

Quasi-Participial *mówiąc* ‘speaking’ with Adverbial Complements in Polish: A Quantitative Corpus-Based Study

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Abstract: This article employs frame semantics, a usage-based model of construction grammar, along with a quantitative corpus-based approach, to examine the characteristics of the construction involving adverbial complements and the quasi-participle *mówiąc* ‘speaking’ in Polish. The author analyzes instances of this construction within the National Corpus of Polish to ascertain its structural, semantic, distributional, and discourse-functional features. Furthermore, the study identifies adverbial complements with a strong affinity for the construction. The investigation reveals that the construction is frequently associated with distinct categories of adverbial complements that invoke diverse semantic frames. Additionally, this construction appears in various registers and serves multiple functions in discourse.

Keywords: adverbial complements, construction, usage-based construction grammar, frame semantics, the National Corpus of Polish, quantitative corpus-based study

1. Introduction and Literature Review

The phenomenon of Polish metatextual expressions, particularly quasi-participles preceded by adverbial phrases (e.g., *ściśle mówiąc* ‘strictly speaking’ or *ogólnie mówiąc* ‘generally speaking’), has gained renewed attention due to the availability of computerized corpora and increased interest in grammatical and functional vocabulary (Stępień 2014; Birzer 2015, 2017; Kubicka 2017; Żabowska 2020). Previous studies have examined their origins (Birzer 2017), lexical status (Bednarek 1989; Weiss 2005; Stępień 2014, 2015), the distinction between [*Adv*] *speaking* and *speaking* [*Adv*] (Żabowska 2020; Wiliński 2025), their functions and prosodic features (Stępień 2014), and the formal and semantic properties of adverbial expressions (Kubicka 2017; Moroz 2007), as well as the conditions for the independent usage of adverbial phrases (Birzner 2012; Kleszczowa 2015; Kubicka 2017). Additionally, some researchers have briefly discussed these expressions, classifying them as parentheticals (Moroz 2010) or particles (Grochowski 2002, 2007; Kisiel and Żabowska 2011). Wróbel (1975), Weiss (2005), and Żabowska (2009) have offered broader analyses, identifying certain expressions as phraseological units or metatextual commentaries.

Dictionary resources have also provided relevant information about these adverbial complement (AC)-*speaking* constructions. For example, Bogusławski and Wawrzyńczyk (1993) identified *delikatnie mówiąc* 'to put it mildly' as a form of mitigating metatextual commentary. The SWJP, ISJP, USJP, and WSJP PAN Polish dictionaries provided lexical classifications, categorizing some expressions as particles, phraseological units, or metatextual operators that aid in text creation (SWJP 1996; ISJP 2000; USJP 2004; WSJP PAN 2006–24).

While traditional research has significantly contributed to our understanding of quasi-participles, it has primarily focused on formal and semantic classifications, frequently neglecting usage dynamics, cognitive processing, and the interconnectedness of constructions. Consequently, adopting a usage-based construction grammar approach could reveal new insights into the status of the AC-*mówiąc* construction. Such a perspective emphasizes actual usage contexts, cognitive representations, relationships with other constructions, frequency-driven entrenchment, and corpus-based evidence, thereby effectively capturing subtle nuances of usage and providing a more comprehensive understanding.

Nevertheless, to date, there has been a noticeable absence of studies analyzing the AC-*mówiąc* construction from a usage-based perspective, particularly through quantitative corpus methodologies. Existing research, such as Kubicka's (2017) semantic classification of ACs, has only provided a basic division of adverbial phrases into evaluative communication markers (e.g., *szczerze* 'sincerely/honestly', *uczciwie* 'honestly', or *otwarcie* 'openly') and communication-altering markers (e.g., *krótko* 'briefly', *ogólnie* 'generally', or *inaczej* 'differently'). While such classifications are informative, they do not fully capture the complexity of constructional usage that usage-based analysis reveals. Therefore, this article aims to (1) confirm the existence of the AC-*mówiąc* construction as a symbolic unit within a constructional cline; (2) provide a comprehensive description of its structural, semantic, pragmatic, distributional, and discourse-functional characteristics; and (3) quantitatively identify ACs that are strongly or weakly associated with this construction.

The rest of the article is structured as follows: Section 2 details the theoretical and methodological frameworks, along with the data sources and analytical procedures. Section 3 analyzes the structural, semantic, distributional, and discourse-functional characteristics of the AC-*mówiąc* construction. Section 4 presents and discusses the quantitative results related to ACs. Finally, Section 5 concludes by summarizing the main findings of the study.

2. Theoretical and Methodological Frameworks

This section outlines the theoretical and methodological frameworks used in this study.

2.1. Theory

This subsection addresses the theoretical issues related to construction grammar and frame semantics.

2.1.1. Construction Grammar

This article applies a usage-based model of construction grammar (see Barlow and Kemmer 2000; Bybee and Beckner 2010; Diessel 2017; Perek 2023) and utilizes the theoretical principles of frame semantics (Fillmore 2006) to identify the formal and semantic characteristics of the construction under study. Construction Grammar (Goldberg 2006, 2013) rests on three main assumptions: grammar comprises pairings of form and meaning (or function), known as constructions; constructions can encompass various levels of complexity and generality; and constructions are interconnected within an extensive network (Diessel 2019). All grammatical units can be defined as constructions as long as they possess non-compositional meanings, non-predictable formal properties, or a high enough frequency to be memorized as such (Goldberg 2006: 5). From a usage-based perspective, the representation of constructions in the minds of individual speakers is believed to emerge from their frequent real-life language usage. Linguistic signs that occur with sufficient frequency become entrenched in a speaker's or hearer's linguistic system, thus acquiring the status of constructions (Croft and Cruse 2004: 292–93).

2.1.2. Frame Semantics

Frame semantics (Fillmore 2006; Fillmore and Baker 2010) is a theory that explores how language relates to conceptual knowledge. It posits that words and phrases derive meaning by activating mental structures called *semantic frames*. These frames represent our understanding of specific situations, events, or domains of knowledge. For example, consider the verb *speak*, which invokes the meaning associated with the STATEMENT frame. In this context, a speaker conveys a particular message on a specific topic to an addressee. The frame includes both core and non-core frame elements (FEs), representing participant roles signaled by particular lexical items that activate this frame. Core FEs, such as *speaker*, *message*, *medium*, and *topic*, are essential in defining the frame's meaning. Conversely, non-core FEs, including *addressee*, *time*, *place*, or *manner*, serve a more peripheral and descriptive function within the frame.

This study utilizes frame semantics to clarify the meanings of the examined construction and the adverbial complements linked to the participle *mówiąc*. The semantic frames of STATEMENT and CANDIDNESS, along with their updated descriptions, are derived from the FrameNet lexical database

(Fillmore, Johnson, and Petruck 2003; hereafter referred to as the “FrameNet project” in data references). These descriptions offer paraphrases that include core-frame elements, typical participants, and roles specific to a particular context.

The author has developed additional frames, including SUMMARIZATION, ASIDE, CONFIDENTIALITY, REPHRASING, UNDERSTATEMENT, ACCURACY, GENERALITY, SIMPLIFICATION, NEGATIVE EVALUATION, POSITIVE EVALUATION, BLUNTNESS, FIGURATIVITY, LITERAL DESCRIPTION, CONVENTIONALITY, COLLOQUIAL STATEMENT, SERIOUSNESS, RELATABILITY, SELF-PROMOTION, PRACTICALITY, ELEVATION, CONTRADICTION, OBJECTIVITY, JEST, BOASTING, and IRONY. These frames aim to define the meanings associated with the ACs and the participle *mówiąc* more precisely. They highlight the connection between the STATEMENT frame and the meaning conveyed by each AC. Consequently, while they inherit the general properties of the STATEMENT frame, their semantic focus is limited to specific styles or manners in which the speaker communicates the message.

A contextualized semantic test was employed to identify the semantic frames associated with ACs in the construction. This test involved analyzing the whole discourse surrounding each instance of the construction to determine whether a particular AC evoked a specific frame, based on its interaction with contextual cues and background knowledge. The identified frames were grouped into two categories: *content-related* and *wording/phrasing-related*. Content-related frames capture the underlying message, intent, or evaluative stance of the utterance, encompassing categories such as SUMMARIZATION, CANDIDNESS, ASIDE, UNDERSTATEMENT, ACCURACY, GENERALITY, and both NEGATIVE and POSITIVE EVALUATION. In contrast, wording/phrasing-related frames focus on the style or structure of the utterance and include categories such as REPHRASING, SIMPLIFICATION, FIGURATIVITY, LITERAL DESCRIPTION, CONVENTIONALITY, and COLLOQUIAL STATEMENT.

However, the distinction between these two frame types is not always clear-cut. Due to the fluid and context-sensitive nature of language, many expressions convey both content and stylistic functions simultaneously, resulting in overlaps between categories. For example, *krótko mówiąc* ‘briefly speaking’ can both summarize content and rephrase it concisely; *szczerze mówiąc* ‘sincerely/honestly speaking’ expresses sincerity while also presenting information in a direct, unembellished manner. Similarly, the ASIDE frame often overlaps with COLLOQUIAL STATEMENTS OF REPHRASING, complicating the interpretation of its primary function. These overlaps reflect the inherent ambiguity and multifunctionality of metatextual expressions, which are influenced by discourse context, speaker intent, and stylistic conventions. Therefore, the semantic frame analysis of these constructions necessitates a flexible, context-aware approach that accommodates the dynamic interplay between meaning and form in actual language use.

2.2. Methodology

This subsection discusses the corpus-based methodology, the origins of the data, the processes of data extraction and quantification, and the tools and procedures used for retrieval and statistical evaluation.

2.2.1. Method

Regarding the methodology, this study employs the attraction and reliance measures introduced by Schmid (2000: 54–55) and further refined by Schmid and Küchenhoff (2013). These measures address the issue of directionality by distinguishing how much a specific lexeme attracts a grammatical construction and how much a lexeme depends on a particular construction. The former proportion metaphorically represents the attraction that the construction exerts on the lexeme, while the latter reflects the lexeme's dependence on the construction. Attraction is calculated by dividing the frequency of a lexeme's occurrence in a construction by the frequency of that construction in the corpus. Conversely, reliance is determined by dividing the frequency of a lexeme's occurrence in a construction by its overall frequency in the entire corpus. Both values are then multiplied by 100 to express the scores as percentages. The calculation is shown in Table 1 on p. 351, which includes examples illustrating the scores for the AC *szczerze* 'sincerely/honestly'. The resulting percentage values obtained from these statistical measures serve as indicators of attraction and reliance. A higher percentage indicates a stronger level of attraction and reliance, while a lower percentage signifies a weaker level of attraction and reliance.

