



## **Reading situations, cumulative effects of reading, and their consequences for surveying and promoting reading<sup>1</sup>**

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Aldus Up, a Creative Europe project (2020–2024) with the mission to develop the network of European book fairs further<sup>2</sup>, has identified the unsatisfactory state of what is known about the flow of book contents between European countries (in the form of licensed translations) as well as about reading habits in Europe as primary points of departure for its research activities. Moreover, the accessibility of book fairs in the wake of the European Accessibility Act is an issue covered by the corresponding Aldus Up effort. Particularly for these research strands, the Gutenberg Institute for World Literature and Written Media at Johannes Gutenberg University Mainz (GER) has become part of the Aldus Up consortium.

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<sup>2</sup> For detailed information about the project, see <http://www.aldusnet.eu/>.

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## **Executive Summary**

It can be considered as common sense that reading is important and that it has the potential to influence people's life positively. This has also been evidenced by a large number of studies over the last years. Since the importance of reading is also one of the driving motivations behind the Creative Europe project Aldus Up as the network of European book fairs, the network with its research efforts wants to contribute to the objective to increase the number of, and improve studies on, reading behaviour in different European countries and, in particular, make them more comparable.

This white paper is a brief presentation of different concepts of reading as well as a selection of important studies on the positive effects of reading for both individuals and society. Subsequently, it is proposed that the positive effects of different types of reading acts are presented cumulatively in an intuitive way with the help of graphically visualised constructs which we call 'signatures'. These 'signatures' make it possible to manage types of reading acts for different purposes: if policy makers want to device targeted reading promotion measures, they have to specify and systematically know about the types of reading acts on which they focus. The same applies if publishers and other companies of the book industry work on product innovations that are intended to find readers. To support this is the exact purpose of the proposed 'signatures'.

## 1 Introduction

Reading is not only a prerequisite for participation in everyday life, but also, for example, the *raison d'être* for many players in the book trade; important representatives of the latter, namely book fairs and publishers' associations, are project partners of Aldus Up. Based on a common understanding that reading is something important and positive, it is necessary to have reliable insights into what, how, etc. people read in a respective country, not only for market participants of the book trade, but especially also for policy makers. Typically, such insights are obtained with the help of surveys. Moreover, for purposes of mutual learning and benchmarking it is highly desirable that the results of such surveys are comparable across countries. Comparable here means in terms of not only details of the methodological approach or even the specific questionnaire, but above all in terms of what reading is in the sense of the respective national surveys: for example, is reading a fashion blog on a smartphone considered reading? Listening to an audiobook certainly is not – or should it be?

Due to the actualities laid out above, Aldus Up sees it as one of its missions to gain an overview of existing surveys on reading habits in different European countries and subsequently propose measures that will make these surveys more comparable in the future. Not least, systematic reading promotion certainly can benefit from better and more comparable reading surveys.

In fact, an explorative survey on existing surveys on reading habits in Europe conducted in this context in early 2021 showed a considerable number of issues that make productive comparisons difficult if not impossible. Beyond variances in detail ranging from methodological differences concerning the data collection, or the composition of the sample, to differences in the actual items used to measure reading habits, the survey showed that there were indeed considerable contrasts in what is considered reading in the different surveys. While a majority of the surveys refer to reading as only reading books, others, in turn, include the reading of newspaper articles, social media posts, manuals or even listening to audiobooks in their definition of reading (Fröhlich et al., 2021).

As was hinted at above, the discussion on what should be considered reading is not primarily taken as an academic endeavour in our approach, although the question is also of great interest from a scholarly angle, of course. As a point of departure, we took the fact that market participants and policy makers have to know about reading habits to develop sensible business strategies and reading promotion policies – and that surveys and the concept of reading on which they are based have to reflect the intentions and mind-sets of market participants and policy makers to be useful. In our efforts, we begin with the obvious

observation that there are very different types of reading situations and that each reading promotion policy has to decide which of those it addresses specifically or which it means to promote, respectively. For example, should the reading of social media posts or school textbooks be included in the range of promoted activities? Similarly, data on reading habits must be sufficiently granular for market participants to be useful. For each of these two top-level use cases, this means that people's habits with respect to these reading situations have to be empirically 'measured'. Our efforts to provide better data on reading habits therefore serve all stakeholders in the book world who are committed to ensuring that reading remains (and even increasingly becomes) an important part of intellectual life in Europe and help to support publishing as a viable economic activity.

Aldus Up's Working Group on Reading (WGOR) follows a double-strategy in the direction of the harmonisation of European reading surveys. On the one hand, it has taken the items in different European reading surveys on the surface level as points of departure to propose a core set to be integrated in as many European surveys as soon as possible to make comparing and relating them easier: **ERICs**, the **EuRopean Item Core Set** for Reading Surveys (Fröhlich et al., 2022). First evaluations of reading surveys making use of the proposed core set already (in Norway, Spain and Italy) have given the impression that this task is inevitable, but more complex than it might first appear (Reinke, 2023); on the basis of analysis results, there will therefore be updated and optimised versions of ERICS in the future. On the other hand – and that's the contribution of this paper –, WGOR wants to address a few underlying concepts and issues. The reason for this is that for us it is obvious that it will be more organic and sustainable to harmonise European reading surveys, if we also work on a common understanding of what the rationales of reading surveys can be (depending on the interests of the institutions behind them) and which acts of reading can consequently be in the focus of such surveys from a systematic point of view. As opposed to the 'surface work' around ERICS and without meaning to devalue that at all, this contribution addresses underlying assumptions and stipulations. Thus, we advocate to approach the insufficiently commensurable items used in European reading surveys from two angles: from the surface of empirical social research (ERICs) as well as from the rationales of surveys and a classification of the acts of reading that might be of interest. Not least is agreeing on commensurable items across different surveys easier when there is a common set of concepts to talk about as to why certain questions should be asked.

Before proposing our reading situation 'signatures', a schematic way of representing the assumed aggregated effects of reading situations, and showing which reading situations

serve the interests of institutions that promote reading or do business with reading materials (Chapter 4: “‘Signatures’ to capture the benefits and beneficiaries of reading”), we first discuss basic concepts of reading (Chapter 2: “Basic concepts of reading”) and why and in what ways reading is seen as positive (Chapter 3: “Positive effects of reading”).

We thought that in order to get more comparable results, besides developing measures to standardise future surveys on reading habits in Europe, we should present these issues as we see them to the interested community and open up a discussion. Not only will the results of this discussion be incorporated in later versions of this document, but they will also shape our future operational activities. We decided to do this primarily in the form of a white paper, which might go through different versions; we explicitly invite interested parties to give feedback on this document.

At the beginning of this chapter, we mentioned that (among others) a decision has to be taken in case of each reading survey whether time spent listening to an audiobook will be considered as time spent reading. A similar need for such a decision arises in the process of formulating reading promotion policies. For the pragmatic purposes of this white paper, we take the following position with regard to audiobooks: in our considerations, we assume that listening to audiobooks is of course not the same as reading (since it is not an interaction with a written text), but in many contexts of surveying reading and projecting, implementing and controlling reading promotion policies, it can sensibly be treated together with forms of reading. We will follow that line for the rest of this document.

This working assumption is put to test in the parts of this white paper in which we present studies on basics as well as on the effects of reading (Chapters 2 and 3): aspects of listening to audiobooks had not been considered in these studies. Pragmatically, we are so bold as to nevertheless attribute those effects for which this seems plausible also to listening to audiobooks, particularly in Chapter 4. Of course, we know from studies such as those by Naomi Baron (2021) that there are limits for this kind of transference. In fact, this problem area – or research gap – is bigger still: as meta-studies referred to in footnote 6 (page 26) clearly show, the effects of reading (they work with more detailed and operationalisable concepts, though) differ considerably between reading on paper and reading on screens ... By analogy to the audiobook case [and of course if there is no explicit contradictory evidence], we have decided to use plausible effects evidenced by studies concerning reading on paper also for reading situations that involve screens. This means that it is not possible in this contribution to concentrate on the undisputable differences between the effects of reading on print on the one, and reading on screens or listening to audiobooks on the other

hand – we explicitly do acknowledge the specific research work done in these areas, however. Unless obviousness or granular evidence suggest otherwise, we boldly transfer the effects of reading on paper to reading on screens and auditive perception. In the context of the main line of argumentation of this contribution, this concession seems to be justifiable.

## **2 Basic concepts of reading**

In the modern world, reading has become an integral part of everyday life, which takes place on various occasions and for different reasons: we read newspaper articles and street signs, menus and crime novels, magazine interviews and cooking recipes, Instagram captions and packaging instructions, scientific articles as well as love letters. For most people who have mastered the skill of reading, it is a simple task often done subconsciously without thinking much about it. When taking a closer look at the concept of reading, however, it shows that reading is a complex and diverse phenomenon, which can be analysed from different perspectives.

### **2.1 Neuroscientific foundations of reading**

From a neuroscientific perspective, the process of reading is based on visual perception and recognition of optical stimuli and relies on numerous physical and cognitive functions related to aspects of vision, attention, language and comprehension. The actual reading process therefore starts with a basal perceptual process in form of a motoric activity in which the relevant optical stimuli such as individual letters or other characters are visually received via the reader's eyes (Wittmann & Pöppel, 1999). Contrary to what one might think, the eyes do not move continuously and evenly over the text. Instead, they constantly alternate between focusing on certain areas, so-called fixation points, and making rapid forward and backward movements, called saccades, in which they jump back and forth between the different fixation points without extracting information from the text. This happens at such a speed, usually in the fraction of a second, so that the reader is typically not aware of these processes (Reichle et al., 1998). The stimuli received in this way are converted into neuronal information at the photoreceptors of the retina and transmitted to the brain via the optic nerve for further processing. If the sense of seeing cannot be accessed for some reason, such as due to a genetic disease or an accident, the sense of touch can be used as an alternative way to obtain information. Although there are great similarities to visual reading, tactile reading still shows differences in certain aspects of the reading process (Reich et al, 2011).

Regardless of the reception modality, a central point in reading is the actual processing of the input, which is received by the reader's brain. As writing and reading as means of communication are relatively recent cultural inventions in evolutionary history, there are no specifically developed brain structures for recognising and processing written text. According to Dehaene's neuronal recycling hypothesis, certain cortical areas of the brain, which were originally dedicated to other, partially similar purposes such as object

recognition, are now used for this function (Dehaene & Cohen, 2007). These areas are linked to other brain regions responsible for specific reading operations such as the processing of orthography, phonology, semantics and syntax, which together form an extensive functional network – the reading network (Brem & Maurer, 2015). While the cooperation of these areas enables the cognitive reading process, the actual use and sequence of the individual areas during reading can differ from person to person and from context to context (Richardson et al., 2011).

