

**“IN THE LIGHT OF DIFFERENT NATIONAL
CIRCUMSTANCES”:
MODALITY AND IDEATIONAL METAFUNCTION IN THE
PARIS AGREEMENT**

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<p>Tiivistelmä – Abstract</p> <p>Pariisin ilmastopimus on kansainvälinen sopimus, jonka tavoitteena on rajoittaa ilmaston lämpenemistä ja pyrkiä sopeutumaan ilmastonmuutoksen aiheuttamiin seurauksiin. Sopimuksen on allekirjoittanut lähes 200 osapuolta maailmanlaajuisesti. Kun Yhdysvallat väliaikaisesti jättäytyi sopimuksesta, huomio kiinnittyi sopimuksen sitovuuteen. Valtiosopimusoikeutta koskevan Wienin yleissopimuksen mukaan Pariisin ilmastopimus on laillinen sopimus, mutta asiantuntijoiden mukaan kaikki sen artikkelit eivät luo laillisia velvoitteita.</p> <p>Tämän tutkielman tavoitteena on selvittää, miten kieli mahdollistaa sopimuksesta irtautumisen. Pyrkimyksenä on analysoida Pariisin ilmastopimuksen kieltä erityisesti modaalisuuden ja systeemis-funktionaaliseen kieliteoriaan sisältyvän ideationaalisen metafunktion kautta ja selvittää, vaikuttavatko ne osapuolten tapaan tulkita sopimusta.</p> <p>Tulosten perusteella on mahdollista, että ideationaalisen metafunktion prosessit sekä modaalisuus vaikuttavat osapuolten tapaan tulkita sopimusta. Analyysissä esiin nousevia kielellisiä ilmauksia olivat esimerkiksi modaaliset apuverbit, adverbilausekkeet, adjektiivit ja materiaaliset prosessit.</p> <p>Pariisin ilmastopimuksen kielen tutkiminen luo tuoreen näkökulman kansainvälisten sopimusten kieleen. Mielenkiintoinen jatkotutkimuskohde voisi olla sopimuksen virallisten käännösten tarkastelu tässä tutkielmassa esiintyvän metodin avulla tai sopimuksen analysointi pelkän ideationaalisen metafunktion näkökulmasta.</p>	
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1 INTRODUCTION

The Paris Agreement is an international treaty established in 2016 which aims to limit global warming to 1.5 degree Celsius compared to pre-industrial levels (UNFCCC n.d.). It is an extremely important climate agreement because due to human-induced global warming the Intergovernmental Panel on Climate Change (IPCC) has observed irreversible impacts on nature and people (IPCC 2022: 35–36). For example, in the future, IPCC (2021: 15) is expecting more extreme weather changes, marine heatwaves, heavy precipitation, tropical cyclones as well as droughts. Many species have difficulties in adapting to climate change, which is why local extinctions have already happened in hundreds of species, and they are likely to increase in the future due to global warming (Wiens 2016: 2–3, 9). Clearly, it is crucial that the Paris Agreement achieves significant results.

In order to achieve results, the agreement needs to be comprehensible to its almost 200 parties. The clearer the language of the agreement is, the better the parties understand what is expected of them. The research on the language of the Paris Agreement seems deficient because the focus has been mainly on discussing the agreement's legal bindingness, and how language seems to affect it. Examining the language of the Paris Agreement with systemic functional linguistics and the concept of modality, I hope to bring a new perspective on the analysis of the agreement as well as to complement existing research.

This thesis aims to determine how and to which extent the treaty's language creates obligations upon its parties. When the United States of America temporarily left the agreement, there was discussion in the media on whether the Paris Agreement is legally binding or not. The Paris Agreement is legally binding (UNFCCC n.d.; Christoff 2016: 775) but not every aspect of it creates a legal obligation, which means it contains mandatory and voluntary provisions (Bodansky 2016: 150). Provisions are conditions of which carrying out of an agreement depends (Merriam-Webster n.d.).

Phillips (2003: 51) suggests that laws are texts. This verifies that when inspecting the legitimacy of the Paris Agreement, language becomes an important factor to examine even if the treaty is not a law. Researching the language of international treaties is important because these treaties are a part of our legal system and according to Phillips (2003: 1), there is a need

“to study at all levels how the legal system fits into and works in a modern democratic society”.