2.2.2. Corpus Data

The data source for this study is a balanced version of the National Corpus of Polish (NKJP). This version comprises an approximately 300 million-word text database containing samples of written and spoken Polish from diverse sources, including classic literature, daily newspapers, specialist periodicals and journals, conversation transcripts, and various transient and internet texts. The PELCRA corpus search engine (Pęzik 2012) was utilized to search the balanced version of the corpus, which encompasses over 250 million textual words, equivalent to approximately 300 million segments.

2.2.3. Data Retrieval and Statistical Assessment

The data retrieval process involved multiple steps. Initially, the frequencies of the participle *mówiąc* were automatically obtained from the NKJP corpus

using the PELCRA search engine. This software system was employed to search all texts within the corpus for instances of the participle within a five-word context and a sample size of 10,000 words. Through this corpus search, concordance lines were directly retrieved and then manually inspected to identify valid combinations of the participle *mówiąc* with adverbs and adverbial phrases. These valid combinations refer to instances that do not indicate the simultaneous occurrence of events with the same subject in two clauses; instead, they represent characteristics of current utterances related to the loss of categorical features of the participle.

Any false combinations indicating co-reference between the subject of the participle and the first argument of the matrix verb were excluded from further analysis. For example, the expression *nieśmiało mówiąc*, meaning ‘shyly speaking’, in the sentence *Daniel pocieszał ją, nieśmiało mówiąc o szacunku dla każdego, nawet upośledzonego życia* ‘Daniel comforted her, shyly speaking about respect for everyone, even for a disabled life’, was considered a false hit because it represented a standard use of the active verb participle *mówiąc*.

The observed frequencies, with “a” representing the frequency of the AC *szczerze* ‘sincerely/honestly’ in the AC-*mówiąc* construction, and “x” representing the total frequency of all ACs in the construction, as shown in Table 1, were manually calculated by examining concordance lines. In contrast, the total frequencies of ACs in NKJP, denoted as “y” for the total frequency of the AC *szczerze*, were automatically computed by the software program.

Subsequently, the observed frequencies (a, x, and y) in Table 1 were entered into an Excel worksheet and used to calculate Schmid’s measures of attraction and reliance, following the methodology described by Wiliński (2021). Attraction was determined by dividing the raw frequency of each AC in the AC-*mówiąc* construction by the total frequency of all ACs in this construction, while reliance was calculated by dividing the frequency of an AC’s occurrence in the construction under study by its frequency of occurrence in NKJP, in accordance with Schmid’s (2000: 54) approach. The scores for attraction and reliance were then expressed as percentages by multiplying the raw frequency of a specific AC in the AC-*mówiąc* construction by one hundred. These percentage results were treated as indices of attraction or reliance, with a higher percentage indicating a stronger attraction to and reliance on the AC-*mówiąc* construction (cf. Wiliński 2021).

A quick look at Table 1 immediately reveals that the word *szczerze* ‘sincerely/honestly’ appears 1,786 times in the AC-*mówiąc* pattern. Consequently, its attraction score is also high, at 16.29%, indicating that this adverb accounts for 16.29% of all AC uses in the specific construction being discussed. In simpler terms, *szczerze* is strongly associated with the AC-*mówiąc* construction. However, as indicated in the last column, its reliance score is higher than its attraction score, standing at 19.22%. This percentage suggests that only 19.22% of occurrences of *szczerze* can be observed in the AC-*mówiąc* construction com-

Table 1. Frequency data for a statistical analysis

AC	a	x	y	attraction	reliance
<i>szczerze</i>	1786	10965	9291	16.29 %	19.22 %

(a = The frequency of the AC *szczerze* 'sincerely' in the AC-*mówiąc* construction;

x = The total frequency of all ACs in the construction;

y = The total frequency of the AC *szczerze* in NKJP)

pared to other contexts within the corpus. Consequently, it can be inferred that *szczerze* depends on other patterns for most of its usage, accounting for 80.78%. In other words, it appears more frequently in contexts other than the AC-*mówiąc* construction. The calculation results were sorted based on the attraction score and subjected to qualitative analysis.

3. The AC-*mówiąc* Construction

Extensive empirical evidence derived from corpus analysis, including over 10,000 attested instances of *mówiąc* 'speaking' combined with various ACs, supports the recognition of the AC-*mówiąc* construction as a distinct and cognitively entrenched unit in contemporary Polish. Frequent and recurrent forms such as *krótko mówiąc* 'briefly speaking' (1,826 occurrences) provide quantitative grounding for the construction's status. The rationale for positing the AC-*mówiąc* construction as a symbolic unit rests on three interrelated factors: semantic and functional specialization, structural idiosyncrasy, and partial schematicity.

First, the construction's meaning and function are not strictly predictable from its component parts. It possesses specific functional characteristics associated with a metatextual expression (Ożóg 1990; Birzer 2017), parenthetical expression (Moroz 2007; Stępień 2014), or discourse structuring element (Birzer 2012, 2015). Thus, it fulfills a discourse-managing, rather than purely descriptive, role. This behavior can be explained through the principle of coercion (Michaelis 2004: 25), whereby semantically incongruent lexical items are adapted to fit the morphosyntactic context. In the AC-*mówiąc* construction, ACs such as *nawiasem* 'parenthetically/incidentally', *krótko* 'briefly', and *szczerze* 'sincerely/honestly' are often coerced into functioning not merely as modifiers but also as discourse markers, shifting their role from conveying adverbial information to structuring discourse. These expressions typically signal transitions, introduce supplementary remarks, or frame the speaker's stance, resulting in a semantic enrichment that exceeds the sum of their parts. However, the strength of coercion is not uniform across all ACs. While some

ACs (*krótko* ‘briefly’, *szczerze* ‘sincerely/honestly’, *delikatnie* ‘delicately/mildly’, and *inaczej* ‘differently’) combine freely with different forms of *mówić* ‘speak’, others exhibit clear restrictions (e.g., *mówiąc nawiasem* ‘speaking incidentally/parenthetically’ seems ungrammatical), supporting a clinal (graded) model of coercibility. This variation lends empirical weight to Żabowska’s (2020) distinction between *unitées concrètes*—conventionalized, idiomatic expressions—and the results of syntactic operations.

Complementing coercion, the principle of preemption (Boyd and Goldberg 2011) explains why certain expressions become dominant. Highly frequent and idiomatic combinations, such as *nawiasem mówiąc* ‘parenthetically speaking’ and *szczerze mówiąc* ‘sincerely speaking’, “preempt” alternative constructions, becoming the preferred means of conveying specific discourse functions due to their clarity, rhetorical efficiency, and conventional status. Through repeated usage, these expressions become entrenched in speakers’ mental grammars, contributing to the formation of a partially schematic construction.

Secondly, the AC-*mówiąc* construction exhibits structural irregularity. It is quasi-participial (Stępień 2015) and displays formal and syntactic constraints that distinguish it from related participial expressions, such as the reverse-order *mówiąc*-AC construction (e.g., *mówiąc żargonem piłkarskim* ‘speaking in football jargon’, *mówiąc słowami Pascala* ‘speaking in Pascal’s words’, or *mówiąc slangiem* ‘speaking in slang’). Unlike standard participles, the AC-*mówiąc* construction typically resists transformation into subordinate clauses, is prosodically marked off, and refers to the speech act itself rather than to the events described in the discourse (cf. Weiss 2005: 182–88).

Thirdly, the construction is partially schematic, consisting of a fixed element—the participle *mówiąc*—and a variable slot accommodating a range of adverbial complements. These complements include adverbs (e.g., *szczerze* ‘sincerely/honestly’), nouns in the instrumental or accusative case (e.g., *nawiasem* ‘parenthetically/incidentally’, *prawdę* ‘truth’), and prepositional phrases (e.g., *między nami* ‘between us’, *w skrócie* ‘in short’), selected according to specific semantic and syntactic criteria. The construction’s usage in discourse is illustrated by the following examples from NKJP, with the participial unit italicized:

- (1) *Nawiasem mówiąc*, Kaligula to przydomek Gajusza Cezara.

‘By the way, Caligula is a nickname of Gaius Caesar.’

(*Gazeta Wyborcza*)¹

- (2) Ja nie pamiętam, *szczerze mówiąc*.

‘I don’t remember, *to be honest*.’

(*O jurze i górach*)

¹ Details regarding the sources of the examples are given in the Appendix (p. 377).

(3) Ja, *prawdę mówiąc*, ociągałem się z jej potępieniem.

'In truth, I procrastinated her condemnation.'

(Oni)

These examples reveal a consistent bipartite structure: one component consists of the participial construction, which can be positioned at the beginning, inserted medially, or placed at the end of the clause; the second component is the main finite clause. Notably, the participial construction requires an overt adverbial complement: the omission of the AC results in an ungrammatical or highly unnatural structure (**Ja nie pamiętam, mówiąc*, with the intended meaning 'I do not remember, speaking'). Thus, the selection of appropriate ACs within this construction is semantically and pragmatically constrained.

In sum, empirical evidence, frequency, semantic specialization through coercion and preemption, structural idiosyncrasy, and partial schematicity converge to support the recognition of the AC-*mówiąc* construction as a cognitively entrenched, functionally specialized construction in modern Polish.

3.1. Structural, Semantic, and Functional Characteristics

The prototypical syntactic structure of this construction is symbolized as [AC *mówiąc*, FINITE CLAUSE], as portrayed in Table 2 on p. 354. The adverbial phrase and the participle introduce an adverbial participle clause, which serves as a disjunct (Quirk et al. 1985)—also referred to as a stance adverbial (Biber et al. 1999) or modal adjunct (Halliday 2004)—encompassing the speaker's intention, interpersonal meaning, and perspective regarding the message. Hence, the principal communicative function of this adverbial participle construction is to indicate the speaker's stance or attitude regarding the message and to comment on the style or form of the utterance.² This frequently provides insight into how the speaker conveys the message or how the utterance should be understood.