## **2.2 Cognitive processes of reading**

According to cognitive psychology, a crucial part of the reading process in the brain's reading network is the comprehension of the visually retrieved information from the optical stimuli (Rayner et al., 2012). When reading longer texts, this process can be divided into several stages, with low-hierarchy sub-processes at the word and sentence level and hierarchy-intensive sub-processes at the text level. At the word level, the low-hierarchy sub-processes involve the identification of letters and words and the assignment of meaning to them, which is subsumed under the term “lexical access” (Christmann, 2015). The letter and word recognition is characterised by several effects pertaining to the procedure and the time required for this process, e.g. the word superiority effect or the word frequency effect (Lupker, 2005; Rastle, 2018). As texts usually comprise of sentences rather than single words, the reader also needs to relate the individual words to each other and establish a logical connection between them at the sentence level. This happens through a comprehensive semantic as well as syntactic analysis of the words. At the text level, a coherent textual meaning needs to be created through the connection and integration of sentences on the one hand and entire text sections on the other hand. To achieve this, the reader relies on co-references or various kinds of connectives implemented within the text and overall text structures, such as headlines or highlights (Christmann & Groeben, 1999). In the end, the reader has built a situation model of the text that represents an extensive comprehension of the content going beyond the literal meaning of specific words or sentences (van Dijk & Kintsch, 1983).

All these different sub-processes of reading are generally determined and framed by the concept of cognitive constructivism. This implies that reading is not a passive reception or decoding of the information embedded in a text, but rather an active process of arriving at a meaning. Consequently, readers draw on their prior knowledge, in terms of implicit language knowledge and general world knowledge as well as their experiences, expectations

and interests, and relate these aspects to the content of the text (Hörmann, 1980). Reading and text comprehension can therefore be described as a text-reader-interaction which combines so-called bottom-up and top-down approaches, either focusing on the text or the reader's knowledge as the starting point of processing (Verhoeven & Perfetti, 2008).

### **2.3 Reading as a social practice**

From the perspectives of different fields within the social sciences and the humanities, the act of reading also has various communicative and social components and constitutes itself as a social practice (Bourdieu & Chartier, 1985). Firstly, reading itself can be seen as a type of text-based communication between a sender and a receiver: an author encodes information through an intended selection of words, text structures and formatting as well as the medium used to convey the message, while the reader subsequently decodes the information received. As the reading process usually takes place as an indirect form of communication without the possibility of immediate personal interaction between author and reader, as well as both sides relating to individual experiences and prior knowledge for their construction of meaning, the intended and the actual message might differ from each other (Kuhn, 2015). Another factor that influences the communication process of reading is the medium in which the information is transmitted. The medium does not only determine the physical actions performed while reading due to its materiality and format, but also the reception process itself as the characteristics of a certain medium regulate the presentation and arrangement of the text. Therefore, reading in a hardcover book can vary from reading on a computer screen, even if the content is exactly the same (Kuhn & Hagenhoff, 2015).

Apart from that, reading is usually embedded in different ways of social interaction occurring before, during, and after reading. On the one hand, the actual act of reading is not limited to a reception process of a single reader, but can also include multiple people simultaneously. This is not only the case when reading out loud to others, but also during the so-called collective reading taking place in different social groups ranging from historic reading societies in the Early Modern period (Schneider, 2015) to online social reading platforms in modern times (Pleimling, 2012). On the other hand, the individual reading process can be the beginning for subsequent communication. Readers get in touch with other people from their social environment to discuss or talk about news, ideas or other content they came across while reading. In this way, reading contributes to the formation of opinions and the construction of identity and enables readers to participate in cultural and social life (Hurrelmann, 2002).

## **2.4 Chapter summary**

In conclusion, one can say that the act of reading can hardly be subsumed under one general or all-encompassing definition; rather, it presents itself as a multifaceted concept comprising various neuroscientific, cognitive, communicative as well as social aspects, depending on the perspective adopted. It should be noted, however, that the basis of all approaches is the interaction of a person with some form of written text.

## **3 Positive effects of reading**

As indicated in the previous chapter, reading of any kind is generally regarded as a basic competence and an important prerequisite for individuals to participate in a growing and differentiating knowledge and information society, which is largely determined by text-based communication (Schneider, 2019). The ability to read simplifies day-to-day life in many aspects. It allows people to obtain information about the latest events from the media, to understand complex clauses of contracts, to use their smartphone to read a text message, to look up the dentist's opening hours on their computer, or simply to find the right doorbell when visiting friends in an apartment building. Reading therefore represents a communicative practice, which greatly influences a great variety of different areas of society. It can be seen as a so-called cultural technique, necessary to offer solutions to individual and collective problems within the framework of specific social environments (Saxer, 1995).

### **3.1 Reading as an issue of public concern**

Public institutions as well as numerous foundations and organisations take up on this status of reading by emphasising its importance for both individuals and society. Reading is considered an issue of public concern and associated with several positive attributes and effects. When taking Germany as an example, one can see that this common understanding of reading as something positive and worth promoting is reflected in various ways: at the political level, the Federal Ministry of Education and Research supports various measures to promote literacy, including the National Decade for Literacy and Basic Skills. In this context, reading is described as “an essential requirement for a self-determined living, lifelong learning as well as active social and professional participation” (Bundesministerium für Bildung und Forschung, 2021). This attitude is also reflected in the school curricula of the different federal states. The ability to read is seen as a necessity for the overall acquisition

of knowledge and thus is taught comprehensively from an early age, concentrating on learning to read as well as elaborating certain content and conveying the joy of reading (Ministerium für Bildung, Wissenschaft und Weiterbildung, 2021). A similar approach is used by the National Reading Pact, a reading promotion project initiated by Stiftung Lesen and Börsenverein des Deutschen Buchhandels in partnership with over 150 institutions, foundations and companies. The aim of the initiative is to enable all children and young people to acquire profound reading skills in order to fully realise their educational potential and to engage in co-determination and opinion-forming as a crucial success factor of a democratic society (Nationaler Lesepakt, 2021).

### **3.2 Measurable effects of reading books**

While reading in general is considered essential for participating actively in society, reading books in particular is ascribed with certain functions and effects exceeding the simple decoding of optical stimuli to retrieve information. According to a recent analysis issued by the Dutch initiative KBV Boekwerk (Blueyard, 2019) looking at verifying this widespread assumption, the impact of reading books on the individual reader, and thus indirectly and directly on society as a whole, can be divided into four main categories – namely ‘fitting into society’, ‘employment skills’, ‘health’ and ‘well-being’. This analysis and the corresponding categories form the basis for the following explanations.

#### **3.2.1 Fitting into society**

As specified by Blueyard (2019), an important aspect is the fact that books influence the way people live together and behave in society: while reading a book, the individual reader retrieves and develops certain social skills, which affect not only his personal thoughts, opinions and attitudes, but also his actual behaviour towards others. Reading is considered stimulation for the brain by enhancing its imaginative capabilities and enabling the reader to experience and comprehend situations or feelings he or she might not encounter normally (Oatley, 1999). Recent meta-studies have shown that there is indeed a correlational as well as a small, yet significant causal relation between reading fiction and the improvement of a person’s social-cognitive ability in contrast to reading non-fiction or not reading at all (Dodell-Feder & Tamir, 2018; Mumper & Gerrig, 2017).

A closer look at the various experimental studies included in the meta-studies reveals that the positive effects of reading influence a wide range of social-cognitive tasks such as theory of mind, empathy and pro-social behaviour. In line with previous correlational

research, empirical findings from a widely discussed<sup>3</sup> study by Kidd and Castano (2013) show that reading short passages of literary fiction improves theory of mind in adults, which is the ability to imagine and logically understand other people's mental states in relation to various aspects, such as knowledge, feelings, beliefs, intentions, ideas or expectations and distinguish them from one's own. A lot of doubt has been uttered in the past decade towards these initial suggestions, first and foremost through the publication of many articles dealing with failures to replicate this effect. However, in recent years, there have also been meta-analyses investigating repeated attempts of solidifying the initial findings, which leave reason to believe that while the effect may not be as strong as initially proposed, there still is empirical evidence that it exists to some degree (Quinlan et al., 2022 and van Kujik et al., 2018).

Interestingly, the original overall findings of Kidd & Castano (2013) were limited to reading excerpts of literary fiction<sup>4</sup> while a correlation between reading popular or non-fiction texts and the promotion of theory of mind processing could not be detected. Subsequent studies show concordant results and even extend the object of research to reading short stories (Black & Barnes, 2015) and entire novels (Pino & Mazza, 2016). One potential explanation is seen in the aspect that literary fiction is often defined by having complex and less predictable characters, creating a greater challenge for readers to draw on their cognitive and social skills to interpret thoughts and emotions (Hakemulder, 2000). The enhancement of theory of mind abilities by reading literary fiction therefore could be related to the mentalising processes engaged while reading (Tabullo et al., 2018).

Apart from improving mentalising abilities, reading narrative fiction also helps to comprehend and relate to other people's emotions, enabling readers to actually feel these emotions to a certain extent and thus empathising with the fictional characters (Djikic et al., 2013a; Mar et al., 2006; Mar et al., 2009). According to Mar and Oatley (2008), this form of emotional resonance with other people's feelings while reading is made possible by a kind of perspective-taking. Instead of thinking of how he or she might personally feel in a situation described in a book, the reader imagines and experiences emotions congruent to those of the fictional characters, which then leads to growth of affective empathy. A prerequisite for this engagement in the stimulation of social worlds and the compassion

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<sup>3</sup> For a critical analysis and a further review of the results see Panero et al. (2016), Samur et al. (2018) as well as Kidd and Castano (2018).

<sup>4</sup> The terms "literary fiction" and "narrative fiction" are not always defined comprehensively in the various studies consulted for this chapter, so that the underlying concepts cannot always be sharply delineated. In the following, we refer to the terms used in the respective study without elaborating the conceptual differences and similarities in detail.

resulting from this is often seen in the ability to create mental imagery and to be emotionally transported into the story (Bal & Velkamp, 2013).

The empathetic understanding gained by reading literature furthermore plays an important role in reducing preconceived ideas as well as prejudices. As reading allows readers to get in touch with certain cultural practices or groups of society, which are not normally an integrative part of their social environment, it permits them to expand their imagination and knowledge and reduce the tendency to judge (Blueyard, 2019). Various studies have analysed this effect: while Mazzocco et al. (2010) found out that individuals who read a fictional story promoting tolerance towards homosexuals indeed showed reduced rates of homosexual prejudice, Johnson et al. (2014) observed that participants exhibited lower categorical race bias when reading a fictional story about a counter-stereotypical Muslim woman in comparison to reading a descriptive summary. This is in accordance with a study by Johnson et al. (2013), the results of which indicate that the effect of inducing empathy and consequently reducing prejudices and stereotyping against, in this case, Arab-Muslims only applies when reading narrative fiction. According to the authors, this could be possible through the mechanism of spontaneous perspective-taking, which serves as an effective method for implicit and explicit prejudice reduction. In contrast to non-fiction, the special features of narrative fiction offer the reader the opportunity to imagine the thoughts and feelings of the main character without explicitly being told to do so (Johnson et al., 2013).

It is striking that this effect is not limited to narratives set in the real world, but can also be demonstrated for imaginary settings such as the magic world of Harry Potter as well. A study undertaken by Italian scientists (Vezzali et al., 2015) has shown that reading the best-selling fantasy novels improves attitudes towards stigmatised groups such as immigrants, homosexuals, or refugees. The explanation for this effect is based on the parasocial contact hypothesis, which states that exposure to fictional characters in different media formats can evoke cognitive and affective experiences similar to those produced by real contact (Schiappa et al., 2005). As readers identify themselves with Harry Potter, he acts as a role model. Readers get to know the attitudes and behaviours towards stigmatised groups displayed by the protagonist and then project this perspective onto the real world in order to understand and interact with disadvantaged social groups (Vezzali et al., 2015).

