

How do I write an Abstract in English?

1. The purpose of abstracts

The abstract serves as a summary of your work. As such, it can be read independently of your paper or thesis, allowing readers to gain a **short and concise overview of your content**. In published academic writing, the abstract is one of the most important genres: It allows scholars to quickly get the gist of the work it summarises and to decide whether or not they should keep on reading for further details. In student writing, the abstract is not that common. Most students write their first abstract for their B.A. or M.A. thesis. However, it is still useful to know how abstracts work, even if you do not have to immediately write one. They are incredibly useful when you are doing literature research, as they allow you to sieve through a lot of publications and to quickly decide whether or not a text is worth reading. Moreover, writing your own abstracts of texts you have read may help you to better grasp their main points and is also a good writing exercise 😊

2. The structure and content of abstracts

The five-finger pattern

We will adopt here Felicitas Macgilchrist's (2014, pp. 24-27,29-31) description of abstracts displaying what she calls the **five-finger pattern**, which allows you "to summarize your research on the five fingers of one hand" (p. 26). Each finger represents a different component of the abstract:

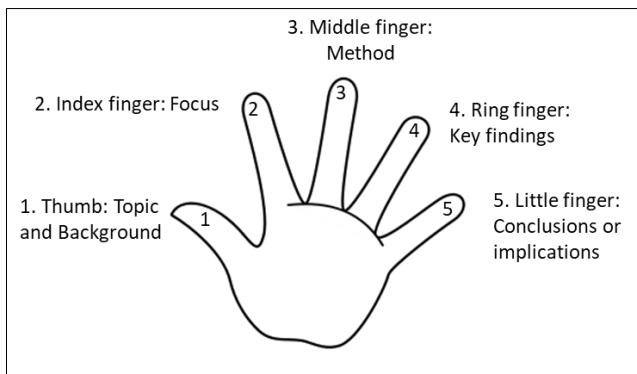


Fig.1: The five-finger pattern in the Sciences

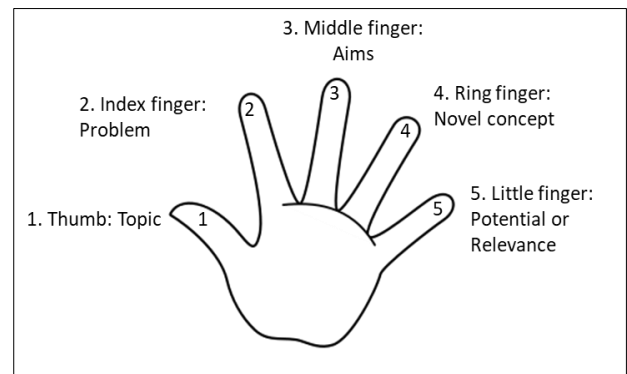


Fig.2: The five-finger pattern in the humanities

As you can see in the figures above, the content of abstracts differs across disciplines. In the **science disciplines**, it is relatively rigid and reflects the Introduction-Methods-Results-Discussion (IMRD) structure of most empirical papers. In the **humanities**, as there is more variation in the structure of papers, there is also more variation in the structure of abstracts. Table 1 and the samples in the appendices illustrate some of this variation. **What abstracts in the sciences and the humanities have in common**, however, is that they follow the same topical progression: They start out with something broad (the background and/or general topic), then "zoom in" on the specific details of the work at hand (specific focus, problem, aims, and/or methods), culminating in the results (findings in an empirical study, new idea or insight in the humanities) and "zoom out" again with broader statements (conclusions and/or implications).

