

Systemic Means of Persuasion and Argument Evaluation: Insights From the Corpus of Competitive Debates

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Abstract: The paper discusses the role of systemic means of persuasion in argument evaluation. The core class of systemic means of persuasion is regress stoppers, whose fundamental function is to halt the infinite regress of justification by making claims more acceptable. The paper explores how systemic means of persuasion relate to the structure of arguments in the Toulmin model and function as persuasion cues that are typically processed heuristically. The study includes stylometric analysis and statistical data from three corpora, revealing these means as complementary to explicit argumentation. Observations and examples are drawn from an original corpus of competitive debates.

Résumé: L'article discute du rôle des moyens systémiques de persuasion dans l'évaluation des arguments. La classe centrale des moyens systémiques de persuasion est celle des freins à la régression, dont la fonction fondamentale est d'arrêter la régression infinie de justification en rendant les affirmations plus acceptables. L'article explore la façon dont les moyens systémiques de persuasion sont liés à la structure des arguments dans le modèle Toulmin et fonctionnent comme des indices de persuasion qui sont généralement traités de manière heuristique. L'étude comprend une analyse stylométrique et des données statistiques provenant de trois corpus, révélant que ces moyens sont complémentaires à l'argumentation explicite. Les observations et les exemples sont tirés d'un corpus original de débats compétitifs.

Keywords: Argument evaluation, Awdiejew, computational linguistics, corpus of competitive debates, heuristic model of persuasion, regress stoppers, systemic means of persuasion, Toulmin, Toulmin model of argument.

1. Introduction

The purpose of this article is to present the role of systemic means of persuasion in the argument evaluation process. Argument evaluation can take place in several ways. A fundamental distinction formulated in logic and argumentation theory distinguishes two criteria in evaluating arguments: a formal criterion and an informal (practical) one. The former recognises validity, i.e., whether the conclusion follows from the premises, as the basis for the correctness of an argument. Within the second, several concepts of assessing the correctness of an argument have emerged. According to them, the correct arguments are as follows:

- 1) arguments that are free from traditionally understood fallacies (Dale 1992, p. 322),
- 2) arguments based on acceptable and relevant premises offering sufficient support (Johnson and Blair 1977, pp. 55–57),
- 3) arguments that satisfy the criterion of adequate argument strength (Thomas 1991, pp. 36, 121),
- 4) arguments that pass the test of critical questions coordinated with the argument pattern used (Walton et al. 2008, pp. 15–17).

All of the distinguished criteria for evaluating arguments presuppose a preparatory phase, which precedes the phase of proper evaluation. Generally speaking, this preliminary phase aims at detecting certain deep logical phenomena hidden under the surface layer of the text. These include propositions expressed in the utterance, the relations between them, the structure of the argument expressed in the argumentative utterance in question, the hidden enthymematic premises, the type of argumentation scheme linked to the critical questions for evaluating the argument, etc. In the standard view, the preparatory phase means the standardisation of the argument in an utterance recognised as an argumentative utterance (performing the speech act of argumentation).

In everyday situations, people do not always rely on the objective criteria for argument evaluation. Careful and systematic evaluation of arguments requires knowledge, skills, practice but also time and effort. That is why it is prevalent to put less effort into argument processing,

relying on mental shortcuts and heuristics to quickly judge a message's persuasive or argumentative value (Langer, Blank, and Chanowitz 1978; Eagly and Chaiken 1984; Petty and Cacioppo 1986). When the interlocutor's motivation or ability to evaluate the arguments is low or their resources are limited, heuristic processing is more likely. Additionally, strong heuristics can reduce the motivation for systematic processing and vice versa. So, depending on the circumstances, argument evaluation can rely both on objective and subjective criteria.

In the article, we consider both kinds of criteria for argument evaluation in the context of competitive debates. We decided to base our observations and examples on competitive debates because, as an argumentative genre, they constitute an area still insufficiently explored but undoubtedly deserving of interest from argumentation studies scholars. Besides being increasingly popular in education, this type of debate seems to come close to the ideal of critical discussion formulated within the pragma-dialectical theory of argumentation (cf. Van Eemeren and Grootendorst 1992). For this reason, they provide an opportunity to observe various discursive phenomena subordinated to the idea of rational persuasion of the decision-making audience. Every competitive debate ends in an evaluation of the presented arguments. Depending on the judging methodology, the process of argument evaluation can be situated on different sides of the objective-subjective spectrum (cf. Cross and Matlon 1978). In what follows, we will consider objective criteria as based on adopting some model of argumentation assuming the preparatory phase of the interpretation of argument structure and subjective ones as based on heuristic processing of persuasive messages. We decided to focus on a relatively lesser-known category of linguistic devices for creating persuasive messages, not well established in argumentation studies: systemic means of persuasion. They have turned out to be especially promising as an annotation category for the corpus of competitive debates, bridging the gap between the two criteria of argument evaluation and enabling us to get a broader and deeper understanding of argumentative phenomena.

Systemic means of persuasion consist primarily of elements from the textual layer. They are concrete statements, i.e., elements that we can indicate on the surface of the text without having to go through a phase of preliminary interpretation of the utterance or standardisation of the argument expressed in it. Their primordial function – from the logical analysis point of view – is related to the desire to avoid the infinite regress of justification (Sinnott-Armstrong and Fogelin 2010, pp. 62–63; Sinnott-Armstrong 2018, pp. 120–136). In other words, since argumentation occurs when a belief is controversial, questionable, or unacceptable, the use of systemic means of persuasion aims to make the expressed beliefs more readily acceptable to the recipient. Thus, the fundamental function of systemic means of persuasion seems to be complementary to the function of direct argumentation in favour of a given belief. In turn, within a particular case, i.e., generally a complex argumentation, these phenomena, of course, often co-occur.

This article focuses on different aspects of how systemic means of persuasion relate to argument evaluation, considering that they are lexical elements identifiable at the surface level of the text. After the introduction, we devoted the second section of the article to the two founding fathers of systemic means of persuasion: Walter Sinnott-Armstrong and Aleksy Awdiejew. It is a reconstruction and synthesis of elements of their two concepts, developed independently and with different motivations but showing solid signs of convergence and complementing each other. We present examples, types, and various uses of systemic means of persuasion.

In the third Section, we introduce the empirical part of our study that uses a couple of corpora of highly argumentative texts (competitive debates, parliamentary speeches, and sermons) to show the discussed phenomena on real-life examples and in a broader perspective. Our main focus lies in the corpus of competitive debates where we make use of several quantitative measures to characterise debates in terms of the relative frequency of systemic means of persuasion and inference markers. Then we compare competitive debates with other types of persuasive

texts such as parliamentary speeches and sermons regarding values of selected stylometric measures.

In Section Four we explore the relationship between systemic means of persuasion and the structure of the argument, specifically the deep representation in line with Toulmin's model. We identify the place of systemic means in the argument structure and examine its impact on evaluating the argumentation. Additionally, we suggest various approaches for enhancing Toulmin's model inspired by our corpus analysis and renowned research on the topic.

Section Five focuses on other aspects of systemic means of persuasion concerning evaluating an argument related to the heuristic model of persuasion. In this case, systemic means of persuasion function merely as signs (independent of deep representation) of the argument's value expressed in a given argumentative utterance. We can treat these as a part of an intuitive assessment or reaction to a given utterance (e.g., in a debate) or during an in-depth expert evaluation.

2. Regress stoppers and systemic means of persuasion

In this Section, we want to invoke two distinct conceptions that we can see as historical sources of the conception of systemic means of persuasion. American philosopher Walter Sinnott-Armstrong offered the first one in his textbook *Understanding arguments: An introduction to informal logic* (co-authored by Robert Fogelin), as well as in his book *Think again: How to reason and argue*. The second one was formulated by Polish linguist Aleksy Awdiejew in his paper *Systemowe środki perswazji* [*Systemic means of persuasion*] and book *Gramatyka interakcji werbalnej* [*Grammar of verbal interaction*].