This construction may be considered optional within discourse segments, as it operates beyond the structural confines of a complete sentence, as illustrated in examples (1–3). Nonetheless, this participial construction significantly influences the entire sentence in most cases, such as the aforementioned examples. Essentially, the adverbial clause introduces an interpersonal comment on the content or style of the comprehensive proposition. A comma indicates a pause between sentence components and separates the adverbial participle clause from the finite clause. The finite clause commonly employs a topic-comment structure, signifying states or occurrences. It begins with a defined subject, presenting familiar information, followed by a comment (predicate) introducing new information.

² For similar functions of disjuncts, see Quirk et al. (1985) and Biber et al. (1999).

Semantically, diverse instances (1–3) evoke the STATEMENT frame, where a speaker imparts a distinct message about a specific topic to an implied addressee in a particular manner or style. The participle construction denotes the manner of speaking, while the finite clause conveys the message regarding the specific topic. The finite clause's subject (topic) and predicate (comment) communicate a precise message. The addressee is implicitly included in the entire sentence. These distinctive features of the construction are succinctly summarized in Table 2.

Table 2. Features of the prototypical AC-*mówiąc* construction

Form	an adverbial participle clause: AC + the present participle <i>speaking</i>	(,)	finite clause (subject + predicate)
Meaning	the STATEMENT frame	a comma	states/activities/ achievements/ accomplishments/
Function	a disjunct, stance adverbial, or mood adjunct	a punctuation mark indicating a slight pause or transition	topic/comment; given/new

3.2. Alternative Structures

Two distinct alternative structures can be observed in the corpus. The first structure is characterized by the omission of the adverbial participle clause, where specific adverbial phrases are sporadically used independently as stylistic elements to indicate a manner of speech or convey a speaker's attitude. Examples include *krótko* 'briefly', *szczerze* 'sincerely/honestly', *nawiasem* 'parenthetically/incidentally', *inaczej* 'differently', *ściślej* 'more strictly', *ogólnie* 'generally', and *dokładniej* 'more accurately', among others. These forms primarily appear at the beginning of sentences, suggesting a structural limitation or preference in their usage. This positioning could be significant in setting the tone, context, or subject of the following sentence. These adverbials function more as linkages to previous discourse rather than as disjuncts, implying they are more integrative in nature. Rather than standing apart from the main sentence to provide separate commentary or perspective (as disjuncts typically do), these forms connect more directly to the preceding context or discourse. This suggests that they are used to build upon, contrast with, or otherwise

relate to what has already been said. These characteristics might affect the meaning conveyed by these single adverbials compared to their counterparts with *mówiąc*. The absence of *mówiąc* could lead to a more seamless integration into the flow of discourse, potentially altering the emphasis, tone, or interpretive nuances. Although such instances are relatively infrequent, the following examples are noticeable in the corpus:

- (4) *Krótko*: doświadczenia z lat chłopięcych sprawiły, że umiałem się bić i to naprawdę skutecznie.
'Briefly: experiences from my boyhood years made it so that I knew how to fight, and quite effectively at that.' (Tkacz iluzji)
- (5) *Szczerze*, w ogóle w tym temacie nie pracowałem.
'Honestly, I haven't worked on this topic at all.' (Gazeta Wyborcza)
- (6) *Nawiasem*, rodzice Edwarda są wyznania prawosławnego, ale z powodu braku cerkwi chodzą do katolickiego kościoła.
'By the way, Edward's parents are of the Orthodox faith, but due to the lack of an Orthodox church, they attend a Catholic church.' (Tygodnik Podhalański)
- (7) *Inaczej*: mój pościg świadczy o mnie.
'Differently put: my pursuit speaks for me.' (Narrenturm)

Such independent occurrences may stem from the high frequency of each adverbial expression and its meaning (cf. Kubicka 2017). Bybee's (2006; see also Bybee and Hopper 2001) research showed that expressions with high frequency tend to undergo phonological reduction more quickly than those with low frequency. This results from the brain's improved recognition through repetition (cf. Bybee 2006: 714). Morphologically complex forms that are frequently used might lose their inherent structure and free themselves from their original forms (Bybee 2006: 715). The increasing frequency of altered forms, in turn, arises from their utility within the communication system, essentially their meaning (cf. Schmid 2010: 117). Additionally, according to Birzer (2012: 242), the omission of the quasi-participle is possible when the adverb relates to the form of the utterance (*dokładniej* 'more accurately' or *ściślej* 'more strictly') or the speaker's attitude towards it (*szczerze* 'sincerely/honestly' or *uczciwiej* 'more honestly').

Furthermore, nearly all of the adverbial phrases that fulfill the role of disjuncts possess corresponding structures employing the participle 'speaking' within the corpus. Nevertheless, in contrast to the standard configuration of the participle construction (e.g., *krótko mówiąc* 'briefly speaking' or *szczerze mówiąc* 'sincerely speaking'), the present participle in these similar structures

precedes the adverbial phrases, thereby forming an adverbial clause featuring a present participle, as exemplified in (8) and (9):

- (8) *Mówiąc szczerze*, ja też nie mam zbyt wielu doświadczeń.
 ‘Honestly speaking, I also don’t have too many experiences.’ (Tabu)
- (9) *Mówiąc krótko*—odczułem, co to jest strach przed faktami.
 ‘In short, I felt what it’s like to be afraid of facts.’ (Nie tylko biegun)

These alternative configurations exhibit significantly lower occurrence rates compared to the participle constructions denoted as *krótko mówiąc* ‘briefly speaking’ or *szczerze mówiąc* ‘sincerely speaking’. To illustrate, the phrase *krótko mówiąc* is found 1,826 times within the NKJP corpus, whereas *mówiąc krótko* appears only 344 times. Similarly, *szczerze mówiąc* ‘sincerely speaking’ is much more prevalent than *mówiąc szczerze*, with respective frequencies of 1,786 and 384 instances. This pattern applies to other phrases such as *prawdę mówiąc* ‘truth speaking’, *nawiasem mówiąc* ‘parenthetically speaking’, *inaczej mówiąc* ‘differently speaking’, *właściwie mówiąc* ‘actually speaking’, *ściślej mówiąc* ‘more strictly speaking’, *delikatnie mówiąc* ‘delicately speaking’, *ogólnie mówiąc* ‘generally speaking’, *najkrócej mówiąc* ‘most briefly speaking’, or *najogólniej mówiąc* ‘most generally speaking’, all of which occur more frequently than the reverse-order *mówiąc prawdę* ‘speaking truth’ (24 occurrences), *mówiąc nawiasem* ‘speaking incidentally/parenthetically’ (49 occurrences), *mówiąc inaczej* ‘speaking differently’ (301 occurrences), *mówiąc właściwie* ‘speaking actually’ (1 occurrence), *mówiąc ściślej* ‘speaking more strictly’ (72 occurrences), *mówiąc delikatnie* ‘speaking delicately’ (160 occurrences), *mówiąc ogólnie* ‘speaking generally’ (93 occurrences), *mówiąc najkrócej* ‘speaking most briefly’ (73 occurrences), or *mówiąc najogólniej* ‘speaking most generally’ (69 occurrences). In addition to the distributional properties, Żabowska’s (2020) study revealed that both constructions differ in their syntactic and semantic properties. These differences include the set and form of permissible adverbials, acceptable adverbial transformations, coexistence with negation, and their function. Specifically, [Adv] *mówiąc* functions as a metatextual unit of the system, while *mówiąc* [Adv] results from a quasi-participial operation.

Wiliński’s (2025) in-depth, distinctive collexeme analysis of both the *mówiąc*-AC construction and the AC-*mówiąc* construction has provided new insights into their usage, roles in discourse, and semantic limitations. The comparative quantitative study highlights significant distinctions between the two. The *mówiąc*-AC construction, for instance, is less common in the corpus, recorded 4,434 times, yet it exhibits a broader variety of AC associations, totaling 208 distinct types. Impressively, 78 of these ACs are uniquely identified with this construction, suggesting that the *mówiąc*-AC construction is

more productive than the AC-*mówiąc* construction, as evidenced by its diverse range of ACs. Furthermore, the research reveals marked differences in the semantic restrictions applied to the ACs within each construction. While there is some overlap in ACs shared by both constructions, the study's focus on analyzing the most strongly associated lexemes of these constructions uncovers their different semantic patterns and preferences.

The *mówiąc*-AC construction, for example, does not typically collocate with *lekko* 'lightly' and is seldom used with *prawdę* 'truth' (24 occurrences), *nawiasem* 'parenthetically/incidentally' (49 occurrences), and *właściwie* 'actually' (1 occurrence). However, it frequently occurs with terms like *językiem* 'in the language of' (e.g., *sportowym*) 'in (sports) terms' (350 occurrences), *wprost* 'directly' (324 occurrences), *obrazowo* 'figuratively' (135 occurrences), *poważnie* 'seriously' (134 occurrences), *w skrócie* 'in short' (125 occurrences), *prościej* 'more simply' (103 occurrences), *serio* 'seriously' (74 occurrences), *kolokwialnie* 'colloquially' (74 occurrences), *słowami* 'in one's words' (61 occurrences), *w uproszczeniu* 'in simplification' (54 occurrences), *po prostu* 'simply' (53 occurrences), *bez ogródek* 'bluntly' (25 occurrences), *żargonem* (e.g., *prawniczym*) 'in (legal) jargon' (16 occurrences), *w przenośni* 'figuratively' (12 occurrences), *banalnie* 'banally' (11 occurrences), *ostrożnie* 'cautiously' (5 occurrences), and many others. Therefore, the primary role of this construction in discourse is to highlight the use of specialized jargon or terminology, make complex concepts more understandable, introduce figurative language, stress the importance of seriousness or sincerity in communication, offer further explanations or concise summaries, create a casual, friendly, or informal atmosphere, and approach sensitive or delicate subjects with tact and thoughtfulness.