Questions answered by your abstract

Macgilchrist (ibid.) provides details about the content of an abstract's "five fingers" by presenting the questions each of the five points should give an answer to. We have summed these up in Table 1:

Sciences	Humanities	
(Thumb) Topic and background: What topic does the paper deal with? What is the point of departure for your research?	(Thumb) Topic: What topic does the paper deal with?	(Thumb) Problem: What problem or controversy does your paper address?
(Index finger) Focus: What is your research question? What are you studying precisely?	(Index finger) Problem: What problem or controversy does your paper address?	(Index finger) Aims¹: What is the purpose of your paper? What do you intend to show? And how will you achieve this?
(Middle finger) Method: What did you do?	(Middle finger) Aims¹: What is the purpose of your paper? What do you intend to show? And how will you achieve this?	(Middle finger) Novel concept²: Which concepts did you use?
(Ring finger) Key findings: What did you discover?	(Ring finger) Novel concept²: Which concepts did you use?	(Ring finger) Elaboration: Why did you use these concepts? Why does it make sense for your subject matter?
(Little finger) Conclusions or implications: What do these findings mean? What broader issues do they speak to?	(Little finger) Potential: What is the future potential of your work?	(Little finger) Relevance: Why and in which contexts is your work relevant? How is it connected to broader issues?

Table 1: Questions answered by your Abstract

Two sample abstracts

Sample 1: Cognitive Science (Wienen, 2020, n.p.)

[1. Topic and Background] Dual processing theory has been a dominant theory in the study of human judgment and decision making. Tversky and Kahneman (1983) introduced the Linda problem to suggest that human reasoning relies heavily on intuitive, heuristic processing via a seemingly fast pathway. This idea of an intra-individual binary pathway has been criticized (see e.g. Osman, 2004; Reyna & Brainerd, 1991). **[2. Focus]** Thus, it is essential to critically assess the outcomes of studies that empirically test the theory. To test the assumption that inaccurate responses in the Linda problem are associated with shorter response time (RT), a meta-analysis and narrative review were conducted. **[3. Method]** Five studies were meta-analytically reviewed and ten were part of a more extensive narrative review to answer whether correct responses in the Linda problem had slower RTs. **[4. Key findings]** Results of the meta-analysis showed no significant association between accuracy and RT. The systematic review revealed that task congruency, time pressure, a reasoning hint and task repetition all affected performance, implying that a hybrid dual process (Bago & De Neys, 2017) might be more viable than a serial or parallel process. **[5. Conclusions or implications]** Further research on different reasoning tasks is needed to contextualize these results.

¹ In literary and cultural studies, this often corresponds to the thesis statement.

² Please note that novel concept does NOT mean that you have to invent a new concept or develop a new theory. Rather, it could mean that you apply a concept to a subject matter that has not previously been examined from that particular lens.

Sample 2 - Literary Studies: (Gibbs, 2020, p.56)

[1. Topic] This article examines elements of determinism and naturalism in Cormac McCarthy's twenty-first-century novels, *No Country for Old Men* and *The Road*. **[2. Novel Concept]** While naturalism has been noted in McCarthy's work prior to these novels, this article contends that the character and strength of naturalism has changed in the most recent works. **[3. Elaboration]** This change is placed in the general context of naturalist theory, as well as what the article argues is a more general resurgence of naturalism in American culture post-9/11. **[4. Aims]** In particular, this article examines the implications in McCarthy's work for the extent to which the deterministic dimension of naturalism prevents us from judging characters morally, since they exercise at best highly limited free will. **[5. Relevance]** The article provides a detailed analysis of this phenomenon in the two novels, and also uses this to place them in the wider American and global twenty-first-century context.

Comment

We have chosen these two samples because they nicely illustrate the "five-finger-pattern". However, please note that there is some variation in both the sciences and the humanities, and in particular in published texts. This may be due to a journal or publisher's requirements, disciplinary variation or the particular focus of the text at hand. Moreover, in the humanities, you will sometimes find abstracts that only summarise the main argument of a paper, or just briefly outline its content and thus serve as a primer for the reader rather than a self-contained summary. If you want to gain a better understanding of the particular patterns of thesis abstracts in your discipline, you can browse online databases that publish theses and dissertations. The UOS Repositorium, for example, lets you access dissertations that have been handed in at Osnabrück University. Other databases are: [Open Access Theses and Dissertations](#), [OpenThesis](#) (theses from around the globe) and [ETHOS](#) (theses from the UK).