Sinnott-Armstrong notices that when we engage ourselves in an argument, there is a risk of going *ad infinitum*: premises of our arguments need justification, which can be delivered only by another argument, and so on (Sinnott-Armstrong and Fogelin 2010, pp. 62–63; Sinnott-Armstrong 2018, pp. 120–136). It is an extensive theoretical

problem known as an infinite regress of justification formulated by ancient sceptics. However, in real-life arguments, we can present our claims and reasons in a way that does not produce just another demand for an argument. It is thanks to four strategies that help to avoid the need for argumentation or, in short, regress stoppers. There are four main categories of regress stoppers: assuring, guarding, discounting, and evaluating. You can see a brief recapitulation of these four strategies in Table 1.

Strategy	Forms	Examples
Assuring	We are indicating that there are backup reasons even though we are not giving them fully now. 1) Citing authorities, 2) Commenting on the strength of our own belief, 3) Abusing the audience, 4) Giving assurances that something is false.	1) Doctors agree... 2) I am certain that... 3) Everyone with any sense agrees that... 4) It is wholly implausible to suppose that...
Guarding	We are weakening our claims so they are less subject to attack. 1) Weakening the extent of what has been said, 2) Introducing probability phrases, 3) Reducing our level of commitment.	1) Some... 2) It is likely that... 3) I suspect that...
Discounting	We are anticipating criticisms and dismissing them. 1) Citing a possible criticism to reject it or counter it.	1) The ring is beautiful but expensive.
Evaluating	We are invoking the relevant standards in a given context and indicating that something adequately satisfies these standards. 1) Evaluating can be performed by: a. general evaluating words,	1a. He is a good/bad person.

b. evaluative-descriptive words,	1b. It is a beautiful/ugly flower.
c. words with positive or negative connotations (being activated in a particular context).	1c. It is a French wine.

Table 1. Four main categories of regress stoppers: assuring, guarding, discounting, and evaluating with examples (Sinnott-Armstrong and Fogelin 2010, pp. 62–72; Sinnott-Armstrong 2018, pp. 120–136).

It is worth emphasising that speakers can use these strategies honestly, or they can abuse them and use them manipulatively. For example, citing ‘American scientists’ can be used righteously to indicate that some people possess the reasons justifying a given claim or viciously to intimidate someone and force them to accept the claim. The range of these possibilities is broad. Some of them are already recognised as fallacies, but some of them are pretty subtle and highly context-dependent. It is worth emphasising that systemic means of persuasion can only be seen as an attempt to convince or ensure the audience, as it can always happen that the audience is not convinced and needs more argumentation. In other words, the mere use of systemic means of persuasion alone is not sufficient to avoid commitment to present further argumentation. But this does not undermine that this is precisely their primordial function and whether or not they are used felicitously is a separate issue (cf. Searle 1969).

One could formulate an objection that examples containing assuring phrases are simply arguments (e.g., arguments from expert opinion). Let us compare two examples in order to clarify the relation between them:

- a) Smoking causes cancer because doctors agree that it does.
- b) Doctors agree that smoking causes cancer.

The first example directly uses the indicator ‘because’, which suggests that it is a direct speech act of argumentation. It is a rather unquestionable example of an argument from expert opinion. The second example is more problematic: it does not include an inference marker, making it an example of assuring rather than argumentation. It seems that if we

adopt a broad concept of argument from expert opinion or offer a paraphrase of an original utterance, we can justify considering it as an example of argument from expert opinion (and that is very often the case). However, it should be noted that in this case, it is not determined that the reference to the agreement between doctors is intended to serve as a rationale to justify the belief that smoking causes cancer.¹

It is beneficial to consider several options and contrastive pairs to qualify a given phrase as an example of one of the strategies above. Let us consider a quantifier ‘some’. Because it is weaker than the universal quantifier ‘all’ or ‘most’, typically, it restricts the extent of the domain and can be seen as a guarding device. Very often, it is also a means that enables us not to provide a specific number to avoid commitment to a precise assertion.

The phrase ‘claims Mr. X’ often serves as an assuring unit, especially when we want to indicate that although we are not presenting reasons for a claim, someone could give them (e.g., an expert, authority, witness). However, in an article describing some events, the exact phrase can serve to introduce quotes or reported speech (and to present various perspectives transparently), not to assure that these reports are accurate nor to guard the claim and reduce the writer’s level of commitment.

Another interesting case is the Polish phrase ‘Sądzę’ or ‘Sądzimy’ (‘I think’ or ‘We think’), which in some contexts instantiates guarding (for example, in parliamentary speeches). Still, in different ones, it often performs the role of assuring (for example, in competitive debates).

Awdiejew (2004) coined the term “systemic means of persuasion” to denote lexical units that reinforce the conveyed informative content and persuade someone. ‘Systemic’ in this case means elements of language understood as a system. Still, Awdiejew is open to considering not only the syntactic or semantic features of the expressions in question but also the pragmatic ones. He wants to focus on linguistic means of persuasion, not psychological or sociological ones.

¹ A corresponding issue can be distinguishing between rephrase and inference (cf. Younis et al. 2023, pp. 14–16).

In his first paper on the topic (2004), he distinguished four kinds of systemic means of persuasion:

- 1) operators that block verification,
- 2) operators that cause the “observer effect”,
- 3) operators that change the hierarchy of the information system,
- 4) operators that augment pragmatic functions.

He adopted the concept of operator after Kazimierz Ajdukiewicz. The first category – operators blocking verification – is similar to assuring in Sinnott-Armstrong’s conception, but it embraces some other element not mentioned by the latter. More examples of assuring phrases contain the fourth group, including phrases augmenting assertions, requests, exclusions, advice, orders, etc. Examples of such phrases are ‘I am absolutely certain that’, ‘there is no doubt’, and ‘immediately’. This last group is quite heterogeneous.

The second group concerns narrative phrases like ‘as you can see’ and ‘imagine that...’. They increase the dynamic of discourse. They are very natural when introducing examples and stories about individuals. The third group is a natural counterpart for discounting in Sinnott-Armstrong’s sense. Still, Awdiejew, as the most fundamental device for changing the hierarchy of the informational system, considers a thematic-rematic structure. So, this category is broader than discounting as it contains not only the connective ‘but’ and its equivalents.

In his later work (2007), Awdiejew offered a more detailed conception, including the elements of his different conceptions of conversational strategies. He provides a complex view of the process of conversation, speech acts, and pairs of actions and reactions. We do not want to present them in detail but just emphasise that we can find four categories being much or less accurate counterparts of Sinnott-Armstrong’s categories:

- 1) operators that block verification / augment pragmatic functions (of an assertion) – assuring phrases,
- 2) modal operators (certainty, ruling out, supposition, doubt) – assuring and guarding phrases,

- 3) emotive-evaluative operators – evaluating phrases,
- 4) operators that change the hierarchy of the information system – discounting phrases.

Let us consider a simple fabricated example illustrating how systemic means of persuasion work: “Probably all linguists will agree that pragmatics – although it is the most difficult branch of linguistics – is also the most interesting one. Therefore, it is worth studying”. First, it is an example of argumentation for the belief that pragmatics is worth studying because it is interesting. ‘Therefore’ is a so-called argument or inference marker. Second, we can see several expressions falling under the categories of systemic means of persuasion:

- 1) assuring: ‘(probably) all linguists will agree that’,
- 2) guarding: ‘probably’,
- 3) discounting: ‘although’,
- 4) evaluating: ‘(most) interesting’, ‘worth studying’, optionally: ‘(most) difficult’.

So, besides presenting an argument – a controversial claim with reason supporting it – one tries to make it more acceptable by employing various strategies. They anticipate the objection that pragmatics is a difficult field of study, invoke the authority of linguists but at the same time want to weaken the claim made by the universal qualifier untenable, introduce evaluation which is useful to indicate the speaker’s positive attitude, and avoid being specific about the descriptive content they want to ascribe to pragmatics.

