (2019). Types of metaphors and mechanisms of comprehension. *Cogent Education*, 6(1). https://doi.org/10.1080/2331186X.2019.1617824

Belkhir, S. (2021). Cognitive Linguistics and Proverbs. In *The Routledge Handbook of Cognitive Linguistics* (pp. 599–611). https://doi.org/10.4324/9781351034708-40

- Boccagni, P. (2022). Homing: a category for research on space appropriation and 'home-oriented' mobilities. *Mobilities*, 17(4), 585–601. https://doi.org/10.1080/17450101.2022.2046977
- Coll-Florit, M., Climent, S., Sanfilippo, M., & Hernández-Encuentra, E. (2021). Metaphors of Depression. Studying First Person Accounts of Life with Depression Published in Blogs. *Metaphor and Symbol*, 36(1), 1–19. https://doi.org/10.1080/10926488.2020.1845096
- Djajasudarma, T. F. (2006). Wacana: pemahaman dan hubungan antarunsur. Bandung: Refika Aditama.
- Finefter-Rosenbluh, I. (2022). Discipline lessons from American faith-based autonomous schools: a narrative of power and 'mini-public' ideology. *Journal of Education Policy*, *37*(2), 308–333. https://doi.org/10.1080/02680939.2020.1785014
- Hendricks, R. K., Demjén, Z., Semino, E., & Boroditsky, L. (2018). Emotional Implications of Metaphor: Consequences of Metaphor Framing for Mindset about Cancer. *Metaphor and Symbol*, *33*(4), 267–279. https://doi.org/10.1080/10926488.2018.1549835
- Kövecses, Z. (2006). Language, Mind, and Culture. Oxford: Oxford University Press.
- Moore, P. J. (2022). Motivation, strategies and creativity. *Educational Psychology*, 42(2), 139–141. https://doi.org/10.1080/01443410.2022.2042646
- Oktavianti, I. N. (2022). Students' Familiarity with Metaphorical Collocations of time: A Preliminary Investigation. *Metafora: Jurnal Lintas Disiplin Studi Metafora*, 1(1), 1–14. https://doi.org/10.26877/mf.v1i1.10898
- Peng, A. Y. (2021). Neoliberal feminism, gender relations, and a feminized male ideal in China: a critical discourse analysis of Mimeng's WeChat posts. *Feminist Media Studies*, 21(1), 115–131. https://doi.org/10.1080/14680777.2019.1653350
- Sitompul, R., Lubis, M., Pakpahan, E. F., Munawir, Z., & Ridwan, M. (2022). The effect of marriage culture in Batak Toba to the children. *Journal of Human Behavior in the Social Environment*, 32(5), 557–573. https://doi.org/10.1080/10911359.2021.1924915
- Tay, D. (2022). Metaphor Types as Strategies for Teaching Regression to Novice Learners. *Journal of Statistics and Data Science Education*, 30(1), 3–14. https://doi.org/10.1080/26939169.2021.2024777
- Varvantakis, C., & Nolas, S. M. (2019). Metaphors we experiment with in multimodal ethnography. *International Journal of Social Research Methodology*, 22(4), 365–378. https://doi.org/10.1080/13645579.2019.1574953
- Vervoort, J. M., Bendor, R., Kelliher, A., Strik, O., & Helfgott, A. E. R. (2015). Scenarios and the art of worldmaking. *Futures*, 74, 62–70. https://doi.org/10.1016/j.futures.2015.08.009
- Wang, J., & Sun, Y. (2021). Different Metaphorical Orientations of Time Succession between Traditional Chinese Medicine and Western Medicine. *Metaphor and Symbol*, 36(3), 194–206. https://doi.org/10.1080/10926488.2021.1910952
- Xi, X. C., Chow, K. K. N., & Xia, N. (2022). The relationship between chinese characters and artefacts: A semantics mapping analysis. *Design Journal*, 0(0), 1–22. https://doi.org/10.1080/14606925.2022.2121071
- Zachou, E., Panhofer, H., & Bareka, T. (2022). Metaphor and movement: exploring the unspoken with a group of frontline workers. *Body, Movement and Dance in Psychotherapy*, *17*(4), 326–342. https://doi.org/10.1080/17432979.2022.2052185