In contrast, the AC-*mówiąc* construction is more selective in its ACs and is generally used to emphasize honesty, introduce side remarks, summarize points, or moderate language. This construction avoids certain terms such as *słowami* 'in one's words', *bez ogródek* 'bluntly', *żargonem* 'in jargon', *w przenośni* 'figuratively', *banalnie* 'banally', *pół żartem pół serio* 'half-jokingly, half-seriously', and *jaśniej* 'more clearly'. Moreover, it is rarely used with expressions like *językiem* 'in the language of' (4 occurrences), *wprost* 'directly' (3 occurrences), *serio* 'seriously' (3 occurrences), *w uproszczeniu* 'in simplification' (6 occurrences), *po prostu* 'simply' (6 occurrences), *precyzyjnie* 'precisely' (9 occurrences), *prosto* 'simply' (5 occurrences), *skrótowno* 'concisely' (4 occurrences), *fachowo* 'professionally' (1 occurrence), *dosadnie* 'bluntly/frankly' (2 occurrences), *żartem* 'jokingly' (2 occurrences), and several others. However, it shows a distinct preference for others, including *prawdę* 'truth', *nawiasem* 'parenthetically/incidentally', *krótko* 'briefly', *szczerze* 'sincerely/honestly', *inaczej* 'differently', *właściwie* 'actually', *ściślej* 'more strictly', *delikatnie* 'delicately/mildly', *lekko* 'lightly', *generalnie* 'generally', *ściśle* 'strictly', and *najłagodniej* 'most gently/mildly'. The five most common terms (*prawdę*, *nawiasem*, *krótko*, *szczerze*, and *inaczej*) account for 8,177 occurrences within this construction.

Table 3. The distribution of the twenty ACs across six registers

Rank	ACs	Translation	jour	qu-sp	lit	Net-int	sc-di	conv
1.	krótko	briefly	614	534	244	44	67	7
2.	prawdę	truth	591	187	655	63	20	2
3.	szczerze	sincerely/ honestly	684	295	228	334	8	58
4.	nawiasem	in parentheses/ incidentally	635	232	207	86	28	3
5.	inaczej	differently	452	301	84	28	163	1
6.	delikatnie	delicately	329	135	46	34	1	0
7.	ściślej	more strictly	114	59	45	1	28	0
8.	ogólnie	generally	78	38	11	20	11	3
9.	dokładniej	more accurately	35	19	15	5	8	0
10.	najkrócej	most briefly	85	30	3	11	5	0
11.	najogólniej	most generally	78	31	1	4	15	0
12.	właściwie	actually	5	1	66	0	0	0
13.	najprościej	most simply	60	9	6	1	7	0
14.	ściśle	strictly	19	15	25	1	5	0
15.	między nami	between us	13	8	47	0	0	1
16.	ogłędnie	cautiously	46	11	9	2	4	0
17.	łagodnie	mildly	33	7	4	1	1	0
18.	uczciwie	honestly	13	13	13	1	1	0
19.	brzydko	crudely/ bluntly	13	14	1	4	1	4
20.	najdelikat- niej	most delicately	20	12	4	0	0	0

(jour = journalism; qu-sp = quasi-spoken; lit = literature; Net-int = Internet-interactive; sc-di = scientific-didactic; conv = conversation)

Consequently, these expressions are not merely regarded as instances of the AC-*mówiąc* construction, but as distinct constructions in their own right, characterized by their high frequency and standard usage, which reinforces their role in specific communication contexts as established linguistic units.

3.3. Distributional Properties

Regarding the distribution of the AC-*mówiąc* construction across distinct registers within NKJP, Table 3 on p. 358 presents the recorded frequencies of the 20 most noteworthy ACs collocating with the participle *mówiąc* across six selected registers that comprise the corpus: journalism, literature, spoken conversation, quasi-spoken texts (including parliamentary transcripts), Internet sources (forums, chatrooms, mailing lists, etc.), and academic writing and scientific-didactic textbooks. Additionally, Figure 1 on the following page, created using Matplotlib in Python from the data in Table 3, visually illustrates the distribution of these ACs across different genres within the construction in question. The heatmap in Figure 1 employs varying color intensities, from white (lower frequencies) to darker blues (higher frequencies), to indicate the frequency of each AC in each genre, providing clear insights into which ACs are most commonly used in each genre and identifying genres where specific ACs occur more frequently.

A more thorough examination of the frequencies in Table 3 and Figure 1 reveals that the aforementioned construction predominantly appears in journalism, is relatively frequent in quasi-spoken texts, tends to occur often in literature, is less common in Internet sources and scientific-didactic texts, and is exceptionally rare in conversational contexts. Additionally, Table 3 and Figure 1 illustrate considerable disparities in the distribution of the discussed constructions in NKJP. For instance, pairings involving *krótko* 'briefly', *szczerze* 'sincerely/honestly', *nawiasem* 'parenthetically/incidentally', *inaczej* 'differently', *delikatnie* 'delicately/mildly', and many others show a higher prevalence in journalism and quasi-spoken discourse compared to literature. In contrast, the usage patterns involving *prawdę* 'truth', *właściwie* 'actually', *ściśle* 'strictly', and *między nami* 'between us' exhibit significantly greater frequencies in literature than in other linguistic registers. Furthermore, combinations such as *prawdę*, *szczerze*, *nawiasem*, and *delikatnie* appear more frequently in Internet sources than in scholarly and conversational contexts. Finally, configurations involving *krótko* 'briefly', *inaczej* 'differently', *ściślej* 'more strictly', *dokładniej* 'more accurately', *najogólniej* 'most generally', or *najprościej* 'most simply' are relatively more prevalent in scientific discourse compared to Internet sources and conversational language.

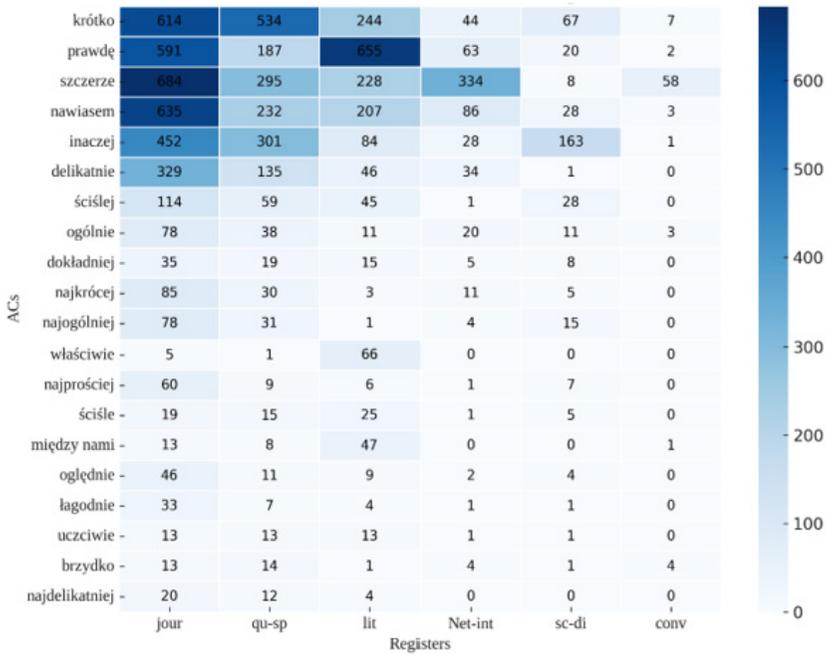


Figure 1. Visualization of the distribution of ACs across different genres

4. Results and Discussion

The initial frequencies of ACs extracted from the corpus included 130 distinct AC types, of which 46 appeared only once within the *AC-mówiąc* construction. However, due to space limitations in this context, this section will primarily analyze the quantitative findings regarding the 60 most highly attracted ACs within the construction. Nonetheless, some less attractive ACs and their frequencies of occurrence will also be mentioned in passing to provide a more comprehensive overview of the construction's usage patterns. Presented in Table 4 on p. 362 are the attraction and reliance scores for the 60 most noteworthy ACs, including the raw frequency of ACs within the construction, the overall frequency of all ACs within the construction, and the comprehensive frequency of these ACs across the entire corpus.

The quantitative data and results in both tables are organized and ranked according to the measure of attraction. These findings support the hypothesis that specific ACs are strongly associated with the *AC-mówiąc* construction. A brief analysis of the results indicates that the upper portion of Table 4 consists of ACs with notably high frequencies, such as *krótko* 'briefly', *prawdę* 'truth', *szczerze* 'sincerely/honestly', and *nawiasem* 'parenthetically/incidentally'. The most plausible explanation for the prominent positioning of these ACs in the

ranking is their substantial overall frequency within the NKJP corpus, which presumably significantly influences the statistical likelihood of their occurrence in the specific construction. For instance, due to their higher frequencies within the construction being studied, *krótko* 'briefly' (attraction score 16.65%) and *prawdę* 'truth' (attraction score 16.32%) achieved significantly higher attraction scores compared to *konkretnie* 'concretely/specifically' (attraction score 0.17%) and *potocznie* 'colloquially' (attraction score 0.16%).

In comparison, excluding *nawiasem* 'parenthetically/incidentally' (reliance score 84.21%), the ranking list for reliance reveals significantly higher scores associated with less common ACs that collocate with the construction. Typical examples include *najogólniej* 'most generally' (reliance score 24.58%), *najdelikatniej* 'most delicately' (reliance score 25.50%), and *najogłędniej* 'most cautiously' (reliance score 45.65%, as seen in Table 4). The underlying rationale for these substantial percentages stems from the statistical analysis employed to gauge reliance, which considered the overall frequency of each lexeme within the NKJP corpus. To elaborate, despite the higher frequency of *krótko* 'briefly' compared to *najogłędniej* 'most cautiously' within the specific construction, the latter secures a notably higher reliance score due to its lower frequency in NKJP (46 occurrences). Consequently, the reliance of *najogłędniej* on the AC-*mówiąc* construction holds greater significance (45.65%). *Nawiasem*, on the other hand, relies extensively on this pattern, appearing frequently within the construction (1,525 occurrences) and less regularly in alternative contexts across the corpus (286 occurrences).