This fabricated example employs all four strategies and illustrates a quite extreme case. However, it gives insight into the role of systemic means of persuasion and evokes a range of interesting issues connected to them. With this example, it seems all the more peculiar that, in general, argumentation reconstructions make little use of the categories discussed.

But what about the real-world examples? As we are building a corpus of competitive debates, detailed further in section three, consider an example from this collection. In this particular debate, the motion was

“The number of universities in Poland should be reduced”. The speaker from the opposition refers to the question of whether widely available courses can serve as an alternative to university education:

There are two problems here. First of all, the problem is that it’s only at universities that you have specialised researchers who are involved in scientific activities, who are up to date with what’s going on in the scientific world and are able to tell you what you specifically need to know in order to be suitable either for a further scientific career, or they’re able to tell you what are the current trends in the world that will make a particular knowledge more or less useful. It doesn’t always work perfectly, but it’s certainly a much better alternative to the possibility of the government coming to you and saying: “no no, we’re going to remove universities from you, and if you’ve got a problem with that, then find a course on the Internet that has a pretty graphical design, click on it and study that course and maybe you’ll find it useful”, and maybe not because as has been mentioned several times in this debate, the job market is changing turbo-fast. And it’s mega-unlikely that if you choose a course based on what you think, if you don’t have any academic experience, it’s going to be the course that’s going to be the golden shot that allows you to realise yourself professionally, personally and as a whole person in the future, which will suddenly make your life awesome. It probably won’t be awesome, the course will probably be a waste of time, you’ll probably be cut off from the academic environment that you would have had access to if you hadn’t gone on that course, and that probably makes the government’s solution tragic (A_BP_highed).²

In this case, expressions falling under the categories of systemic means of persuasion are:

² When citing from the corpus of competitive debates, we have adopted the following convention, in order: degree of speakers (‘N’ – novice or ‘A’ – advanced), debate format (‘BP’ – British Parliamentary, ‘KP’ – Karl Popper, or ‘LD’ – Lincoln-Douglas), debate motion (as noted in the fourth section of this article), and speaker. Depending on the debate format, the speakers are respectively: ‘A’ – the affirming side, ‘N’ – the negating side or ‘OG’ – opening government, ‘OO’ – opening opposition, ‘CG’ – closing government, and ‘CO’ – closing opposition. The number next to the symbol indicates the number of the speaker. All examples from corpora were translated from Polish by the authors of this paper.

- 1) assuring: ‘certainly’, ‘as has been mentioned several times in this debate’, ‘it’s mega-unlikely that’,
- 2) guarding: ‘maybe’, ‘probably’,
- 3) discounting: ‘but’,
- 4) evaluating: ‘perfectly’, ‘much better’, ‘pretty’, ‘the golden shot’, ‘awesome’, ‘waste’, ‘tragic’.

The main argument expressed in this passage can be reformulated as follows: “Online courses are not useful because the job market is changing very fast”. We are not going to reconstruct hidden premises and underlying presumptions here but instead we will focus on the role of selected systemic means of persuasion.

It is worth noting that the main claim contains a descriptive-evaluating term ‘useful’. According to Sinnott-Armstrong, it evokes an implicit standard and scale of usefulness, in our example positioning online courses relatively low on said scale (Sinott-Armstrong and Fogelin 2010, pp. 69–72). Evaluating phrases tend to be vague, which makes them both helpful and fallacious, depending on the context. Through their use, we can bypass the details – we can save some time or manipulate others to foster an incorrect (imprecise or mistaken) impression of a given situation (Macagno and Walton 2014, pp. 5–29).

The claim made by the speaker is framed by the term ‘probably’, indicating that his assertion is just a conjecture, not a definitive conclusion (cf. Awdiejew 2004, 2007; Searle 1975, p. 348). This suggests that the speaker is not asserting the statement as universally true but rather formulating it as an objection to the government’s proposal that online courses are a viable alternative to higher education.

The speaker also references the previously mentioned fact that the job market is rapidly changing and suggests that it was not refuted by the opponents. He leverages this fact to bolster his stance (cf. Johnson 2009, pp. 53–56). Earlier, he anticipates a possible objection that higher education is flawed and discounts it by asserting that it remains a better alternative to online courses and probably other forms of non-formal education. Throughout his speech, the speaker uses the term ‘probably’

several times, implying that opting for online courses is more likely to be detrimental than beneficial. He tries to avoid making a definitive claim that could provoke a significant rebuttal from the opposition.

In our brief exposition, we presented two concepts discussing four strategies that accompany argumentation in a strict sense. Sinnott-Armstrong's concept primarily frames the idea of stopping the regress of justification, with Sinnott-Armstrong suggesting that the highlighted strategies stop the regress at the second or further step of reasoning – when the argumentation has already started. As we pointed out, Awdiejew's concept is broader – the categories distinguished by Sinnott-Armstrong seem to be particular cases of the operators that make up the systemic means of persuasion. Awdiejew systematically identifies lexical means of persuasion and also recognises their significant role. He often considers isolated sentences as examples of systemic means of persuasion, a strong suggestion that they may involve the avoidance of argumentation in general. He also sees argumentation as a means of so-called modal negotiation, that is, disagreements not over the truth or falsity of beliefs but their strength and acceptability. This idea seems to be a critical addition to the mainstream ways of thinking about argumentation, which rarely refer to situations of incomplete agreement about propositional content and conflict about modal qualifiers.

In the subsequent sections, we will introduce a corpus that is a source of the analysed examples and then seek to delineate the role of each of the four main categories of systemic means of persuasion: assuring, guarding, discounting, and evaluating phrases. We will highlight the most significant phenomena concerning argument evaluation, considering both objective and subjective criteria. In the former case, we will focus on the role of systemic means of persuasion in the structure of argument as per Toulmin's model. In the latter case, we will explore how systemic means of persuasion underpin a heuristic evaluation of argumentation.

3. Corpus of competitive debates

For this and other studies, series of workshops and debates were organised to build a corpus of competitive debates (cf. Rogowska, Będkowski 2023). The following is its general characterisation related to the progress of the work falling in the second half of 2023.

The debates concerned four motions:

1. The development of dating websites and apps has brought more harm than good (hereafter: apps).
2. The involvement of celebrities in social movements brings more harm than benefit (celebrities).
3. The number of universities in Poland should be reduced (highed).
4. The retirement age for men and women should be equalised (retirement).

The debates on these motions took place in three formats: the Lincoln-Douglas debate (hereafter: LD), the Karl Popper debate (KP), and the British Parliamentary debate (BP). These formats vary in terms of the number of teams and participants, the duration of speeches, the time to prepare the line of argument, or the rules for asking questions of opponents. Each format has specific rules of conduct, expressed in manuals, handbooks, and evaluation sheets used at debate tournaments (cf. Johnson 2009; Pollard and Prentice 1981; Prager 2007; Trapp et al. 2005). The guidance contained therein addresses both the technical conduct of the debate and issues related to the construction of persuasively effective speeches, including the correct design of arguments.

Two groups of people participated in the debates: (1) novices (inexperienced speakers) (hereafter: N), i.e., students after rhetoric courses and debate workshops but who never had before participated in a competitive debate or been active in a debate club; (2) advanced (A), i.e., practising debaters, often members of school or university debate clubs, sometimes also organisers and judges of debates. The table below gath-

ers basic information about the corpus volume and the statistics concerning the percentage of inference markers (IM) (cf. Eemeren et al. 2007) and the percentage of systemic means of persuasion (SMP).

