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A DMT-Based Study on Interpreting Conceptual Metaphors from Quotations of Climate Action Discourses of Top Leaders around the UN

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Abstract

The article reports the study interpreting conceptual metaphors relating to climate crisis from the deliberate metaphors in 84 quotations of climate action discourses of top leaders around the United Nations delivered in 2023. Applying Steen's (2008; 2023a) Deliberate Metaphor Theory and Reijnierse et al.'s (2018) Deliberate Metaphor Identification Procedure, the study interprets 19 conceptual metaphors, in which, on the schematicity levels, six conceptual metaphors are perceived on image schemata, four on domains, and nine on frames. Among those 19 conceptual metaphors (nine quotations concurrently are perceived on two levels), the five conceptual metaphors that use metaphorical expression most frequently are CLIMATE ACTION IS A JOURNEY, CLIMATE CRISIS IS DOOMSDAY, CLIMATE CRISIS IS A DESTROYER, CLIMATE CRISIS IS A WAR and CLIMATE ACTION IS CONSTRUCTION. Those 19 conceptual metaphors share the main conceptual keys stating that the climate crisis is threatening our lives to look like a war, easy to bring human being to doomsday, requiring climate action, as performing a journey, to be proceeded continuously to scramble the power of controlling the planet and convey the ideology of the UN in the movement of protecting the environment.

1. INTRODUCTION

"*We meet on the brink of climate chaos,"* on December 01, 2023, the United Nations Secretary-General opened his speech at the Local Climate Action Summit to ask governments to think and act to protect the environment. Not only does the United Nations Secretary-General but other top leaders of the United Nations also deliver messages to ask people around the world to take climate action to stop the oncoming climate catastrophe. In 2023, these top leaders delivered 84 speeches on climate action and a sentence of every speech was quoted to officially publish on the United Nations website at https://www.un.org/en/climatechange/speeches. Those quotations are to express the senders' attitude towards climate action and to persuade the addressees to think and act towards the actions of protecting the environment. The article, by applying the Deliberate Metaphor Theory of Gerard J. Steen (2008, 2023a) and the Deliberate Metaphor Identification Procedure of W. Gudrun Reijnierse, Gerard J. Steen, Tina Krennmayr, and Christian Burgers (2018) investigates the language used in the quotations to interpret the conceptual metaphors, if applicable, from the metaphorical expressions used.

2. LITERATURE REVIEWED

2.1. Conceptual Metaphor Theory (CMT)

In 1980, with *Metaphors We Live By*, Lakoff and Johnson introduced Conceptual Metaphor Theory (CMT, hereafter) and revolutionized the study of metaphor because until then metaphor was considered under dominant traditional views as an isolated, seldom occurring poetic or rhetorical quirk (Steen, 2014: 119). Introducing CMT, Lakoff and Johnson reconceptualize metaphor in language as the systematic and frequently visible underlying conceptual structures of metaphor in thought (Steen, 2014). One of the main claims of CMT is "that our conceptual system is largely metaphorical and that all metaphors in language are expressions of underlying metaphors in thought" (Reijnierse et al., 2018: 131) and the theory is thought to be the theory of Language and Thought. Due to this cognitive linguistic emphasis on the conceptual nature of metaphor, the distinct and variegated role of metaphor as a specific communicative device was much less attention.

Over forty years came into existence and has been applied in countless research, CMT has raised many problems due to the immense variation of metaphor and its comprehension, making the methods to identify metaphorical expressions and to interpret conceptual metaphors in discourses differ from one research to the another. According to Gibbs (2008), Gibbs and Colston (2012), and Semino and Demjén (2017), no fewer than nine different theories and models for identifying metaphorical expressions and interpreting conceptual metaphors have been offered (Steen, 2023a). Given the data from the research applying CMT, Steen (2023a) finds that "there are two sides to the immense variation of metaphor and its comprehension" (p. 02). Steen (2017) affirms that the variation mainly comes from "the issue is whether conceptual metaphors that have been shown to exist in thought independently of language use can be shown to in fact drive utterance production and reception in language use by means of online cross-domain mapping for meaning construction" (p. 03). Holyoak and Stamenković (2018) review the state of the art in metaphor comprehension, arguing that, based on three distinct hypotheses, empirical research on metaphor processing focusses on three main strands, consisting of a) metaphor is processed by analogy, b) metaphor is processed by categorization, and c) metaphor is processed by conceptual mapping, all of which yield one clear winner. Such variations jeopardize the validity of any empirical study of metaphor in language.

On the dimension of cognitive organization and analysis of metaphor, instead of only one level on conceptualizing metaphor suggested by Lakoff and Johnson (1980), Kövecses (2010, 2017) posits that the metaphor conceptualization process has four levels on the schematicity, namely *mental spaces*, *frames*, *domains*, and *image schemata*, in which *frames* constitute *domains*, *domains* constitute *image schemata*, while *mental spaces*, which can be seen as the scenarios and scenes of the metaphorical expression, are contextualized online elaborations, modifications specifications, and fusions of frames. The scholar puts *mental spaces* corresponding to the metaphorical cognitive system when the language is used by individual speakers of a language, *frames* and *domains* corresponding to how a given language and culture reflects decontextualized metaphorical patterns, and *image schemata* corresponding to universal aspects of various kinds of embodiment (Kövecses 2010: 321; Kövecses 2017: 329). Under multi-level conceptualization theory, Kövecses (2021), different from Blending Theory, believes "a metaphorical schematicity hierarchy is a set of hierarchically arranged conceptual metaphors where the basis for the hierarchy is the increasing (or decreasing) degree of the

schematicity of the participating metaphors" (p. 134). Concretely, with the metaphorical expression *capsized* in the sentence *The 2005 hurricane capsized Domino's life …* (in the USA Today, 2007, September 21), Kövecses (2021) suggests four different conceptual metaphors; with the level of *image schemata,* it is ACTION IS SELF-PROPELLED MOTION, of *domains* is LIFE IS TRAVEL, of *frames* is LIVING A LIFE IS JOURNEYING, and of *mental spaces* is pragmatically A SUDDEN, UNEXPECTED TURN OF EVENTS FOR THE WORSE IN DOMINO'S LIFE IS THE CAPSIZING OF DOMINO'S BOAT IN THE COURSE OF HIS SEA JOURNEY.