4.1. ACs Introducing a Summary

The ACs listed in Table 4 can be categorized into distinct semantic groups. The first group consists of ACs that evoke the SUMMARIZATION frame. In this frame, a speaker concisely conveys a message to a recipient, providing a summary or succinct explanation of the key points or ideas previously discussed, as demonstrated in the examples below:

- (10) W telewizji oglądałem sport, ale, [*krótko*]_{MANNER} *mówiąc*, [często wydawał mi się nudny]._{MESSAGE}
 'I was watching sports on TV, but, *in short*, it often seemed boring to me.'
 (Polityka)
- (11) [*W skrócie*]_{MANNER} *mówiąc*, [celem jest kształtowanie ludzi, a nie fabrykowanie uczniów]._{MESSAGE}
 'In short, the goal is to shape individuals, not manufacture students.'
 (Dziennik Zachodni)

Table 4. The 60 most strongly attracted ACs of the AC-*mówiąc* construction

Rank	ACs	Translation	a	x	y	Attraction	Reliance
1.	krótko	briefly	1826	10965	14599	16.65%	12.51%
2.	prawdę	truth	1789	10965	10861	16.32%	16.47%
3.	szczerze	sincerely/honestly	1786	10965	9291	16.29%	19.22%
4.	nawiasem	parenthetically/ incidentally	1525	10965	1811	13.91%	84.21%
5.	inaczej	differently	1251	10965	42079	11.41%	2.97%
6.	delikatnie	delicately	588	10965	4560	5.36%	12.89%
7.	ściślej	more strictly	320	10965	1744	2.92%	18.35%
8.	ogólnie	generally	179	10965	7490	1.63%	2.39%
9.	dokładniej	more accurately	153	10965	2698	1.40%	5.67%
10.	najkrócej	most briefly	150	10965	770	1.37%	19.48%
11.	najogólniej	most generally	146	10965	594	1.33%	24.58%
12.	właściwie	actually	129	10965	33736	1.18%	0.38%
13.	najprościej	most simply	97	10965	1039	0.88%	9.34%
14.	ściśle	strictly	93	10965	7827	0.85%	1.19%
15.	między nami	between us	86	10965	2881	0.78%	2.99%
16.	ogłędnie	cautiously	76	10965	341	0.69%	22.29%

(a = frequency of the AC *krótko* in the AC-*mówiąc* construction; x = total frequency of all ACs in the construction; y = total frequency of the AC *krótko* in NKJP)

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<i>—continued—</i> Rank	ACs	Translation	a	x	y	Attraction	Reliance
17.	łagodnie	mildly	59	10965	2193	0.54%	2.69%
18.	uczciwie	honestly	47	10965	2645	0.43%	1.78%
19.	brzydko	crudely/bluntly	38	10965	714	0.35%	5.32%
20.	najdelikatniej	most delicately	38	10965	149	0.35%	25.50%
21.	poważnie	seriously	38	10965	11327	0.35%	0.34%
22.	dokładnie	accurately	37	10965	31063	0.34%	0.12%
23.	generalnie	generally	32	10965	8005	0.29%	0.40%
24.	obrazowo	figuratively	25	10965	566	0.23%	4.42%
25.	umownie	conventionally	23	10965	493	0.21%	4.67%
26.	najogólniej	most cautiously	21	10965	46	0.19%	45.65%
27.	w skrócie	in short	20	10965	2691	0.18%	0.74%
28.	kolokwialnie	colloquially	20	10965	156	0.18%	12.82%
29.	konkretnie	specifically	19	10965	4993	0.17%	0.38%
30.	potocznie	colloquially	17	10965	1130	0.16%	1.50%
31.	nieładnie	improperly	15	10965	576	0.14%	2.60%
32.	precyzyjniej	more precisely	14	10965	242	0.13%	5.79%
33.	brutalnie	brutally/bluntly	13	10965	1864	0.12%	0.70%
34.	prościej	more simply	13	10965	794	0.12%	1.64%

(a = frequency of the AC *krótko* in the AC-*mówiąc* construction; x = total frequency of all ACs in the construction; y = total frequency of the AC *krótko* in NKJP)

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<i>-continued-</i> Rank	ACs	Translation	a	x	y	Attraction	Reliance
35.	popularnie	popularly	12	10965	718	0.11%	1.67%
36.	eufemistycznie	euphemistically	12	10965	160	0.11%	7.50%
37.	po ludzku	humanly	12	10965	963	0.11%	1.25%
38.	lekkو	lightly	11	10965	11005	0.10%	0.10%
39.	najłagodniej	most mildly	11	10965	70	0.10%	15.71%
40.	szerszej	more broadly	10	10965	3274	0.09%	0.31%
41.	precyzyjnie	precisely	9	10965	4002	0.08%	0.22%
42.	żartobliwie	jokingly	9	10965	977	0.08%	0.92%
43.	innymi słowy	in other words	8	10965	2435	0.07%	0.33%
44.	nieskromnie	immodestly	7	10965	249	0.06%	2.81%
45.	konkretniej	more specifically	7	10965	187	0.06%	3.74%
46.	po prostu	simply	6	10965	63360	0.05%	0.01%
47.	w uproszczeniu	in simplification	6	10965	515	0.05%	1.17%
48.	z grubsza	roughly	6	10965	1166	0.05%	0.51%
49.	otwarcie	openly	5	10965	10864	0.05%	0.05%
50.	prosto	simply	5	10965	9864	0.05%	0.05%
51.	elegancko	elegantly	4	10965	1364	0.04%	0.29%
52.	dosadniej	more bluntly/frankly	4	10965	100	0.04%	4.00%

(a = frequency of the AC *krótko* in the AC-*mówiąc* construction; x = total frequency of all ACs in the construction; y = total frequency of the AC *krótko* in NKJP)

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<i>continued</i> Rank	ACs	Translation	a	x	y	Attraction	Reliance
53.	jednym słowem	in one word	4	10965	2539	0.04%	0.16%
54.	skrótowo	concisely	4	10965	342	0.04%	1.17%
55.	praktycznie	practically	4	10965	16316	0.04%	0.02%
56.	patetycznie	pathetically	4	10965	225	0.04%	1.78%
57.	paradoksalnie	paradoxically	4	10965	2267	0.04%	0.18%
58.	ogólniej	more generally	4	10965	95	0.04%	4.21%
59.	obiektywnie	objectively	4	10965	1457	0.04%	0.27%
60.	metaforycznie	metaphorically	4	10965	157	0.04%	2.55%

(a = frequency of the AC *krótko* in the AC-*mówiąc* construction; x = total frequency of all ACs in the construction; y = total frequency of the AC *krótko* in NKJP)

The most prominent term within this semantic category is *krótko* 'briefly', which ranks at the top. It exhibits an attraction to the pattern in 16.65% of cases and relies on it in 12.51%. It is accompanied by the following ACs: *najkrócej* 'most briefly' (ranked 10th), *w skrócie* 'in short' (ranked 27th), *jednym słowem* 'in one word' (ranked 53rd), and *skróto* 'concisely' (ranked 54th). Additionally, four other ACs can be identified in the corpus: *lapidarnie* 'succinctly' (two occurrences), *lakonicznie* 'laconically' (two occurrences), *krócej* 'more briefly' (two occurrences), *hasłowo* 'in a slogan-like manner' (two occurrences), and *pokrótce* 'briefly' (one occurrence). All these ACs condense complex or lengthy content into a more manageable and digestible form, capturing the main points and essence of what was previously stated.

4.2. ACs Introducing a Candid Statement

The second category consists of ACs invoking the CANDIDNESS frame. In this frame, a speaker conveys their message about a specific topic honestly, considering the veracity and sincerity of the message, as exemplified in (2), (3), (5), and (12).

- (12) [*Uczciwie*]_{MANNER} *mówiąc*, [*nie da się tego czytać.*]_{MESSAGE}
 'Honestly speaking, it's unreadable.' (Gazeta Poznańska)

The term *prawdę* 'truth' in rank 2, preceding *szczerze* 'sincerely/honestly' in rank 3 and *uczciwie* 'honestly' in rank 18, serves as the primary expression invoking this particular semantic frame and is distinguished as the most strongly attracted lexeme within this semantic category (with an attraction score of 16.32%). Additionally, *otwarcie* 'openly' ranks 49th, and *dosadniej* 'more bluntly/frankly' ranks 52nd, both of which also appear to evoke this frame. Two other words conveying similar meanings are *prawdziwie* 'truly' and *najuczciwiej* 'most honestly', which display singular occurrences within the structure. These phrases signal that the upcoming statement is meant to be forthright and truthful, often providing insight into the speaker's inner thoughts or beliefs. They emphasize the intention of transparent communication and are commonly used to establish a sincere and open tone in discourse.

4.3. ACs Introducing an Aside

The lexeme *nawiasem* 'parenthetically/incidentally' holds the fourth position in the ranking list. This is followed by *między nami* 'between us' and *na marginesie* 'by the way', which occupy ranks 15 (86 occurrences) and 61 (four occurrences), respectively. *Nawiasem* constitutes 13.91% of all occurrences of the construction being investigated within the corpus. Furthermore, it demonstrates

a significant dependence on this pattern (with a reliance score of 84.21%), indicating its use in other contexts to a relatively minor extent, comprising 16.47% of its usage.

Collectively, these lexemes evoke the *ASIDE* frame. In this frame, the speaker provides additional information, shares personal comments, or makes asides that may not be directly related to the main topic of conversation but are still relevant or interesting to share, as shown in (1) above and (13) below.

- (13) [*Między nami*]_{MANNER} *mówiąc*, [to niektórzy są teraz trochę
rozczarowani.]_{MESSAGE}
'Between us, some are now slightly disappointed.' (Początek)

The phrases *na marginesie mówiąc* 'by the way speaking', *między nami mówiąc* 'between us speaking', and *nawiasem mówiąc* 'parenthetically speaking' frequently introduce a shift in focus or provide context for the upcoming statement, helping to create a more personal or conversational tone in discourse. Notably, the phrase *między nami mówiąc* seems to invoke the *CONFIDENTIALITY* frame. This frame involves discreetly or secretly sharing information, typically intended solely for those engaged in the conversation rather than for public or widespread dissemination.

4.4. ACs Introducing a Restatement

The next lexeme in the ranking is *inaczej* 'differently', which occupies the fifth position. A similar meaning is conveyed by *innymi słowy* 'in other words' at rank 43. Both of these lexemes evoke the semantic frame of *REPHRASING*. In this frame, the speaker or writer selects alternative words, sentence structures, or expressions to convey the same information or idea more clearly, concisely, or stylistically differently, as illustrated in (14).

- (14) [*Inaczej*]_{MANNER} *mówiąc*, [bez cechy planowości nie ma budżetu.]_{MESSAGE}
'Put differently, without the attribute of planning, there is no budget.'
(Finanse publiczne)

The phrase *inaczej mówiąc* 'differently speaking' is used to enhance comprehension, avoid repetition, emphasize a particular point, or adapt the language to suit the context or audience.