Debate	Tokens (N)	Tokens (A)	IM (N)	IM (A)	SMP (N)	SMP (A)
BP_apps	5069	9961	1.54%	2.71%	9.22%	7.02%
BP_celebrities	5212	9993	1.03%	2.45%	10.06%	8.16%
BP_retirement	5803	9828	1.97%	2.85%	7.01%	6.03%
BP_highed	5345	10495	1.75%	2.60%	8.48%	8.03%
KP_apps	3851	5950	1.48%	1.40%	7.60%	6.15%
KP_celebrities	4517	–	1.69%	–	9.44%	–
KP_highed	4822	–	2.45%	–	6.90%	–
KP_retirement	5137	–	1.48%	–	8.77%	–
LD_apps	2753	4521	1.99%	1.31%	9.79%	11.02%
LD_celebrities	3058	3959	1.28%	1.46%	8.90%	11.19%
LD_highed	3080	4641	2.20%	1.49%	7.17%	4.89%
LD_retirement	2618	4925	1.78%	2.85%	7.52%	6.17%
	45 462	64 273				

Table 2. Volume and the statistics concerning the percentage of inference markers and the percentage of systemic means of persuasion in the corpus of competitive debates.³ Due to the extensive preparation associated with the KP format and its small popularity in Poland, for now, we have managed to organise only one debate with experienced speakers.

One of the most apparent differences between advanced and novice debaters is the length of the debates. The transcriptions of the advanced debaters' speeches are between 1.5 times and 2 times longer. Advanced debaters speak faster and fit more information into the time allotted by the debate format. There are other features distinguishing between debates of advanced and novice debaters. Advanced debaters seem to make more extensive use of inference markers than systemic means of persuasion, especially in the debate formats they are familiar with (BP). Of course, presented data do not allow us to draw strong conclusions:

³ These are the results obtained by using the own machine learning model (a finetuned HerBERT model, cf. Mroczkowski et al. 2021). The averaged model performance on the test set is approximately 75% (F1 score), with performance exceeding 90% for some labels (e.g., inference markers and discounting phrases).

the sample is tiny; statistics are calculated for whole debates, not for particular speeches; they are averaged for all types of systemic means of persuasion, not for each category separately, and so on. It is still a work in progress requiring (among others) a manual annotation of the collected corpus, but it enables us to formulate some initial and tentative observations.

To get a better idea of what the results show, we prepared a similar analysis for two other text corpora: the parliamentary speeches of the ninth term of the Sejm of the Republic of Poland (Shorthand reports from the Sessions of the Sejm, 2023) and the sermons of Polish priest Piotr Pawlukiewicz. (Sermons of Father Piotr Pawlukiewicz, 2023) The former corpus comprises ca. 35,600 parliamentary speeches (ca. 9,770,000 tokens), whereas the latter contains ca. 310 sermons (ca. 1,750,000 tokens). The following diagram presents the results of automated analysis (grey dots represent parliamentary speeches, blue – Pawlukiewicz’s sermons, green – debates of novice debaters, and red – debates of advanced debaters):

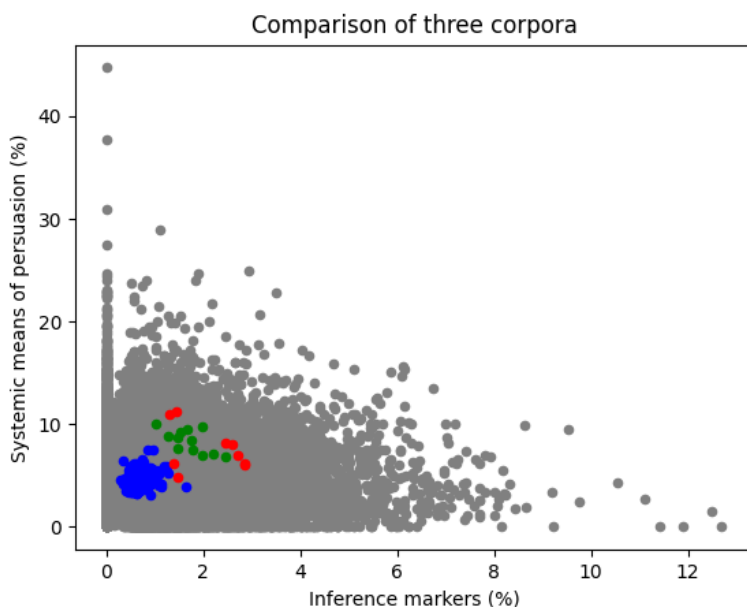


Figure 1. Results of an automated analysis of the relations between systemic means of persuasion and inference markers in discursive texts (grey dots represent parliamentary speeches, blue – Pawlukiewicz’s sermons, green – debates of novice debaters, and red – debates of advanced debaters).

We can instantly notice that parliamentary speeches are very diverse regarding inference markers and systemic means of persuasion (they achieve extreme values on both axes of the diagram). If we consider inference markers and systemic means of persuasion as two distinct strategies for crafting a persuasive message, we can also observe that they can be adopted quite independently (there are samples with large values on only one axis; most often, these are short speeches) but often they are employed jointly. Sermons create almost a separate cluster, and no samples achieve the value of zero on any axis: the collected sermons seem to use both strategies in a reasonably balanced way; however, in some cases, they reach values similar to competitive debates.

The four debates of advanced debaters achieving the highest score on the x -axis were conducted in the BP format, which is the format in which the participants were most proficient. There is no direct correlation between a debaters’ level and the type of employed strategy.⁴ Still, it seems that advanced debaters can achieve higher scores of the inference marker density. It does not apply to every speech, but it appears that at least some of them are prepared intentionally to make use of many explicit inferences.

The above corpus analysis reveals the use of systemic means of persuasion across a wide spectrum of texts. These linguistic devices are found to be more extensively used in persuasive texts than initially anticipated. Due to the ongoing development of the competitive debate corpus, our analysis is limited to the averaged data for full debates, without distinguishing between individual speakers. This limitation arises because speeches are occasionally disrupted by questions or

⁴ Due to the limited size of the corpus of competitive debates, the findings cannot be considered statistically significant. Nonetheless, we use these examples to formulate observations rather than conclusive statements. We view these preliminary results as encouraging and indicative of potential for further research.

points of information, necessitating specific text preprocessing and decisions related to the segmentation of the main speech and the other speech genres that occur during the debate.

These initial findings highlight two interesting points. First, competitive debates exhibit a higher density of inference markers and systemic means of persuasion across all levels of debaters compared to sermons within the reference corpus. Second, we attempted to demonstrate the differentiation of the texts concerning the degree of saturation with these linguistic devices. The variability observed in parliamentary speeches is noteworthy. Inference markers, and especially systemic means of persuasion, may represent a considerable percentage of word-tokens within these texts.

4. Systemic means of persuasion and the Toulmin model of argument

As we noted before, the evaluation of arguments generally focuses on the quality of the premises – their truth or acceptability – and the strength of the support they offer (logical validity, support, and relevance). Such an approach requires a specific preliminary procedure: a de-contextualising interpretation or standardisation of the argument expressed in the utterance. It is subject to several constraints, such as compliance with the principle of charity or the criteria of good standardisation. As a result of this procedure, we obtain a diagram of argument. There are two key approaches for diagramming argument structures. First, proposed and inspired by Monroe C. Beardsley (1950), focuses on the relation between premises and conclusion, distinguishing four types of structures:

- 1) convergent (in which premises support the conclusion independently),
- 2) linked (in which premises support the conclusion jointly),
- 3) serial (in which one of the premises is an intermediate conclusion),

- 4) and divergent (in which premises support at least two separate conclusions) (cf. Govier 1985).

Second is the so-called DWC model developed by Stephen Toulmin (1958; 2003, p. 87–134). At least in its original formulation, Toulmin's model does not consider various structures identified by Beardsley. It is based on a basic premise–conclusion structure (data–claim), but it also differentiates the roles of the individual premises (data, warrant, backing) and includes other components (qualifier, rebuttal). The basic three elements distinguished in the model are:

- 1) claim – conclusion to be argued for (Toulmin 2003, p. 90),
- 2) data – facts we appeal to as a foundation for the claim (Toulmin 2003, p. 90),
- 3) warrant – bridge to justify how the claim is derived from the data (Toulmin 2003, p. 91).

And the optional ones are:

- 4) backing – facts, authorities, or explanations that strengthen or support the warrant (Toulmin 2003, p. 91),
- 5) qualifier – modals, such as 'probably', 'possibly', 'perhaps' (Toulmin 2003, p. 92),
- 6) rebuttal – specifies the conditions which might defeat the major claim (Toulmin 2003, p. 94).

