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# Rhetorical Styles in Knowledge Communication

## Introduction

Style is one of the core notions of culture. It appears in fashion, art, and architecture. It is used in language and in linguistics, in literature, and in literary studies, in rhetoric, and in rhetorical research. Just as the general category of “text” manifests in specific genre instances, so does the general category of “style – in specific stylistic instances, i.e. in different styles.

Style can be studied at various levels of generality. Depending on the theoretical framework adopted, several basic styles are distinguished. At ever lower levels of generality, more and more differences (e.g. intra-stylistic variants) are taken into account. With increased detailing, one can examine the individual style of a given author (after all, “the style is the man himself”, as Georges-Louis Leclerc de Buffon once famously said).

To a large extent, it is the subject matter and style of communication of research by scientists that determines what journalists as recipients of their texts will continue to publicize in the media. Therefore, both journalists and scientists could enrich their professional performance by applying the rhetorical perspective to interpreting the style of scientific texts. The rhetorical model enables one to highlight different persuasive resources employed in texts written in either the plain, middle or grand styles.

## Style as a focus of research

Stylistics is distinguished as a separate area of research, with its own metalanguage, concepts and research directions.<sup>1</sup> From the point of view of the methodology of

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<sup>1</sup> Vide, e.g. B. Bogołębska, “Proces wyodrębniania się teorii stylu na przełomie wieku XIX na XX”, *Stylistyka* 1993, issue 2, pp. 163–171; eadem, *Tradycje retoryczne w stylistyce polskiej. Narodziny*

style research, it is useful to recall two ways of functioning of conceptual schemes.<sup>2</sup> Despite the differences between them, a certain degree of adequacy is expected between the conceptual framework and empirical material in both.

Within the former, the schemes may *reflect* the already existing organisation of material: therefore, they refer to nature and its laws (e.g. describing and explaining the law of gravity). Within the traditional perspective, they refer to Aristotle and Thomas Aquinas' definition of truth as adequacy of reality and cognition (*adaequatio rei et intellectus*).

In the latter case, it is schemes that *organise* material: they offer various rules for dividing and hierarchization, which define complex and heterogenic phenomena and make them understandable (e.g. cultural phenomena, including style). Therefore, it is not a question of the one truth but of applicable conceptualisations made from different points of view, considering various criteria and characteristics. The proposed schemes entail a certain degree of organisational adequacy, yet one pattern does not disprove another. Thus, they can coexist, as each of them offers different cognitive benefits, and as each is constructed according to different assumptions and criteria regarding the organisation of material. If a given ordering principle turns out to be *useful* (not true, because it cannot be), it is a sufficient criterion to consider the scheme as helpful and to include it in the repertoire of tools for learning and acting. That is why various concepts of style coexist at different levels of generality and use different criteria.<sup>3</sup>

## Rhetorical concepts of style

The authors of scientific texts are seldom specialists in rhetoric, nor could they name the techniques they apply. However, as Quintilian argued:

It is not [...] that when we publish handbooks, we invent some modes of arguing; in fact, everything which was offered as a recipe had its practical application with orators, and only later did theoreticians extract and collect all that and publish it as a whole. [...] the creators [...] of norms are those who spoke [...].<sup>4</sup>

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*discipliny*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 1996; eadem., *Studia o stylistyce i retoryce*, Studio Graf, Zgierz 2001; on the academic style vide, e.g. S. Gajda, *Podstawy badań stylistycznych nad językiem naukowym*, PWN, Warszawa 1982.

<sup>2</sup> The division was discussed in D. Davidson, *Inquiries into truth and interpretation*, Clarendon Press, Oxford 1984, pp. 183–198; vide also M. Załęska, *Retorica della linguistica. Scienza, struttura, scrittura*, Peter Lang, Frankfurt am Main etc. 2014, pp. 181–183.

