

# Making messages memorable: the influence of rhetorical techniques on information retention

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### Cover Page



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#### The relevance of rhetorical retention research

The summing up gathers together and recalls the points we have made — briefly, that the speech may not be repeated in entirety, but that the memory of it may be refreshed. (*Rhetorica ad Herennium* II, 30.47)

Summaries provide readers and audiences with an overview of the most important information to remember. In this thesis, the summary has a dual role: as a thesis chapter it restates the main information of this dissertation, and as a rhetorical technique in speeches it is an important research topic in this study. When applied in a speech, the rhetorical technique 'summary' is often said to enhance the memory of the audience, as shown above in the quotation from the ancient rhetorical work *Rhetorica ad Herennium*. However, ancient rhetoricians such as Aristotle, Cicero, Quintilian and the unknown *Auctor ad Herennium* were mostly interested in the speaker's memory. In ancient rhetoric, the *memoria* task was distinguished as one of the five stages that an orator should go through in order to prepare a proper speech. In this particular stage, the orator would memorise the speech using mnemonic techniques (memory aids) such as the method of *loci*, also known as the method of the 'memory palace'.

The focus on the audience's memory as opposed to that of the speaker appears to be more of a modern phenomenon, which is emphasised in modern public-speaking textbooks and expert weblogs, and is illustrated by popular-scientific books on memorability such as *Made to stick* (Heath & Heath, 2010). In the current knowledge society, speeches and presentations are important vehicles to make messages memorable. Access to public events is not necessarily confined to those present at the actual event anymore. Via recordings or live streams, presentations such as popular TED talks are often almost instantly available to audiences around the world. The COVID-19 pandemic in 2020 and 2021 fast-tracked the development of online presentations.

The importance of transferring knowledge to an audience is underlined by the position of oral communication skills in the requirements for academic curricula in both Europe and the United States. However, while the speaker's memory was part of ancient rhetorical education, modern teachers and students cannot rely on a clear theory on However, while the orator's memory formed a key element of ancient rhetorical education, modern teachers and (often) inexperienced students cannot rely on such a theory about the way in which audience members can retain information from a speech. Studies that report effects of rhetorical techniques on information retention in a public-speaking situation are scarce and their results are varied (see Section 1.4 for examples). A systematic and comprehensive study on audience information retention in public speaking is lacking. This thesis intends to fill that gap. To establish a more solid theoretical basis for audience information retention in a public-speaking situation, this study first connects rhetorical situations to insights

from memory psychology (see **Sections 1.2 and 1.3**). These insights learn that the way in which information is initially processed, known as encoding, determines for a large part whether it will be stored in long-term memory and can later be retrieved. A key condition for successful encoding is attention. An attentive audience can process information via three main encoding principles that emerge from memory psychology: organisation (structuring and logically ordering information), elaboration (connecting information to and associating it with existing knowledge) and visualisation (creating literal or mental images). This thesis mainly focuses on organisation and elaboration (see **Section 3.1.1** for an explanation).

The orality of a public-speaking situation contributes to an emphasis on memorability. The speaker and the audience are usually in the same space, which means that the audience has to be enabled to store important information then and there. How information is processed in a presentation event depends on the relationships between variables that constitute such a rhetorical situation, such as audience, context and speaker. Audiences highly depend on speakers' choices, such as how to order information, what information to emphasise, what to visualise and how to deliver it. In this thesis, the agency of speakers is an important point of departure. Related to insights from memory psychology, speakers can consciously attempt to create a situation that stimulates audience information retention. They can, for example, arouse attention and select rhetorical techniques related to organisation, elaboration and visualisation that contribute to encoding, storage and retrieval.

#### Research questions and approach

To gain more insight into how rhetorical techniques influence the audience's ability to retain information, this thesis answers the following main research question:

How can rhetorical techniques in speeches enhance information retention by the audience?

The main research question is divided into three key questions.

- 1. What techniques are advised in public-speaking textbooks to make a message memorable?
- 2. How do speakers apply advised retention techniques in public-speaking practice?
- 3. What is the effect of such retention techniques?

These key questions reflect the three-way approach that this thesis takes. The first step comprises a content analysis of four ancient rhetorical works and a corpus of eighty influential English-language and Dutch-language modern public-speaking textbooks from the period 1980–2009 (see **chapter 2**). This analysis focused on:

• the quantity and content of rhetorical advice and techniques specifically related to retention;

 strategies that are said to backfire or not to contribute to information retention (so-called vitia);

- the way in which textbooks support retention advice, e.g. by academic studies and examples of (well-known) speakers (reference use);
- the role of the orator's canon of *memoria* in ancient and modern rhetoric, to exemplify the shift in perspective from the speaker's to the audience's memory over time.