Despite the depth and breadth of more recent scholarly contributions to argument structure (Thomas 1973; Johnson and Blair 1977; Freeman 1991, 2011; Budzyńska, Reed 2011; Harrell 2016), we chose the Toulmin model for its versatility and effectiveness across a wide array of discourse types and academic disciplines. We also appreciate its pedagogical value and simplicity compared to newer, more advanced models. We believe that this choice situates our study within a larger scholarly conversation, recognizing Toulmin's work's enduring relevance and educational value as a foundational reference point for further inquiry into the nuances of argumentation theory. There is no doubt that Toulmin's model needs improvement and integration of at least some elements of other approaches. In what follows, we will propose some

refinements to this model, as well as indicate the works of other scholars who also noticed some shortcomings of Toulmin’s approach, especially ideas put forward in (Hitchcock and Verheij 2006; Freeman 2011).

To better explain the Toulmin’s model, consider his famous example: “Harry was born in Bermuda; therefore, Harry is a British subject unless both of his parents were aliens since a man born in Bermuda will be a British subject, because of the following statutes and other legal provisions: ...”. According to the DWC model, we can represent its structure as follows:

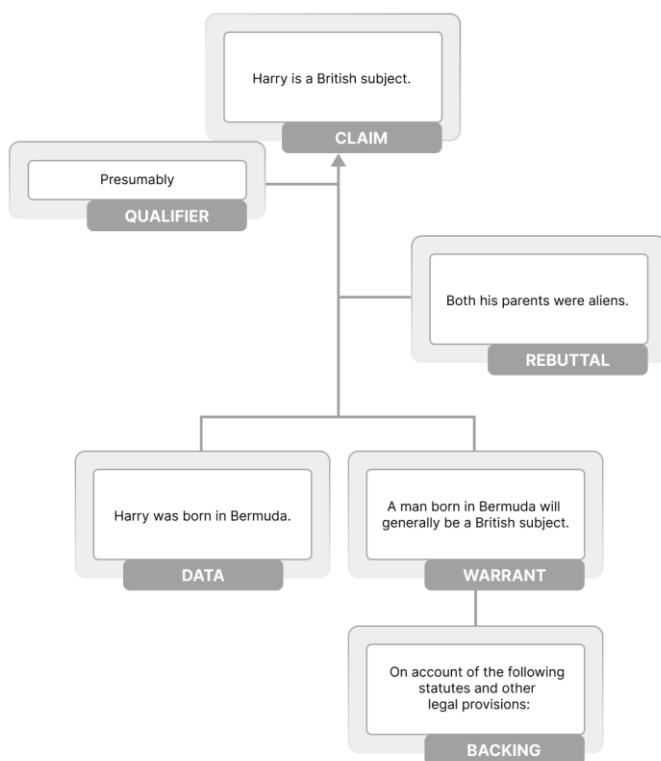


Figure 2. A structure of an argument (“Harry was born in Bermuda; therefore, Harry is a British subject unless both of his parents were aliens since a man born in Bermuda will be a British subject, because of the following statutes and other legal provisions: ...”) prepared using the DWC model.

Of course, the application of the Toulmin model of argument can be more complex. Let us recall another speech from the competitive debates corpus:

A1: [...] As far as this number of universities is concerned, it is important to point out that these days, the majority of people with a specific degree do not work in their field. [1]. Then why is there such a large number of universities [3] if they do not provide you with the prospects for later work [2]? Perhaps we should focus on replacing the university with some units where there is an opportunity to simply take up a job and learn more practical things [3] and leave the universities themselves to the best people in a given field, the elite, to leave it precisely to the scientists [4], and so that ordinary people also have the opportunity not only to go to university [5], because now we see that in fact this diploma does not give much [6] because we simply do not go in this direction when it comes to work and professional life [7].
(N_KP_highed, A1)

A slightly simplified reconstruction of the argument expressed in this passage can look like this:

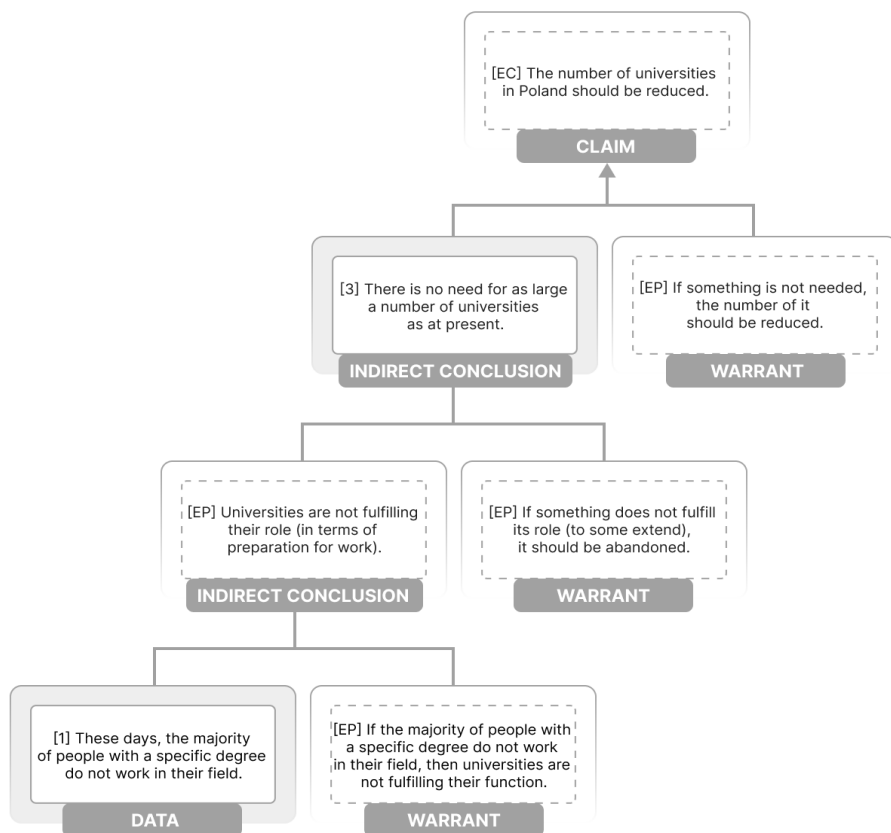


Figure 3. A structure of an argument (N_KP_highed, A1) prepared using the DWC model.⁵

It reveals several gripping problems concerning the argument reconstruction employing the Toulmin model. First, we need to allow argument chaining: at least some of the elements of the main argument may be supported by other arguments (cf. Voss 2006). Reed and Rowe (2006) allow any of the five components in a simple Toulmin argument

⁵ On this diagram ‘EC’ means ‘enthymematic claim’ and ‘EP’ means ‘enthymematic premise’.

(data, warrant, backing, qualifier, rebuttal) to be a claim in another argument. Second, warrants are often left unstated and subject to various interpretations (cf. Voss 2006; Kock 2006; on various issues relating to hidden or implicit premises see also: Levi 1995; Jacquette 1996, Braet 1999; Walton 2004; Paglieri and Woods 2011; Plumer 2017).

Due to similar considerations, the initial Toulmin model has received further refinements, also concerning qualifiers and rebuttals (Ennis 2006; Hitchcock and Verheij 2006; Slob 2006; Freeman 2011). From our perspective, the DWC model is open to further consideration and improvements. So, let us consider the Toulmin model of argument in light of systemic means of persuasion. We will show how this model could benefit from the reflection concerning the latter.

Let us start with the observation that guarding quite naturally corresponds to the qualifier in the Toulmin model of argument. As we have already noticed, usually, the examples of qualifiers in the Toulminian sense are modals such as ‘probably’, ‘presumably’, and ‘almost certainly’, which may help our listeners to understand that we are aware of the cases in which the claim may not be true or that the data do not fully support it. That makes them also good candidates for guarding phrases.