<sup>3</sup> Vide, e.g. B. Bogotebska, "Romantyczny model retoryki i nauki o stylu. Przegląd problematyki", *Acta Universitatis Lodziensis. Folia Litteraria Polonica* 1998, issue 1, pp. 139–152.

<sup>4</sup> Quintilian, *Institutionis oratoriae libri XII*, 5, 10, 24, I quoted after: M. Korolko, *Sztuka retoryki. Przewodnik encyklopedyczny*, Wiedza Powszechna, Warszawa 1990, p. 31 [Unless indicated otherwise, English quotations were translated from Polish].

Scientists are practitioners who create standards in the field of scientific communication methods. Their ways of communicating scientific knowledge, despite their specificity, can, however, be described within the rhetorical framework. The rhetorical approach includes co-existing conceptual schemes that articulate the conceptual area of 'style.' Theoretical distinctions regarding style were discussed in important rhetorical treatises, such as Aristotle's *Rhetoric*,<sup>5</sup> in the works of his student and successor Theophrastus,<sup>6</sup> in Cicero's texts<sup>7</sup> and in *Rhetorica ad Herennium*<sup>8</sup> written by an unknown author, but for centuries erroneously credited to Cicero.

Each speaker during the speech has three tasks (*officia oratoris*) to fulfill: to teach / to prove (*docere / probare*), to delight (*delectare*), and to evoke emotions of the listeners (*movere*). The speaker frames his/her message in one of three kinds of expression (*genera dicendi*): judicial kind (*genus iudiciale*), demonstrative kind (*genus demonstrativum*) and deliberative kind (*genus deliberativum*). The kind of expression influences the author's decisions primarily in the field of *inventio*, i.e. at the stage of constructing argument. However, as part of the third stage of text preparation – i.e. seeking the proper linguistic-stylistic form (*elocutio*) – the speaker has at his/her disposal three types of style (*genera elocutionis*): the plain style (*genus humilis*), the middle style (*genus medium*), and the grand style (*genus grande / grave / sublime*).

In *Rhetorica ad Herennium*, speakers were advised to consider two factors when developing their texts: the intention and the topic. The author's intention is to accomplish mainly one of the above-mentioned three tasks of the speaker. Each task has its counterpart at the level of kinds of expression (*genera dicendi*) and the kinds of style (*genera elocutionis*). Then, the nature of a discussed topic, being a consequence of appropriateness (*aptum/decorum*),<sup>9</sup> which is one of the recommended qualities of *elocutio*, requires the speaker to choose the adequate style.

As in the case of any abstract notion, the purity of a model is achieved through reduction, simplification or omission of individual features and by highlighting general tendencies (*one* task of the speaker, *one* kind of expression, *one* style). However,

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5 Aristotle, *Retoryka. Retoryka dla Aleksandra. Poetyka*, trans. H. Podbielski, Wydawnictwo Naukowe PWN, Warszawa 2004.

6 In some studies it was Theophrastus who was credited with the greatest influence on the development of the theory of three levels of style (plain, middle and grand) and their specific applications in various text genres (vide the entry "retorica" [in:] <http://www.treccani.it/enciclopedia/retorica/> [accessed on: 15.09.2018]).

7 Vide, e.g. Marek Tulliusz Cynceron, *O mówcy*, trans. B. Awianowicz, Wydawnictwo Marek Dęrewiecki, Kęty 2010.

8 *Ad C. Herennium: de ratione dicendi (Rhetorica ad Herennium) [Cicero]*, trans. from English by H. Caplan, Harvard University Press, Cambridge MA / William Heinemann, London 1989.

9 The *aptum/decorum* models were discussed in M. Worsowicz, *O "duchu stosowności". Teoria retoryczna a współczesna praktyka medialna*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2013.

since the writing of texts is a creative act performed in a continuously evolving culture, the practice of communication reveals more complex than the idealised standard. The author may for example try to fulfil more than one task (e.g. *docere/probare* as well as *delectare*); the text, at the level of *inventio*, may belong to the judicial kind, but at the level of *elocutio* – instead of being realised in the plain style, typical for the judicial kind – it may be formulated in the middle style. Due to limitations of space of the paper, I shall only discuss general tendencies.