The second step in the approach provides insight into the application of seven selected retention techniques in public-speaking practice (see **chapter 3**). These techniques are related to organisation (*partitio*, 'announcement of the conclusion', 'circle technique', 'summary' and 'transition') and elaboration ('anecdote' and 'questions'). A rhetorical analysis of three corpora of presentation and speech texts showed how scholars, politicians and TED speakers use the selected retention techniques in their public-speaking context. This step in the overall approach showed how textbook advice relates to specific public-speaking contexts (genres) and gave insight into varied stylistic and structural characteristics of the selected retention techniques in practice. These insights contributed to the approach for the final step: measuring retention effects.

The final step of the approach was to investigate the retention effects of three selected rhetorical techniques linked to the organisation of a presentation (in particular: the conclusion): the announcement of the conclusion, circle technique and summary (see **chapter 4**). To do so, insights gained from the analyses of public-speaking textbooks and practice were used to design two experiments in the context of an informative presentation. The first experiment focused on announcing the conclusion of the presentation and the circle technique, the second centred on the summary in the concluding part of a presentation.

#### The role of retention in public-speaking textbooks

To gain an overview of ancient and modern ideas on enhancing the audience's information retention, **chapter 2** presents an analysis of four ancient rhetorical works (Aristotle's *Rhetorica*, Cicero's *De Oratore*, Quintilian's *Institutio Oratoria* and the *Rhetorica ad Herennium*) and a corpus of forty English-language and forty Dutchlanguage public-speaking textbooks in the period 1980–2009. The modern textbooks were selected via the online library catalogue WorldCat. The ancient and modern textbooks were carefully inspected to determine the retention-related contents and the rhetorical techniques linked to retention. For each modern textbook, a form of analysis was filled out that contained the following categories: (1) the number of pages connected to retention, (2) an overview of fragments with retention advice or *vitia* ('warnings') containing a preliminary label of the technique involved, (3) what techniques might be connected to specific parts of a speech and (4) how the advice is supported by references. See **Section 2.2** for an extensive explanation of the corpus construction and method of analysis.

#### From the ancient orator's memoria task to modern memorable messages

From classical rhetoric to modern public-speaking advice, the retention perspective has shifted from the speaker's memory to the audience's memory. In classical rhetoric, *memoria* is one of the five orator's canons. *Memoria* techniques aid speakers in remembering their speech. They often deal with visualising information, associating it with existing knowledge and placing it in a logical order, culminating in mnemotechniques such as the memory palace and *imagines agentes* (striking images). Compared to the *memoria* task, information retention by the audience receives little attention in the four classical works that were analysed. The ancient rhetoricians most prominently connect the concluding part of the speech (*peroratio*), and in particular the 'summary' or 'recapitulation of the facts', to information retention (see **Section 2.1** for a discussion of memory in ancient rhetoric).

The *memoria* task of the speaker plays a marginal role in modern public-speaking textbooks, which generally claim that memorising the whole speech can do more harm than good. Modern authors usually deal with practical aspects: they advise the use of memory aids and preparatory strategies such as using outlines, cue cards, teleprompters and rehearsal strategies. Only a small number of modern authors refer to classical *memoria* techniques. These authors propose a modern take on the *memoria* task: it is a way for the orator to become (mentally) familiar and comfortable with the speech, which could ultimately lead to a more congruent and compelling performance (see **Section 2.3** for a discussion of the *memoria* task in modern textbooks).

#### Main retention advice in modern public-speaking textbooks

A little over 5% of the total number of pages in the corpus of modern public-speaking textbooks contains explicit references to audience retention. Furthermore, a total of 77 techniques are attributed to audience information retention; a varied collection of techniques, which appear to be related to almost all steps required in the process of preparing and delivering a presentation. The most frequently mentioned techniques are 'visual aids', 'summary', 'repetition' and 'anecdote'. Moreover, in line with the ancient rhetoricians, modern authors view the conclusion as the preferred part of a presentation for a speaker to apply techniques that influence retention (see **Section 2.4** for an overview of the amount of retention advice and most frequently advised retention techniques).