The metaphorical expression used in the discourses is also launched variations. While direct metaphors are considered as being used deliberately and evoke conceptual metaphors underlying in the addresses' brain, indirect metaphors are problematic. Many, if not most, indirect conventional metaphors are structurally ambiguous between deliberate and non-deliberate use. Unfortunately, indirect metaphor comprises some 99% of all metaphors (Steen, 2017: 08) while direct metaphor does not occur much. Steen (2008) estimates that direct metaphor accounts for about one per cent of all metaphors in discourse (p. 12) and it is not accidental that some speeches of top leaders across the world do not contain any direct metaphor.

2.2.Deliberate Metaphor Theory and Deliberate Metaphor Identification Procedure

2.2.1. Deliberate Metaphor Theory

To deal with the problem of whether a metaphorical expression cognitively evokes conceptual metaphors, in 2008, Steen introduced Deliberate Metaphor Theory Deliberate Metaphor Theory (DMT, hereafter) "aims at accounting for variation in the phenomenon and its theoretical modelling, … allows for considering new paradigmatic cases; and … may affect the definition of metaphor in language use and discourse" (Steen, 2023a: 02). According to DMT, "deliberate metaphor concerns the intentional use of metaphors as metaphors between sender and addressee, implying that language users, in production or reception, pay distinct attention to the source domain as a separate domain of reference" (Steen, 2017: 01-02). A deliberate metaphor, therefore, provides a perspective alien or alternative on the topic of an utterance (Steen, 2008; 2011; 2015). Non-deliberate metaphor is different from deliberate metaphor when such sort of metaphor does not involve the intentional use of metaphor as a metaphorical expression between sender and addressee (Steen, 2017: 02). On another dimension, DMT claims that deliberate metaphor use always requires processing by analogy and, therefore, also involves comparison while non-deliberate does not require processing by analogy. Put simply, in DMT, metaphor comprehension is not about simply figures of thought but about figures of thought that count as such in communication (Steen, 2023a: 02). DMT, hence, is to be contrasted with the major concern of mainstream metaphor research, of which metaphor is emphasized to be conventional, automatic, and unconscious when "one of the main claims of CMT is that our conceptual system is largely metaphorical and that all metaphors in language are expressions of underlying metaphors in thought" (Reijnierse et al., 2018: 131). Initially, DMT is a three-dimensional conceptualization theory, based on Language, Thought and Communication with three levels originally suggested by Van Dijk & Kintsch (1983), consisting of a) the surface text which involved the representation of the linguistic structure of a message, including our words and is for Language, b) the text base which represents the conceptual structures, including our concepts, of a message in the form of a series of

hierarchically and linearly related propositions and is for Thought, and c) the situation model which involves a more abstract representation, like a film or a picture, of the content of the message, which includes our referents and is for Communication (Steen, 2008). With DMT, some expressions in language having basic senses differ from their contextual senses to be classified as metaphorical – Language and Thought – but activating concepts that establish the referents of a particular type in a situation model (entities, processes, attributes, and so on) – Communication – will not be identified as metaphorically used (Steen, 2008: 09). When a metaphor is used deliberately, it provides a perspective which is alien or alternative on the topic of an utterance (Reijnierse et al., 2018), implying that ‘‘the addressee has to move away their attention momentarily from the target domain of the utterance or even phrase to the source domain that is evoked by the metaphor-related expression’’ (Steen 2015: 68). From a communicative perspective, non-deliberate metaphors stay “on topic”, and the recipient does not have to attend to the source domain of the metaphorical utterance (Steen 2011b; Reijnierse et al., 2018).

In 2023, Steen elaborates on DMT in his *Slowing metaphor down elaborating deliberate metaphor theory* (2023b) and presents a four-dimensional model of metaphor conceptualization, setting out from a general processing model for utterance comprehension, the Construction-Integration model, which provides “predictive views common in the area of discourse comprehension” (Wharton & Kintsch, 1991). The Construction-Integration model with DMT has four stages to predict deliberate metaphors in the discourse, in which the crucial transition in the model occurs when the Construction stages move into the Integration stages (Steen, 2023a: 07). The two first stages (building surface text and text base) are almost similar to the initial DMT for deliberate and non-deliberate metaphor use but the two last stages (constructing a situation model and context model) make the elaboration different. The tenet of the DMT elaboration is that …

> “metaphor does not just have linguistic and conceptual properties, including metaphor versus simile in language and conventional versus novel mapping in thought, but that metaphor also exhibits referential and communicative properties, notably the difference between direct and indirect reference to the source domain, and deliberate versus non-deliberate use in communication.” (Steen, 2023a: 06)

Table 01 below expresses DMT’s application of the 4D Construction-Integration model to predict the following deliberate and non-deliberate scenarios with the example *She died yesterday after a long fight against cancer* (Steen, 2023a: pp. 07-08).