3. The language of abstracts

Tense

As you can see in the samples above, abstracts use a number of different tenses:

- **Present simple** is used for several purposes: to provide details about the paper or study (*This article examines...; Here, we demonstrate experimentally ...*); to conclude or summarise (*While Fanonian notions of space continue to permeate cinema—with Total Recall and Avatar in particular drawing upon stereotypical motifs, it is possible to observe developments upon these discourses.*), and for general facts (*Forest management practices usually preserve riparian buffers along watercourses.*).
- **Past simple** is used to refer to previous research (*Tversky and Kahneman (1983) introduced the Linda problem...*) and, mostly in empirical papers, to report on methods (*Five studies were meta-analytically reviewed...*) and findings (*Results of the meta-analysis showed...*).
- **Present perfect** is often used to establish a link between current phenomena or previous research with the topic or purpose of the paper: *While naturalism has been noted in McCarthy's work prior to these novels, this article contends that the character and strength of naturalism has changed in the most recent works.* When the present perfect sentence serves to contextualise the topic, the clause or sentence that follows usually uses present simple: *X has rarely been considered when studying Y. This paper uses X to ...* When the present perfect sentence refers to previous research, past simple is often used in the following sentence to specify or illustrate this reference: *X has been a dominant theory in the study of Y. In 2011, Smith demonstrated ...*

Complexity

Abstracts are to present a short, but also concise overview of your content within a limited amount of space, which means you need to place a lot of important information in only a few sentences. There are some sentence types that allow you to do that without “overstuffing” your sentences or becoming too repetitive. **Non-restrictive relative clauses** allow you to provide additional information about another element in the sentence: *This concept, which is a key step towards the understanding that black holes may amplify quantum fluctuations, has not been verified experimentally [...].* Long strings of coordinated clauses (... , and..., and..., and) and repetitive sentence structures can be avoided by placing information in a **non-finite clause**: *To test the assumption that [...], a meta-analysis and narrative review were conducted.* (starting with an infinitive); **Confronting** *this tendency, this study applies [...].* (starting with an –ing form); **Based on an empirical study [...],** *the article investigates* (starting with a past participle).

Phrases

Instead of just dropping a long list of phrases, we have underlined generic language chunks in the samples here and in the appendix – bits of language you can easily recycle for your own work. For more on the language of abstracts, we recommend you check out the chapter on abstracts in [Macgilchrist’s](#) book. If you want to learn more about complex sentences we recommend [Siepmann et al.](#) (2011, Module II, chpt. 3). Both of these books are available as e-books via the UOS library catalogue.

4. Getting started

To get started, try to summarise your work with one or two (simple) sentences for each of the five fingers, then combine them into a coherent text. Try it out several times! Another way is to take the first sentence of each of your paper’s sections. These usually announce the content of the section. Then you combine and re-write these sentences so that they become a summary rather than an announcement. In your paper, the first sentences of two consecutive sections might be: *The following section presents a brief overview of concepts X and Y, and explains how these can be used to analyse Z. | In this section, I will draw on concepts X and Y to analyse Z.* In your abstract, this could become: *Drawing on concepts X and Y, the analysis of Z shows that....*

References

- Gibbs, A. (2020). “Things Happen to You They Happen”: Cormac McCarthy, Morality, and Neo-Naturalism. *The Cormac McCarthy Journal*, 18(1), 56–77. Retrieved from <https://www.muse.jhu.edu/article/751605>.
- Macgilchrist, F. (2014). *Academic Writing*. Paderborn: Schöningh.
- Siepmann, D. Gallagher, J. D., Hannay, Mike, Mackenzie, L. (2011). *Writing in English. A Guide for Advanced Learners*. (2nd, rev. ed.), Tübingen: Francke.
- Wienen, Renske (2020). *Thinking Fast and Swift? A meta-analysis of response latencies in conjunction problems*. (Master Thesis). Umeå University, Umeå, Sweden. Retrieved from <https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1436747&dswid=9503>

Appendix: Sample abstracts

Note: This handout is written in British English. The references are provided in APA style (7th ed.).