**Section 2.5** provides extensive descriptions of the main retention techniques that were found in modern public-speaking textbooks. The encoding principles organisation, elaboration and visualisation, which are found in memory research, are reflected in the retention advice and techniques. This suggested classification of retention techniques according to encoding principles should be not seen as definitive, but rather as a means to create a clearer overview of retention advice in modern public-speaking textbooks and to highlight underlying relationships between rhetorical ideas and memory psychology.

First of all, quite a few retention techniques are linked to organising the presentation, such as 'summary', 'repetition', 'chunking', 'systematic order', *partitio*, 'circle technique' and 'final statement'. Furthermore, the concluding part of a speech is most often connected to retention. Authors warn against ineffective conclusions,

such as postponed or too extensive conclusions, which are said to hinder the audience's information retention (see Section 2.6).

Secondly, frequently advised retention techniques such as 'anecdote', 'audience participation', 'rhetorical question' and 'metaphor' can be associated with the encoding principle of elaboration. These techniques appear to encourage the audience to associate new information with existing knowledge, to actively participate in the presentation or make an effort in processing the information. For example, anecdotes are narratives that require the audience to understand the situation that is explained, the main characters that are involved, the story development and the anecdote's relevance to the presentation's key point(s).

Thirdly, techniques used to visualise information are very frequently connected to retention. Most often, the advice refers to visual aids as 'real-time', tangible visualisation such as objects, images, diagrams or graphs on a screen. Next to the advice, visual aids also form the top category of warnings that were found in the corpus: authors regularly discuss ineffective use of visual aids, which could hinder information retention (see **Section 2.6**). Besides direct visual aids to support a presentation, textbooks address retention techniques that stimulate mental visualisation, such as 'imagery', 'metaphors' and 'concrete examples'. These techniques can be related to both visualisation and elaboration, as the audience forms a visual representation based on associations with existing knowledge and images.

#### Reflection: quality of retention advice and the role of textbooks

All in all, audience information retention deserves a more consistent and coherent position in public-speaking textbooks. Retention advice often is scattered over different parts of a textbook, leaving it to the reader to put together the pieces of the retention puzzle. Including a chapter or section on retention as a rhetorical function could introduce readers to the notion that retention is ingrained in many facets of public speaking, from preparation to performance.

Moreover, descriptions of retention techniques greatly vary between the textbooks. Authors such as Osborn and Osborn (1997) and Atkinson (2004) regularly provide examples of techniques connected to retention and explain that factors such as audience and genre need to be taken into account, whereas in other textbooks only a brief reference to retention (something similar to "[technique X] makes your message memorable") was considered sufficient.

Just as the textbooks in these corpora vary in how extensively they discuss the use of retention techniques, the use of sources and references in these books varies as well (see **Section 2.7** for a discussion of reference use in the textbooks). Overall, the retention advice that was found in modern public-speaking textbooks is scarcely supported by explicit references to academic sources. In the rare case that a clear reference to an academic study is provided, it can be questioned whether the translation of the study's results into easily accessible textbook advice was carried out accurately. Textbook authors generally opt for other source types, such as (anecdotal) experiences from well-known speakers, to corroborate their advice.

While recognising the challenge of public-speaking textbooks to strike a balance between clear, attractive and well-supported advice, more extensive descriptions, examples and references would aid readers in selecting retention techniques that are suitable for particular public-speaking situations. More references to insights from memory psychology could underline the position of retention in public speaking as a rhetorical aim for a speaker and a function of specific rhetorical techniques.

#### Usage of retention techniques in public-speaking practice

Chapter 3 shows how seven retention techniques are applied in public-speaking practice. Its purpose is twofold: (1) it shows to what extent textbook advice on retention finds its way to various presentation situations in practice and (2) it provides detailed examples of techniques, which give insight into possible variants and specific (stylistic) features, and aid in designing studies to measure retention effects. Five techniques are related to organisation (partitio, announcement of the conclusion, circle technique, summary and transition); two techniques are mainly connected to elaboration (anecdote and questions; see Section 3.1 for an account of the techniques' selection).

Speech texts by three different types of speakers—scholars, politicians and TED speakers—were analysed to find out how speaking professionals and professional speakers apply these retention techniques in various public-speaking contexts. The three corpora consist of sixteen speech texts each and differ in aspects such as main purpose of the speech, audience and context. Scholars mainly aim to inform, politicians mainly aim to persuade and TED speakers mainly aim to inspire (see **Section 3.2** for the construction of the three speech corpora).