Table 01: DMT’s application of the Construction-Integration model predicts the following deliberate and non-deliberate scenarios with the example *She died yesterday after a long fight against cancer* (source: Steen, 2023a: 07-08)

Stages	Deliberate scenario	Non-deliberate scenario
1	**The surface text**: the word *fight* is polysemous, meaning a) a physical force to defeat someone and b) a determined attempt, which is more abstract	**The surface text**: the word *fight* is polysemous, meaning a) a physical force to defeat someone and b) a determined attempt, which is more abstract

2	**The text base**: both of the two senses form the propositions for a text base and project a situation model, activating the related sub-concepts for fighting.	**The text base**: both of the two senses form the propositions for a text base and project a situation model, activating the related sub-concepts for fighting.
3	**The situation model:** the verb *fight* projects a referent involving physical violence against some opponent. However, people do not physically and violently fight with a disease. The word, therefore, creates a problem of coherence and prompt the recruitment of analogy or cross-domain mapping as a problem-solving device.	**The situation model:** the situation that is not metaphorical when yielding a state of affairs having the following referential structure: "*She died yesterday after a long-determined attempt to stop cancer".*
4	**The adjusted situation model**: the word is finally incorporated within the context model: "*She died yesterday after a long (literal) fight against cancer (where a fight with the enemy is similar to a determined attempt to stop cancer)".*	**The context model:** this situation model is included in a representation of the sender's communicative intentions: "*The speaker means to say that she died yesterday after a long-determined attempt to stop cancer".*

As Table 01 illustrates, the two first stages of the two scenarios are completely identified, the differences happen chiefly in the third stage, in which the potential metaphorical expression recruits the analogy or cross-domain mapping as a problem-solving device for the deliberate scenario while it is simple a lexical disambiguation for the non-deliberate scenario. These two interpretations, in principle, are equally possible, the utterance is ambiguous between non-deliberate and deliberate use, and this is one novel finding of DMT (Steen, 2023b).

Thus, the four-dimensional model of DMT refers to Language, Thought, Communication and Reference (Steen, 2023a). Advancing this proposal, Steen (2023a) aims to resolve the paradox of metaphor when, in DMT, all potential metaphorical expressions counting as metaphors in communication get comprehended metaphorically by means of some form of cross-domain mapping (or analogy), while potential metaphorical expressions that are not considered as metaphor in communication does not such form of cross-domain mapping. Reijnierse et al. (2018) define it as "A metaphor is potentially deliberate when the source domain of the metaphor is part of the referential meaning of the utterance in which it is used." (p. 136). With DMT, Steen (2023a) puts forward that "deliberate metaphor use always requires processing by analogy (or its more extended manifestation of cross-domain mapping) and therefore also involves comparison" (p. 07).

With DMT, both initiation and evaluation, all metaphor structures that promote deliberate metaphor use are signalled metaphors, novel metaphors, and direct metaphors (Steen, 2023a: 08). The preposition *like*, for example, is a signalled metaphor when the language use needs for comparison, whether it is figure or not; novel metaphors are metaphors that do not have a conventionalized target domain and the information senders commonly have the intention that the metaphor has to be constructed on the spot by analogizing from a certain novel source domain element, and direct metaphors are metaphors that intentionally present a direct

expression of one or more elements of some source domain and need to be integrated within the surrounding target domain by means of analogy. By contrast, non-signalled, conventional, and indirect metaphors do not promote deliberate metaphor use and more associated with non-deliberate metaphor use (Steen, 2023a: 08). As mentioned above, the bulk of metaphor is indirect and conventional (Steen et al., 2010b; 2023a) and these two kinds of metaphor are potentially ambiguous between two readings, seen as either deliberately metaphorical, which require some form of active comparison (or, figurative analogy), or as non-deliberately metaphorical, which requires no comparison or analogy for the intended utterance meaning (Steen, 2023a: 08).

Research on deliberate and non-deliberate metaphor use on text comprehension reports that texts with deliberate metaphors affect readers' text understanding, appreciation, and persuasion more than texts without deliberate metaphors (cf. Jansen et al., 2010), that texts with deliberate metaphors have a greater effect on memory more than texts without deliberate metaphors (cf. Krennmayr et al., 2014).

2.2.2. Deliberate Metaphor Identification Procedure

Based on the definition "A metaphor is potentially deliberate when the source domain of the metaphor is part of the referential meaning of the utterance in which it is used," Reijnierse et al. (2018: 136), Reijnierse et al. (2018) introduce the Deliberate Metaphor Identification Procedure (DMIP, hereafter), a step-by-step method for the identification of potentially deliberate metaphors in language use. Reijnierse et al.'s DMIP (2018) applied the Metaphor Identification Method at Vrije University (MIPVU) suggested by Steen et al. (2010a) to identify a "metaphor-related word" (MRW) as a direct metaphor (MRW "direct"), indirect metaphor (MRW "indirect") or metaphor with a flag (MRW "flag"). With any "metaphor-related word", then, a question is put forward "*Is the source domain of the MRW part of the referential meaning of the utterance in which the MRW is used?*". Besides the metaphorical expressions must be defined as potential deliberate use, when the source domain presents in the referential meaning of the metaphorical expression or the presence of such source of domain referents can be traced by looking for cues, as the lexical signals "like" and "as", the use of novel metaphorical expressions, and extended metaphorical expressions, the answer for the question is "YES" or else it is "NO." If the answer is "NO", the MRW is considered being used non-deliberately and the process moves to the next MRW; if the answer is "YES" to mark the MRW to be used deliberately, the process moves to analyze the contrast between the basic meaning and the context meaning to interpret the conceptual metaphor.