On the other hand, only some expositions of the DWC also mention qualifiers such as ‘some’ and ‘most’ and rarely strong qualifiers such as ‘necessarily’. Moreover, a qualifier is an element connected with the claim but not with other elements such as data, warrant, or backing (premises). It seems that it should be the case, as we noticed that according to Reed and Rowe, every component of the Toulmin model can be a claim of another argument. Finally, modal operators are guarding phrases, and they can be used specifically to avoid argumentation. Because of that, the Toulmin model should be open to further extensions, allowing modal operators for components other than claim.

Assuring phrases introduce additional complexity to the issue. It seems essential to allow modal qualifiers to include phrases denoting a high level of certainty or commitment, such as ‘necessarily’, and ‘surely’, but also expressing strong propositional attitudes, such as ‘I

am certain that' or 'I simply know that'. It is what we find in real-life examples. Let us illustrate that with another example from the competitive debates corpus:

OO1: (...) This debate is certainly not about doing science in some smaller universities or smaller research institutions because, unfortunately, the characteristics of modern science are such that to do any research projects, you need to have huge resources, and such resources in Poland are only available to the biggest universities, which again we are not talking about in this debate. We are not talking about the University of Warsaw, the Jagiellonian University, and places like that; it would be absurd to assume that it is these universities that we would be closing down; rather, we are talking about those smaller universities which are generally judged to be rather less well-funded, a little worse off (A_BP_highed, OO1).

Here, we can find the example of the claim supported by data in which the modal qualifier does not weaken the extent of what is claimed. Quite the contrary, the speaker is willing to make a strong assertion in front of their opponents, colleagues, judges, and audience as this assertion draws the boundaries of the debate. As the representative of the opposition, they are expected to present a refutation speech framing the debate retrospectively and offering counterarguments to the arguments of other parties.

The proper representation of modal operators is related to the appropriate representation of the argument structure, which is associated with evaluating the argument. In particular, a strong modal operator must be adequately supported by the premises (data and warrant), and in general, the degree of certainty attached to a claim should not exceed that ascribed to the premises or run up against the strength of support offered by the premises. This idea is in line with the understanding of critical thinking: not to attribute to a claim a degree of justification (certainty) higher than that allowed by the degree of justification (certainty) of the premises (cf. Brożek et al. 2020, pp. 266–267).

The competitive debates or other forms of argumentation in dialogue or discussion are related to the so-called modal negotiation (a term

coined by Awdiejew) that characterises the dynamics of discussion. Argumentation occurs not only when a statement is controversial but also when two parties attribute a different degree of acceptability or strength to the same statement: one person considers it inevitable and the other only probable; one excludes or doubts the occurrence of a specific situation, while the other counts on its occurrence: considers it certain or at least likely. Modal negotiation serves to agree on modal coefficients: it is these, not just the content of the claims, that are the subject of the argument. Let us recall two simple examples illustrating modal negotiations:

A: I doubt if Smith will come...

B: He will definitely not come, I talked to his wife (cf. Awdiejew 2005, p. 137).

A: Perhaps we will be able to go somewhere together tomorrow.

B: Definitely – we will make it happen (cf. Awdiejew 2005, p. 137).

In competitive debates, modal negotiations often concern the debate itself: its flow, boundaries, and result, since one of the crucial elements of competitive debate is a progressive or retrospective framing. Every team, at some point, provides an interpretation of their contribution to the debate and why they are better than others. Let us consider a fragment of the debate on the motion “The retirement age for men and women should be equalised”:

OO (POI): Well, ok, just listen, the retirement age can be raised without equalising it. Like, it is not some thesis on your side. You have to defend equality, we do not have to defend the status quo and low retirement age (A_BP_retirement, OO POI).

OG1: OK, yeah, sure, fine. That is why that is the minimal impact I just wanted to start with. But it is an impact that we certainly bring to this debate, non-exclusively, of course. Nonetheless, it also occurs on our side right away (A_BP_retirement, OG1).

Here, we can see that the government's representative agrees with the opposition on the status of the presented arguments: the government adopted a non-exclusive position. Still, it was willing to elaborate on it later in the debate.

The last category we will discuss is discounting or operators that change the hierarchy of the information system. The prototypical examples of such operators are 'but' and its synonyms. Their role as regress stoppers is to anticipate possible criticism, respond to it by using discounting phrases, and proceed to formulate a claim we are supporting.

The natural candidate for a counterpart for a discounted claim in the DWC model is a rebuttal. Let us recall that it illustrates the general fact that reasoning and argument involve not only support for points of view but also attack against them (Hitchcock and Verheij 2006, p. 3). According to Verheij, Toulmin described the role of rebuttals in various ways: "as setting aside the authority of the warrant, as contesting the applicability of the warrant, as defeating the claim", and the introduction of the notion of rebuttal was Toulmin's main departure from standard logical notions (Hitchcock and Verheij 2006, p. 10).

The further considerations on the concept of rebuttal show that rebuttal can serve various purposes. As Verheij puts it, rebuttal can be directed against the elements of the Toulmin model: the data, the claim, the warrant, but also the inference claim 'if D then C', and the inference from the warrant to the inference claim 'if W, then if D then C' (Hitchcock and Verheij 2006, p. 10). Similar interpretations were offered by Reed and Rowe, who were dealing with the problem of translation between various approaches to argument diagramming (2006, pp. 355–357).

Undoubtedly, discounting phrases can retaliate against various types of objections concerning the claim, any of the premises, or the inference. What is important is that discounting is more likely to succeed when the anticipated objection is the one that the interlocutor was willing to

raise and not necessarily, for example, the strongest objection. It is like knocking a weapon out of the hand of one's opponent.

Let us consider the following example:

OO2: [Dear] panel; I will start by referring to the criticism of OG2 to our line. So we have heard about the backlash, and it is like we do not really know at all why this backlash would only occur [...] on our side, and it does not work on the side of the government who wants to raise the retirement age for women anyway and leave it the same for men, in the sense of making it equal. I do not understand why it works that way, but I would explain why this backlash will not happen at all and why it is not true that men will feel worse off (A_BP_retirement, OO2).

It is a simple yet immensely powerful example of how the speaker can deal with not fully comprehended objections raised by the opponent: one can admit that fact, use a discounting phrase, and move on to develop one's point of view. Thus, a possible allegation of misunderstanding was neutralised.

Operating on a meta-level – as illustrated in examples above – is not unusual in debates of all sorts. In competitive debates, participants are both the proponents of arguments and those who assess them. Additionally, the evaluation of arguments is conducted by judges and the audience.

There is no doubt that Toulmin's model lacks explicit guidelines on how to evaluate the correctness of reasoning within a specific formal structure, a point of contention highlighted by scholars such as Cowan (1964) and Govier (1987). Consequently, it may not serve as a sufficient foundation for argument assessment. Nevertheless, as we have tried to illustrate, the model's intricate framework – especially after its improvement based on scholarly critique (Hitchcock and Verheij 2006; Freeman 1991, 2011) – accommodates aspects of argumentation overlooked by other approaches. While this does not directly translate into argument evaluation, it fosters a deeper comprehension of the speaker's intention and opens up important aspects of the argument assessment itself.

One of the key issues in achieving good argument reconstruction seems to be the consideration of modality or the degree of acceptability of various propositional contents (asserted in premises, intermediate conclusions, and main conclusion, respectively). Originally, in Toulmin's model, the modal qualifier serves to weaken a claim by acknowledging potential exceptions and objections. However, the textual examples we have presented indicate that such an account is not sufficient. Speakers introduce modalities of both low and high values realising different goals: predominantly guarding and assuring. The significance of these phenomena extends beyond their textual frequency or the aim of comprehending speech in granular detail. The necessity of argument evaluation further underscores the imperative to consider these modalities.