The rhetorical analysis departed from defining distinct textual features of the selected organisation and elaboration techniques. Next, these features were used to detect and label these techniques in presentation texts of scholars, politicians and TED speakers. This step was carried out by various raters, which resulted in a sufficient to good inter-rater reliability. Then, the quantitative and qualitative usage of the techniques by these three different types of speakers was compared and interpreted in the context of their rhetorical situation (see **Section 3.3** for an extensive description of the method).

#### Public-speaking practice compared to textbook advice

Quantitatively, some frequently advised retention techniques in public-speaking textbooks are applied less often than expected by the scholars, politicians and TED speakers. An example is the summary: scholars use this concluding technique most often, which corresponds to the fact that textbook authors regularly relate the summary to the context of informative speeches. However, half the number of scholars, who mainly aimed to inform, did not use a summary. Furthermore, the politicians did not use any summary at all; although they mainly aim to persuade, a complete lack of summaries appears remarkable. Public-speaking textbooks could emphasise more often that the use of retention techniques can be context-dependant (see **Sections 3.4.1 and 3.5.1** for all quantitative results).

Qualitatively, the application of retention techniques in practice varies in content, length and stylistic features. This observation contrasts with scarce examples of retention techniques in public-speaking textbooks, which usually reflect a single variant of a technique that corresponds to authors' ideas about 'good' speaking practice. Two examples: first, summaries were found to be very concise on the one hand (two to three sentences) and quite long on the other hand (occasionally over 10% of the speech length). Some contained hardly any structure markers, whereas in other summaries the structure was explicitly indicated; sometimes, stylistically repetitive techniques (e.g. *anaphoras* or parallel sentence structures) were used instead of structure markers. Second, some of the anecdotes that were found are rich, vivid stories that appear relevant to the overall speech topic, whereas other anecdotes only contain a few, rather vaguely described narrative elements. It is possible that varieties in length, contents and style impact retention in different ways (see Sections 3.4.2–3.4.5, 3.5.2 and 3.5.3 for extensive examples of the techniques in the three corpora of speech texts).

#### Speakers' preferences and variants of retention techniques in practice

Just as a restaurant's chef intends to find the right balance between the ingredients of a dish, speakers need to strike a balance between their intended purpose, the rhetorical techniques they consider using and other variables in the rhetorical situation. In the research presentations, political speeches and TED talks, this idea is reflected in the speakers' preferences for retention techniques and the variants of these techniques that were found.

Scholars. In agreement with their informative purpose, the scholars in this study mainly select organisational retention techniques. They apply more partitios, transitions, announcements of the conclusion and summaries than the politicians and TED speakers. Scholars usually include structure markers to emphasise the organisation techniques. The circle technique, which less explicitly emphasises the speech structure, was less popular among scholars.

Elaboration techniques are not applied as much by the scholars as by the politicians and TED speakers. They used the smallest number of anecdotes, for example, which contained less narrative elements and were less vividly phrased than the anecdotes of politicians and TED speakers. Of the question types, scholars preferred the *subjectio* (posing a question and immediately answering it), which is often used for organisational purposes next to its elaborative function.

Regarding the rhetorical situation, the scholars' preference for explicit organising techniques linked to retention can be explained by multiple reasons. First, their intention to inform the audience means that they probably value retention highly. Next, their topic might explain their use of structure markers, for example to explain various aspects of a complex research methodology. Furthermore, scholars can be qualified as speaking professionals, which means that they might not have been able to meticulously prepare their talk and apply techniques that require craftsmanship and a more polished style (such as an anecdote).

*Politicians*. The politicians opt for retention techniques that are in agreement with their main purpose of persuading the audience. They preferred elaborative techniques over explicit organisational retention techniques. Politicians used questions mostly in an elaborative way to appeal to existing knowledge, for example by *quaestios* (series of questions). Some long *quaestios* were found (up to of a pileup of 10 questions), which appeared to amplify emotions (a pathos effect).

Regarding organisational retention techniques, the politicians are the champions of the circle technique. This technique has a less explicit organisation effect and provides a 'sense of closure', according to textbooks. The politicians are not too fond of explicit structure markers: they did not use any summary at all, only one *partitio* was found and they used the smallest number of transition sentences compared to scholars and TED speakers.