The fact that reading fiction does not only positively influence social-cognitive abilities such as the development of empathy and the reduction of prejudices, but also leads to active behavioural changes in the everyday lives of readers and thus contributing to the

functioning of society has been empirically proven in other studies (Johnson, 2012; Johnson et al., 2013; Koopman, 2015a). The results underline that readers tend to engage more in so-called pro-social behaviour in order to diminish other people's distress after reading fiction. In the case of Koopman's study, for example, the participants had the option to donate the money or parts thereof they had received for taking part in the experiment to charities related to the topics about which they had just read. The participants who decided to donate to foundations that help affected people to cope with grief or depression were more likely to do so when they had read a narrative text than when they had read an explanatory text (Koopmann, 2015a).

While most of the studies concentrate on the effects of reading literary fiction, popular fiction and its various subgenres, in contrast, are rarely looked at – although there is evidence that it is subject to similar results (Mumper & Gerrig, 2017). A study undertaken by Fong et al. (2013) examined the question of whether there are any differences between separate genres of popular fiction in terms of their influence on social-cognitive abilities. The results show that a correlation between interpersonal sensitivity and different literary genres is only detectable in case of romance and – with limitations – in case of domestic fiction or thrillers, whereas no evidence of such a connection was found in case of science fiction or fantasy. One possible explanation indicated by the authors could be that romance, as a common genre of popular fiction, is highly determined by interpersonal interactions and social relationships, which influence both the composition of the plot itself as well as the characters in the narrative. Therefore, engaging with this genre in the form of reading a novel leads to insights gained through various simulations of interpersonal experiences and thus to better performance in interpersonal tasks in the real world (Fong et al., 2013).

Some considerations go even further than the inclusion of popular fiction as an object of interest. Since certain non-fictional works such as memoirs bear some resemblance to fictional stories as their content and narrative structure allow the reader to imagine the thoughts and opinions of others, it can be assumed that the former can also positively influence the social cognition of their readers (Dodell-Feder & Tamir, 2018). Some scholars therefore argue that narrativity is generally a more useful concept than fictionality for analysing the impact of reading different types of texts or books (Koopman & Hakemulder, 2015). Overall, one could say that the effectiveness with which reading books enables a positive change in social-cognitive abilities depends on the extent to which a story offers the opportunity to learn about other people's thoughts, emotions, and experiences (Tamir, 2016). The better the simulation of such social interactions during reading, the easier it will be for

the reader to benefit from enhanced social-cognitive skills in the real world (Zunshine, 2016).

### **3.2.2 Employment skills**

Beyond the improved capabilities in the social-cognitive domain, reading books, as stated by Blueyard (2019), also provides individuals with the opportunity to acquire and extend a diverse set of skills significant in the area of employment, which become particularly relevant in a changing work environment due to digitisation and other developments that require workers to adapt accordingly. The competences obtained through reading books that meet these demands and challenges of the labour market mainly consist of soft skills, subsuming both personal as well as interpersonal qualities, which form an important addition to the traditional hard skills such as professional competency or experience (Blueyard, 2019).

In general, regular reading of any kind, including reading books, is directly linked to the development and improvement of important language skills, which serve as a prerequisite for the participation in working life in the first place. This does not only refer to the ability to follow specific work instructions or safety protocols by retrieving information from a written text, but rather to the entire process of understanding, processing and using information to make decisions and act correspondingly (Blueyard, 2019). These language skills, in turn, have a direct impact on an individual's life in relation to their work. According to a large-scale international study looking at key cognitive and workplace skills undertaken by the Organisation for Economic Co-operation and Development, adults with higher literacy proficiency tend to have a better chance of being employed and earning higher wages than their less-proficient counterparts. This correlation between language skills and success in the labour market is also persistent when accounting for other relevant factors such as educational attainment, field of study or work experience (Organisation for Economic Co-operation and Development, 2013, 2016, 2019).

Beyond language skills, reading books also fosters a diverse set of non-verbal cognitive skills ranging from abstract thinking and mastering difficult tasks to problem solving and decision making (Blueyard, 2019). Overall, it is assumed that reading stimulates mental activity and thus contributes to the development of the brain and intelligence. Results from a longitudinal twin study in England and Wales have indeed shown that twins with better reading ability have higher general intelligence than their identical twin sister or brother (Ritchie et al., 2015). The cognitive growth triggered by reading is even visible in

the brain itself: Skeide et al. (2017) were able to demonstrate that six months of literacy training for illiterate Hindi-speaking Indian adults led to changes in the neural structure of their brains, in particular an increase in functional connectivity between different brain regions.

Furthermore, reading books is often associated with encouraging a person to think further about different aspects of a story and therefore inciting reflection meaning the occurrence of profound thoughts or insights on oneself, often in relation to other people or the society (Koopman & Hakemulder, 2015). Empirically, this connection between reflection and reading books is also demonstrated: in a qualitative study, Levitt et al. (2009) analysed the changes in behaviour, emotions and attitudes triggered by reading a book as well as their reasons and concluded that readers gain new insights through certain characteristics of the narrative and then use this new self-awareness for their personal development. The degree of the reflection occurring while reading books is again seen to be dependent on the text genre with narrative stories accounting for longer lasting and deeper reflections due to their textual features. Coinciding with multiple content analysis studies of reader responses approving that the feelings occurring during reading literature in particular can have a transformative effect (Kuiken & Miall, 2004; Miall & Kuiken, 2002; Sikora et al., 2010, 2011), Koopman (2015b) determined that while there was no difference in the number of thoughts occurring immediately after reading an excerpt of a book in relation to its genre, narrative texts indeed positively influence both the quantity and quality of reflection in the long term. In addition, an experiment conducted by van Peer et al. (2007) found that the cognitive reflection is higher for readers confronted with poetic sentences containing linguistic features that differ significantly from an ordinary usage and thus triggering critical engagement with the content. Koopman and Hakemulder (2015) therefore argue that, from a theoretical point of view, this perception of striking textual elements together with the evocation of previous personal experiences through the description of characters, places and events as well as the experience of emotional reactions to characters, are the most important prerequisites for the reflection processes triggered by reading books.

While reflection itself can be seen as an essential employment skill, it also leads to another important skill, namely critical thinking. As Bird (1984) proved with an experimental study, participants who took part in a literature programme scored better on a critical thinking test than a control group, which did not read and interact with literature. Following a similar approach, Block (1993) came to the same conclusions. By participating in a literature-based programme where they were taught a specific thinking and reading

comprehension strategy and later applied it themselves to children's literature, students were able to improve their critical thinking skills, among other things. These findings suggest that the reading of literary texts trains certain mental abilities connected to critical thinking, such as asking questions, activating background knowledge or connecting ideas through interpreting and actively processing the information contained in the text (Koopman & Hakemulder, 2015).

Another skill mentioned by Blueyard (2019) is the ability to suspend judgement. For the overall work performance of regular workers as well as people in leadership positions, it is considered beneficial to make a decision only when enough information is available to fully assess a situation, idea or proposal. That this behaviour is encouraged by reading fictional literature was verified by Canadian research measuring the need of individuals to quickly reach a conclusion in decision-making and stand by it even when further information becomes available in the process of knowledge acquisition, also referred to as cognitive closure (Djikic et al., 2013b). The participants of this study, who were given fictional short stories to read as compared to the non-fictional essays given to the control group, showed a significant short-term decrease in their self-reported need for cognitive closure with the effects being particularly strong for frequent readers.

The importance for general teamwork and leadership also applies to theory of mind and empathy as an additional factor that can be improved by reading books, as explained in chapter 3.2.1. According to Blueyard (2019) theses, professional skills are generally considered to be essential for a successful work process, as they simplify the communication and overall relationship within and between the individual groups of clients, employees and superiors. Especially in the context of leader-follower relationships, the significance of empathy is often measurable: a study by Kellett et al. (2002) was able to demonstrate a direct link between the display of emotional abilities, empathy in this case, and the perception of a person as a leader. After performing group tasks together, the participants were asked to rate the other group members, with the result that those who were seen as good leaders were also regarded as empathetic. Rosete and Ciarrochi (2005) were also able to prove that leadership itself is perceived as more positive and successful by subordinates when the leader displays empathy in his or her work style. Following the analyses of George (2000) and Lewis (2000), Kellett et al. (2006) attribute to empathy the ability to enhance a leader's integrity and credibility and thus foster cooperation and trust among followers by understanding and relating to their feelings and emotions and positively influencing them. This, again, could ultimately benefit work performance and outcome.

Ehmig & Heymann (2016) point out that, beyond the effects on individuals, there is also a wider perspective concerning businesses and with them the (national) economy: “[...] 47 Prozent der Arbeitnehmer/innen und 41 Prozent der Arbeitgeber/innen, in deren Betrieben Personen mit Lese- und Schreibschwierigkeiten arbeiten, erleben es, dass die fehlenden Kompetenzen im Arbeitsalltag zu Problemen führen.“ (“47 percent of employees and 41 percent of employers of the enterprises in which people with reading and writing problems are employed experience that the missing competences cause problems in everyday working practices.” Moreover, the authors continue, lack of competences not only has consequences regarding the access to further education, opportunities on the job market, and advancement opportunities within companies, but also bear business risks that manifest in the domain of work quality and occupational safety as well as in the domain of business economics.

### **3.2.3 Health<sup>5</sup>**

Another area of life that is positively affected by reading books is a person’s overall health according to Blueyard (2019). While the basic ability to read, and thus the ability to find, understand and act on information about diseases and appropriate health care, also referred to as health literacy, already has a major impact on an individual’s health (Sørensen et al., 2018), reading books in particular is also associated with improved health. This fact is reflected in a Canadian population study that shows a strong correlation between participation in various arts, culture and heritage activities, with book reading as one of the variables, and a person’s overall health, taking into account both physical and mental health. Even after adjusting the data for various socio-demographic factors, people who regularly read books of any form are significantly healthier than non-readers (Hill, 2021).

A further statistical relation could be proved between reading books and a lower mortality rate or a higher life expectancy, respectively. Consistent with previous analyses proving this correlation for certain groups of society as well as applying a broad definition of reading (Agahi & Parker, 2008; Jacobs et al., 2008), Bavishi et al. (2016) found a 20% lower mortality rate among elderly book readers compared to non-readers, taking into consideration covariates with a possible influence on either reading or longevity such as

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<sup>5</sup> N.B.: Gerčar / van der Weel (2023) also use a concept they call reading health. Their approach is not directly relatable to what is covered in this subchapter, though. The reason is that Gerčar and van der Weel identify aggregated reading-related super-individual criteria with the concept of health (of a society / a country), whereas we use health not as a metaphorical attribution to a social entity (like they do), but as an attribution to individual readers (as a consequence of effects of reading to body and mind).

individual comorbidities as well as the level of education or wealth. Furthermore, the authors were also able to demonstrate that this effect is largely dependent on the type of material read. Reading books has been shown to have a greater impact on overall life expectancy in every case than reading periodicals such as newspapers or magazines. The explanation for this can be seen in the effects of reading books on general cognition: as previously outlined, reading books is regarded a slow, immersive process with high cognitive engagement and relations to positive consequences on social cognition. Therefore, it provides greater cognitive benefit than other types of reading material. Although the authors assume that most of the participants were reading fiction, further analysis is needed to examine whether results differ when variables such as specific genres or the medium used to consume the content are controlled for (Bavishi et al., 2016).