### Plain style in communicating scientific content

Within the rhetorical model outlined above, the plain style (*genus humile*) consists of using colloquial speech and its characteristic freedom of expression. Among the three rhetorical tasks of the speaker, the plain style focuses on *docere*, i.e. “teaching”, “informing”, or *probare*, i.e. “proving”. It is why the plain style is sometimes associated with the judicial kind (*genus iudiciale*), which consists of proving guilt or innocence.

The main resource of the plain style is reason which enables teaching and conducting an argumentation (*docere/probare*). In an ideal situation, the judicial kind, practised in court speeches, focuses on the search of truth and establishing facts (e.g., who was the killer? who is guilty and of what?). However, as the accuser or the defender, each speaker strives to make plausible a particular version of the facts. Depending on the pre-defined argumentative role, the speaker argues either a person’s culpability or innocence.

If one extends the framework of the three rhetorical kinds outside its original applications, it is the judicial kind that fits the best the traditional mode of communicating science. The declared goal of the exact sciences is indeed to seek the truth by establishing facts concerning nature and identifying cause and effect relations. In the humanities and social sciences, the purpose is rather to argue in favour of various interpretations regarding cultural issues, including human motivations and actions. The interpretations are argued within different research paradigms (e.g. cognitivism or constructivism) focused on peculiar sets of features. According to the traditional approach, scientific activity is based exclusively on reason. Therefore, the rhetorical function of *docere/probare* is the most important in communicating scientific results. The implementation of this function helps to achieve the basic task of scientific activity, as formulated by Wilhelm von Humboldt: to know and to understand more.

The plain style – applied, in the cultural context of Greek rhetoric, in court speeches – meant arguing in a simple way, understandable for uneducated audiences. If we expand the original rhetorical model to modern communication contexts, the plain style is characteristic of expressive communication, realized in such genres as diary, biography, and letter. In literature, the plain style is typical of

popular comedy or satire. In scientific communication, an expressive form of cognition is an essay,<sup>10</sup> a genre that allows presenting a personal view of the world, unrestricted by the requirements of any method, expressed through unconstrained language, without any terminological discipline.

The conceptual category of current language is associated with common knowledge and practical reason. Therefore, the preference for colloquial language is also manifested in less expressive and more factual genres, for example texts of scientific popularization, as they require references to a shared experience, used as a steppingstone for presenting the less obvious forms of scientific cognition.

However, along with the specialization and professionalization of cognition and its procedures (e.g. legal, scientific), the *docere/probare* goal can also be achieved by applying counterintuitive principles of methodical conduct according to higher standards of proof. This applies to genres such as a scientific article or scientific monograph, whose declared intention is to present facts objectively. The purpose of *docere/probare* is achieved in accordance with the rules of specialist cognition.

An adequate scientific style, as Stanisław Gajda<sup>11</sup> puts it, is presenting information in accordance with the principles of truth, completeness (sufficiency), clarity, rationality, logic in generalization and inference. Advanced skills of reasoning at a high level of abstraction, ability to create and understand scientific theories, knowledge of methodological criteria for their verification and falsification are required.

In addition to these epistemic categories, Gajda also lists heuristic categories (e.g. strength of inspiration), praxeological categories (efficiency and effectiveness), and instrumental categories (economic, technical and functional matters necessary to achieve prestige).

In the scientific style, reasoning is formulated in adequate technical terms. Colloquial speech is therefore supplanted by specialist terminology, applied in an ascetic manner, without stylistic ornaments.<sup>12</sup> The plain style in this form therefore gives the impression of “style-less” implementation, which is of major persuasive

10 Vide, e.g. M. Montaigne, *Essais*, Garnier, Paris 1958 [original 1580]; A. Berardinelli, *La forma del saggio. Definizione e attualità di un genere letterario*, Marsilio, Venezia 2002; R. Sendyka, *Nowoczesny esej. Studium historycznej świadomości gatunku*, Universitas, Kraków 2004.