Thus, to interpret conceptual metaphors from the quotations, the study, based on Steen's (2003a, 2003b) DMT and Reijnierse et al.'s DMIP (2018), conducts the following activities:

- Read the full text to find out the theme of the text;
- Applying MIPVU to identify potential metaphors (both deliberate and non-deliberate) in the quotations by considering the incongruity between the context meaning, based on the theme of the text and the sentence meaning, and basic meaning of the language used; metaphorical expressions which are not compatible with the theme of the discourse are considered being used conventionally or habitually and being put out of the identification;
- Mapping the source domain onto the target domain to check if the source domain of the metaphor-related word is part of the referential meaning of the utterance in which the

metaphor-related word is used to identify the metaphor-related word is used deliberately or non-deliberately; in some cases, the etymological meaning of the metaphor-related word is advised.

- Interpret the conceptual metaphor according to the theme of the text and define the schematicity level as *image schema* for the entities, *domains* for the quality of the entities, *frames* for the function of the qualities, and *mental spaces* when a certain pragmatic function of the quality is required.
- Interpreting the conceptual key(s) from the conceptual metaphors interpreted;
- Identifying the ideology of the senders from the conceptual metaphors interpreted.

3. METHODOLOGY

This empirical study was conducted using a qualitative analysis method based on the DMT of Steen (2008, 2023b) and the DMIP of Reijnierse et al. (2018). In this study, on the dimension of identifying metaphorical expressions, the author first applies the DMT of Steen (2008, 2023b) by marking MRW to potential metaphorical expressions in the discourses. The next step is to apply the DMIP of Reijnierse et al. (2018) to decide a MRW is used deliberately when "the source domain of the MRW is part of the referential meaning of the utterance in which the MRW is used." As remarked by Steen (2023b), while most metaphorical expressions are not used intentionally, or deliberately, metaphorical expressions are used intentionally in communication to directly refer to the source domain of their cross-domain mapping (p. 25).

On the dimension of interpreting conceptual metaphors, the study applies the procedure to interpret the conceptual metaphors from the deliberate metaphors which is done with a conceptual mapping procedure on four levels of the schematicity (Ahrens, 2010; Kövecses, 2010, 2017). When the source domains of the conceptual metaphor refer to the entities, the metaphors, then, are considered to be conceptualized onto the schematicity levels of *image schemata;* considered to be conceptualized onto the level of *domains* when the source domains refer to the qualities or part of the entities, and considered to be conceptualized onto the level of *frames* when the source domains refer to the functions of the qualities or what the qualities of the entities can be done (Ahrens, 2010: 188 – 190; Kövecses, 2017).

3.1.Research Questions

The study is conducted to answer the three following research questions:

1- What are the conceptual metaphors interpreted from 84 quotations of the United Nations' climate action?
2- What is/are the conceptual key(s) extracted from the conceptual metaphors interpreted?
3- What is the ideology that can be drawn out from the conceptual metaphors interpreted?

4. RESULTS

With 84 quotations extracted from the speeches made in 2023 by the top leaders of the United Nations, thirty-nine (39) quotations have no metaphorical expressions used intentionally. In 45 quotations having metaphorical expressions used intentionally, the author identified 62 metaphorical expressions, in which five metaphorical expressions were defined as non-deliberate use and left out of the analysis. The remaining 57 metaphorical expressions consist of ten adjectives, 26 nouns, and 21 verbs. With a total word count of 1,974 for 84 quotations, the metaphorical expressions per word is 0.029. Compared with the statistics made by Kimmel (2012: 24), this number is a very small margin higher than the metaphor expressions per word

in the articles of the Sun newspaper, with 0.024, and much higher than that in the Guardian newspaper, with 0.005.

With 57 metaphorical expressions identified, nineteen (19) metaphorical expressions are interpreted (see Table 02 in the next section), spreading into three levels of conceptualization schematicity, six conceptual metaphors are on *image schemas* with 27 metaphorical expressions when the target domain refers to the entity of the climate crisis, four are on *domains* with 20 metaphorical expressions when the target domain refers to the quality of the entity, and nine are on *frames* with 19 metaphorical expressions when the target domain refers to the functions or the activities. Remarkably, nine metaphorical expressions are perceived on two levels of the schematiciy concurrently.