Besides enhancing general health and life expectancy of individuals, reading books is also linked to the prevention of chronic health conditions to a certain extent. Several studies have shown that reading books together with engaging in other leisure time activities, such as playing board games or doing crossword puzzles, is correlated with reducing the risk of developing dementia or delaying the onset of the illness in later life (Lee et al., 2018; Hughes et al., 2010; Verghese et al., 2003; Wilson et al., 2002). It is believed that the reason for this lies in the fact that reading books, like other cognitive activities, serves as an incentive to constantly challenge and train the brain.

In addition to the use as a preventive measure, books can also be employed in a wide variety of therapeutic practices, often grouped under the term “bibliotherapy”. In this context, reading books is believed to improve the mental health of individuals by enhancing their overall social and emotional well-being (McNicol, 2018). The approaches used in this context can be distinguished according to the methods they implement in terms of the materials used and the number of people involved in the therapeutic process. In line with McNicol (2018), they can be divided into two broad categories: reading bibliotherapy on the one hand and interactive or community bibliotherapy on the other.

The former is based on the concept of cognitive behavioural therapy, which focuses on more practical ways to improve a patient’s state of mind by identifying and changing negative thoughts and the feelings and behaviours associated with them. For this reason, reading bibliotherapy usually relies on specific self-help books that contain factual information about an illness as well as step-by-step instructions on how to successfully apply certain techniques or strategies to cope with and overcome mental health problems (McNicol, 2018).

While the above-mentioned approach is based on the act of reading itself and the interaction between the text and the individual reader, interactive bibliotherapy concepts are centred around community or peer support, focussing on discussions about topics raised in the literature read, either individually or together in a group. This method enables a more creative form of bibliotherapy in which an individual manner of dealing with a health condition is established in response to impulses or trains of thought derived from the text (McNicol, 2018). However, it is important to note that not every type of literature can be used as a therapeutic stimulus, but that this is often a very individual decision of the therapist, depending on various factors such as the developmental stage of the therapy, different client characteristics as well as costs or availability (Pehrsson & McMillen, 2005).

In general, a large number of different disorders can be addressed with the various forms of bibliotherapy. A typical mental health problem treated with bibliotherapeutical approaches is depression. A study conducted in the UK found that patients who receive structured self-help treatment for depression that included workbooks on relevant topics, such as instructions on taking antidepressant medication or overcoming sleep problems, not only showed a better understanding of the causes and treatment of depression, but also a lower clinical deterioration in mood (Williams et al., 2013). Various meta-analyses come to the same conclusion: both Gregory et al. (2004) and Cuijpers (1997) regard bibliotherapy as an effective and easily accessible treatment option for people suffering from depression, especially if it is a mild to moderate form of depression, with positive outcomes comparable to those from regular psychotherapy. Apart from depression, similar results have been found in the case of various other mental health issues, ranging from stress and anxiety (Jorm et al., 2004; Sharma et al., 2014), obsessive-compulsive (Moritz et al., 2018) or addictive disorders (Apodaca & Miller, 2003) to sexual dysfunctions (van Lankveld et al., 2021), to name just a few. Altogether, bibliotherapy can be seen as suitable addition or even alternative to classical psychotherapy, displaying the health-promoting possibilities related to reading books.

### **3.2.4 Well-being**

Apart from health benefits, reading books also contributes to an individual's overall well-being (Blueyard, 2019). In concrete terms, a study undertaken in the UK, which examined the emotional, social and psychological benefits of reading regularly for pleasure concluded that people who read an average of 30 minutes or more per week tend to be 20% more likely to have a greater life satisfaction (Galaxy & Quick Reads, 2015). According to Blueyard

(2019), this is possible through the promotion of relevant factors for happiness in life associated with reading books such as relaxation, managing emotions or a positive self-image.

Firstly, the act of reading books is connected to contentment in a very direct form: most people who read outside a work or educational environment say they do so for pleasure with the enjoyment of reading for its own sake being one of the most frequent motivations for reading (The Reading Agency & BOP Consulting, 2015). Following the uses and gratification theory, people therefore actively turn to reading books in order to fulfil certain psychosocial or affective needs such as being entertained, escaping reality or experiencing aesthetic pleasure or joy (Adoni & Nossek, 2011). Another factor that contributes to the well-being of a person is the relaxing effect of recreational reading. In contrast to agitating technology-intensive leisure time activities such as watching television, playing video games or using social media platforms, reading books is indicated as the preferred manner to achieve a reduction in stress and a greater feeling of relaxation (The Reading Agency & BOP Consulting, 2015). Especially the mental engagement experienced through the concentration and immersion while reading complex literary texts, often described under the term “deep reading”, allows readers to distance themselves from everyday worries and to become more relaxed (Laermans et al., 2020). Other studies also prove that reading in general functions as an effective and easily implementable stress management strategy. Rizzolo et al. (2009) found out that college students reported lower stress levels after reading various articles about historical events and innovative technology for half an hour. An older study by Jin (1992) comes to similar conclusions: he was able to measure a significant reduction in anxiety, heart rate and blood pressure if participants had read for an hour after completing a stressful task.

Moreover, reading can offer comfort or solace for people affected by challenging emotional periods in life (Blueyard, 2019). As an alternation between distraction from and confrontation with these feelings is regarded an effective coping strategy according to the dual process model of coping with bereavement (Stroebe & Schut, 1999), reading books can even help twofold: on the one hand, books have been shown to be a good way of distraction and relaxation. A study exploring the potential of artistic media use as a means of coping with grief after losing a loved one observed that participants rated the function of distraction significantly higher for literature compared to music. Although not yet scientifically proven, this circumstance is again attributed to the cognitive effort and attention required to read a book (Koopman, 2014). On the other hand, reading books can be used as a method to

confront oneself directly with grief or other difficult emotions. In congruence with bibliotherapeutical approaches mentioned above, people ascribe stories that resemble their own situation and feelings as comforting because they feel more understood and recognised. An example from a Dutch study illustrates that readers chose a book describing the author's experiences and emotions after losing a child in order to find support during their own grief process, even though it was not easy for them to read about such a topic (Koopman, 2013).

In addition to stress reduction and comfort, reading books also affects how people see themselves in a positive way, which is directly linked to their personal well-being and happiness (Blueyard, 2019). Reading about fictional worlds allows the readers to escape not only their everyday life for a while, but also to distance themselves from their own self. As people constantly negotiate and develop their identity, which is both cognitively and behaviourally demanding (Preston & Wegner, 2005), reading offers a temporary release from this effort and allows for the imagination of other self-images beyond the boundaries of one's personally as well as socially perceived self (Slater et al., 2014). These effects are typically caused by the immersion into a narrative experienced by a person while reading a book or, more specifically, a fictional story, whereby immersion itself is constituted by two central forms, namely transportation and identification (Johnson et al., 2016). While transportation in terms of the attention and emotions allocated to the story can be seen as basic prerequisite, identification in particular can have a large influence on the reader's self-image. The more a reader identifies with the fictional character of a novel, the greater the likelihood that their self-perception will change. The sense of proximity gained through immersion into the narrative, in this case, offers the reader the opportunity for personal development by getting to know the personality traits as well as the general perspectives and experiences of a fictional character (Slater et al., 2014).

### **3.3 Chapter summary**

In summary, it can be said that reading, especially reading books, is not considered beneficial and worth promoting without a reason: as has been pointed out, there are several measurable effects, both in direct and indirect ways, which positively influence individuals and, in turn, society. The above-mentioned effects extend to several areas of daily life, including living with others, working, health and personal well-being. It is remarkable that many of these effects only apply to a certain type of text or even a certain genre of books, in this case particularly fictional or narrative literature. The specific medium in which these texts are received, e.g. as a printed book or an e-book, however, is rarely included in these types of

studies, although other research in this area suggests that there are significant differences indeed.<sup>6</sup>

## **4 ‘Signatures’ to capture the benefits and beneficiaries of reading**

### **4.1 Types of reading acts**

As already indicated, reading is a multifaceted subject with obvious interdependencies between different aspects; not least for this reason, as some suggest, it must be treated as a “Totalphänomen”<sup>7</sup>. This “Totalphänomen” begins with the sheer variety of phenomena to be covered. Due to the high number of parameters that can be called on to define a single act of reading – alone or in groups, for leisure or as part of a task, with the reading material being deliberately selected by the reader, recommend or given as a present, to give only a few examples –, reading appears in a very diverse number of forms indeed. Achieving some form of structure in this ‘reading universe’ can be helpful for all kinds of reading-related considerations.

And then there are the (evidenced or assumed) effects together with the values that are attributed to reading, typically to specific forms of reading, in societal as well as in scholarly contexts. Different ones of these effects are referred to with respect to different situations. One could, for example, say that to practice everyday life reading skills and to help make basic societal discourses more inclusive, reading web pages or genre fiction is just perfect; however, to practice complex argumentations or to enhance one’s linguistic variety and differentiation of expression, it might not be. To learn about cultural traditions and become acquainted with a literary canon, listening to audiobooks is just perfect – to enjoy digital detox and to train one’s concentration in a vexatious media and communication environment, it might not be.

The main perspective we adopt in what follows is one in which selected types of reading acts, ‘prototypical’ reading situations, as we call them, are identified in terms of the effects<sup>8</sup> attributed to them. As humanities’ scholars, we assume that not a few of the effects mentioned in connection with reading are not ‘innate’, but are attributed with different

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<sup>6</sup> See for example the meta-analyses of Clinton (2019), Delgado et al. (2018), Kong et al. (2018), or Singer and Alexander (2017).

<sup>7</sup> Rautenberg and Schneider (2015) take “Lesen als Totalphänomen” (reading as a total phenomenon) as one of their points of departure. This pithy concept had been coined by communication studies scholar Ulrich Saxer borrowing from French sociologist Marcel Mauss.

<sup>8</sup> This is, in a way, converse to an approach taken by the German Publishers’ and Booksellers’ Association. In their recent study on reading rationales, they align books (i.e. not reading situations) along the rationales as well as the unconscious motifs on the side of the buyers or readers that might cause interest in those books (MVB, 2021).

degrees of stability and by different actors. As has been shown in chapter 3, the effects ascribed to reading, as diverse as they may be, are nowadays<sup>9</sup> exclusively assessed as positive. This is not least the rationale for reading promotion policies on different political and civil society levels. What complicates matters is the fact that these attributed effects differ along dimensions such as direct–indirect, internal–external and, of course, along the stakeholders affected by them; the effects can occur in typical combinations, they can be opposing or complementary, etc. As far as reliability is concerned, some of these attributions are simply taken as obvious, or made as part of more or less undisputed cultural traditions, possibly in specific milieus, while for others, correlations can be observed empirically; actual causalities have been demonstrated for only a few.

Maieutically, the parameters that define a reading act or a type of reading act in a particular observational context can be identified with the help of the meaningful questions along the lines of “who reads what for what purpose”. Very likely, it is possible to achieve a consensus about the core list of questions and therefore parameters; to give a counter example: whether the source of light is natural or artificial is only relevant in very specific contexts and does therefore not find its way to the core list.