Politicians are professional speakers who aim to share a persuasive message and shape their image (ethos). For politicians, the stakes seem higher than for scholars: parts of their speeches are likely to be broadcast to a diverse audience (electorate) via various media. Therefore, politicians might think of explicit organisational techniques as too 'didactic' and straightforward, despite of their possible retention effect. These techniques might not contribute to a positive ethos and obstruct the politicians' persuasive purpose.

TED speakers. The TED speakers tend to select retention techniques that are in agreement with their purpose to inspire (a mix of informative and persuasive elements). They mainly focus on elaboration techniques: they use the most anecdotes and questions of the three types of speakers analysed. TED speakers also stand out in the way they execute these techniques; they tend to spend time in crafting stylistically compelling phrases.

TED speakers are anecdote adepts. This elaborative retention technique is their favourite, which is not only supported by the number of anecdotes used, but also by their length, narrative elements, vivid style and relevance to the main idea or message of the talk. They prefer to use the rhetorical question, which can make the audience think about the topic and thereby enhance retention.

The main difference between scholars' and TED speakers' use of organisation techniques is their formulation: TED speakers tend to use less structure markers that literally refer to parts of the speech such as the conclusion. For example, they prefer to use a phrase such as "I want to leave you with this" as an announcement for the conclusion.

Through a rhetorical situation lens, the TED speakers can be qualified as professional speakers compared to scholars (speaking professionals). The TED talks could potentially be viewed by a large (online) audience, which increases the need for an intensive preparation of the overall presentation. Their inspirational purpose could explain the focus of the TED speakers on narrative techniques such as the anecdote and their varied formulation of structural retention techniques: they want to inform to a certain extent, but the audience's expectation to listen to an attractive story and the high stakes of a TED event lead to a focus on stylistic craftsmanship.

#### Retention effects of three rhetorical concluding techniques

Chapter 4 reports on two experimental studies into the retention effects of three techniques in an informative presentation. The three selected techniques are often applied in speech conclusions: the 'announcement of the conclusion' ("To conclude"), 'circle technique' (reference to the introduction) and 'summary'. These concluding techniques were investigated for two main reasons. First, the conclusion is the part of the presentation that is most frequently connected to retention in public-speaking textbooks. In that respect, these three techniques—particularly the summary—are regularly mentioned in textbooks as strategies to make a message memorable. Second, in the presentation texts of scholars, politicians and TED speakers, different variants of these techniques were found. Scholars, who mainly aim to inform, use organisational concluding techniques most frequently.

#### Setup of the two experiments

The first experiment focused on the announcement of the conclusion and circle technique (see **Section 4.1.1** for a discussion of these two techniques). Two variants of two informative presentations on different topics were made (a total of four presentation versions): one variant without concluding techniques and one with an announcement of the conclusion and a circle technique (see **Sections 4.1.2 and 4.1.3** for the experimental setup). These presentations were recorded and delivered by an experienced speaker. Participants (students of Delft University of Technology and Leiden University, N=358) viewed one of the recorded versions in an educational setting (communication skills class). Afterwards, they filled out a questionnaire that contained multiple-choice questions on information mentioned in the presentation and statements on the listeners' appreciation of the presentation (five-point Likert-scale). To properly measure recall of the concluding part, new information was included in the conclusion. It was expected that the presentation version with both concluding techniques would lead to a higher retention of information and appreciation of the conclusion than the presentation version without concluding techniques.

The second experiment focused on the summary in the concluding part of an informative presentation. Following from textbook advice and public-speaking practice, two main variants of the summary were distinguished: a restatement of the presentation outline, mentioning the topics addressed in the presentation (an indicative summary), and a repetition of the key points discussed in the presentation's contents (an informative summary). The informative summary used in this experiment was a so-called 'rhetorical summary': it was a selective overview of the key points given by the speaker and not an exhaustive summary of all topics addressed in the speech (see **Section 4.2.1** for a discussion of summary variants).

Three variants of a presentation on the communication strategy 'framing' were recorded: the first without a summary, the second with an indicative summary and the third with an informative summary (see **Sections 4.2.2 and 4.2.3** for the experimental setup). Participants (students of Delft University of Technology, N=284) viewed one of the recorded versions in an educational setting (communication

skills class). Afterwards, they filled out a questionnaire that contained open questions aimed at recall of the presentation's key points, multiple-choice questions on the presentation's contents and statements on listeners' appreciation of the presentation (five-point Likert-scale). Contrary to the first experiment, a post-test was performed two to three weeks later to measure effects on a longer term, which comprised a repetition of the open questions on the presentation's key points. The hypotheses were twofold: (1) it was expected that the presentation versions with a summary would lead to a higher retention and appreciation of the presentation than the version without a summary, and (2) it was expected that the presentation versions with an informative summary would lead to a higher retention and appreciation of the presentation than the version with an indicative summary.