4.5. ACs Introducing an Understatement

Another semantic category comprises ACs that evoke the semantic frame of *UNDERSTATEMENT*. This frame involves a speaker presenting a statement in a

way that deliberately downplays the significance, impact, or severity of a situation, often employed for rhetorical purposes or to soften the tone of the expression, as exemplified in (15).

- (15) [*Delikatnie*]_{MANNER} *mówiąc*, [on mija się z prawdą i nie wspomina o kosztach.]_{MESSAGE}

'To put it mildly, he is not being truthful and doesn't mention the cost.'

(*Trybuna*)

Ranked sixth, *delikatnie* 'delicately/mildly' is the most significant lexeme in this category. It is followed by *ogłędnie* 'cautiously', *łagodnie* 'mildly', *najdelikatniej* 'most delicately', *najogłędniej* 'most cautiously', *lekko* 'lightly', *najłagodniej* 'most gently/mildly', *subtelnie* 'subtly', *łagodniej* 'more mildly', and *subtelniej* 'more subtly', which are positioned at ranks 16, 17, 20, 26, 38, 39, 86, 92, and 99, respectively. These ACs imply that the truth or situation is more extreme or important than what is explicitly stated, thereby creating a sense of understated emphasis or irony.

4.6. ACs Introducing an Accurate Statement

The seventh position is occupied by *ściśle* 'more strictly'. It is accompanied by a set of synonymous ACs, including *dokładniej* 'more accurately', *właściwie* 'actually', *ściśle* 'strictly', *dokładnie* 'accurately', *konkretnie* 'concretely/specifically', *precyzyjniej* 'more precisely', *precyzyjnie* 'precisely', and *konkretniej* 'more specifically/concretely', which are ranked at the 9th, 12th, 14th, 22nd, 29th, 32nd, 41st, and 45th positions, respectively. These ACs occupy subsequent positions in the ranking list, signifying varying degrees of precision and specificity. Consequently, they can be defined relative to the ACCURACY frame. In this frame, a speaker introduces a statement that aims to provide a more detailed, exact, or specific description, emphasizing a high level of correctness or precision in the information conveyed, as provided in (16).

- (16) [*Ściśle*]_{MANNER} *mówiąc*: [mój wstyd i moja wina.]_{MESSAGE}

'To be more precise: my shame and my fault.'

(*Kultura*)

4.7. ACs Introducing a General Statement

The ranking list also includes ACs such as *ogólnie* 'generally' (ranked 8th), *najogólniej* 'most generally' (ranked 11th), *generalnie* 'generally' (ranked 23rd), *popularnie* 'popularly' (ranked 35th), *szerzej* 'more broadly' (ranked 40th), *z grubsza* 'roughly' (ranked 48th), *ogólniej* 'more generally' (ranked 58th), *szeroko* 'broadly' (ranked 73rd, with two occurrences), and *ogółem* 'overall' (ranked

113th, with one occurrence), invoking the GENERALITY frame. In this frame, a speaker provides a broad or general overview or statement before delving into specific details, as illustrated in (17). It signals that the upcoming statement or explanation will cover a wide scope and may not address every possible exception or nuance.

- (17) [*Ogólnie*]_{MANNER} *mówiąc*, [*jest źle, bardzo źle.*]_{MESSAGE}
 'Generally speaking, it's bad, very bad.' (Tygodnik Tucholski)

4.8. ACs Introducing a More Straightforward Explanation

The next category comprises ACs that evoke the SIMPLIFICATION frame. This frame accentuates the speaker's intent to break down complex ideas into more easily understandable elements, thereby improving access to information and fostering clarity and simplicity in communication, as illustrated in (18). Among these, *najprościej* 'most simply' ranks 13th and holds the utmost significance within this category. It is followed by *prościej* 'more simply', *po prostu* 'simply', *w uproszczeniu* 'in simplification', *prosto* 'simply', *trywialnie* 'trivially' (three occurrences), and *najbanalniej* 'most simply' (two occurrences), which are ranked at 34th, 46th, 47th, 50th, 66th, and 80th, respectively.

- (18) [*Zajmujemy się, [najprościej]*]_{MANNER} *mówiąc*, *zmianami pola grawitacyjnego ziemi.*_{MESSAGE}
 'We deal with, *simply put*, changes in the Earth's gravitational field.'
 (Gazeta Wrocławska)

4.9. ACs Introducing a Positive or Negative Evaluation

Another group comprises ACs related to both the NEGATIVE AND POSITIVE EVALUATION frames. The first frame is invoked by *brzydko* 'crudely/bluntly', *nieładnie* 'improperly', *ordynarnie* 'rudely' (one occurrence), *ordynarniej* 'more rudely' (one occurrence), ranked 19th, 31st, 110th, and 111th, respectively. On the other hand, the second frame is represented by *eufemistycznie* 'euphemistically', *elegancko* 'elegantly', *ładnie* 'nicely' (three occurrences), and *pięknie* 'beautifully' (one occurrence), ranked 36th, 51st, 64th, and 89th, respectively. In the former frame, a speaker introduces a statement that may be considered tactless, rude, impolite, offensive, or morally questionable due to its bluntness or lack of refinement, as exemplified in (19). In contrast, the latter frame introduces a more polite, euphemistic, or diplomatic way of expressing something that might otherwise be perceived as impolite, harsh, or harmful. This indicates that the speaker opts for milder or less direct phrasing for the sake of tact or

courtesy, even if the actual situation may warrant a stronger description, as demonstrated in (20).

- (19) [Po drugie, mają na niego [*brzydko*]_{MANNER} *mówiąc*, haka.]_{MESSAGE}
 ‘Secondly, they have, *to put it crudely*, dirt on him.’ (Nakielski Czas)
- (20) Handel żywym towarem, czyli—[*elegancko*]_{MANNER} *mówiąc*—transfery,
 stały się zjawiskiem powszechnym.
 ‘Human trafficking, or—*to put it elegantly*—transfers, has become a
 common phenomenon.’ (CKM)

These ACs offer nuanced ways to introduce statements based on factors such as directness, propriety, diplomacy, harshness, and sophistication, each contributing a specific tone, connotation, or context to the communication. For example, in (19), *brzydko mówiąc* introduces a direct, straightforward, or potentially harsh description. It implies that the speaker is about to express something in a more candid or unvarnished manner, without euphemisms or softened language. In contrast, in (20), *elegancko mówiąc* introduces a statement that might involve a graceful, refined, or stylish manner of expression. A negative evaluation is also expressed by *brutalnie* ‘brutally/bluntly’, ranked 33rd. *Brutalnie mówiąc* evokes the BLUNTNESS semantic frame, indicating that the following statement will be delivered in a direct, honest, and straightforward manner, without concern for softening or sugar-coating the content. It implies that the speaker intends to be forthright, even if it might sound harsh or uncomfortable.

4.10. ACs Introducing a Figurative or Literal Explanation

The next group includes ACs that can be interpreted relative to the FIGURATIVITY and LITERAL DESCRIPTION frames. The FIGURATIVITY frame is represented by *obrazowo* ‘figuratively’ (ranked 24th), *metaforycznie* ‘metaphorically’ (ranked 60th), *symbolicznie* ‘symbolically’ (ranked 74th, with two occurrences), and *przenośnie* ‘figuratively’ (ranked 104th, with one occurrence). Meanwhile, the LITERAL DESCRIPTION is invoked by *dosłownie* ‘literally’ (ranked 125th, with one occurrence).

In the first frame, a speaker uses figurative or symbolic language, often incorporating metaphors and vivid imagery to convey a more imaginative and illustrative message. For example, the phrase *obrazowo mówiąc* ‘figuratively speaking’ in (21) suggests that the ensuing statement should be interpreted beyond its literal meaning, emphasizing creative language to evoke a specific mental image or emotional response.

- (21) [*Obrazowo*]_{MANNER} *mówiąc*, [jesteśmy jak chłopak, który w garażu rozkręcił motocykl.]_{MESSAGE}
 'Figuratively speaking, we are like a boy who disassembled a motorcycle in the garage.'
 (*Lato nieśmiertelnych*)

In the second frame, the speaker aims to describe a concept or situation clearly and accurately without incorporating imaginative or metaphorical elements. For example, the phrase *dostownie mówiąc* 'literally speaking' presents information straightforwardly and factually, lacking imagination and avoiding metaphorical interpretation, as demonstrated in *Nagle, dostownie mówiąc, budynek zawalił się* 'Suddenly, the building, literally speaking, collapsed'.

4.11. ACs Introducing Conventional Usage

The next lexeme following *obrazowo* 'figuratively' in the ranking list is *umownie* 'conventionally', which is ranked 25th. This lexeme, along with three others—*tradycyjnie* 'traditionally' (ranked 94th, occurring once), *zwyczajnie* 'ordinarily/customarily' (ranked 93rd, occurring once), and *normalnie* 'normally' (ranked 115th, occurring once)—can be associated with the CONVENTIONALITY frame. In this frame, a speaker uses language that aligns with established norms, standard practices, widely accepted meanings, or agreed-upon understandings within a particular culture or community, as illustrated in (22).

- (22) [W kolejnym pojedynku Unia pokonała, na [*umownie*]_{MANNER} *mówiąc* swoim torze Polonię Piła 72:19.]_{MESSAGE}
 'In the next match, Unia defeated Polonia Piła with a score of 72:19, conventionally speaking, on their home track.'
 (*Gazeta Pooznańska*)

In this context, *umownie mówiąc* implies that the term *swój tor* 'home track' may not refer to the team's literal home but is used in a way that is generally understood or accepted within the context of speedway or the conversation.

4.12. ACs Introducing Colloquial Usage

The bottom of the ranking list in Table 4 also includes *kolokwialnie* 'colloquially' and *potocznie* 'colloquially' at ranks 28 and 30. The meanings of these adverbs can be defined relative to the COLLOQUIAL STATEMENT frame. In this frame, a speaker introduces a sentence or utterance crafted in a casual, conversational style, employing language typical of informal spoken communication. For example, *kolokwialnie mówiąc* in (23) indicates that the upcoming information reflects natural conversation or everyday speech. This adds a touch of familiarity and relatability to the sentence while acknowledging that the

description might not be the most precise or detailed; rather, it serves as an accessible and simplified means of conveying the idea.