As far as the impact of actions on persons is concerned, an important general distinction – explained here for reading and the positive case – is the one concerning the individual units affected by the impact. Is it just one or more individuals that are directly involved in the context of the plot, in the case of reading a bought book for example the bookseller and the reader, possibly each in pursuit of certain goals? In economics terms, this would be described as an internal effect. Or is there – mediated in some form – also a so-called external effect on the individuals’ environment or on society as a whole, in the sense that in the given case people in a reader’s environment benefit by his or her reading? To make matters more complex, subjects affected by reading effects (and this is of course not infrequently explicitly desired, even if typically not in the context of cultural policies) can also be individuals and institutions that “only” have an economic interest in reading activities or their preparation, e.g. the aforementioned bookseller, if he acts as a rational actor in a market society.

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<sup>9</sup> This was different e.g. at the end of the 18th century, when the term “Lesewut” (reading mania) was used to describe forms of reading that were considered detrimental for the readers, in this case female readers, and for society (Wittmann, 2019).

## 4.2 Effects of reading; point of orientation: complex texts

Based on the large set of positive attributions to reading, on balance, virtually every reading act has to be seen positively. Not least since this is a very unspecific finding that can hardly be the basis for e.g. targeted political action, reading situations or types of reading acts have to be classified, primarily in terms of the ‘sum’ of (the selection of) attributed positive effects. With respect to the aggregated effects of reading situations, conceivable mid- to long-term functions of reading situations on a trajectory to increasingly positive / positively attributed reading (and possibly e.g. writing?) activities should be included as possible steps on a journey as it were. In this context, if one accepts the underlying nuance in attributing esteem in the first place, reading a fashion blog on a smartphone while commuting can train skills and might engage the reader’s interest that can lead to the reading of more complex texts (see below) at other occasions. Such an arrangement of reading situations would for example allow policy makers to identify the reading situations (and from those the corresponding promotion policies in the chosen weighting) that cover their underlying ideas best. For example, the effective promotion of some reading situations might fit better with an inclusive, rather egalitarian approach, while others might fit better with a high-culture, more elitist approach. Candidates for targeted vanishing points of individual reading development processes (along a trajectory) are also dependent on fundamental convictions on the part of the intervention actors; the ability to use linguistic skills acquired through reading to express and take up (also more differentiated) positions in speaking and writing is such a possible vanishing point – as is the ability to appreciate the sophisticated beauty of canonical texts in an act that simultaneously serves to pass on cultural heritage. For the purpose of our argument and as a proposal for agreement, we have implicitly chosen reading situations involving “complex texts” (Graf, 2015) as a vanishing point. The concept of complex texts helps to avoid potentially judgmental categories such as “trivial literature” (Graf, 2015). Graf’s notion of complexity is primarily seen as a text feature (not only a relational category involving text and reader) and has to pass this test: “Wenn sich also lesend bestätigt, dass die Komplexität eines Texts seinem differenzierten bzw. vielschichtigen Sinnangebot geschuldet ist das beeinträchtigt würde durch eine auf einfachere Verstehbarkeit zielende Formulierung, dann ist der Komplexitätsgrad als gegenstandsadäquat zu werten.”<sup>10</sup> (Graf, 2015). As far as reading situations with “complex

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<sup>10</sup> “If, reading the text, it is verified that its complexity is attributable to its differentiated multi-layered meaning horizon, which would be hindered by an alternative formulation to achieve a simpler comprehensibility, then the degree of complexity is to be considered as adequate.” (Graf, 2015). By this, Graf says, complex texts

texts” are concerned, our approach does not go into detail when it comes to diverging individual conditions that influence the ability to cope with these complex texts – just as, in general, this approach abstracts from conditions and requirements of certain social groups. This is not because we consider this irrelevant, but because it deserves to be considered as a separate angle on reading.

### **4.3 Characteristics of reading situations / types of reading acts**

With regard to specifying focused types of reading acts or reading situations – prior to their arrangement –, we had said that a series of “maieutic” questions that could be asked about a particular act in any given observational context can be a helpful approach. Here is a – certainly incomplete – selection of corresponding core questions that may be relevant to the context<sup>11</sup>:

- What is being read? (book / book genre; newspaper / magazine; (blog) post; ...)
- What influenced the choice of the reading material?
- Is the act of reading part of an educational or professional task or is it for leisure?
- Does it take place ...
  - ... on paper, on a screen or as audio?
  - ... alone or in a group?
  - ... quietly or out loud?
  - ... in a dedicated reading set-up or not?
  - ... as a ritualized part of life or not? If so, in which ‘rhythm’?
- At which length of a reading session does it take place?

### **4.4 Prototypical reading situations and an exemplary set of reading effects**

We propose to work with a limited number of prototypical reading situations and develop a ‘signature’ diagram for each of them, representing their features in relation to a selected set

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promise “that their meaning horizon cannot be conveyed without this formulation effort and the strain in receiving it is therefore unavoidable” (Graf, 2015).

<sup>11</sup> This compilation is connected to what Mangen and van der Weel (2016, 122) list under Preparation for Reading / A. Text and The act of reading / C: environmental factors. In addition, aspects like the length of the reading session, the degree of its ritualisation as well as sources of influence on the choice of reading material seem to be relevant to us, whereas Mangen and van der Weel see e.g. aspects of text design as important. The latter we did not take into consideration since we cannot see a case in which this could become an aspect of promotion (or marketing) with respect to reading effects: although there is evidence with respect to differences in reading effects between texts based solely on typographical, etc. feature differences, it is hardly conceivable that a reading promotion campaign favours reading material over other reading material only on the basis of a different typographic style. Mangen / van der Weel’s Location (Noise Level, Distraction) on the other hand, although it describes a typically unwanted aspect of the environment, might indeed have a bearing on reading effects.

of attributed effects by simplistically mapping them to 0 (= no), 1 (= yes) or a point on the continuum between 0 and 1 (0.25, 0.5, or 0.75, to begin with). Attributing values to pairs of a reading situation and a positive effect clearly opens rather wide areas of discretion – we hope that our judgements seem plausible enough for a start and will then work as an invitation to contribute to a productive discussion. For example, the extent of aesthetic pleasure experienced while reading educational media on a tablet in school is indeed hard to say, particularly considering a large number of very different sub-situations between e.g. 4<sup>th</sup> grade basic science and 10<sup>th</sup> grade literature ...

We have tried to play this through with an initial set of seven effects of reading, most of which were presented in detail or at least touched in chapter 3, together with studies that support them. To the positive effects of reading explicitly covered in the research literature (and therefore in chapter 3), we added the following as obvious presuppositions: a) reading is a primary form of acquiring knowledge, b) reading in a group enables (desired) social interaction, c) the purchase of products and services of the cultural and creative industries (CCI) for the provision of reading materials helps these CCI, and d) certain texts received by way of reading (poems, well-crafted novels, etc.) can give aesthetic pleasure due to their material / linguistic appearance (explicitly beyond the aspect of e.g. acquiring knowledge, eliciting empathy, etc.). For a) and d), Werner Graf's 'Lesemodi' (reading modes, Graf, 2004, 2015) were a helpful concept<sup>12</sup>; from reading to acquire knowledge it is easy to bridge to Graf's reading mode of 'Konzeptlesen' (reading for concepts, similar thoughts are presented in chapter 3.1), while reading for aesthetic pleasure is close to his aesthetic reading mode and also briefly mentioned in chapter 3.2.4. With respect to b), chapter 2.3 also deals with aspects of social interaction.

Here is the list of positive reading effects for the purposes of our approach<sup>13</sup>:

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<sup>12</sup> "Reading modes are to be understood as action dispositions which allow specific manners of reception to use texts in a subjectivity-related way, to e.g. acquire knowledge, realise interests, gain insights or enjoy art." (Graf, 2015).

<sup>13</sup> Positive effects of reading can be internal (e.g. knowledge) or external (e.g. social interaction – in the sense that there is an effect beyond those directly involved in the writing/publishing/distribution/buying/reading chain); this was discussed in more detail in chapter 4.1. Moreover, positive effects can be direct/immediate in time (e.g. knowledge in some cases) or indirect (e.g. knowledge in other cases and basic participation). There are also immense differences in the degree of the empiricity of effects, from health/well-being (high) to participation (low), some are not empirically evidenced in any specific study, but obvious nonetheless (such as CCI). – This compilation is connected to what Mangen and van der Weel (2016, 122) list under Effects of Reading where they subcategorise in A. Personal and B. Social. We believe that we – at least for the given context – have covered the positive effects of reading in a more comprehensive, pithy and operationalisable manner. If – beyond enabling participation, knowledge, triggering empathy and giving aesthetic pleasure (see above) which all touch linguistic competences, e.g. in the form of the required or increased size of the vocabulary – a separate linguistic category within the positive reading effects should be introduced remains to be discussed.

- enabling basic **participation** in professional contexts (chapter 3.2.2; can be taken combined with enabling basic participation for everyday life and in a society, which is taken as obvious prior assumption, chapter 3.1)
- **knowledge**, not least in educational and professional contexts (as obvious prior assumption)
- triggering **imaginative capabilities** (chapter 3.2.1)
- eliciting **empathy**, potentially leading to pro-social behaviour (chapter 3.2.1)
- achieving/maintaining **health**, overall **wellbeing**, including e.g. digital detox (chapter 3.2.3, 3.2.4)
- **social interaction**, in corresponding reading contexts (as obvious prior assumption)
- giving **aesthetic pleasure** in the form of interacting with texts as ‘material’ objects (obvious prior assumption)
- positive effects on the creative and cultural industries (**CCI**) (obvious prior assumption)

We follow a non-comparative approach, i.e. by saying that reading has certain positive effects we of course do not entail that other ways of media use automatically do not have them. In a German industry study (Börsenverein des Deutschen Buchhandels, 2017), the watching of series on video streaming platforms is identified as the main competing cultural activity to reading. Going through the list of positive effects above, a series (particularly a documentary) can of course convey knowledge (although direct access following a question is not possible), it can bring about social interaction in corresponding contexts, it can give aesthetic pleasure and it has positive effects on the creative and cultural industries (possibly not primarily on European ones, though ...). Whatever will be found out with respect to e.g. the triggering of imaginative capabilities, the eliciting of empathy, etc. in future studies: the control over the reception pace, however, will always be systematically inferior in the case of a time-based medium like moving images / video.

Taking the considerations outlined above into account, these are the selected (and exemplary) ‘prototypical’ reading situations for which we would like to develop an individual ‘signature’ of attributed effects (the fact that there are likewise seven of them is pure coincidence !):

- 1) Reading a borrowed genre fiction title in a printed book while commuting (for leisure)
- 2) Reading a bought classic of the national literature in a printed book ‘in an armchair’ (for leisure)
- 3) Reading educational media on a tablet at school
- 4) Reading a fashion blog on a smartphone during a break from work (for leisure)
- 5) Reading a borrowed printed newspaper in a café (for leisure)
- 6) \*Listening\*<sup>14</sup> to a subscribed audiobook of classic national literature while running (for leisure)
- 7) Reading a self-published genre fiction e-book title in an online reading group (for leisure)

#### 4.5 The effect ‘signatures’ of the selected reading situations

The following diagrams show, what different ‘signatures’ of the various selected prototypical reading situations look like, unavoidably again on the basis of a number of additional assumptions<sup>15</sup> that – like the ones above – can and should be discussed:

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<sup>14</sup> It has to be repeated that, in the following, we will transfer some of the positive effects methodically attributed to the \*reading\* of books to \*listening\* to audiobooks; we do that, although we know that these are not evidenced (yet) for the latter case. – In all the polyphony of statements about what reading is, it can be taken as a consensus that reading is an interaction with a written text. Why then, do we include listening to audiobooks here, which clearly is not an interaction with a written text? Well, we could say that given the growing (also economic) relevance of audiobooks, our starting point from the perspective of book fairs (Aldus Up) and hence also publishers, and given the obvious relationships and similarities with respect to many criteria, it was not a feasible option, to \*ex\*clude them .... It will be our task, to work with our scholarly colleagues on reconciling what is known about the differences and similarities of listening to and reading long texts with what makes books and audiobooks interchangeable products in many respects.