11 S. Gajda, “Styl naukowy”, [in:] *Współczesny język polski*, J. Bartmiński (ed.), Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej, Lublin, 2001, p. 185. In translating that approach to style into rhetoric categories, Gajda framed style within categories which combine *inventio* and *elocutio*.

12 Of course, stylistic abuses sometimes occur, a fact which is often mocked in parody scientific papers (vide, e.g. M. Załęska, “Parodie dyskursu akademickiego”, [in:] *Humor. Teorie, praktyka, zastosowania/Humour. Theories, Applications, Practices*, vol. 1: *Zrozumieć humor*, S. Dżereń-Głowacka, A. Kwiatkowska (eds.), Naukowe Wydawnictwo Piotrkowskie, Piotrków Trybunalski 2009, pp. 109–120).

importance in scientific communication.<sup>13</sup> These formal stylistic features, as well as the above-mentioned epistemic and heuristic values and the overarching *docere/probare* goal suggest that communicating science can be treated as a peculiar implementation of the rhetorical plain style.

### Middle style in communicating scientific content

The middle style (*genus medium*) is located between the plain style (characterized by simplicity, factuality, dispassionate nature) and the grand style (which exploits emotionality and its impact on decision-making). The middle style avoids colloquialisms and commonality. The text is expected to attract attention and to delight the audience with its creative inventiveness (especially in terms of decorativeness, i.e. *ornatus*). This is how the author accomplishes the purpose of *delectare*.

Within the rhetorical framework, the middle style fits best the so-called ceremonial oratory (*genus demonstrativum*). The purpose of *genus demonstrativum* is to praise or blame from the perspective of values important to a group. Since the values are known and shared by the group, no one needs convincing about their worth.<sup>14</sup> Therefore, the main rhetorical purpose of the epideictic kind is to delight (*delectare*): a text which expresses values considered as common knowledge, and thus potentially uninteresting, is supposed to become entertaining in reception thanks to sophisticated formal choices.

Within the cultural universe of ancient rhetoric, the main genres of speech which employed the middle style were apologias (e.g. speeches praising heroes), eulogies (funeral speeches) and public criticism (e.g. the famous speeches of Cicero against Catiline). By expanding the repertoire with literary genres, the middle style is characteristic of those literary forms in which artistry and formal invention count, such as poetry, avant-garde dramas and columns.

As part of academic communication, this style is implemented in genres that express evaluation (e.g. in doctoral or professor laudations, in reviews and in other

<sup>13</sup> As indicated by Joseph Gusfield: "The writer must persuade the audience that the results of the research are *not* literature, are *not* a product of the style of presentation. The style of nonstyle is itself the style of science" (J. Gusfield, "The literary rhetoric of science: Comedy and pathos in drinking driver research", *American Sociological Review* 1976, no. 41, p. 17).

<sup>14</sup> That was why Chaim Perelman and Lucy Olbrechts-Tyteca considered educational discourse as an example of the epideictic kind. According to their idealised frame, a teacher speaks as a representative of generally shared social values which are generally agreed upon by society. What a teacher says does not seem controversial as the teacher only reports on that which had already been proven by scientists. Teachers also fulfil a social role which gives them an indisputable right to speak (Ch. Perelman, L. Olbrechts-Tyteca, *Trattato dell'argomentazione. La nuova retorica*, trans. C. Schick, M. Mayer, E. Barassi, Einaudi, Torino 2001 [original 1958], pp. 55–56). The authors did not discuss the epideictic kind in relation to the middle style, which is why their remarks only applied to *inventio*.

critical statements); in showy genres (the FameLab<sup>15</sup> competition for scientists, or the well-known TED [Technology, Entertainment, Design] conference which may also include scientists popularizing science) and in strictly scientific genres (articles, books).