Aligned with the approach inspired by Thomas (1991), effective arguments ought to fulfil the criterion of sufficient strength. Assuring and guarding phrases reflect the speaker's perception of this strength, which is then subject to external oversight (for instance, by judges, the audience, and the opponents). This principle also relates to adhering to the critical thinking criterion: avoiding assigning a degree of assertion to our beliefs that surpasses what their justification warrants (cf. Brożek et al. 2020, pp. 237–247).

Modality recognition also forms the basis of modal negotiations. While two parties may accept the same set of core beliefs, they can vary in the level of certainty attributed to those beliefs, thereby constituting sets of beliefs about beliefs regarding their degree of certainty. These meta-convictions, as we have tried to demonstrate, particularly in the context of competitive debates, subsequently become focal points of our arguments.

While we concentrate on the significance of systemic means of persuasion for accurately reconstructing arguments – specifically, depicting their structure through a particular argumentation model – the implications of such reconstruction go beyond this immediate context.

This involves accurately grasping the intentions behind argument formulation (including the strength of assertion) and appropriately reacting to them, which is identified as a core objective in the teaching of logic, critical thinking, and debating itself.

5. Systemic means of persuasion and the heuristic model of persuasion

On a day-to-day basis, our efforts to evaluate arguments rarely meet rigorous standards of the argument evaluation based on objective criteria. Usually, we are forced to evaluate arguments in a much quicker, almost instantaneous manner based on some subsidiary and reasonably efficient criteria. In a famous experiment, Ellen Langer, Blank, and Chanowitz (1978) asked participants to approach people waiting in line to use a photocopier and ask if they could cut in. Participants used different phrases to formulate their request (to make five copies), which eventually produced different results. As Langer, Blank, and Chanowitz discovered, people waiting in line were more likely to agree to the request if participants used the word ‘because’ and offered justification for their request. The effect has held regardless of whether the provided justification was relatively strong (“May I use the Xerox machine because I’m in a rush”) or weak, even vacuous (“May I use the Xerox machine because I need to make copies?”). It is worth noting that in the case of a more extensive request (to make 20 copies), people waiting in line were less likely to agree when presented with a vacuous reason.

What is interesting is that in other studies that have examined different elements of linguistic, surface, or structural characteristics of persuasive messages, researchers have obtained compatible results. They prepared the ground for the so-called heuristic processing model of persuasion (heuristic model of persuasion):

According to the heuristic conceptualization, people sometimes exert little cognitive effort in judging message validity. Instead, recipients may base their agreement with a message on a rather superficial assess-

ment of a variety of persuasion cues, such as surface or structural characteristics of persuasive messages (e.g., their length or number of arguments), communicator characteristics (e.g., likability or expertise), and audience characteristics (e.g., positive or negative audience reactions to the message) (Eagly and Chaiken 1984, p. 296).

These persuasion cues can generate and then recall cognitive heuristics, i.e., simplified rules for claims and arguments evaluation, such as: “Statements by experts can be trusted”, “People agree with people they like”, “Length implies strength”, “More arguments are better arguments”, “Statistics don’t lie” and “Arguments based on expert opinions are valid” (Eagly and Chaiken 1984, p. 296–297). According to the heuristic model of persuasion, people may apply such heuristics in evaluating persuasive messages, being unaware and not comprehending their semantic content. So, people may agree with messages that are longer or contain more arguments, etc.

Of course, heuristics of this type are fallible and may come into conflict. Adam Grant mentions two interesting experiments. In the first one, he and his colleagues tested two messages to get more donations from alums: one highlighted the opportunity to feel good, and the other to do good. Both messages proved to be equally effective. But the combination of them – the message offering two reasons – was... less effective (Grant 2021, p. 110). In the second experiment, Grant and his student studied strategies for encouraging basketball fans to come to games. The strategy of sending an email with one question: are you planning to attend? – was more effective than, for example, an email with quotes from players and coaches on the role of supporters in the team’s performance (Grant 2021, p. 110).

We do not want to declare ourselves as proponents of the heuristic model of persuasion or engage ourselves in conducting empirical studies on the role of systemic means of persuasion in persuasive message processing. Instead, we would focus on various ways in which systemic means of persuasion can contribute to argument evaluation and discuss

very general options enabled by them that could lead to further empirical studies. Generally speaking, we think systemic means of persuasion can work as cues for the heuristic processing of persuasive messages. Similarly to factors such as the length of utterance or the number of arguments expressed in it (already noticed and examined in various studies), systemic means of persuasion can constitute features that can influence people in judging message – and argument – validity.

In Section Three, we presented metrics obtained as the result of automated textual analysis. Of course, as readers or listeners, we cannot compute concrete values for the strategies in question. However, like with speech length or duration, the number of arguments, or other cues mentioned by the heuristic model of persuasion, we can have a general impression of them, which impacts our perception of a persuasive message. Moreover, it seems that in at least some cases, these features become salient. We will not delve into how systemic means of persuasion can influence the recipient's attitude toward a persuasive message. Instead, we will comment on two instances where systemic means of persuasion seem salient.

Both examples presented are from speeches that achieve high scores regarding the relative frequency of systemic means of persuasion. The repetitive use of specific constructions in these examples seems clearly visible and cannot go unnoticed by a competent user of language (from a certain point of view, these are extreme cases, but they clearly illustrate the potential of systemic means of persuasion as cues for heuristic processing). In the first case, it is not intended, but in the second one – it certainly is. At least from a certain point, listeners have a good chance to be made aware of the use of such elements and even expect or anticipate their occurrence. Furthermore, it is worth noting that competitive debates may be viewed as simulations of real-life debates within specific institutional contexts (Budzyńska-Daca 2014, pp. 38–42). We regard competitive debates as a magnifying lens that enhances the visibility of certain phenomena. Among other things, the audience for these

speeches is not composed of average language users but rather specialised adjudicators who are particularly attuned to nuanced applications of persuasive devices.

With that in mind, let us move on to the first example is based on a guarding strategy:

OG1: Do you think that when it comes to social issues, it should really involve people who are just learning how to activate people, or would it be better, however, to include people who already have experience and know how to do it and are specialists in it and know how to make a real difference?

OO2: I think it is about both issues because social movements and social campaigns aim to sort of reach people who are sort of not experts either, so I think it is best when a person, let us say, from a similar level of knowledge, speaks to them, who in their own words offers them different solutions and also sort of like people like us, we are just people, and we often have our favourite actors, singers and just when that person who maybe is not the most knowledgeable person who can speak on the subject. A social movement is not about transferring knowledge about activism; it is probably about transferring knowledge about the social topic itself, so let us get tested, let us get vaccinated, I do not know... let us adopt dogs, and so on. I think it is like activist knowledge is very necessary, but it is not like something absolutely necessary, right? Like, well, it is just... A lot of social campaigns are just about publicising it, talking about it. That is our view. We think celebrities bring more benefit than harm (A_BP_celebrities, OO2).

The original formulation exaggerates the use of ‘jakby’, which means ‘sort of’ or ‘like’. Of course, it serves to weaken the scope or strength of the assertions, but it is also a kind of sign of uncertainty, hesitation, nervousness, or linguistic obtrusiveness. Of course, salient guarding strategy can serve as a cue triggering or calling various heuristic rules – positive or negative, e.g., “Exaggerated use of guarding phrases is a sign of nervousness and incompetence”, which consequently opens up the possibility of rejecting persuasive messages.

The second example employs a discounting strategy. Klaudia Jachira – a member of the opposition party – criticises the chairman of the ruling party and the Security Committee:

Mr. Kaczyński, Chairman of the Security Committee, Madam Speaker, Members of the House; what has the Constitutional Court given us? I know – an abortion ban, but every Polish woman knows that, and now even Ukrainian women. But what else? Well, yes, it has broken the constitution even a dozen times, but that is an old song. What else do we owe to the Constitutional Court? Chaos in the law, two legal orders, there is no denying it. But I am asking about the successes of the Constitutional Court. Denunciation of the Convention on Human Rights. A strong shot. But what has the tribunal given us? I know – the coolest PiS judges: a prosecutor from the martial law period, a specialist on the European rag. That we know. But who else? The best cook. Yes, because that gives Deputy Prime Minister Kaczyński a healthy, balanced diet and a good, restful night’s sleep in a dictatorship state. Unfortunately, that is what the pseudo-Constitutional Court actually gave us. (Statements at Sessions. No 52, 2023.)