In addition, by studying the language of international treaties in general, the effectiveness of future international agreements can be enhanced. The Paris Agreement is written in English, and English is the most widely used legal language in global scale and especially important in the frame of European Union (Mattila 2013: 37). While translations of the document exist (The United Nations n.d.), the main working language in the UNFCCC is English (UN climate change 2021) which highlights the importance of comprehensible language.

As a thesis topic, the Paris Agreement is a current one because in 2021, the parties had the 26th United Nations’ climate change conference¹, where they updated their climate action plans (UN climate change conference UK 2021 n.d.). In the future, the progress towards the temperature target of the Paris Agreement will be reviewed annually (Ministry of the Environment n.d.).

2 BACKGROUND

2.1 What is the Paris Agreement?

The Paris Agreement is an international treaty on climate change, which was made valid in Paris in 2016. According to the Vienna Convention on the Law of Treaties (1969), treaty is “an international agreement concluded between States in written form and governed by international law” [§2(1)(b)]. Treaties may also be called agreements or conventions (Bodansky 2015: 157). The Paris Agreement is 25 pages long and it has 29 articles. It was adopted by 196 parties at the 21st Conference of the Parties² in the United Nations Framework Convention on Climate Change (UNFCCC n.d.). By December 2021, the Paris Agreement had 193 parties, including the European Union and most countries around the world (United Nations Treaty collection 2021).

The goal of the Paris Agreement is to limit global warming to well below 2 degrees Celsius and to pursue “efforts to limit the temperature increase to 1.5 C ° above pre-industrial levels”

¹ Also known as COP26

² Also known as COP21

[§2(1)(a)]. It also aims to adapt to the harmful effects of climate change and [§2(1)(b)] and to change monetary politics to suit the climate change adaptation [§2(1)(c)].

2.2 Previous research on the Paris Agreement

The Paris Agreement is a versatile target of research because it has been studied from multiple points of view. Topics range from environmental science to politics and in Google Scholar alone, the Paris Agreement is mentioned more than 3 million times. Some studies address what kinds of measures individual countries need to take to achieve the treaty's goals (Du Pont et al. 2017, Lima et al. 2020), others focus on how to measure the progress towards its goals (Craft & Fisher 2018), and some centre on why the United States of America left the agreement and what kind of impact it has on climate politics (Zhang et al. 2018; Urpelainen & Van De Graaf 2017; Pickering et al. 2017). Other topics include, for example, what kind of effect Trump's Twitter behaviour about the Paris Agreement had on climate politics (Kim & Cook 2018; Marlow et al. 2021), what kinds of discourses arise in different medias regarding the Paris Agreement (Tikkakoski 2017), and how human rights are addressed in the agreement (Mayer 2016). One recurring issue is the legitimacy of the Paris Agreement, and the question of whether it creates legal obligations for the parties (Bodansky 2016; Rajamani 2016; Leggett & Lattanzio 2017).

2.3 Legal Bindingness

The aim of this thesis is to analyse modal and systemic functional language choices in the Paris Agreement and to find out whether the language affects the way parties can interpret the agreement. Therefore, it is essential to consider aspects of the agreement's language, and to examine if language has a part in creating legal obligations and bindingness. First, it is important to inspect what is said about the legal bindingness of the Paris Agreement.

The treaty is legally binding to its parties but not all its provisions are mandatory (Leggett & Lattanzio 2017: 2; Bodansky 2016: 142). For example, it does not impose any sanctions for the parties if they fail to fulfil their set targets (Tørstad 2020: 763; Tingley & Tomz 2020: 1135–1137). Several factors affect the legal bindingness of international treaties, such as: where the agreement is made (Morin & Jinnah 2018: 553), to whom it is directed to

(Bodansky 2016: 145) and what kind of language is used in the treaty (Morin & Jinnah 2018: 552). For example, the legal bindingness of language depends on how precise the treaty's provisions are and whether the used language is of obligatory, or voluntary nature (Bodansky et al. 2017: 18). In general, treaties' language is considered ambiguous (Bodansky et al. 2017: 20), which makes it hard to accuse an individual party of non-compliance (Bodansky 2017: x; Leggett & Lattanzio 2017: 2). Climate provisions are rarely exact (Morin & Jinnah 2018: 552–553) and they include flexible words (Phillips 2003: 10–11). This can lead to loopholes in legal texts because lawmakers' textual intent leaves room for interpretation (Phillips 2003: 146).