In the latter category, communication using the plain or the middle style is even interpreted as a manifestation of the hierarchy of values (ethical, epistemic and aesthetic) of a given author, co-creating his/her researcher ethos. The choice of the middle style instead of the plain style as a way of communicating scientific content indicates that the world of science appreciates not only cognitive qualities.<sup>16</sup> Therefore, the implementation of the function of *delectare* in scientific texts has long been the subject of controversy.

According to the view, proclaimed e.g. by the Royal Society in the 17<sup>th</sup> and 18<sup>th</sup> centuries, texts were to fulfill only the function of *docere* and remain as close as possible to the explicitness of the formal record, like in mathematics.<sup>17</sup> The purpose of *delectare*, in the context of science, was associated with the risk of diverting people's attention from the scientific substance. Such a perception of the relationship between the beauty of a statement and its truthfulness might have also been affected by the practices of "brilliant scientific communication" (in French: *divulgation brillante*). This Enlightenment genre, whose introduction is attributed to a French writer, Bernard le Bovier de Fontenelle, was aimed at explaining new scientific discoveries. The general public lacked proper education and therefore considered science unintelligible and boring. The genre mainly fulfilled the function of *delectare*: the principal intention of authors was to ensure the attractiveness of the message, so they wrote in a vivid manner omitting any intellectually difficult areas and simplifying complex notions so as to offer a light, easy and pleasant reading. Despite the popularity of many of those works, widely appreciated by readers,<sup>18</sup> scientists criticised them for their numerous factual errors.

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15 The rhetorical analysis, on the basis of a presentation by a scientist at the FameLab conference, was discussed in the article by M. Załęska "Retoryczne aspekty popularyzacji naukowej", *Acta Universitatis Lodzianis. Folia Litteraria Polonica* 2016, issue 1(31), pp. 59–70.

16 S. Peck MacDonald, *Professional Academic Writing in the Humanities and Social Sciences*, Southern Illinois University Press, Carbondale and Edwardsville 1994, pp. 141–144.

17 According to the style's model, it would be necessary "[...] to separate the knowledge of Nature from the colors of Rhetorick, the devices of Fancy, or the delightful deceit of Fables", and, as a consequence, "to reject all the amplifications, digressions, and swellings of style: to return to the primitive purity, and shortness, when men deliver'd so many things, almost in an equal number of words [...] bringing all things as near the Mathematical plainness as they can" (Sprat 1667, p. 62, as cited in: M. Pera, *The Discourses of Science*, The University of Chicago Press, Chicago–London 1994, p. 130).

18 One example could be the work of B. Le Bovier de Fontenelle entitled *Éléments de la géométrie de l'infini. Suite des memoires de l'Academie Royale des sciences*, L'Imprimerie royale, Paris 1727,

Sometimes, though, the purpose of *delectare* supplementing *docere* is appreciated. One could identify two main methods of using the middle style in scientific communication.

In the first one, the form outweighs content, becoming a somewhat autonomous means of persuasion utilised directly to be “showy” (including in the negative sense of the term) for self-promotional purposes, even at the cost of epistemic qualities. Using the example of New Historicism communication practices, Peck MacDonald discusses it as [...] an anecdotal style – one that is nonepistemic, not explicitly focused on disciplinary knowledge making [...].<sup>19</sup>

The author describes this way of communication as “epideictic rhetoric” and discusses its impact on communication of scientific content: „Cumulative knowledge building, knowledge compacting, and disciplinary adjudication appear to be less important, to some practitioners of the New Historicism, than other epideictic goals involving celebration or promotion. [...] Epideictic rhetoric may, in modern academy, have shifted away from traditional celebration towards performance. Michael Carter’s<sup>20</sup> characterization of scholarship as the ‘rhetoric of display’ offers the possibility that in current literary discourse what is being promoted or celebrated may not be literature itself or a community’s interpretations, but a scholar’s personal virtuosity. That is, scholars display prowess, privilege originality, and amplify on paradoxical themes.”<sup>21</sup> The author also mentions Schumway’s comment: „[...] it has become less important for a contributor to be right than to be noticed [...]”.<sup>22</sup>