5. DISCUSSION

Table 02 below summarizes 19 conceptual metaphors interpreted from 57 metaphorical expressions used deliberately in 84 quotations published in the UN website extracted from the speeches relating to the climate action delivered in 2023 by the top leaders of the UN. Among those conceptual metaphors, the conceptual metaphors CLIMATE ACTION IS A JOURNEY, which is conceptualized on the schematicity level of *domains*, and CLIMATE CRISIS IS DOOMSDAY, conceptualized on the schematicity level of *image schemata*, are interpreted from nine metaphorical expressions each; the conceptual metaphor CLIMATE CRISIS IS A DESTROYER, conceptualized on the level of *image schemata*, is interpreted from seven metaphorical expressions; the conceptual metaphors CLIMATE CRISIS IS A WAR, conceptualized on the level of *image schemata*, and CLIMATE ACTION IS CONSTRUCTION, from six metaphorical expressions each. Those are the five conceptual metaphors that use metaphorical expressions most frequently in 84 quotations for the speeches of the top leaders around the UN in 2023. The following conceptual metaphors use metaphorical expressions less frequently, from five down to one. The conceptual metaphor PERFORMING CLIMATE ACTION IS JOINING A COMPETITION, conceptualized on the level of *frames*, from five metaphorical expressions; the conceptual metaphors CLIMATE ACTION IS MOTION, conceptualized on the level of *domains*, and PERFORMING CLIMATE ACTION IS MOVING AT HIGH SPEED, conceptualized on the level of *frames*, from four metaphorical expressions each; the conceptual metaphors CLIMATE CRISIS IS FIRE, conceptualized on the level of *image schemata*, and PERFORMING CLIMATE ACTION IS STEPPING FORWARD, conceptualized on the level of *frames*, from three metaphorical expressions each; the remaining nine conceptual metaphors are perceived with one metaphorical expression each, consisting of, two on the level of *image schemata*, CLIMATE CRISIS IS A NATURAL FORCE, CLIMATE CRISIS IS UP, one on the level of *domains*, CLIMATE POLICIES ARE EQUIPMENTS, and six on the level of *frames*, CLIMATE ACTIVISTS ARE WARRIORS/CLIMATE ACTIVISTS ARE [PROPAGATING] WARRIORS, PERFORMING CLIMATE ACTION IS A DIFFICULT WORK, PERFORMING CLIMATE ACTION IS CONTROLING A VEHICLE, PERFORMING CLIMATE ACTION IS MITIGATING DAMAGES, PERFORMING CLIMATE ACTION IS SPURRING A HORSE IN A JOURNEY, PERFORMING CLIMATE ACTION NEEDS APPROPRIATE ACTIVITIES/POLICIES.

Table 02: Conceptual metaphor interpreted from the metaphorical expressions used deliberately in the 84 quotations

N	Conceptual metaphors interpreted	Metaphorical expressions used *(date of delivery is in bracket)*
1	CLIMATE CRISIS IS DOOMSDAY (09 lemmas on *image schemata*)	chaos (Nov 25); paying the highest price (Nov 10); chaos (Nov 08); chaos (Oct 30); grave (Jun 12); heating (Jun 08); disrupting (Jun 28); altering (Jun 28); catastrophe (Jan 09)
2	CLIMATE ACTION IS A JOURNEY (09 lemmas on *domains*)	leaving no one behind (Dec 02); spur (Dec 01); miles (Dec 01); leaving no one behind (Nov 05); step (Sep 22); way (Sep 22); marked (May 22); step (May 22); move (May 22)
3	CLIMATE CRISIS IS A DESTROYER (07 lemmas on *image schemata*)	distress (Dec 02); call (Dec 02); melt away (Nov 27); addiction (Nov 26); climate-killing (Nov 26); peril (Apr 25); self-destructive (Feb 06)
4	CLIMATE ACTION IS CONSTRUCTION (06 lemmas on *domains*)	rebuilding (Dec 28); restoring (Dec 28); rebuild (Nov 14); build (Sep 20); build (Sep 09); build (May 16)
5	CLIMATE CRISIS IS A WAR (06 lemmas on *image schemata*)	alive (Nov 30); fighters (Nov 26); frontline (Oct 30); senseless war (Jul 24); peace (Apr 22); guardians (Apr 17)
6	PERFORMING CLIMATE ACTION IS JOINING A COMPETION (05 lemmas on *frames*)	tackle (Dec 11); fire the starting gun (Nov 30); race (Nov 20); game-changing (Mar 22); racing (Jan 18)
7	CLIMATE ACTION IS MOTION (04 lemmas on *domains*)	jet speed (Nov 20); steer (Jul 03); into high gear (Mar 29); warp speed (Mar 20)
8	PERFORMING CLIMATE ACTION IS MOVING AT HIGH SPEED (04 lemmas on *frames*)	jet speed (Nov 20); into high gear (Mar 29); warp speed (Mar 20); surge (Sep 09)
9	CLIMATE CRISIS IS FIRE (03 lemmas on *image schemata*)	burning (Jul 27); burning (Jul 27); fueling (Jul 27)
10	PERFORMING CLIMATE ACTION IS STEPPING FORWARD (03 lemmas on *frames*)	marked (May 22); important step (May 22); move (May 22)
11	CLIMATE CRISIS IS A NATURAL FORCE (01 lemma on *image schemata*)	storms (Fer 06)
12	CLIMATE CRISIS IS UP (01 lemma on *image schemata*)	surging (Sep 06)
13	CLIMATE POLICIES ARE EQUIPMENT (01 lemma on *domains*)	tools (May 16)
14	CLIMATE ACTIVISTS ARE WARRIORS/CLIMATE ACTIVISTS ARE [PROPAGATING] WARRIORS (02 lemmas on *frames*)	fighters (Nov 26); raise your voice (Apr 22)
15	PERFORMING CLIMATE ACTION IS A DIFFICULT WORK (01 lemma on *frames)*	miracle (Sep 05)
16	PERFORMING CLIMATE ACTION IS CONTROLING A VEHICLE (01 lemma on *frames)*	steer (Jul 03)

17	PERFORMING CLIMATE ACTION IS MITIGATING DAMAGES (01 lemma on *frames)*	calm (Sep 09)
18	PERFORMING CLIMATE ACTION IS SPURRING A HORSE IN A JOURNEY (01 lemma on *frames)*	spur (Dec 01)
19	PERFORMING CLIMATE ACTION NEEDS APPROPRIATE ACTIVITIES/POLICIES (01 lemma on *frames)*	move the dial (Apr 25)

** underlined lemmas mean that the metaphorical expressions are conceptualized on two levels of the schematicity*

Among the aforementioned 19 conceptual metaphors interpreted, the five conceptual metaphors that use metaphorical expressions most frequently transfer the messages about the danger of the climate crisis conceptualized on the level of *image schemata* and the nature of the climate action conceptualized on the level of *domains*. Table 03 below displays the quotations with metaphorical expressions which are identified to interpret the relevant conceptual metaphors. The metaphorical expressions used in these quotations give the addresses references that their referential meaning mentions the tragedies of the planet will happen when the climate actions have not been done in time.