2.4 Missing Definitions

It is common in international treaties that relevant terms are defined because legal institutions differ between countries, and definitions help in translating the treaties (Mattila 2013: 90). However, in some sections of the treaty, obligations are imposed but no instructions on how to achieve them are provided (Rajamani 2016: 353). For example, Leggett and Lattanzio (2017: 33) mention that the terms *developed* and *developing* country parties are not defined in the Paris Agreement. Christoff (2016: 776) examines the word *balance* mentioned in article 4(1), which discusses a “balance between anthropogenic emissions” [§4(1)]. Christoff (2016: 776) points out that “what ‘balance’ means in practice is not specified”.

The definition of *ambition* is also missing in article 4(3) which states that the nationally determined contributions should reflect the highest possible *ambition*. It does not specify what is meant with ambition or give any instructions on coordinating the nationally determined contributions (Tørstad 2020: 763). Nationally determined contributions, also known as NDCs, are climate actions, which each party “intends to achieve” [UNFCCC n.d.; §4(2)]. UNFCCC counts NDCs as mandatory (UNFCCC n.d.). A good question is *when* they should reach their NDCs since the treaty also lacks a definite timetable (Falkner 2016: 1115; Christoff 2016: 776). According to Christoff (2016: 776), in article 4(1), the timeline is suggested to be *as soon as possible*, despite the scientific community's strong desire to do this before 2020. The phrase *as soon as possible* inspired me to examine ambiguity through modality.

2.5 The Language

According to Bodansky (2016: 145), treaties include several types of provisions, such as “obligations, recommendations, factual observations” and statements of the parties’ opinions. These provisions are often expressed with various kinds of verbs. Bodansky (2016) mentions modal auxiliaries as one of the verb types, and gives an example of the modal auxiliary verb *shall* which is considered to create legal bindingness.

Other scholars have also discussed the word *shall* in the Paris Agreement and it seems to be a keyword in creating an obligation (Honkonen & Van Asselt 2017: 202; Rajamani & Brunnée 2017: 541; Leggett & Lattanzio 2017: 33–34). The use of *shall* in legal texts is considered to demonstrate “a deontic modality intrinsically projected towards situations and behaviour located in the future” (D’Acquisto & D’Avanzo 2009: 36). The meaning of *shall* may change depending on the phrasing of the rest of the sentence (Leggett & Lattanzio 2017: 33–34) which is one of the reasons why I am interested in examining the language closer.

When the Paris Agreement was being negotiated, the parties had different views on how the language should be drafted for the agreement (Leggett & Lattanzio 2017: 33–34; Couzens et al. 2017: 202). They agreed that national mitigation contributions were necessary but did not agree on the phrasing (Honkonen & Van Asselt 2017: 202). The Paris Agreement does not define the word *mitigation*, but according to UNFCCC it means efforts which “reduce emissions and enhance sinks”. The parties get to decide what their own contributions will be (Falkner 2016: 1107; Rajamani 2016: 355–356).

The wording mattered to some of the parties as they felt that they could only accept an agreement which says *shall* after “gaining assurance about the direction of the negotiations” (Honkonen & Van Asselt 2017: 202). Negotiations also included discussion on whether contributions should be quantifiable and unconditional (Honkanen & Van Asselt 2017: 202). In many cases *as appropriate* is added after the verb *shall* and that weakens the commitments, which are agreed upon (Couzens 2017: 172). For example, in article 12, there is an obligation related to climate change education and public participation, but that is weakened by the clause *as appropriate* (Rajamani 2016: 353). See more about article 12 in section 4.4.

According to Bodansky (2016) and Rajamani (2016), the phrasing of the language matters. If the provision uses the auxiliary verb *will*, it suggests a strong intent (Bodansky 2016: 145–146), expectation or promise (Rajamani 2016: 343, 355–356). Some scholars see *will* as legally binding (Tørstad 2020: 773). Leggett and Lattanzio (2017: 33–34) see *will* as a predication rather than a legally binding obligation.