<sup>15</sup> I) Assumptions with respect to ›knowledge‹: textbooks (and many other non-fiction books) paradigmatically convey knowledge; less so newspapers, sophisticated and less sophisticated narratives; II) assumptions with respect to ›imaginative capabilities‹: sophisticated narratives paradigmatically provide this, less so unsophisticated narratives, textbooks, newspapers and blogs; III) assumptions with respect to ›empathy‹: sophisticated narratives paradigmatically and to an empirically proven degree impart this, to a lesser extent less sophisticated narratives, newspapers etc.; IV) assumptions with respect to ›health/well-being‹: only books/long-form narratives provide this – less concentrated reception situations could have a detrimental effect, though; V) assumptions with respect to ›aesthetic pleasure‹: less crafted texts (e.g. on screens) might compromise this; VI) assumptions with respect to ›CCI‹: here, paid content models obviously serve best, then other economically viable business models (such as ones based on adverts), then borrowed material (school textbooks are bought by pupils or their parents, respectively, in some regions, borrowed to them in others [with a limited number of circulations]).

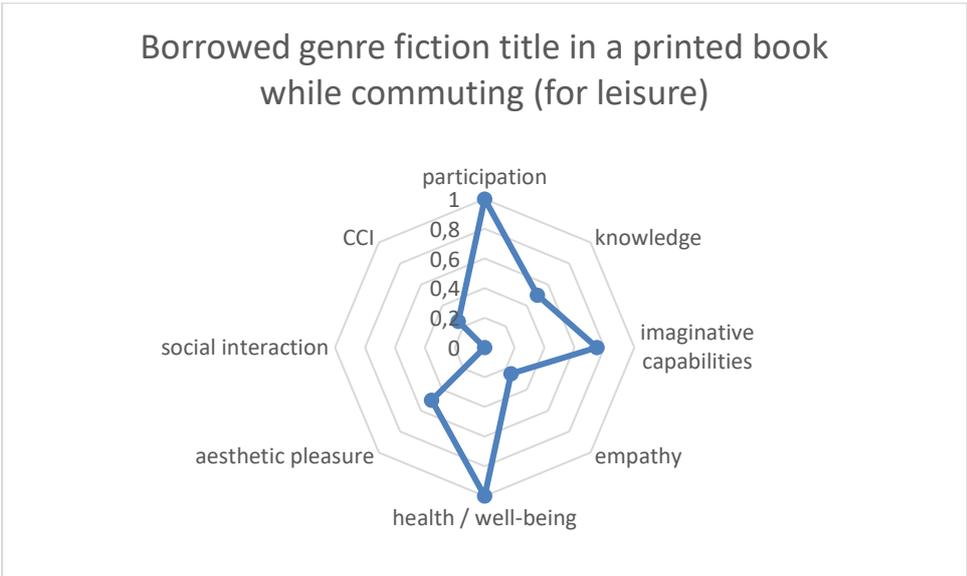


Diagram 1: Borrowed genre fiction title in a printed book while commuting (for leisure)

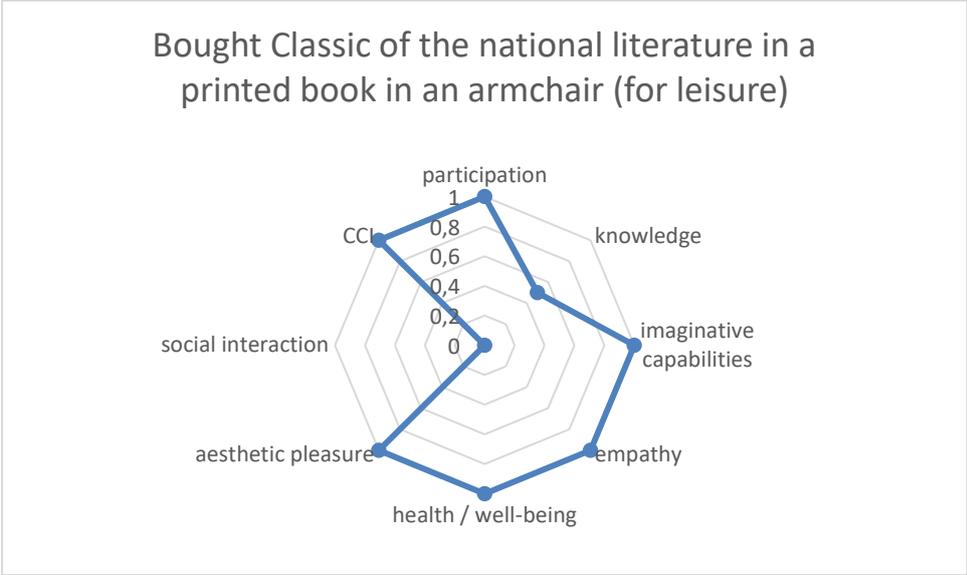
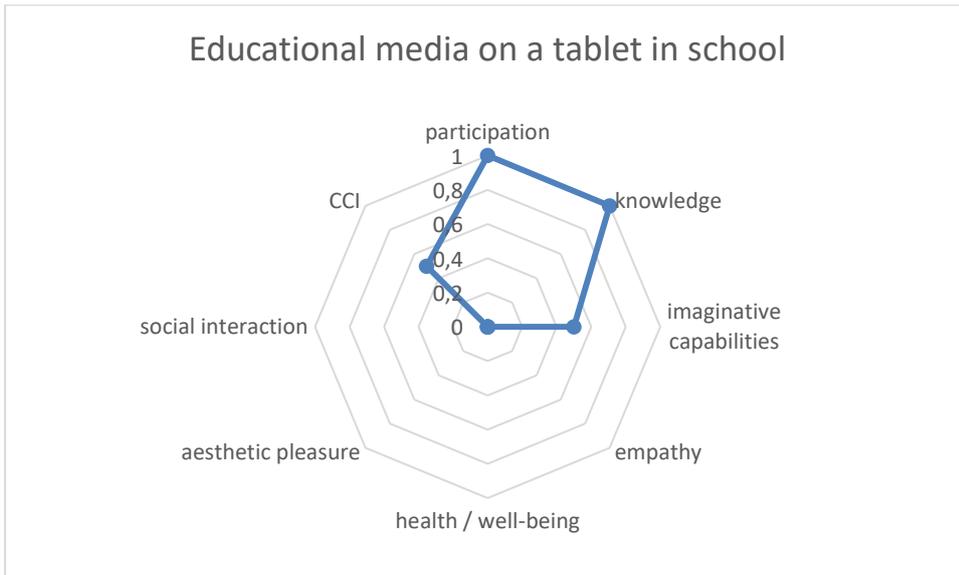
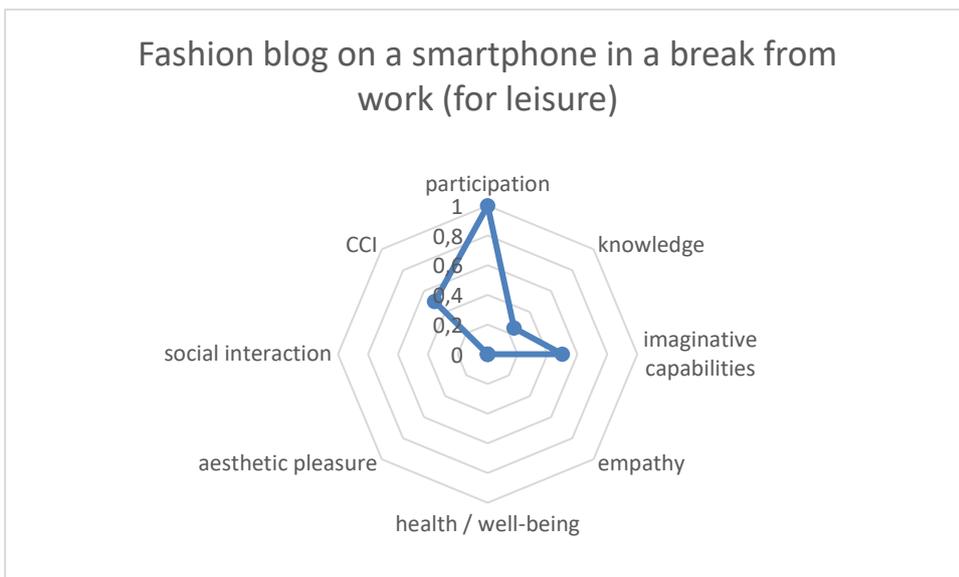


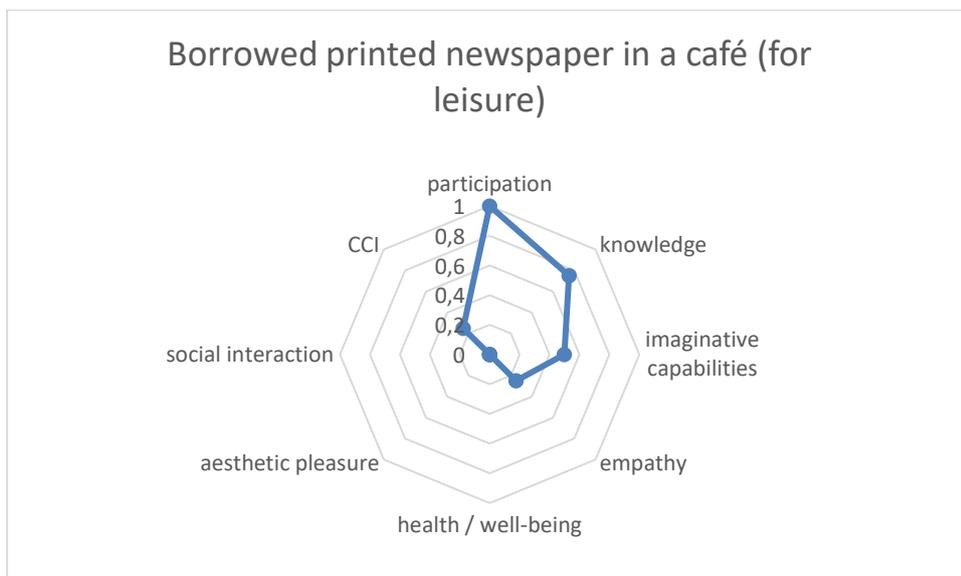
Diagram 2: Bought Classic of the national literature in a print book in an armchair (for leisure)