Appendix: Sample abstracts

It is important to remember that the provided patterns are not universal and real-world abstracts not always stick to them. Below we provide sample abstracts that do not strictly follow the proposed structure, but still do their job:

Sample 1: Physics (Cromb, 2020)

TOPIC AND BACKGROUND	<i>(1) In 1971, Zel'dovich predicted that quantum fluctuations and classical waves reflected from a rotating absorbing cylinder will gain energy and be amplified. (2) <u>This concept, which is a key step towards the understanding that black holes may amplify quantum fluctuations, has not been verified experimentally owing to the challenging experimental requirement that the cylinder rotation rate must be larger than the incoming wave frequency.</u></i>	<ul style="list-style-type: none"> ➤ provides background (The original discovery leading to the current research.) ➤ signals a gap in knowledge (The concept has never been verified)
FOCUS AND METHODOLOGY	<i>(3) <u>Here, we demonstrate experimentally that these conditions can be satisfied with acoustic waves.</u></i>	<ul style="list-style-type: none"> ➤ introduces objective, hints at methods
KEY FINDINGS	<i>(4) <u>We show that low frequency acoustic modes with orbital angular momentum are transmitted through an absorbing rotating disk and amplified by up to 30% or more when the disk rotation rate satisfies the Zel'dovich condition.</u></i>	<ul style="list-style-type: none"> ➤ enumerates findings
IMPLICATIONS	<i>(6) <u>These experiments address an outstanding problem in fundamental physics and have implications for future research into the extraction of energy from rotating systems.</u></i>	<ul style="list-style-type: none"> ➤ links to a more general issue and provides outlook

As you might have noticed, this abstract skips the methodology description, introducing the topic and going straight to the results. There is only a brief mention of what exactly was done to achieve these results in the Focus sentence. However, the abstract still appears self-consistent and gives an overview of the author's work. This change in the abstract's structure can be explained by the general conventions in the field of exact sciences.

Sample 2: Forestry (Berg, 2019)

TOPIC AND BACKGROUND	<i>Forest management practices usually preserve riparian buffers along watercourses in order to protect stream water from physical, chemical and ecological changes caused by clear-cutting.</i>	<ul style="list-style-type: none"> ➤ identifies the topic
FOCUS	<i><u>The purpose of this thesis was to investigate whether there is a relationship between the size of the riparian buffer zone along small streams, i.e., headwaters, and a number of physical and chemical attributes of these streams.</u></i>	<ul style="list-style-type: none"> ➤ states what has been done, using past simple
METHOD	<i>Twelve headwaters in the Västerbotten county and twelve in Jönköpings county <u>were investigated</u>. These headwaters had a range of buffer widths from "No buffer" (no trees left), Thin buffer" (< 5 m wide), to "Moderate buffer" (>5 m wide) and "Reference" (no harvest) streams <u>were also included</u>.</i>	<ul style="list-style-type: none"> ➤ describes methods using past simple in the passive voice

- KEY FINDINGS** *Tested physical and chemical conditions were light in the riparian zone, air and water temperature, stream bed cover and water chemistry. Buffer width had a significant effect on reducing light levels and temperature in the riparian zone; a buffer width over 13 m on each side of the stream was needed to maintain light and air temperature as in reference conditions. Regarding water temperature, increasing sedimentation and water quality, no significant reducing effect of increasing riparian buffer width was found.*
- enumerates findings

The author of this abstract decided not to mention any conclusions made in the paper. Most likely they considered the key findings more important to understand their work and used more space for them, leaving the conclusions out.

Sample 3: Literary Studies (Pickens, 2015)