Should, *strive* and *encourage* are also understood as recommending verbs rather than demanding (Rajamani 2016: 343; Bodansky 2016: 142, 145). *Aim* implies there is an intention to do something, but it might not be achieved (Leggett and Lattanzio 2017: 33–34), so it does not create a legal obligation (Bodansky 2016: 145–146). *May* creates a “license or permission” (Bodansky 2016: 145–146) and some verbs, such as *acknowledge* and *recognize* help in articulating the parties’ objectives, intentions, values, and opinions. The phrase *intends to achieve*, mentioned in article 4(2), creates faith and trust between the parties but does not impose any requirements on them to do so (Rajamani & Brunnée 2017: 541–542; Rajamani 2016: 354; Bodansky 2016: 144–146).

Legal bindingness of treaties is a complicated issue because on the one hand it may help in getting results, but on the other hand some parties may choose not to participate or make weaker commitments because they are afraid of sanctions (Bodansky 2016: 142; Christoff 2016: 774–775). In the Paris Agreement, legal bindingness is ultimately decided by the parties and UNFCCC in case there is a disagreement on it (Leggett & Lattanzio 2017: 33–34). It seems that a lot of weight is put on reputation: if a party breaks the treaty’s commitment, it makes them an undesirable partner in the future (Bodansky 2016: 149). Tingley and Tomz (2020) ask a relevant question: If parties have the right to decide their own emission targets, and have the power to ignore them; “why would anyone expect the Paris Agreement to drive meaningful changes in climate policies” (Tingley & Tomz 2020: 1137)?

2.6 Systemic Functional Linguistics

Systemic functional linguistics (SFL) is a functional-semantic linguistic approach, which is a mixture of theoretical and applied linguistics (Halliday & Webster 2009: 9). SFL is interested in how people use language and how it is “structured for use as a semiotic system” (Eggins 2004: 3, 21). SFL suggests that language is a semiotic system, and it is based on grammar

which works as an “abstract stratum of coding between meaning and expression; it is a resource for making meaning” (Webster & Halliday 2009: 3).

Meaning is seen as such a complex phenomenon that it is necessary to divide it into categories which are called metafunctions. Halliday (Halliday 1985: xxvii; Luukka 2002: 102; Halliday & Webster 2009: 7) classifies meanings into three metafunctions: ideational, interpersonal, and textual. The metafunctions are used to perceive the world from different angles (Ye 2010: 146). Halliday (1978: 50) considers the metafunctions abstract and their purpose is to represent functions of language inside the linguistic system. The word metafunction emphasizes language as a social event: language acts and meanings are made in the community (Shore 2012: 159). On the case of Paris Agreement, the community consists of the parties to the Paris Agreement. Often the metafunctions are seen to work simultaneously but they can be separated to analyse a certain feature (Espindola & Wang 2015: 110).

Table 1. Metafunctions. (Bartlett & O'Grady 2017: 259-282, Halliday 2013:31, Halliday 1978: 50, Luukka 2002: 103).

Type	Ideational metafunction	Interpersonal metafunction	Textual metafunction
Purpose	Making sense of external and internal world	Establishing and enacting social relationships	Enabling the other metafunctions by constructing texts

According to Halliday (1978: 46) the focus of the interpersonal metafunction is on social relationships and speakers’ roles. It may also express attitudes people have towards each other (Eggins 2004: 12). The textual metafunction enables constructing of texts in a coherent and discursive manner (Halliday 2013:31; Luukka 2002: 103). In the ideational metafunction, language enables interpretations (Luukka 2002: 102) because how world is seen can vary between interpreters since their views of the world may differ. As Paris Agreement has many parties, it thus has multiple interpretators. As SFL has been described as applicable linguistics (Shore 2012: 159), I am applying modality to the ideational metafunction in my analysis, which brings an alternative perspective to analysing the language of international agreements. More on ideational metafunction in section 3.2.

2.7 Previous research on the Ideational metafunction

The ideational metafunction has been used for researching, for example, legal cases (Ahmed et al. 2020), contract law (Wang 2015) and European Parliament's technical texts (Veroz 2017). By inspecting ideational metafunction and modality in the Paris Agreement, I hope to bring a new perspective to growing literature in the field of ideational metafunction as generally the focus seems to be more on interpersonal metafunction and modality. For example, one study focuses on interpersonal metafunction and modality in legal courtroom discourse (Dong 2013). Still, there are some studies which include ideational metafunction and treaties. One study focuses on speech acts in United Nations' treaties and uses all the three metafunctions by Halliday (Kone 2020).