Table 03: Quotations with metaphorical expressions used for interpreting the conceptual metaphors

Quotations	Conceptual metaphor
- (Nov 25) So as leaders gather for COP28, my message is clear: Break this cycle. And act now to limit global temperature rise to 1.5 degrees Celsius, protect people from climate ***chaos***[MRW], and end the fossil fuel age. - (Nov 10) Seeking common ground means cutting emissions and ensuring climate justice for those who did least to cause this crisis but are ***paying the highest price***[MRW] – starting at the COP28 - (Nov 08) Leaders must act now to save humanity from the worst impacts of climate ***chaos***[MRW], and profit from the extraordinary benefits of renewable energy. - (Oct 30) We must act now to protect people on the frontline[MRW] and to limit global temperature rise to 1.5 degrees, to avert the worst of climate ***chaos***[MRW]. - (Jun 12) The proliferation of hate and lies in the digital space is causing ***grave***[MRW] global harm – now. It is fueling[MRW] conflict, death and destruction – now. It is threatening democracy and human rights – now. It is undermining public health and climate action – now. - (Jun 28) Human-induced climate change is ***heating***[MRW] our planet, ***disrupting***[MRW] weather patterns and ocean currents, and ***altering***[MRW] marine ecosystems and the species living there. - (Jan 09) If we are to avert climate ***catastrophe***[MRW], renewables are the only credible path forward.	CLIMATE CRISIS IS DOOMSDAY (09 lemmas on *image schemata*)

- (Dec 02) Together, we can lay the foundation for a more resilient and sustainable future for over 500 million people of landlocked developing countries, ***leaving no one behind***[MRW]. - (Dec 01) Let's stand as one — and work as one — to protect all communities from the climate crisis, and ***spur***[MRW] the renewable, sustainable and equitable future people and planet deserve." - (Dec 01) We are ***miles***[MRW] from the goals of the Paris Agreement – and minutes to midnight for the 1.5-degree limit. But it is not too late. We can - you can - prevent planetary crash and burn." - (Nov 05) On World Tsunami Awareness Day, let us commit to ***leaving no one behind***[MRW] when a tsunami strikes, and work together to secure a safe, prosperous future for all. - (Sep 22) With global action for climate justice and financial justice, we can create the change you need. The United Nations is with you, every ***step***[MRW] of the ***way***[MRW]." - (May 22) Last year's agreement on the Kunming-Montreal Global Biodiversity Framework ***marked***[MRW] an important ***step***[MRW] – but now is the time to ***move***[MRW] from agreement to action.	CLIMATE ACTION IS A JOURNEY (09 lemmas on *domains*)
- (Dec 02) The mountains are issuing a ***distress***[MRW] ***call***[MRW]. COP28 must respond with a rescue plan. - (Nov 27) Leaders must not let the hopes of people around the world for a sustainable planet ***melt away***[MRW]. They must make COP28 count. - (Nov 26) I am convinced humanity is up to the challenge of breaking our ***addiction***[MRW] to ***climate-killing***[MRW] fossil fuels, and creating resilient, efficient and low-carbon transportation systems grounded in innovative renewable energy sources. - (Feb 06) We need a renewables revolution, not a ***self-destructive***[MRW] fossil fuel resurgence. - (Apr 25) The agreements reached in 2015 in New York, Addis and Paris stand for peace and prosperity, people and planet. That promise is now in ***peril***[MRW].	CLIMATE CRISIS IS A DESTROYER (07 lemmas on *image schemata*)
- (Dec 28) 2024 must be a year for ***rebuilding***[MRW] trust and ***restoring***[MRW] hope. We must come together across divides for shared solutions. - (Nov 14) … And developed countries must ***rebuild***[MRW] trust by delivering on their finance commitments. - (Sep 20) We can still limit the rise in global temperature to 1.5 degrees. We can still ***build***[MRW] a world of clear air, green jobs, and affordable clean power for all. - (Sep 09) Together, we can help to calm[MRW] the storms[MRW], and ***build***[MRW] a safer, healthier, more sustainable world for us all. - (May 16) But by working together, we can ***build***[MRW] a safer, more sustainable, and more resilient world for all.	CLIMATE ACTION IS CONSTRUCTION (06 lemmas on *domains*)
- (Nov 30) We need leaders to fire[MRW] the starting gun[MRW] at COP28 on a race to keep the 1.5-degree limit ***alive***[MRW]	CLIMATE CRISIS IS A WAR (06 lemmas

- (Nov 26) I am proud to stand in solidarity with you ahead of this vital COP. Young people are the climate ***fighters***[MRW] our world needs. - (Oct 30) We must act now to protect people on the ***frontline***[MRW] and to limit global temperature rise to 1.5 degrees, to avert the worst of climate chaos[MRW]. - (Jul 24) We need food systems that can help end the ***senseless war***[MRW] on our planet. ... - (Apr 22) This Earth Day, I urge people everywhere to raise your voices[MRW] – in your schools, workplaces and faith communities, and on social media platforms – and demand leaders make ***peace***[MRW] with nature. - (Apr 17) Indigenous peoples hold many of the solutions to the climate crisis and are ***guardians***[MRW] of the world's biodiversity…	on *image schemata*)

Noted: words marked with "MRW" but un-bolded and un-italicized are interpreted with another conceptual metaphor.