That resembles the practices of *scientia curiosa*, so typical for the so-called “age of curiosity”, i.e. the 17<sup>th</sup> century.<sup>23</sup> Epistemic qualities (the categories of truth and falsehood, characteristic for the previously discussed judicial kind) may prove less important than promotional qualities (categories related to directing people’s attention: attractive/unattractive, interesting/uninteresting), and aesthetic qualities (such categories as pretty/ugly, simple/complex) functionally related to the promotional ones.

The other method of using the middle style in scientific communication is to fulfil both the purpose of *docere* and the purpose of *delectare* in a balanced manner, appropriate for the essence of the issue. Unlike fiction (from French: *belles lettres*, where the adjective *belles* ‘beautiful’ indicates aesthetic categories), scientific

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[https://commons.wikimedia.org/wiki/File:Fontenelle\\_-\\_%C3%89lements\\_de\\_la\\_geometrie\\_de\\_l%27infini,\\_1727\\_-\\_1520530.jpg](https://commons.wikimedia.org/wiki/File:Fontenelle_-_%C3%89lements_de_la_geometrie_de_l%27infini,_1727_-_1520530.jpg) [accessed on: 1.09.2018].

<sup>19</sup> S. Peck MacDonald, p. 140.

<sup>20</sup> M. Carter, “Scholarship as rhetoric of display; or, why is everybody saying all those terrible things about us?”, *College English* 1992, no. 54, pp. 303-313.

<sup>21</sup> S. Peck MacDonald, p. 142 (see also 143-144). The author’s comments on literary discourse also apply to communication practices in other disciplines.

<sup>22</sup> D. R. Schumway, “Comment on ‘Beyond Literary Darwinism’”, *College English* 1991, no. 53, p. 833

<sup>23</sup> J. Partyka, *Między scientia curiosa a encyklopedią: europejskie konteksty dla staropolskich kompendiów wiedzy* [in print].

communication is commonly considered as... non-beautiful while, in fact, any text should fulfil (though in various configurations) all three rhetorical purposes. In the plain style, the purpose of *delectare* is not actually the highest, yet the form of expression should not hinder comprehension or discourage readers. For example, very long and complex sentences focus the recipient's attention on understanding formal semantic-syntactic relationships instead of helping them to follow the author's argument. The authors' neglect of quality of style may discourage readers from science itself. Therefore, to interest readers, more and more scientists try to convey complex intellectual content in aesthetically sophisticated form. These practices continue the tradition of scientific *literature* that the authors of scientific treatises and textbooks cultivated until the mid-eighteenth century.<sup>24</sup> Creating texts in which skillful selection of content (*inventio*) is accompanied by fortunate formal choices (*elocutio*), so that the author can also achieve the goal of *delectare*, is of great benefit to science. Steven Pinker<sup>25</sup> recommends a modern, revised version of the "classical style"<sup>26</sup> as best suited to the purposes of disseminating science. The array of the means used includes such artistic techniques as dramatisation, anecdotes, metaphors, and creating suspense and sensation.

### Grand style in communicating scientific content

While the plain style in its original application has an expressive function, the grand style (*genus grande/grave/sublime*) fulfils an impressive function. According to the rhetorical model, the grand style is best suited for the deliberative kind (*genus deliberativum*): the purpose of both is *movere*, i.e. to mobilize emotions to encourage advised actions. Therefore, the grand style appeals to the will of readers, engaged in suggested activities and discouraged from others. The grand style best suits serious, important issues on which to make important decisions. Within the communicative universe of antiquity, the main genres created in this style were political speeches on matters important for a city-state, as well as the addresses of leaders to their armies. Some more contemporary examples include, apart from the political genres, also sermons, motivational speeches and books, self-help books, lifestyle magazines, and coaching practices.