3 PRESENT STUDY

In the following section I discuss further reason for choosing the ideational metafunction over other metafunctions.

3.1 Ethics

The Paris Agreement is a public and intergovernmental text accessible online, so there are no issues in obtaining it, nor does using it create any copyright issues. According to UNFCCC, "all official texts, data, and documents are in the public domain and may be freely downloaded, copied and printed provided no change to the content is introduced, and the source is duly acknowledged" (UNFCCC n.d.). In this thesis, credit was given to original sources and no original content was altered without notice. Underlining was added to some parts for clarity and research purposes.

3.2 Methodology and research question

The ideational metafunction was chosen for this analysis because it construes "our experience of the world that lies around us and inside us" (Halliday 2013: 713), meaning that speakers

use language to perceive and construct an interpretation of the world (Luukka 2002: 102). Thus, the ideational metafunction gives the opportunity to inspect the treaty from the point of view of a party.

Another considered option was the interpersonal metafunction, but due to its focus on language as a social (Webster 2019: 35–54), interactive and personal action (Halliday 2104: 30), it was not chosen. Socialness and interactiveness of the Paris Agreement can be seen as a past event (when the agreement was being negotiated) and as a future event (when the parties meet to follow up on their agreement). If it were researched as a past event, it would take several studies, because there are almost 200 parties. As a future event, it would be difficult to predict what kind of interaction will take place.

In SFL, experience of the world is described as a *process*, which often occurs in a text or speech as a verb which “may describe an action, or a feeling, or a state of being, or a way of behaving, either happening in the world around us or within our own consciousness” (Webster 2019: 35–54). Besides verbs, processes may include a participant and a circumstance related to the process (Halliday 1985: 101). Circumstances may affect the location, “manner, extent, cause, contingency, accompaniment and role” associated with the process (Chen 2016: 71; Halliday 1985: 102). Processes are displayed in table 2.

Table 2. Process types based on M.A.K. Halliday (1985: 101-137)

Process types	Examples
Material	Someone does something (physical or abstract) e.g., to do, to happen, to make, to go.
Mental	Sensing e.g., to like, to feel, to know, to wonder.
Verbal	Saying; covers all symbolic exchange of meaning e.g., to ask, to say.
Relational	Being e.g., to be, to have, to appear, to seem, to look.
Existential	Something exists or happens e.g., to exist, to arise.
Behavioural	Physical and psychological behaviour e.g., to breath, to dream, to smile, to listen.

As the processes focus on verbs, it seems fitting to inspect them from the point of view of modality and also because modal auxiliaries emerged from background readings. Modality is a way to express opinions, attitudes and judgements, certainty, and uncertainty (Benwell & Stokoe 2006: 112; Eggins 2004; Klammer & Schulz 1992: 2). In English, modality is often expressed by adverbs, modal adjuncts, different adjectives, thematic structures, modal auxiliaries, also known as modal verbs, or other verbs expressing certainty or uncertainty (Benwell & Stokoe 2006: 112; Halliday 1985: 50; Webster 2019: 35–54). Modality is typically divided into subcategories, but in this thesis, it is perceived as whole. The focus is on modal expressions –not just modal verbs– because ideational interpretations are created when reading a text (Hiidenmaa 2000: 175), so other components of the text may also affect interpreting besides verbs.

Legal interpretations are text-based (Husa 2017: 263). As the metafunctions are present in the text itself (Webster 2019: 35-54; Eggins 2004: 7), different interpretations might arise among parties while reading the Paris Agreement. Interpretations might contradict each other, which could alter the way the agreement is followed through. The Paris Agreement has been described as a landmark in combating climate change (UNFCCC n.d.). The aim of this study is to understand whether the agreement includes language, which can be interpreted in a way that weakens its status as an important climate treaty.

The research questions are:

1. Do modality and ideational metafunction interact in the Paris Agreement in a way that affects the parties' obligation to act?
2. If so, how?