Nineteen conceptual metaphors interpreted from the metaphorical expressions used in 84 quotations are different, in both the metaphors themselves and the schematicity level on which they are conceptualized; they, however, share the same properties that certain conceptual metaphors can be grouped into three classes of intention transference. The first group consists the conceptual metaphors with the target domain relating to the climate crisis emphasize on the seriousness of the climate crisis, a natural force, as CLIMATE CRISIS IS DOOMSDAY, CLIMATE CRISIS IS A JOURNEY, CLIMATE CRISIS IS A DESTROYER, CLIMATE CRISIS IS A WAR, CLIMATE CRISIS IS FIRE, CLIMATE CRISIS IS A NATURAL FORCE, and CLIMATE CRISIS IS UP. These conceptual metaphors express the concept that the climate crisis is threatening our lives to look like a war, easy to bring the human being to doomsday and such a natural force is moving up. The second group comprises the conceptual metaphors of, perceived on the level of *domains*, CLIMATE ACTION IS CONSTRUCTION, CLIMATE ACTION IS MOTION, perceived on the level of *frames*, PERFORMING CLIMATE ACTION IS JOINING A COMPETITION, PERFORMING CLIMATE ACTION IS MOVING AT HIGH SPEED, PERFORMING CLIMATE ACTION IS STEPPING FORWARD, CLIMATE ACTIVISTS ARE WARRIORS/ CLIMATE ACTIVISTS ARE [PROPAGATING] WARRIORS, PERFORMING CLIMATE ACTION IS A DIFFICULT WORK, PERFORMING CLIMATE ACTION IS CONTROLING A VEHICLE, PERFORMING CLIMATE ACTION IS MITIGATING DAMAGES, and PERFORMING CLIMATE ACTION IS SPURRING A HORSE IN A JOURNEY. These conceptual metaphors transfer the concept that doing climate action, a difficult work, is performing a journey that needs to proceed continuously to scramble the power of controlling the planet and overcome the climate crisis. The third group comprises two conceptual metaphors of CLIMATE POLICIES ARE EQUIPMENTS, perceived on the level of *domains,* and PERFORMING CLIMATE ACTION NEEDS APPROPRIATE ACTIVITIES, perceived on the level of *frames*, transferring the concept that the policies that Paris Agreement, adopted by 196 Parties at the UN Climate Change Conference (COP21) in 2015 and entered into force on 4 November 2016, has blueprinted and been considered as the appropriate tools and all climate activists should apply such tools to perform effectively the climate action. Those concepts resolve the

tensions in every group mentioned above; they, therefore, are also the conceptual keys that the conceptual metaphors interpreted from the metaphorical expressions in 84 speeches delivered by the top leaders of the UN in 2023 transfer to the addresses.

Climate change refers to the long-term changes in the Earth's climate that are warming the atmosphere, ocean and land, affecting the balance of ecosystems that support life and biodiversity, and impacting health (UNDP's Climate Promise, 2023). The conceptual metaphors interpreted from 84 speeches delivered by the top leaders around the UN clearly express the ideology that the UN possesses when facing climate change. The target domains of the conceptual metaphors interpreted, in general, ideologically refer to i) the danger of climate change required immediate and long-term actions of all people, all governments, as DOOMSDAY, WAR, FIRE, JOURNEY, DESTROYER, UP, and ii) the climate action has been done strongly, quickly and appropriately as the planet is in a war.

6. CONCLUSION

The image of the climate crisis and attempts to protect our environment through climate action can be seen in the speeches made by the top leaders of the UN, especially with the metaphorical expressions used in the quotations extracted from the speeches. Nineteen conceptual metaphors interpreted from 57 metaphorical expressions transfer the message that all governments need to have appropriate and urgent measures to deal with the climate crisis before the planet comes to a catastrophe. These conceptual metaphors introduce three conceptual keys, consisting of i) that the climate crisis is threatening our lives to look like a war, easy to bring human being to doomsday and such a natural force is moving up, ii) that doing climate action, a difficult work, is performing a journey that needs to be proceeded continuously to scramble the power of controlling the planet and overcome the climate crisis, and ii) that all climate activists should apply the policies adopted and entered into force on 4 November 2016 to perform effectively the climate action. With the high-power stances and a clear, stable ideology, the metaphorical expressions used in the quotations will evoke the conceptual metaphors in all governments as well as all people around the world to think and act appropriately to the climate crisis. At the conceptual level, nineteen conceptual metaphors interpreted make the aftermath of the climate crisis salient for the target domains aforementioned; at the cognitive level, nineteen conceptual metaphors draw attention to themself, making the source domain elements get foregrounded in the mapping, highlighting dimension of conceptual metaphors, on the conscious surface level those conceptual metaphors may be usual ways of speaking, but on the unconscious deep level those expressions instantiate the mapping from the ideological source domain of climate crisis onto the actions to protect the environment; and at the pragmatic level, the persistence of the same source concepts, especially with the two first groups, to structure the same conceptual keys of the target domains, the ideology transferred by nineteen conceptual metaphors tend to determine the consistent perlocutionary force of messages delivered on the addresses.