- (23) [Nie wygraliśmy tego meczu, myśmy go, [kolokwialnie]_{MANNER} mówiąc, przepchnęli.]_{MESSAGE}
 ‘We didn’t win this match; we, *colloquially speaking*, pushed it through.’
 (*Życie Podkarpackie*)

Similarly, *pospolicie* ‘commonly’, ranking 78th and occurring twice in the corpus, also conveys a comparable meaning. It indicates that the subsequent statement is easily understandable and clearly presented, often using colloquial language.

4.13. Other ACs

Within the ranking list, notable lexemes include individual ACs, namely *poważnie* ‘seriously’, *po ludzku* ‘humanly’, *żartobliwie* ‘jokingly’, *nieskromnie* ‘immodestly’, *praktycznie* ‘practically’, *patetycznie* ‘pathetically’, *paradoksalnie* ‘paradoxically’, and *obiektywnie* ‘objectively’, occupying ranks 21, 37, 42, 44, 55, 56, 57, and 59, respectively. The meanings of these ACs can be attributed to various distinct semantic frames.

The first AC evokes the **SERIOUSNESS** frame, as in (24). In this sentence, the speaker approaches the topic without frivolity or humor, indicating that the forthcoming information should be taken seriously, with no intention of jest or lightheartedness. The meaning of *po ludzku* ‘humanly’ can be interpreted relative to the **RELATABILITY** frame, in which a speaker states an opinion about a certain entity or state of affairs by highlighting that the ensuing statement is expressed in a manner that is relatable, understandable, and pertinent to human experiences, as demonstrated in (25).

- (24) [Interesują nas od wielu lat tylko, [poważnie]_{MANNER} mówiąc, sprawy społeczne.]_{MESSAGE}
 ‘We have been interested in social matters for many years, *speaking seriously*.’
 (*Trybuna Śląska*)
- (25) [Po ludzku]_{MANNER} mówiąc, [im człowiek starszy, tym chętniej poprawia i uzupełnia, co raz napisał.]_{MESSAGE}
 ‘*Speaking in human terms*, the older a person gets, the more willingly they revise and supplement what they once wrote.’
 (*Polityka*)

The adverb *żartobliwie* ‘jokingly’ evokes the **JEST** frame, as reflected in (26). In this frame, the speaker adopts a humorous or jesting tone while formu-

lating a playful or amusing comment, prompting the audience to interpret the statement with a touch of lightheartedness rather than as a strictly literal assertion. *Nieskromnie* 'immodestly' can be described in terms of the semantic frame of SELF-PROMOTION OR BOASTING. In this frame, the speaker conveys a message highlighting their achievements or positive qualities, even if they lack humility. For example, as in (27), the addition of *nieskromnie* suggests that the speaker is about to make a statement that might be perceived as immodest or self-aggrandizing. *Praktycznie* 'practically' invokes the PRACTICALITY frame. In this frame, a speaker presents a complicated topic or situation in a manner that emphasizes its practicality, usefulness, or applicability in real-life scenarios, as in (28). *Patetycznie* represents the frame of ELEVATION, in which the speaker uses elevated or grandiloquent language to convey a sense of seriousness, significance, or solemnity, as presented in (29).

- (26) [Ci uczniowie to, [żartobliwie]_{MANNER} mówiąc, tacy półwariaci, którym nieustannie buzują hormony]_{MESSAGE} (...) 'These students, *jokingly speaking*, are a bit eccentric, with hormones constantly in a frenzy (...)' (Polityka)
- (27) [I to było takie zadanie, które wymagało, no, [nieskromnie]_{MANNER} mówiąc, gruntownej wiedzy prawniczej.]_{MESSAGE} 'It was such a task that required, well, *immodestly speaking*, a thorough legal knowledge.'
- (28) [W debacie nad informacją o źródłach (...), a [praktycznie]_{MANNER} mówiąc, o funkcjonowaniu funduszy pomocowych w Polsce, przedstawiam]_{MESSAGE} (...) 'In the debate on the information regarding the sources (...), and *practically speaking*, about the functioning of aid funds in Poland, I propose that (...)' (Sprawozdanie stenograficzne z obrad Sejmu RP)
- (29) [Patetycznie]_{MANNER} mówiąc, [historia daje Kaczyńskiemu i Tusкови szansę, jakiej nie było bodaj od 1989 roku.]_{MESSAGE} 'Pathetically speaking, one might say that history is granting Kaczyński and Tusk an opportunity that arguably has not been present since 1989.' (Ozon)

The meaning of *paradoksalnie* 'paradoxically' can be described in relation to a semantic frame associated with CONTRADICTION OR IRONY. Within this frame, a speaker introduces a statement that may initially seem contradictory or counterintuitive given the context; however, it is presented to highlight an unexpected or ironic aspect. For example, *paradoksalnie mówiąc* in (30) illustrates the paradox between the teaching of love and the necessity of dying on

the cross, adding an element of irony or surprise to the statement. Additionally, *obiektywnie* 'objectively' is used in this construction to convey that the statement following it aims to be presented from an objective, unbiased standpoint, free from personal emotions or subjective opinions, as in (31). Thus, the semantic frame it evokes is that of OBJECTIVITY. In this context, the speaker seeks to present information or a situation without personal biases or emotions, concentrating on the facts and maintaining a neutral tone.

- (30) [*Paradoksalnie*]_{MANNER} *mówiąc*, [musiał umierać na krzyżu, bo nauczał, że Bóg jest Miłością i trzeba kochać swoich nieprzyjaciół.]_{MESSAGE}

'Paradoxically speaking, he had to die on the cross because he taught that God is Love and one must love their enemies.'

(*Czy Jezus to powiedział? Zagadki ewangeliczne*)

- (31) [*Obiektywnie*]_{MANNER} *mówiąc*, [służyło to dezintegracji komunistycznego państwa i przybliżyło jego totalny krach.]_{MESSAGE}

'Objectively speaking, this served the disintegration of the communist state and brought its complete collapse closer.'

(*Edward Gierek: życie i narodziny legendy*)

5. Concluding Remarks

The primary objective of this research was to explore the inherent qualities of the AC-*mówiąc* construction, an adverbial participial structure that has not been examined using frame semantics, usage-based construction grammar, and quantitative corpus-based linguistics. Diverging from prior publications that primarily focused on the most prevalent instances of its usage, this empirical study offers fresh perspectives on the construction itself and its preference for specific categories of ACs. Consequently, this study significantly advances our understanding of the AC-*mówiąc* construction across diverse linguistic fields.

Firstly, the findings reveal that the AC-*mówiąc* construction is a partially schematic pattern, pairing form and meaning/function in its own right. This allows hearers and readers to identify combinations such as *krótko mówiąc* 'briefly speaking' or *nawiasem mówiąc* 'in parentheses speaking' as conventional expressions. These combinations can be treated as constructs, representing the concrete instances or tokens that the construction instantiates. The pattern can be viewed as a cognitive schema, generalization, abstract type, or mental representation that captures the construction's general features. This schema includes one fixed component (the participle *mówiąc*) and a more flexible slot that can accommodate certain ACs but not others (e.g., the instrumentals *słowami* 'in one's words', *żargonem* 'in jargon', or *slangiem* 'in slang'). The

construction displays substantial variation in the lexical items that can appear in the adverbial slot and in the grammatical units that instantiate it. This constructional schema is very productive, allowing speakers to generate creative utterances and process new complex expressions based on that construction with a high degree of cognitive ease. The productivity of the construction is manifested through its high type frequency and the occurrence of low-frequency instantiations. The corpus evidence shows that the construction is represented by 130 types, with a significant portion of these types (68) appearing fewer than four times in the construction.

Secondly, this study offers a fresh perspective on both the discourse function of the construction and the semantics of ACs appearing in the adverbial slot of this specific construction. It provides a more detailed classification of adverbial expressions based on semantic frames and their specific functions within these frames. The AC-*mówiąc* construction effectively conveys a structured implication, wherein a speaker communicates a specific message on a particular topic to an intended recipient in a defined manner or style. This construction serves various roles in discourse. Broadly speaking, it functions as a pragmatic marker within discourse, allowing speakers to comment on the manner or style used to convey the message and, in turn, express their perspectives, attitudes, positions, intentions, or viewpoints regarding the statement. Furthermore, it performs diverse functions within discourse, depending on the adverbs or adverbial phrases associated with the construction.

For example, the AC-*mówiąc* construction is frequently used in discourse to introduce summaries (e.g. *krótko mówiąc* 'briefly speaking', *najkrócej mówiąc* 'most briefly speaking', or *w skrócie mówiąc* 'in short speaking'), candid statements (*prawdę mówiąc* 'truth speaking', *szczerze mówiąc* 'sincerely/honestly speaking', or *uczciwie mówiąc* 'honestly speaking'), asides (*na marginesie mówiąc* 'by the way speaking', *między nami mówiac* 'between us speaking', and *nawiasem mówiąc* 'parenthetically speaking'), restatements (*inaczej mówiąc* 'differently speaking' and *innymi słowy mówiąc* 'in other words speaking'), understatements (*delikatnie mówiąc* 'delicately/mildly speaking', *ogłędnie mówiąc* 'cautiously speaking', or *łagodnie mówiąc* 'mildly speaking'), accurate statements (*ściślej mówiąc* 'more strictly speaking', *dokładniej mówiąc* 'more accurately speaking', or *precyzyjnie mówiąc* 'precisely speaking'), general statements (*ogólnie mówiąc* 'generally speaking', *najogólniej mówiąc* 'most generally speaking', or *generalnie mówiąc* 'generally speaking'), simpler explanations (*najprościej mówiąc* 'most simply speaking', *prościej mówiąc* 'more simply speaking', or *w uproszczeniu mówiąc* 'in simplification speaking'), positive or negative evaluations (*brzydko mówiąc* 'crudely/bluntly speaking', *nieładnie mówiąc* 'improperly speaking', *ordynarnie mówiąc* 'rudely speaking', *eufemistycznie mówiąc* 'euphemistically speaking', *elegancko mówiąc* 'elegantly speaking', or *ładnie mówiąc* 'nicely speaking'), figurative or literal explanations (*obrazowo mówiąc* 'figuratively speaking', *metaforycznie mówiąc* 'metaphorically speaking',

symbolicznie mówiąc ‘symbolically speaking’, or *dostownie mówiąc* ‘literally speaking’), conventional usage (*umownie mówiąc* ‘conventionally speaking’, *tradycyjnie mówiąc* ‘traditionally speaking’, or *zwyczajnie mówiąc* ‘ordinarily speaking’), and colloquial usage (*kolokwialnie mówiąc* ‘colloquially speaking’ or *potocznie mówiąc* ‘colloquially speaking’). In addition, it is occasionally used to convey seriousness (*poważnie mówiąc* ‘seriously speaking’), introduce a human perspective (*po ludzku mówiąc* ‘humanly speaking’), add humor or playfulness (*żartobliwie mówiąc* ‘jokingly speaking’), express immodesty (*nieskromnie mówiąc* ‘immodestly speaking’), suggest practicality (*praktycznie mówiąc* ‘practically speaking’), employ elevated language for seriousness (*patetycznie mówiąc* ‘pathetically speaking’), signal paradox (*paradoksalnie mówiąc* ‘paradoxically speaking’), and present objective information (*obiektywnie mówiąc* ‘objectively speaking’). Interestingly, unlike its English counterpart, this construction is not generally used to specify a particular field of reference (e.g., politically, geographically, or historically speaking). The only exceptions to this norm are *teologicznie* ‘theologically’, *psychicznie* ‘psychologically’, *nowomodnie* ‘fashionably’, and *sądownie* ‘judicially’, all of which appear once in the construction.