The data for analysis was gathered with a close reading method. First, I read the text and then searched for modal expressions and ideational processes from the text. I chose relevant sections which included at least one modal auxiliary or other modal expression and an ideational process. For example, in the following way:

1. Climate change may cause the extinction of turtles. (modal auxiliary)
2. Turtles need help urgently. (process + adverb)
3. Turtles return to their hatching beach to lay their eggs. It is necessary that the beach is plastic-free. (process + adjective)

I chose one article and four paragraphs with repeating patterns because if an ambiguous part appears multiple times in the text, it gives parties many opportunities to interpret the text in a way which might affect their sense of duty. Five sections were necessary in order to give a diverse and comprehensive view for the analysis. If more articles or paragraphs had been selected, the work would have expanded too much. If fewer had been selected, it would have been difficult to answer the research questions.

4 ANALYSIS

I will analyze some of the articles from the Paris Agreement in order of their appearance in the agreement. Some of the articles include same modal or ideational expressions, so in order to avoid duplication identical expressions are divided between articles in this analysis. Six out of nine modal auxiliaries are present in the Paris Agreement. Four most frequently occurring modal verbs (*shall, should, may, will*) are discussed in the analysis. *Can* and *would* do not seem to affect the parties' obligation to act because they appear in the Paris Agreement only a few times.

Table 3. Modal auxiliaries

Modal auxiliary	Can	Could	May	Might	Will	Would	Shall	Should	Must
Present in the treaty	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No
Frequency (number of times)	4	0	19	0	6	1	117	25	0

4.1 Article 4(2)

Article 4(2) goes as follows:

“Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.” (Underlines added.)

Article 4(2) has many elements which encourage into action. According to Klammer and Schulz (1992: 186), the modal auxiliary *shall* acts as a legal command. Other scholars also agree that *shall* seems to create legal obligations (Couzens et al. 2017: 202; Rajamani & Brunnée 2017: 541; Leggett & Lattanzio 2017: 33–34). *Shall* combined with the participants *each party* creates an image of quite strong obligations, especially because using *each party* has been seen to create individual obligations (Bodansky 2016: 145–146; Rajamani 2016: 354).

The other verbs *prepare*, *communicate*, and *maintain* can be seen as ideational processes. *Prepare* and *maintain* are material processes and *communicate* is a verbal process. The first two verbs are actions and the third one, *communicate*, requires someone for whom to communicate. The three verbs together with the modal *shall* create quite a strong image of obligation. Also, the verb *achieve* can be understood as trying to reach a desired result. These aspects make it seem that parties should do as article 4(2) instructs. However, the mental process *intend* may decrease the obligation of achieving, since *intending* does not necessarily lead to action. Many scholars think the phrase “intends to achieve” affects the legal obligation of article 4(3) (Rajamani & Brunnée 2017: 541–542; Rajamani 2016: 354; Bodansky 2016: 144–146).

As the prepositional phrase and ideational circumstance ‘*with the aim of achieving...*’ suggests; it is enough that the parties only try to achieve their NDCs. How is the aiming measured? Article 4(2) was a hot topic in the negotiations of the Paris Agreement, many saying that “there is no obligation to implement the nationally determined contributions” (Gervasi 2019: 795–796). As this interpretation already exists, it is possible that article 4(2) may be interpreted in a way that affects the parties’ obligation to act.

4.2 Article 4(3)

Article 4(3) goes as follows:

“Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.” (Underlines added.)

According to Rajamani (2016: 500), *will* expresses a strong expectation that parties will take ambitious actions in the future, but it does not create a mandatory obligation. Nevertheless, it may affect the parties' obligation to act in a positive way as Klammer and Schulz (1992: 186) as well as Rajamani (2016: 343, 355–356) see the use of *will* as a future promise. The other modal and ideational expressions have the potential to change the tone of this interpretation in the same way *shall* can be affected by surrounding words (Leggett & Lattanzio 2017: 33–34). For example, the superlative adjective *highest* creates great expectations towards the level of ambition, but the latter adjective *possible* softens its effect. It allows the parties to determine their own highest *possible* ambition or later claim that this was the highest ambition they could achieve. After all, there are no instructions on NDCs on article 4(3) (Tørstad 2020: 763).