REFERENCE

Ahrens, Kathleen (2010). Mapping Principles for Conceptual Metaphors, in Cameron Lynne, Alice Deignan, Gramham Low, Zazie Todd (eds.), Researching and Applying Metaphor in the Real World, Amsterdam: John Benjamins, pp. 185-207

Gibbs, Raymond W. Jr. (Ed.) (2008). *The Cambridge handbook of metaphor and thought*. Cambridge: Cambridge University Press

Gibbs, Raymond W. Jr. & Coston, Herbert L. (2012). Interpreting figurative meaning. USA: Cambridge University Press. Retrieved from https://doi.org/10.1017/CBO9781139168779

Holyoak, Keith J. & Stamenković, Dušan (2018). Metaphor comprehension: a critical review of theories and evidence. In *Psychological Bulletin* Vol. 144, 641–671. doi: 10.1037/bul0000145

Jansen, Carel; van Nistelrooij, Marloes; Olislagers, Kim & van Sambeek, Maartje & de Stadler, Leon (2010). A fire station in your body: metaphors in educational texts on HIV/AIDS. In *Journal / Southern African Linguistics and Applied Language Studies* Vol. 28, 133–139. doi: 10.2989/16073614.2010.519102

Kimmel, Michael (2012). Optimizing the analysis of metaphor in discourse. *In Review of Cognitive Linguistics* Vol. 10:1 (2012), 1–48. DOI 10.1075/rcl.10.1.01kim

Kövecses, Zoltán (2010). Metaphor and Culture. In Acta *Universitatis Sapientiae, Philologica*, Vol. 2, 2 (2010) 197-220

Kövecses, Zoltán (2017). Conceptual Metaphor Theory: Some new proposals. In *Lamicus*, 2017 No.1, pp. 16-32

Kövecses, Zoltán (2021*). A Multi-level and Contextualist View of Conceptual Metaphor Theory.* In *Journal of Language and Communication*, Vol. 8(2),133-143 (2021)

Krennmayr, Tina; Bowdle, Brian F.; Mulder, Gerben & Steen, Gerard J. (2014). Economic competition is like auto racing: building metaphorical schemas when reading text. In *Metaphor and the Social World* Vol. 4, 65–89. doi: 10.1075/msw.4.1.04kre

Lakoff, George & Johnson, Mark (1980). *Metaphors we live by*. Chicago, IL: University of Chicago Press

Lakoff, George & Johnson, Mark (2003). *Metaphors we live by*. Chicago and London: The University of Chicago Press

Reijnierse, W. Gudrun; Burgers, Christian J.; Krennmayr, Tina & Steen, Gerard J. (2018). DMIP: a method for identifying potentially deliberate metaphor in language use. In *Corpus Pragmatics* Vol. 2, pp. 129–147. doi: 10.1007/s41701-017-0026-7

Semino, Elena & Demjén, Zsófia (eds.) (2017). *The Routledge Handbook of Metaphor and Language*, London and New York: Routledge Taylor and Francis Group

Steen, Gerard J. (2008). The paradox of metaphor: Why we need a three-dimensional model of metaphor. In *Metaphor and Symbol*, Vol 23(4), 213–241. doi:10.1080/10926480802426753

Steen, Gerard J. (2011). The contemporary theory of metaphor—Now new and improved! Review of Cognitive Linguistics, 9(1), 26–64. doi:10.1075/ml.9.1.03ste

Steen, Gerard J. (2015). Developing, testing and interpreting deliberate metaphor theory. In *Journal of Pragmatics*, Vol. 90, 67–72. doi: 10.1016/j.pragma.2015.03.013

Steen, Gerard J. (2017). "Attention to metaphor: where embodied cognition and social interaction can meet, but may not often do so". In *Metaphor: embodied cognition and discourse*. ed. B. Hampe, Cambridge: Cambridge University Press, 279–296. (In press)

Steen, Gerard J. (2008). When is metaphor deliberat? In *Proceedings of Second Metaphor Festival, Stockholm 2008*

Steen, Gerard J. (2014). The Cognitive-Linguistic Revolution in Metaphor Studies. In *The Bloomsbury Companion to Cognitive Language*, edited by Jeannette Littlemore & John R. Taylor, London: Bloomsbury

Steen, Gerard J. (2023a). Thinking by metaphor, fast and slow: Deliberate Metaphor Theory offers a new model for metaphor and its comprehension. In *Frontiers in Psychology 14:1242888,* doi: 10.3389/fpsyg.2023.1242888

Steen, Gerard J. (2023b). *Slowing metaphor down: elaborating deliberate metaphor theory*. Amsterdam: John Benjamins.

Steen, Gerard J.; Dorst, Aletta G.; Herrmann, J. Berenike; Kaal, Anna A.; Kreynnmayr, Tina & Pasma, Trijntie (2010a). A Method for Linguistic Metaphor Identification: From MIP to MIPVU, Amsterday: John Benjamins Publishing Company

Steen, Gerard J.; Dorst, Alleta G.; Herrmann, J. Berenike; Kaal, Anna A. & Krennmayr, Tina (2010b). Metaphor is usage, in Cognitive Linguistics, 21(4) (2010), pp. 757 – 788, DOI 10.1515/COGL.2010.024

Van Dijk, Teun A. & Kintsch, Walter (1983). Strategies of discourse comprehension. New York: Academic Press

Wharton, Cathleen & Kintsch, Walter (1991). An Overview of the Construction-Integration Model: A Theory of Comprehension as a Foundation for a New Cognitive Architecture. In *SIGART Bulletin*, Vol.

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