This structure is, of course, intentional and can seem quite impressive. It demonstrates the speaker’s preparation and rhetorical skills. The main frame is established by the question, “What has the Constitutional Court given us?”. The speaker considers a range of responses that have in common that they are examples of negatively evaluated phenomena. She discounts them all as evident and asks for other positive examples. Finally, she offers an unexpected answer, criticising Deputy Prime Minister Kaczyński.

Interestingly, Klaudia Jachira gave another speech with quite a similar structure:

Mr. Kaczyński, Chairman of the Security Committee, Mr. Speaker, Members of the House, let us consider what the [European] Union has given us. Well, roads, bridges, stadiums, the modernisation of railways, but we all know that. I ask specifically: what has the Union given us? I know, yes, the Internet in Podlasie, village community centres, playing fields, sewage systems, gas. All right, but every child knows that. But

what specifically has the EU given us? Well, subsidies for farmers, yes, tractors, silos, processing plants, but that is no mean feat, after all, that is what all farmers receive throughout Europe. Well, what else has the EU really given us? Well, open borders, new markets, access to international education, but not everyone likes travelling or studying at school. Let us ask specifically: how much has the Union given us? Well, how much? 2 trillion euros? But what is 2 trillion euros compared to what we have contributed to the Union? Fraudulent mileage, questioning the rule of law, the superiority of party interests over independent judges, control of the state from the back seat, a partisan public media, a religious state, murder at the borders, LGBT-free zones, restrictions on women's rights – these are the values we have brought to Europe. After all, the EU would not have come up with this on its own; it took Kaczyński and Ziobro to teach it. Thanks to these enlightened leaders, Poland is widely known in Europe. We have had our five minutes. Unfortunately, I fear that it will be the last. So what? Who turns off the light? (Statements at Sessions, No 39, 2023)

The repetitive usage of the same structure – if noticed – can change the perception of the examples in question. What at first appears striking and unique turns repetitive and schematic. Hence, the salient use of systemic means of persuasion can be a cue calling various heuristic rules that impact whether or not the recipient accepts the position expressed in a persuasive message.

In this Section, we have presented only two cases that might be seen as extreme. Nonetheless, in prior sections, we presented more typical cases and a broader picture of the phenomenon. Notably, systemic means of persuasion and inference markers offer a valuable foundation for distinguishing at least very general argumentative strategies or styles. As Frans H. van Eemeren points out, “A satisfactory inventory of argumentative styles is not yet available” (2019, p. 166) – hence using stylometric indicators to distinguish certain types of argumentative patterns. While a detailed investigation warrants a separate study, it appears that such complex constructs – like a direct argumentation style

or a style predicated on guarding – might well be prime candidates for developing heuristic guidelines for evaluating argumentation.

As research conducted within the heuristic model of persuasion shows, even a single use of a term of a certain category can have a powerful impact on the acceptability of a persuasive message. For this reason, virtually every sample from the corpus we collected and processed could deserve separate attention. In this section, however, we have decided to present two examples of extreme intensity using the categories in question. As we have presented typical examples in the previous sections, here we wanted to show phenomena of a different nature: intrusive guarding, structural idea, and idea exposure – when a certain argumentative style or strategy becomes discernible (salient). We feel that this gives some idea of how diverse the heuristic rules associated with systemic means of persuasion and indicators of inference can be. However, in order not to remain at such a high level of generality, let us consider other possible heuristic rules associated with regress stoppers in Table 3.

Strategy	Examples of heuristic rules supporting acceptance of the proposition	Examples of heuristic rules supporting rejection of the proposition
Assuring	<p>“Statements by experts can be trusted”</p> <p>“Statements by expert X can be trusted”</p> <p>“Statistics don’t lie”</p> <p>“Statements mentioned by several sources are acceptable”</p> <p>“When someone is sure about something it cannot be rejected”</p> <p>“When someone claims that something is obvious it is in fact obvious”</p> <p>“When someone says it would be stupid not to share a given belief, I will accept it”</p>	<p>“Statements by experts cannot be trusted”</p> <p>“Statements by expert Y cannot be trusted”</p> <p>“Statistics lie”</p> <p>“When someone is sure about something it cannot be plausible”</p> <p>“When someone claims that something is obvious it is not obvious”</p> <p>“When someone offends other people, he or she is wrong”</p>

Guarding	“Being uncertain is a virtue”	“Being uncertain is a lack of competence”
	“Making an extensive use of ‘sort of’ means that the issue is complex”	“Making an extensive use of ‘sort of’ is a lack of competence”
Discounting	“She is aware of my objection and prepared to refute it”	“She was trying to refute my objection, but it does not make her position better supported”
	“She sees the issue from many perspectives and is aware of many possible objections”	“‘Buts’ are roadblocks on the path to progress”
Evaluating	“We share the same hierarchy of values”	“Values are too vague to conclude that we agree on the details”
	“Big words, big ideas”	“Big words hide little ideas”

Table 3. Four main categories of regress stoppers: assuring, guarding, discounting, and evaluating, and example heuristic rules corresponding to them.

5. Conclusion

In the article, we characterised systemic means of persuasion and their role in argument evaluation. The core class of systemic means of persuasion is regress stoppers, whose fundamental function is to halt the infinite regress of justification by making claims, premises, or overall position expressed in a persuasive message more acceptable to a recipient.

As we have presented, systemic means of persuasion contribute to an argument structure specified in the Toulmin model. Guarding phrases, as well as assuring ones, often serve as modal qualifiers not only for the claim but also for other components of the DWC model. As such, they play an essential role in the context of modal negotiation in Awdziejew’s sense. Discounting phrases introduce rebuttals as anticipated objections that the interlocutor is willing to raise. Systemic means

of persuasion can also serve as cues, calling various heuristic rules encompassed by the heuristic model of persuasion and determining the process of intuitive argument evaluation (see Table 3). As the results of the stylometric analysis suggest, systemic means of persuasion can be a basis for distinguishing separate argumentative styles or strategies employed by speakers.

We believe our considerations contribute to a more general point that logical analysis should embrace not only deep structures of justification but also surface linguistic phenomena (cf. Hinton 2021). It is crucial for the logical evaluation of argumentation not only how claims and premises are phrased but also how they are linguistically framed to make them more acceptable. We have undoubtedly only scratched the surface and left many issues untouched. Let us mention several issues we consider most important for future research.

First, we see the need for a catalogue, concordance, or dictionary of the most commonly occurring systemic means of persuasion. Sinnott-Armstrong and Awdiejew presented and discussed some of the most prototypical examples. Still, it would be theoretically and practically beneficial to perform more systematic studies and create an inventory of different types of words, phrases, and sentences to get an understanding of the broader spectrum of linguistic devices and their functions.

Second, no less of a need is for in-depth analysis of examples and corpus-based research on systemic means of persuasion in various genres of texts and discourses (e.g., TV debates, scientific articles, social networks, legal and religious discourse). It would most likely allow us to investigate the non-fallacious and fallacious uses of the devices in question and help us understand their relation to other discursive phenomena.

Third, the use of systemic means of persuasion seems to be one of the constitutive elements of “argumentative style” (cf. van Eemeren 2019). For this reason, it seems to be an interesting idea to perform a stylometric analysis of corpora embracing inference markers, systemic

means of persuasion, and other discourse phenomena, which would allow us to distinguish between different types of argumentative styles, but also between various types of competitive debaters and speakers. And last but not least, we recognise the need for empirical studies on the intuitive and expert evaluation of arguments (cf. Szymanek et al. 2016), as well as evaluation of arguments in competitive debates performed by the opposing side, audience, judges, and the participants themselves (cf. Lee and Park 2019, Hill Jr. 1973).

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