The verb *reflecting* can be understood as a mental process since it does not necessarily lead to action as did not *intending* in article 4(2) either. Nonetheless, there is a possibility that it may lead to action. The ideational circumstance *in the light of different national circumstances*, which is in a form of prepositional phrase, enhances that it is up to the countries to determine their own *possible* ambition. The only requirement is that the NDCs should be more ambitious each time, but here may also lie a problem. If they need to be more ambitious, the starting level may be set low in order to achieve the NDCs. If this is done, it may affect the overall results of the Paris Agreement. See section 4(3) for analysis of the adjective *differentiated*.

4.3 Article 4(19)

Article 4(19) goes as follows:

“All Parties should strive to formulate and communicate long-term low greenhouse gas emission development strategies, mindful of Article 2 taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.” (Underlines added.)

Article 4(19) gives the parties instructions on what they should aim to do. *Strive* can be seen as a mental process because it can be abstract instead of a concrete action. *Strive* expresses devotion but *should* weakens its status if we accept Klammer’s and Schulz’s (1992: 186) idea that each modal auxiliary possesses a meaning in the word itself. Scholars have seen the function of the modal auxiliary *should* in the agreement as recommending rather than demanding (Rajamani 2016: 343; Bodansky 2016: 142, 145). A simple way to assess its effect in a sentence is to replace it with another modal auxiliary.

For example, modal auxiliary *will* would express a promise related to the future. If *should* was replaced with *will*, the meaning would change from instructional possibility to a more certain promise: ‘All parties *will* strive to...’. The difference in meaning is even clearer in the following sentences, where *should* expresses a possibility or even doubt about doing whereas *will* gives the impression of following through with the statement:

1. I *should* read the agreement.
2. I *will* read the agreement.

An ideational process can be found from the verb phrase *taking into account*. It can be seen as a material process related to action. *Taking into account* gives the impression that something should be considered. What comes after it creates the issue: “...*common but differentiated responsibilities*...” [§4(19)]. The adjective *differentiated* creates a modal and potentially ambiguous effect in the article since it is not mentioned what these *differentiated responsibilities* include especially as *all parties* have them. Article 4(6) mentions the *special* circumstances of the least developed countries and small island developing States, so article 4(19) could then be a reference to article 4(6). Then again, not all participants, *all parties*, belong to these two categories. If least developed countries and small island developing states

are meant with *differentiated responsibilities* or with *different national circumstances*, it should be clearly stated in article 4(19). Now it gives *all* parties, including developed countries, the opportunity to appeal on different responsibilities or circumstances when it comes to following the agreement even though developed countries are greater greenhouse gas emitters than developing countries and small island developing states (World Population Review 2022).

Since *should* can be understood as a suggestion and the article includes other modality and ambiguity, article 4(19) would appear to fall on the voluntary provisions' section, thus, not creating legal obligation for the parties to actually create low greenhouse gas emission development strategies.

4.4 Article 12

According to Rajamani (2016: 353), an obligation in the Paris Agreement may be weakened by the clause *as appropriate*, as it seems to do in article 12. The clause appears in the Paris Agreement 15 times. It functions as an adverbial phrase, despite it missing an adverb, so it belongs to the adverb category in modal expressions. The adverb form of the clause would be *appropriately*.

Article 12 includes several modalities, and at first glance its interpretation seems encouraging, since it includes *shall* and mentions *enhancing* twice. Article 12 is as follows:

“Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement.” (Underlines added.)

The verb *shall* has been considered to create legal obligation (Rajamani 2016: 343). However, there are several elements in article 12 that seem to weaken its position as such. For example, *as appropriate* after the modal auxiliary *shall* creates an impression that parties have the intention to cooperate, but it is not necessary to achieve the goal. The lack of defining the measures also gives the parties permission to do as they see fit—as appropriate.

Recognizing can be understood as a mental process. This recognition should be done in an enhancing manner, but the adverbial phrase *with respect* creates an image of keeping the enhancement more as a reminder in the background. But to which parties is it directed to? According to Bodansky (2016: 145), using participant, *parties*, might create “general institutional obligations for the regime as a whole, but not obligations for individual parties”. That itself weakens parties’ individual obligations.

In article 12, there is the potential scenario that parties can appeal to the phrase *as appropriate* if other parties feel that not enough ambitious efforts are made by a certain party. Thus, it may or may not affect the parties’ obligation to act.