24 Vide, e.g. M.L. Altieri Biagi, *Fra lingua scientifica e lingua letteraria*, Istituti Editoriali e Poligrafici Internazionali, Pisa-Roma-Venezia-Vienna 1998; T. Sierotowicz, "Galileuszowe ćwiczenia z retoryki. Bajka o koniku polnym z 'Wagi probierczej' jako argument 'ab exempla'", [in:] *Retoryka – krytyka – wiedza*, M. Załęska (ed.), PTR, Warszawa 2016, pp. 83–111.

25 S. Pinker, *Piękny styl. Przewodnik człowieka myślącego po sztuce pisania XXI wieku*, trans. A. Nowak-Młynikowska, Smak Słowa, Sopot 2015.

26 F.-N. Thomas, M. Turner, *Clear and simple as truth. Writing classic prose*, Princeton University Press, Princeton 1994.

In the academic context, prototypical examples of the application of the grand style include ceremonial speeches, e.g. official academic year opening ceremonies during which a chancellor encourages students to pursue knowledge and engage in the academic community. Grant applications intended to motivate the grant institutions to finance the proposed projects. are a relatively new genre which utilises the resources of the grand style.

Similar to the middle style, the grand style encompasses not only scientific popularization genres, but also strictly scientific genres: articles and books.

The traditional presentation of science in the plain style (*docere/probare*) suggests a factographic approach: a description, analysis and interpretation of facts of events “as they are” or “as they are conceptualised” within a discipline (in line with the already-mentioned distinction by Davidson). That factographic approach focusses on objects, models, statistics, but not on people in their complex life situations, with which readers could identify.

In the grand style, though, the “impressive” frame of science relates the matter it discusses to a serious major issue for all readers: their own lives. Content is presented in such a manner as to fulfil mainly the function of *movere*: (a) convince people *that* the matter is interesting – it is significant, useful and thus exciting within the context of readers’ lives – and, therefore, it is worth their attention; (b) advise, encourage or discourage, *how* readers may use the knowledge from the discussed discipline for making decisions in their private and social lives. Such a mode of presenting science offers readers a sense of not only knowledge but also agency, and, consequently, of increasing their control over their lives. In that approach, science is presented not only as worth knowing, but also as worth experiencing.

The application of the resources of the grand style, i.e. the “impressive” convention of communicating scientific content, is not only related to presenting the practical aspect of science in decision-making. It also involves the scientists using their professional knowledge as an argumentative resource while publicly discussing decisions important to the lives of all citizens.

Researchers who perceive themselves as public intellectuals<sup>27</sup> use their disciplinary knowledge to problematize what the non-specialists overlook or take for granted. Scientists also have professional competence to encourage or discourage important decisions relevant to the life of the society in which they live. In this way they introduce their disciplinary knowledge into public debate through media genres: interviews, journalistic comments, press articles and blogs. In these forms of expression, researchers deal with human experience – what people talk about, what they feel and what matters to them – in the framework of disciplinary knowledge, but avoiding specialized terminology.

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<sup>27</sup> In English terminology, the role is defined as *public intellectuals*, vide R.A. Posner, *Public Intellectuals*, Harvard University Press, Cambridge MA 2001.

Apart from fulfilling the role of public intellectuals, scientists also act as experts. In this role they can argue the relevance of certain criteria known thanks to science and encourage politicians to make decisions on their basis. Ideally, in such communicative situations, impartiality is maintained, and the suggestions are based only on expert knowledge. However, if experts are financed by interest groups, there is doubt as to whether they advise selflessly. Objections not only about ethics, but also about the quality of knowledge are also directed at self-appointed experts and pseudo-scientists.

The grand style is therefore characteristic of various forms of “engaged” science. Scientists frame their research problems in such a way to engage in solving the current problems faced by both individuals and whole communities. The choice of topics, transformation of scientific data into premises for arguments for or against a decision, more or less explicit reference to emotions (*movere*) mean that science is presented not as knowledge for knowledge but as knowledge for life.