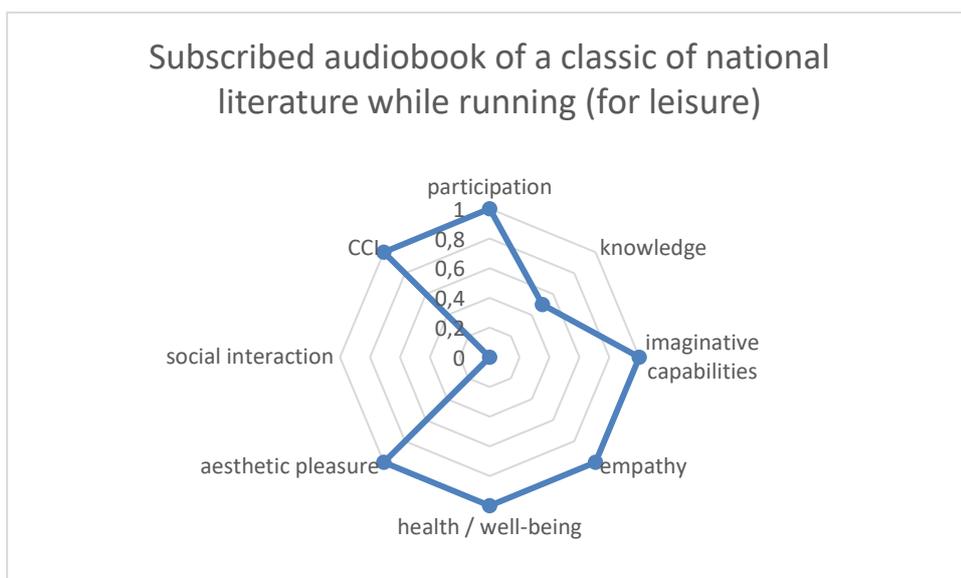
*Diagram 3: Educational media on a tablet in school*



*Diagram 4: Fashion blog on a smartphone in a break from work (for leisure)*

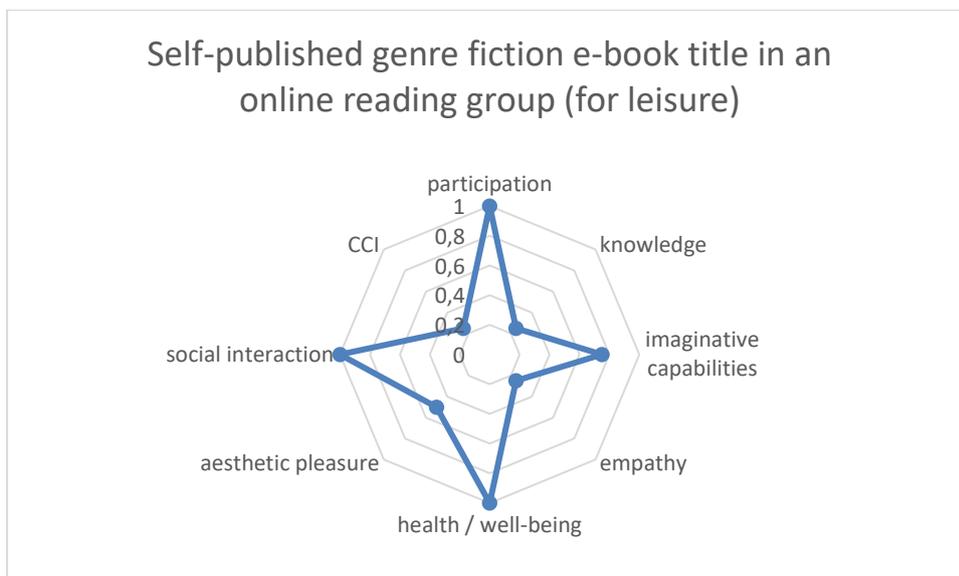


*Diagram 5: Borrowed printed newspaper in a café (for leisure)*



*Diagram 6: Subscribed audiobook of a classic of national literature while running (for leisure)<sup>16</sup>*

<sup>16</sup> Under the conditions we look at audiobooks compared to printed books (we had elaborated on that in the introduction and other places of this white paper) – where we do not know of empirically evidenced differences, we transfer evidence and prior assumptions from printed books to audiobooks –, the signature of “Subscribed audiobook of a classic of national literature while exercising in the gym (for leisure)” would look exactly the same.



*Diagram 7: Self-published genre fiction e-book title in an online reading group (for leisure)*

It is important to note the fact that the first intuitive impression of the differences between the ‘signatures’, caused by their appearance as diagrams, is also dependent on the sequence in which the selected effects of reading have been arranged for the analysis.

#### **4.6 Chapter summary**

Based on the sequence of effects of reading as selected by us, we see a more cognitive and social pole of effects in the upper part of the ‘signatures’ and a more emotional, motivational pole in their lower part. As can be seen, the more cognitive and social effects are not necessarily connected to quintessential book reading, but also to e.g. reading newspapers or – why not on a tablet? – educational material (‘participation’ is always “1” ...!), whereas for the more emotional, motivational effects parameters like print, narrativeness, solitariness, ‘for pleasure’, etc. (traditionally connected to book reading) seem to play a more important role. It is considerations like this that might help to structure the discourse.

The exercise clearly shows that there is not only a vast number of pretty disparate types of reading acts, but that there are also good reasons for attributing pairwise very different cumulative positive effects (‘signatures’) to these. Following our approach, reading situations targeted by surveys and, based on their results, chosen as subjects for reading policies by policy makers or as business opportunities by market participants are defined by the positive effects attributed to them. In this way, they can be methodical points of departure for reading promotion policies as well as for business strategies. With respect to business strategies of private enterprises, it has to remain beyond the scope of this contribution to

assess them from a superordinate (ethical, societal) perspective. Therefore we refrain from discussing, let alone judging incidental or intentional benefits for companies (like increase of turnover, retention of attention for advertisement or cross-selling effects, etc.) linked to successfully communicating the positive effects of reading (a particular product).

Of course, some positive effects of reading can be assumed to be connected to intrinsic motivations: no reader that looks for a certain element of knowledge to contribute to a life goal on whatever level has to be confronted with the positive reading effect of knowledge from a third party. This is different for the positive effect of achieving / maintaining health / overall wellbeing where the connection might not be so obvious and internalised (“I read because it makes / keeps me healthy”); this is where promotion (reading policies) or marketing (business opportunities) efforts will come into play naturally.

## 5 Conclusions

In this white paper, it has been shown that reading can be accessed from a wide range of perspectives involving neuroscientific, cognitive, communicative and social aspects. Reading, as a result, must consequently be seen as a multifaceted concept with the interaction of a person with a form of written text (to start with) serving as its common ground. While the definition of reading differs depending on the specific perspective adopted, the ability to read is generally seen as a necessary skill for individuals to participate in society. For the special case of reading books, various additional positive effects can be identified and empirically evidenced, impacting both the individual reader himself as well as society as a whole. These effects and their various manifestations can be assigned to the four broad categories ‘fitting into society’, ‘employment skills’, ‘health’ and ‘well-being’. Although not specifically accounted for in all underlying studies, the type or genre of the reading material has been proven to have an impact on the effects. This is also true for the medium used for reading or – following our pragmatic transfer of effects to audiobooks – listening.

With these insights as a background, we have introduced the concept of reading situations. If different types of reading situations – the number of conceivable parameter settings is incalculable, as we have repeatedly stressed – have different cumulative positive (or possibly neutral) effects, a construct that displays them in a uniform format can then help to align reading promotion policies and their desired outcomes with reading situations. Similar applies to business strategies in the context of publishing innovations. In the process of this alignment, the positive effects to be specifically fostered and the reading situations targeted by the measures have to be brought into line very early on. Using the example of some exemplarily selected types of reading situations and with the help of what we call ‘signatures’, it has been shown that the various positive effects of reading, as essentially covered in chapter 3, are distributed meaningfully and unevenly among these (types of) reading situations.

If reading promotion policies are to be implemented systematically – i.e. by methodically looking at the situation before and after their implementation –, this means that reading surveys must be able to capture a sufficiently wide range of relevant types of reading situations, and this has to go far beyond, for example, reading highbrow literature “in an armchair”. They must also be able to “measure” the reading / “reading” of blogs, manuals, textbooks, audiobooks, etc.

### **Summary of core results**

- Reading can be approached from a wide range of perspectives
- Reading is a multifaceted concept, with the interaction of a person with a written text in the centre
- Reading is assumed to have a whole range of positive effects in the categories ‘fitting into society’, ‘employment skills’, ‘health’ and ‘well-being’
- To make this feasible, we introduced the construct of reading situations
- Reading situations arranged in a uniform format helps the systematic development of reading promotion as well as that of business strategies
- In a further step, we introduced individual illustrative ‘signatures’ of reading situations, based on their cumulated positive effects
- These ‘signatures’ have been shown to be plausible in a number of example cases and potentially useful for policy and strategy development
- Reading surveys have to cover the dimensions brought to light, using reading situations and their intuitive ‘signatures’ as an orientation

In the introduction, we stated that comprehensive and reliable data on reading habits are extremely important for market participants as well as for policy makers. With respect to the former, it can be said that reading surveys with an appropriate – particularly an appropriately broad – concept of reading covering all relevant reading situations also serve the development of business strategies of commercial market participants in the book industry. They need this data, as they have to navigate in a constantly changing world of reading and reading situations, some of which only arose as consequences of recent societal and technological developments.

In order to put the proposed approach on a better empirical basis in the future, it is highly desirable to have more scholarly studies on some of the assumed effects that have not yet been satisfactorily covered, such as the effects of texts with respect to their aesthetic form, as well as studies that go beyond reading literature and books as well as reading on paper; ideally, they also should include listening to audiobooks. We had to work with many courageous transfers, e.g. from books to other reading materials, which are plausible yet not empirically sound in every case. Regardless, many existing empirical findings on reading should be supported by replications with larger and more diverse participants and situations and with a stronger focus on causalities rather than correlations. For our specific approach,

the set of reading situations has to be increased and a wider selection, if possible, needs to be methodically legitimised. Moreover, the attribution of positive effects of reading to those situations might possibly be conducted in a more methodically sophisticated manner.

Based on feedback we will receive from readers of this white paper, we will update it and make updated versions available to the community. We as the Aldus Up Working Group on Reading are busy with the further development of the core set of items for reading surveys (**EuRo**pean **I**tem **C**ore **S**et for reading surveys [ERICs]). This will subsequently facilitate more productive comparisons of results between (national) surveys. Following that, the Working Group on Reading of Aldus Up is planning a survey on reading promotion measures in Europe and, if accessible, also of the underlying policies. We will also use the results of this white paper to categorise reading promotion measures. This coming survey will – as many other results of Aldus Up research as well as industry news and resources – be published on the Aldus Up K-Hub<sup>17</sup>.

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<sup>17</sup> See [www.aldusnet.eu/knowledge-hub](http://www.aldusnet.eu/knowledge-hub).