- | | | |
|------------------------|---|---|
| TOPIC | <i>Octavia Butler depicts a character with physical or mental disability in each of her works.</i> | ➤ introduces topic |
| NOVEL CONCEPT | <i>Yet scholars hesitate to discuss her work in terms that emphasize the intersection with disability.</i> | ➤ introduces concept |
| ELABORATION | <i>Two salient questions arise: How might it change Butler scholarship if we situated intersectional embodied experience as a central locus for understanding her work? Once we privilege such intersectionality, how might this transform our understanding of the aesthetics of the novel?</i> | ➤ elaborates on the introduced concept, deriving research questions |
| METHODS AND AIM | <i>In this paper, I reorient the criticism of Butler's work such that disability becomes one of the social categories under consideration. I read two prominent analyses of Butler's work because their interpretations — black feminist in orientation — centralize black female identity as a category of analysis. I contend these analyses grapple with ideas that can only be fully understood with disability as an integral portion of the discussion.</i> | ➤ announces object of study, approach and main argument (=thesis statement) |
| KEY FINDINGS | <i>Since categories of analysis like race, disability, and gender require and create cultural tropes and challenge accepted forms, I outline three components of Butler's aesthetic: open-ended conclusions that frustrate the narrative cohesion associated with the novel form, intricate depictions of power that potentially alienate the able-bodied reader, and contained literary chaos that upends the idea of ontological fixity.</i> | ➤ announces results of the analysis |

This abstract announces rather than reports the work, but substantiates the announcements with the main argument and findings. The author not only writes what they are doing in the paper, but also to what end. This is rather common in the humanities, particularly when the main focus is on a specific concept. Note how the part that corresponds to aims and methods uses the present tense. The question answered here is “What **does** this paper do?” rather than “What **did** this study do?”.

Sample 4: Cultural Studies (Trinder, 2020)

TOPIC	<i>(1) Spatial fixing was an integral part of maintaining imperial power structures throughout the colonial period, and like other discourses, it later found itself reproduced in cinema.</i>	➤ introduces a key concept (<i>spatial fixing</i>), its historical origins (<i>colonial period</i>) and how it relates to the subject matter (<i>reproduced in cinema</i>)
PROBLEM	<i>(2) As such, the physical and mental use of space has become key to the dissemination of ideological messages in many films.</i>	➤ specifies the topic's relevance to the subject matter (<i>has become key</i>) and highlights a problem (<i>dissemination of ideological messages</i>)
AIMS	<i>(3) Confronting this tendency, this study applies theories of postcolonialism to selected examples of contemporary Hollywood film to examine how far it reconstructs traditional binaries of space.</i>	➤ embeds the paper's aims into the broader topic and explicitly states the aims
KEY FINDINGS	<i>(4) This investigation finds that despite attempts to disseminate more culturally sensitive and globally-minded portrayals of the Other, space remains particularly problematic. (5) It also remains vital to storytelling narratives of race, gender, class and society in consideration of the film cases analysed in this study.</i>	➤ presents findings in relation to the specific subject matter (<i>the film cases analysed in this study</i>)
POTENTIAL	<i>(6) While Fanonian notions of space continue to permeate cinema—with Total Recall and Avatar in particular drawing upon stereotypical motifs, it is possible to observe developments upon these discourses. (7) Elysium and District 9 exemplify this, with each feature employing space to address increased questioning of US cultural superiority since the failed Iraq and Afghanistan invasions and the 2008 global economic crash.</i>	➤ draws broader conclusions and evokes the future potential of this topic

There are a few ways to apply the five-finger pattern to this abstract. Here, we read sentence (2) as highlighting a problem that will be addressed in the paper, and *Confronting this tendency* in sentence (3) as establishing a direct link between this problem and the paper's aims. One could also read sentence two as just part of the overall topic, with the first part of sentence (3) introducing *theories of postcolonialism* as a novel concept – a set of theories that have not yet been applied to these particular films.

Both of these interpretations work, and so do combinations of them. The basic pattern, however, remains the same: The topic is introduced and specified, aims and findings are announced, and broader statements are provided at the end.

References

Berg, I. (2019, September 05). *Headwaters and forestry: Effect of riparian buffers on stream physiochemical properties*. (Bachelor Thesis). Umeå University, Umeå, Sweden. Retrieved from <http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1348595>

Cromb, M. et al. (2020). Amplification of waves from a rotating body. *Nature Physics*. doi:10.1038/s41567-020-0944-3

Pickens, T. A. (2015). Octavia Butler and the Aesthetics of the Novel. *Hypatia*, 30(1), 167-180. doi:10.1111/hypa.12129

Trinder, S. (2020). Questions of Space in Contemporary Hollywood Cinema. *Open Cultural Studies*, 4(1), 1-11. doi:10.1515/culture-2020-0001