4.5 Article 28(1)

In article 28(1), the modal auxiliary *may* expresses a potential scenario where a party may withdraw from the agreement. The verb gives the article a more positive and hopeful undertone, since it not set in stone that a party is going to leave the agreement.

“*At any time after three years from the date on which this Agreement has entered into force for a Party, that Party may withdraw from this Agreement by giving written notification to the Depositary.*” (Underlines added.)

If the article would include *will* or *shall* instead of *may*, it would change the tone to more demanding. In article 28, *may* creates the possibility of options: to either stay in the agreement or leave it. From this we can deduct that the modal auxiliary *may* can create optionality also in other parts of the agreement. The state of obligatoriness is thus left to the parties to decide. They can either act in a way the agreement instructs or not. *Withdrawing* can be interpreted as a material process since someone (a party) potentially does something (leaves the agreement). Without the modal auxiliary *may*, it would give a sterner indication of what will happen.

In article 28, there is also the question of vagueness. What happens if the party withdraws from the agreement? Apparently, nothing, because no further instructions are given. Bodansky (2016: 149) explained that a lot of emphasis is put on reputation and leaving the agreement would make them an undesirable working partner in the future. One future

research topic could be if the United States' temporary absence affected the way other parties wish to work together with the country in the future.

5 DISCUSSION

Modality in the Paris Agreement seems to be presented by modal auxiliaries, adjectives, and adverbial phrases. Based on data, modal auxiliaries seem to appear at the beginning of articles. Adjectives and adverbial phrases occur later in the article after the modal auxiliary. It would appear that they can be interpreted in a way which decreases the parties' obligation to act, for example, when using the adverbial phrase *as appropriate*.

Ideational processes were present in the selected articles. All of them included a participant and a verb, some also had an ideational circumstance in the form of a prepositional phrase at the end of the article. The most common processes were material processes. This is interesting because material processes are related to action and they can be interpreted as more obligating than processes which do not necessarily lead to action, e.g., mental processes.

Still, modality and SFL appear to interact with each other. For example, in article 28 the verb *withdraw* is quite a strong action, but the modal auxiliary *may* softens its effect. However, as mentioned, in ideational metafunction interpretations of the world may vary between interpreters.

The case of missing definitions, which came up in the background section, was also present in the articles. The language might have been left vague in purpose, in order to make additions later, or because there are so many parties, who might have different means in trying to achieve their goals. The fact that the articles were lacking definitions, possibly gave room to the ambiguousness of the agreement, which also potentially affected the interpretation.

6 CONCLUSION

This study was set up to examine the language of the Paris Agreement and whether the language affects the parties' obligation to act. The data was examined through Systemic Functional Linguistics, presented e.g., by Halliday (1985) and Webster (2019). Modality and ideational metafunction were in the core of the analysis.

Researching the subject through ideational metafunction and modality turned out to be challenging because the focus in the research area tends to concentrate more on interpersonal metafunction. Nonetheless, in the analysis they complimented each other well. Often, metafunctions are studied from all three angles: ideational, interpersonal, and textual but they can be separated to analyze certain features from data. While the three metafunctions might have brought an overall picture of the topic, only one was chosen in order to examine the subject in a deeper manner. Due to the nature of ideational processes, the interpretations are subjective. However, it seems that modality and ideational metafunction may interact in a way which affects the parties' obligation to act.

A future research topic could be comparing ideational metafunction, or SFL in other international treaties, e.g., Kyoto Protocol, or legal texts in general. In this thesis, five text sections were selected, so the thesis could be broadened by examining other articles or paragraphs as well. The ideational metafunction is an extensive concept and not all aspects of it could be fit to this study, so focusing solely on ideational metafunction could introduce new angles in inspecting the language. If the Paris Agreement was rephrased or modified, a new comparative study could be made. As the agreement has been translated into other languages (The United Nations n.d.), the methodology used in this thesis could be applied to examining translations as well because the phrasing might vary between languages.

In 2022, the United States of America is the only party to date who has temporarily dropped out from the agreement. The language might make it possible to reduce the amount of commitment by parties but hopefully no one makes use of it anymore: the Paris Agreement is an important climate agreement which we need in order to combat climate change in the future as well.

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