## Conclusions

In the plain style, knowledge is presented for knowledge’s sake, omitting any issue of its brilliance or utility (in the future, even a seemingly insignificant detail may prove useful). Scientific texts in the plain style seem to contain “boring” details that make the difference between scientific and non-scientific cognition: the methodology, the data and variables constitute necessary information for scientists, but they are considered unnecessary and unintelligible for non-specialist readers.

The middle style is the most attractive and pleasant to read. Intra-style diversity includes both texts in which literary devices – such as abridgements, perspective, figurativeness – prevail over the quality of scientific content, as well as texts with high scientific and literary values. The artful nature of these texts places them within scientific *literature*, while in some cases they seem to be a form of *edutainment*, i.e. education and entertainment.

Texts developed within the grand style emphasise agency through knowledge, which makes them attractive. Thanks to this way of presentation, science is not perceived as alienating and alienated from the universe of human needs. Quite the opposite: scientific knowledge thus framed can facilitate making good choices in life.

Since any text can (or even should) achieve the three goals of the speaker mentioned above, various stylistic configurations can be observed in each. Once aware of the theory of style, authors and readers can identify their own stylistic inclinations, i.e. the way of communicating that reflects the way of thinking. Moreover, each of these stylistic preferences can be implemented successfully or unsuccessfully, which confirms an insightful observation made by Jean Cocteau: “For some, style is a complex manner of saying simple things. For others, it is a simple manner of saying complex things.”

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## Retoryczne style przedstawiania wiedzy naukowej

### Streszczenie

W artykule zastosowano retoryczną koncepcję trzech stylów, aby objaśnić pewne praktyki komunikacyjne w dyskursie akademickim. Wykorzystując zasoby perswazyjne stylu niskiego, autorzy skupiają się na retorycznym celu *docere/probare*, tj. nauczać/dowodzić. Ascetyczna rzeczowość stylu niskiego sugeruje czytelnikom, jakoby stylu w ogóle nie było, przekonując ich, że treść odzwierciedla rzeczywistość

bez jakiegokolwiek retorycznego zapośredniczenia. Wybierając perswazyjne środki stylu średniego, badacze łączą cele epistemiczne i estetyczne, starając się osiągnąć retoryczny cel *delectare*, tj. zachwycać. Zajmujący styl pomaga wciągnąć czytelników w złożoną intelektualnie problematykę. Styl wysoki ułatwia osiągnięcie retorycznego celu *movere*, tj. poruszać, skłaniać do działania. Służy on do przedstawienia treści naukowych jako informacji użytecznych w podejmowaniu decyzji w życiu konkretnego czytelnika, zatem bywa wykorzystywany przez zaangażowanych naukowców i intelektualistów.

**Słowa kluczowe:** styl, retoryka, metajęzyk, dyskurs akademicki, popularyzacja.

## Rhetorical Styles in Knowledge Communication

### Summary

The author of the article applied the rhetorical framework of three styles (*genera dicendi*) to highlight some of the communicative practices employed in academic discourse. By utilising the persuasive resources of the plain style, authors focus on the rhetorical purpose of *docere/probare*, i.e. to teach/to prove. The sober matter-of-factness of the plain style suggests to readers that there is no style at all, convincing them that the content reflects reality without any rhetorical mediation. In choosing the persuasive means of the middle style, researchers combine epistemic and aesthetic goals, trying to reach the rhetoric purpose of *delectare*, i.e. to delight. An engaging style helps them draw readers into intellectually complex issues. The grand style facilitates the reaching of the rhetorical purpose of *movere*, i.e. to move or induce action. It serves to present science as a helpful resource for readers to make decisions in their lives, hence it is likely to be used by engaged scholars and public intellectuals.

**Keywords:** style, rhetoric, metalanguage, academic discourse, scientific popularization.

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