Thirdly, the findings of this study reveal that the construction exhibits a notable tendency to co-occur with distinct categories of ACs, invoking the following semantic frames: STATEMENT, CANDIDNESS, SUMMARIZATION, ASIDE, CONFIDENTIALITY, REPHRASING, UNDERSTATEMENT, ACCURACY, GENERALITY, SIMPLIFICATION, NEGATIVE EVALUATION, POSITIVE EVALUATION, BLUNTNES, FIGURATIVITY, LITERAL DESCRIPTION, CONVENTIONALITY, COLLOQUIAL STATEMENT, SERIOUSNESS, RELATABILITY, SELF-PROMOTION, PRACTICALITY, ELEVATION, CONTRADICTION, OBJECTIVITY, JEST, BOASTING, OR IRONY. Many of these ACs have not been previously recognized in discussions regarding the use of adverbial expressions, while others (such as *ogłędnie* ‘cautiously’, *nieskromnie* ‘immodestly’, *żartobliwie* ‘jokingly’, *w uproszczeniu* ‘in simplification’, *popularnie* ‘popularly’, *eufemistycznie* ‘euphemistically’, *elegancko* ‘elegantly’, or *patetycznie* ‘pathetically’) have only been briefly mentioned as associated elements of the participle *mówiąc*.

Fourthly, the findings of the current investigation have significantly enhanced our understanding of the distributional characteristics of the AC-*mówiąc* construction across various linguistic registers. To illustrate, the analysis of its prevalence across the six genres within the National Corpus of Polish (NKJP) has revealed that this construction primarily appears in journalism. It maintains a relatively frequent presence in quasi-spoken texts and demonstrates a tendency for fairly frequent occurrences in literature as well. On the other hand, it shows a comparatively lower frequency in Internet sources and in texts of a scientific-didactic nature. Notably, it is infrequent in conversational contexts.

Lastly, the current usage-based study has significantly enhanced our understanding of the pattern’s status while providing a plausible rationale for

its recurrent pairing with specific adverbial types. Regarding its status, the AC-*mówiąc* pattern satisfies all the criteria outlined by Goldberg (2006) and Hilpert (2019) for identifying a linguistic pattern as a construction: It possesses sufficient frequency, deviates from canonical participle forms, exhibits idiosyncratic features, displays partial non-compositionality of meaning, and shows a collocational preference for specific categories of adverbs and adverbial expressions. The main explanation for the frequent co-occurrence of the identified ACs with the participle *mówiąc* may stem from the construction's semantics and its discourse functions. Nevertheless, the repeated use of these ACs within the pattern could potentially reinforce and influence its semantic and discourse-functional characteristics, ultimately leading to its entrenchment as a distinct symbolic unit—specifically, a combination of form and meaning/function. In other words, the frequent use of various AC types in this construction and the high token frequency of prototypical constructions (e.g., *krótko mówiąc* 'briefly speaking' with 1,826 occurrences) appear to contribute to the solidification of the AC-*mówiąc* schema, thereby establishing the constructional status of this pattern.³

In conclusion, it is essential to consider several caveats when interpreting these findings. Firstly, this investigation was based solely on corpus data sourced from the NKJP. Secondly, the quantitative evidence for all ACs that co-occur with *mówiąc* could not be thoroughly analyzed due to spatial limitations. Thirdly, a detailed comparative analysis of the distribution patterns between this construction and the *mówiąc*-AC construction was not feasible in this study. Consequently, future research endeavors may involve comparing this construction with alternative structures to detect subtle differences in distributional usage. Furthermore, it would be beneficial to explore the occurrence of this construction in different languages, specifically focusing on uncovering subtle variations in its use across various forms of written and spoken registers.

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³ For a similar perspective, refer to Casenhiser and Goldberg (2005), Arnon and Snider (2010), and Goldberg (2019).

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Appendix: Sources of Examples

- (1) Source: *Gazeta Wyborcza*; Title: "Kolczyki Izoldy"; Author: Jarosław Krawczyk; Publication date: 2 December 1994; Register: Journalism/Daily newspaper.
- (2) Source: *O jutrze i górach*; Register: Spoken/Casual conversation.
- (3) Source: *Oni*; Author: Teresa Torańska; Publication date: 1985; Register: Publicism/Book.
- (4) Source: *Tkacz iluzji*; Author: Ewa Białołęcka; Publication date: 2004; Register: Literature/Book.
- (5) Source: *Gazeta Wyborcza*; Author: Piotr Lipiński; Publication Date: 26 September 1997; Register: Journalism/Daily newspaper.
- (6) Source: *Tygodnik Podhalański nr 19*; Author: Lenur Junusow; Publication date: 1999; Register: Journalism/Weekly newspaper.
- (7) Source: *Narrenturm*; Author: Andrzej Sapkowski; Publication date: 2002; Register: Literature/Book.
- (8) Source: *Tabu*; Author: Kinga Dunin; Publication Date: 1998; Register: Literature/Book.
- (9) Source: *Nie tylko biegun*; Authors: Marek Kamiński, Wojciech Moskał, Sławomir Swerpel; Publication Date: 1996; Register: Nonfiction/Book.
- (10) Source: *Polityka nr 2337*; Author: Lech Wałęsa; Publication date: 16 February 2002; Register: Journalism/Weekly newspaper.
- (11) Source: *Dziennik Zachodni*; Publication date: 24 March 2004; Register: Journalism/Daily newspaper.
- (12) Source: *Gazeta Poznańska*; Title: "Wzloty i knoty"; Author: KOT; Publication date: 22 November 2003; Register: Journalism/Daily newspaper.
- (13) Source: *Początek*; Author: Andrzej Szczypiorski; Publication date: 1986; Register: Literature/Book.

- (14) Source: *Finanse publiczne*; Author: Owsiak Stanisław; Publication date: 1998; Register: Scientific-didactic/Book.
- (15) Source: *Trybuna*; Publication date: 2006; Register: Journalism/Daily newspaper.
- (16) Source: *Kultura nr 11*; Author: K. A. Jeleński; Publication date: 1976; Register: Journalism/Monthly.
- (17) Source: *Tygodnik Tucholski nr 752*; Authors: Kamilla Szablewska, Lucyna Zdanowska; Publication date: 2006; Register: Journalism/Weekly newspaper.
- (18) Source: *Gazeta Wrocławska*; Author: Palacz P. Rafał; Publication date: 8 November 2003; Register: Journalism/Daily newspaper.
- (19) Source: *Gazeta Wrocławska*; Author: Palacz P. Rafał; Publication date: 9 November 2003; Register: Journalism/Daily newspaper.
- (20) Source: *CKM nr 05/05*; Author: Jerzy Andrzejczak; Publication date: 2000; Register: Journalism/Monthly.
- (21) Source: *Lato nieśmiertelnych*; Author: Mariusz Ziomecki; Publication date: 2002; Register: Literature/Book.
- (22) Source: *Gazeta Pooznańska*; Title: "Sport Leszno"; Authors: Arkadiusz Kaczmarek, Andrzej Bartkowiak; Publication date: 4 May 2002; Register: Journalism/Daily newspaper.
- (23) Source: *Życie Podkarpackie*; Title: "Krok od kompromitacji"; Author: Mariusz Godos; Publication date: 22 November 2006; Register: Journalism/Weekly newspaper.
- (24) Source: *Trybuna Śląska*; Title: "Grają i rozśmieszają"; Author: Maciej Kołodziejczyk; Publication date: 27 December 2002; Register: Journalism/Daily newspaper.
- (25) Source: *Polityka nr 2514*; Title: "Cień Miłosza"; Author: Jerzy Pilch; Publication date: 30 July 2005; Register: Journalism/Weekly newspaper.
- (26) Source: *Polityka nr 249*; Title: "13–16–19"; Publication date: 16 April 2005; Register: Journalism/Weekly newspaper.
- (27) Title: "Stenogram z 49. posiedzenia Komisji Śledczej 23 lutego 2005 r."; Author: Kancelaria Sejmu Rzeczypospolitej Polskiej; Publication date: 2005; Register: Quasi-spoken/Stenographic record.
- (28) Source: *Sprawozdanie stenograficzne z obrad Sejmu RP*; Title: "Sprawozdanie stenograficzne z obrad Sejmu RP z dnia 07.02.1997, 2 kadencja, 100 posiedzenie, 3 dzień"; Author: Kancelaria Sejmu Rzeczypospolitej Polskiej; Publication date: 1997; Register: Quasi-spoken/Shorthand report.
- (29) Source: *Ozon nr 24*; Title: "Szansa na IV RP"; Author: Piotr Semka; Publication date: 2005; Register: Journalism/Weekly newspaper.

(30) Source: *Czy Jezus to powiedział? Zagadki ewangeliczne*; Author: Mieczysław Maliński; Publication date: 2003; Register: Nonfiction/Book.

(31) Source: *Edward Gierek: życie i narodziny legendy*; Author: Janusz Rolicki; Publication date: 2002; Register: Nonfiction/Book.

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