#### Results: concluding techniques can lead to increased retention

The experiments have shown that both an announcement of the conclusion and an informative summary can increase the audience's information retention in an informative presentation. The informative summary also lead to a higher retention of information on a longer term, compared to the other two presentation versions. The circle technique appeared to positively influence recall of the restated information from the introduction, but not of other information mentioned in the conclusion. Furthermore, as a side-effect, two of these techniques positively influenced the audience's appreciation: the circle technique strengthened the audience's sense of closure, while the informative summary led to higher audience appreciation of the peroration (closing statements) compared to a presentation without a summary.

Based on the studies in this thesis, these three concluding techniques can be beneficial to a speaker of an informative presentation in terms of retention and appreciation. However, the positive effect on retention and appreciation can depend on two main factors: the specific variant of the technique and the audience's involvement and interest in the topic of the presentation.

The specific variant of the rhetorical technique can determine the retention effect. In the summary experiment, the informative rhetorical summary positively influenced the audience's information retention, whereas the indicative summary did not. The inclusion of an indicative summary even had a similar effect on free recall of the concluding information as not including any summary at all. These results suggest that the selection of a specific variant of a rhetorical technique can make a difference when it comes to information retention.

The audience's involvement and interest in the topic of the presentation can also influence the retention effect of a specific rhetorical technique. The first experiment, focused on the announcement of the conclusion and the circle technique, included two different informative presentations (hereafter: presentation 1 and 2). The results of presentation 1 showed a higher retention of information by participants who listened to the version with concluding techniques, but the results of presentation 2 did not indicate any differences in retention effects between the two presentation versions. The topic of presentation 2 was more appreciated and it was found more

usable by participants. This suggests that the interest of the audience in the topic is a factor of influence: possibly, the need for an attention marker is higher in a situation in which the audience does not highly value the presentation's contents and therefore is less involved.

# Thesis contribution: retention as a key perspective in rhetorical theory and practice

This thesis contributes to rhetoric as an interdisciplinary field of study, as it draws parallels between rhetorical theory and memory psychology. Insights such as the encoding principles organisation, elaboration and visualisation can help to evaluate how a specific rhetorical technique might contribute to retention. Vice versa, rhetorical theory can help to explain how the interplay of various elements in a public-speaking situation can influence retention (e.g. in educational psychology).

Furthermore, this study encompasses a variety of approaches to investigate rhetorical retention with both a quantitative and qualitative focus: systematic literature or corpus research, rhetorical analysis of presentations and experimental studies. The thesis shows that a quantitative method—accompanied by a qualitative approach—can be of added value in rhetorical research.

The thesis contributes to rhetorical practice in two main ways. First, it has established a broad overview of the most frequent modern public-speaking advice on information retention, which can serve as a basis for further, more detailed research and as a resource for practitioners (e.g. educators). Second, it provides more detailed insights on the use of a few specific rhetorical retention techniques in practice and their effects in an informative presentation. This can be helpful for speakers who have to decide what retention technique to include in their speech and how to do so, and to educators who have to coach and guide these speakers.

#### The future of rhetorical retention research

In future rhetorical retention studies, the three main methods used in this study can be honed. To offer a few examples: first of all, the corpus of modern public-speaking textbooks could be complemented with more recent (online) publications. Secondly, the inter-rater reliability of the speech text analysis can be improved by more thoroughly preparing and training raters. Finally, future experimental designs could include multiple messages (presentations), replicate one of the experiments, or make use of a different audience composition.

Furthermore, deploying different approaches than those applied in this thesis can lead to new, complementary results. For example, next to presentation and speech analyses by scholars of rhetoric, the audience's reception of actual presentations can be the focal point of future retention studies. Moreover, interviewing viewers of live presentations and recordings or online talks, and questioning speakers on their intentions, aims and preparatory work, could provide more detailed insights into the rhetorical retention situation. This way, future rhetorical retention studies can aid in completing the picture of memorable messages; a picture this thesis has started to paint with some broader brushstrokes and a few detailed touches.