## 6 References

- Adoni, H. & Nossek, H. (2011). Between the book and the reader: The uses of reading for the gratification of personal psychosocial needs. In R. Crone & S. Towheed (Eds.), *The History of Reading, Volume 3* (pp. 49–65). Palgrave Macmillan.  
[https://doi.org/10.1057/9780230316737\\_4](https://doi.org/10.1057/9780230316737_4)
- Agahi, N., & Parker, M. G. (2008). Leisure activities and mortality. Does gender matter? *Journal of Aging and Health, 20*(7), 855–871.  
<https://doi.org/10.1177/0898264308324631>
- Apodeca, T. R., & Miller, W. R. (2003). A meta-analysis of the effectiveness of bibliotherapy for alcohol problems. *Journal of Clinical Psychology, 59*(3), 289–304. <https://doi.org/10.1002/jclp.10130>
- Bal, P. M., & Veltkamp, M. (2013). How does fiction reading influence empathy? An experimental investigation on the role of emotional transportation. *PLoS ONE, 8*(1), Article e55341. <https://doi.org/10.1371/journal.pone.0055341>
- Baron, N. S. (2021). *How we read now: Strategic choices for print, screen, and audio*. Oxford University Press. <https://doi.org/10.1093/oso/9780190084097.001.0001>
- Bavishi, A., Slade, M. D., Levy, B. R. (2016). A chapter a day: Association of book reading with longevity. *Social Science and Medicine, 164*, 44–48.  
<https://doi.org/10.1016/j.socscimed.2016.07.014>
- Bird, J. J. (1984). *Effects of fifth graders' attitudes and critical thinking/reading skills resulting from a Junior Great Books Program*. Rutgers University.
- Black, J. E., & Barnes, J. L. (2015). The effects of reading material on social and non-social cognition. *Poetics, 52*, 32–43. <https://doi.org/10.1016/j.poetic.2015.07.001>
- Block, C. (1993). Strategy instruction in a literature-based reading program. *The Elementary School Journal 94*(2), 139–151. <https://doi.org/10.1086/461756>
- Blueyard. (2019). *De impact van het boek: Een analyse van de impact van lezen op de mens en de maatschappij*.  
[https://kvbboekwerk.nl/wp-content/uploads/2019/03/2019\\_KVB-Boekwerk-Blueyard\\_De-impact-van-lezen-op-de-mens-en-de-maatschappij.pdf](https://kvbboekwerk.nl/wp-content/uploads/2019/03/2019_KVB-Boekwerk-Blueyard_De-impact-van-lezen-op-de-mens-en-de-maatschappij.pdf)
- Börsenverein des Deutschen Buchhandels. (2017). *Buchkäufer - quo vadis*. (Internal study for members of the association). Bourdieu, P., & Chartier, R. (1985). La lecture: Une pratique culturelle. In R. Chartier (Ed.), *Pratiques de la lecture*, 217–239. Rivages.
- Brem, S., & Maurer, U. (2015). Lesen als neurobiologischer Prozess. In U. Rautenberg & U. Schneider (Eds.), *Lesen: Ein interdisziplinäres Handbuch*, 117–140. De Gruyter.  
<https://doi.org/10.1515/9783110275537>
- Bundesministerium für Bildung und Forschung. (2021). *General agreement on the National Decade for Literacy and Basic Skills 2016-2026. Reducing functional illiteracy and raising the level of basic skills in Germany*.  
[https://www.alphadekade.de/img/EN\\_General\\_Agreement\\_on\\_the\\_National\\_Decade\\_for\\_Literacy\\_and\\_Basic\\_Skills.pdf](https://www.alphadekade.de/img/EN_General_Agreement_on_the_National_Decade_for_Literacy_and_Basic_Skills.pdf)
- Christmann, U. (2015). Kognitionspsychologische Ansätze. In U. Rautenberg & U. Schneider (Eds.), *Lesen: Ein interdisziplinäres Handbuch*, 21–45. De Gruyter.  
<https://doi.org/10.1515/9783110275537>
- Christmann, U., & Groeben, N. (1999). Psychologie des Lesens. In B. Franzmann, K. Hasemann, D. Löffler, & E. Schön (Eds.), *Handbuch Lesen*, 145–223. K. G. Saur.
- Clinton, V. (2019). Reading from paper compared to screens: A systematic review and meta-analysis. *Journal of Research in Reading, 42*(2), 288–325.  
<https://doi.org/10.1111/1467-9817.12269>

- Cuijpers, P. (1997). Bibliotherapy in unipolar depression: A meta-analysis. *Journal of Behavior Therapy and Experimental Psychiatry*, 28(2), 139–147. [https://doi.org/10.1016/S0005-7916\(97\)00005-0](https://doi.org/10.1016/S0005-7916(97)00005-0)
- Dehaene, S., & Cohen, L. (2007). Cultural recycling of cortical maps. *Neuron*, 56(2), 384–398. <https://doi.org/10.1016/j.neuron.2007.10.004>
- Delgado, P., Vargas, C., Ackerman, R., & Salmerón, L. (2018). Don't throw away your printed books: A meta-analysis on the effects of reading media on reading comprehension. *Educational Research Review*, 25, 23–38. <https://doi.org/10.1016/j.edurev.2018.09.003>
- Djikic, M., Oatley, K., & Moldoveanu, M. C. (2013a). Reading other minds: Effects of literature on empathy. *Scientific Study of Literature*, 3(1), 28–47. <https://doi.org/10.1075/ssol.3.1.06dji>
- Djikic, M., Oatley, K., & Moldoveanu, M. C. (2013b). Opening the closed mind: The effect of exposure to literature on the need for closure. *Creativity Research Journal*, 25(2), 149–154. <https://doi.org/10.1080/10400419.2013.783735>
- Dodell-Feder, D., & Tamir, D. I. (2018). Fiction reading has a small positive impact on social cognition: A meta-analysis. *Journal of Experimental Psychology; General*, 147(11), 1713–1727. <https://doi.org/10.1037/xge0000395>
- Ehmig, S. C., & Heymann, L. (2016). Das berufliche Umfeld. Eine Studie der Stiftung Lesen zur Wahrnehmung von Beschäftigten mit Lese- und Schreibschwierigkeiten durch Vorgesetzte und Kolleg/inn/en. In W. Riekman, K. Buddeberg, A. Grotlüschen (eds.), *Das mitwissende Umfeld von Erwachsenen mit geringen Lese- und Schreibkompetenzen. Ergebnisse aus der Umfeldstudie*, 179–198. Waxmann.
- Fong K., Mullin J. B., & Mar R. A. (2013). What you read matters: the role of fiction genre in predicting interpersonal sensitivity. *Psychology of Aesthetics, Creativity, and the Arts*, 7(4), 370–376. <https://doi.org/10.1037/a0034084>
- Fröhlich, D., Bläsi, C., Einarsson, K., & Gonzáles Martín, L. (2021). *Survey on reading habits in Europe: State of the art*. Aldus Up. <http://www.aldusnet.eu/wp-content/uploads/2021/06/ALDUS-UP-Reading-Habits-State-of-Art.pdf>
- Fröhlich, D., Bläsi, C., Einarsson, K., & Gonzáles Martín, L. (2022). *ERICs. European Item Core Set for Reading Surveys*. Aldus Up. [http://www.aldusnet.eu/wp-content/uploads/2022/09/Aldus-Up\\_Reading-Habits\\_ERICs\\_Description\\_2207.pdf](http://www.aldusnet.eu/wp-content/uploads/2022/09/Aldus-Up_Reading-Habits_ERICs_Description_2207.pdf)
- Gerčar, J. & van der Weel, A. (2023). Reading Health and the Reading Health Index. *Societies* 2023, 13(4), 86. <https://doi.org/10.3390/soc13040086>
- Galaxy, & Quick Reads. (2015). *Reading between the lines: The benefits of reading for pleasure*.
- George, J. M. (2000). Emotions and leadership: The role of emotional intelligence. *Human Relations*, 53(8), 1027–1055. <https://doi.org/10.1177/0018726700538001>
- Graf, W. (2004). *Der Sinn des Lesens. Modi der literarischen Rezeptionskompetenz*. LIT.
- Graf, W. (2015). Leseverstehen komplexer Texte. In U. Rautenberg & U. Schneider (Eds.), *Lesen: Ein interdisziplinäres Handbuch*, 185–205. De Gruyter. <https://doi.org/10.1515/9783110275537>
- Gregory, R. J., Schwer Canning, S., Lee, T. W., & Wise, J. C. (2004). Cognitive bibliotherapy for depression: A meta-analysis. *Professional Psychology: Research and Practice*, 35(3), 275–280. <https://doi.org/10.1037/0735-7028.35.3.275>
- Hakemulder, J. (2000). *The moral laboratory: Experiments examining the effects of reading literature on social perception and moral self-concept*. John Benjamins Publishing. <https://doi.org/10.1075/upal.34>
- Hill, K. (2021). *Canadians' arts participation, health, and well-being*. Hill Strategies Research. [https://hillstrategies.com/wp-content/uploads/2021/02/sia53\\_arts\\_wellbeing.pdf](https://hillstrategies.com/wp-content/uploads/2021/02/sia53_arts_wellbeing.pdf)

- Hörmann, H. (1980). Der Vorgang des Verstehens. In W. Kühlwein & A. Raasch (Eds.), *Sprache und Verstehen, Vol. 1*, 17–29. Gunther Narr.
- Hughes, T. F., Chang, C. H., Vander Bilt, J., & Ganguli, M. (2010). Engagement in reading and hobbies and risk of incident dementia: The MoVIES Project. *American Journal of Alzheimer's Disease & Other Dementias*, 25(5), 432–438.  
<https://doi.org/10.1177/1533317510368399>
- Hurrelmann, B. (2002): Leseleistungen – Lesekompetenz: Folgerungen aus PISA, mit einem Plädoyer für ein didaktisches Konzept des Lesens als kulturelle Praxis. *Praxis Deutsch* 29(176), 6–19.
- Jacobs, J. M., Hammerman-Rozenberg, R., Cohen, A., & Stessman, J. (2008). Reading daily predicts reduced mortality among men from a cohort of community-dwelling 70-year-olds. *Journal of Gerontology: Social Sciences*, 63B(2), S73–S80.  
<https://doi.org/10.1093/geronb/63.2.S73>
- Jin, P. (1992). Efficacy of Tai Chi, brisk walking, meditation, and reading in reducing mental and emotional stress. *Journal of Psychosomatic Research*, 36(4), 361–370.  
[https://doi.org/10.1016/0022-3999\(92\)90072-A](https://doi.org/10.1016/0022-3999(92)90072-A)
- Johnson, B. K., Slater, M. D., Silver, N. A., & Ewoldsen, D. R. (2016). Entertainment and expanding boundaries of the self: Relief from the constraints of the everyday. *Journal of Communication*, 66(3), 386–408. <https://doi.org/10.1111/jcom.12228>
- Johnson, D. R. (2012). Transportation into a story increases empathy, prosocial behavior, and perceptual bias toward fearful expressions. *Personality and Individual Differences*, 52(2), 150–155. <https://doi.org/10.1016/j.paid.2011.10.005>
- Johnson, D. R., Cushman, G. K., Borden, L. A., & McCune, M. A. (2013). Potentiating empathic growth: Generating imagery while reading fiction increases empathy and prosocial behavior. *Psychology of Aesthetics, Creativity and the Arts*, 7(3), 306–312. <https://doi.org/10.1037/a0033261>
- Johnson, D. R., Huffman, B. L., Jasper, D. M. (2014). Changing race boundary perception by reading narrative fiction. *Basic and Applied Social Psychology*, 36(1), 83–90.  
<https://doi.org/10.1080/01973533.2013.856791>
- Johnson, D. R., Jasper, D. M., Griffin, S., & Huffman, B. L. (2013). Reading narrative fiction reduces Arab-Muslim prejudice and offers a safe haven from intergroup anxiety. *Social Cognition*, 31(5), 578–598.  
<https://doi.org/10.1521/soco.2013.31.5.578>
- Jorm, A. F., Christensen, H., Griffiths, K. M., Parslow, R. A., Rodgers, B., & Blewitt, K. A. (2004). Effectiveness of complementary and self-help treatments for anxiety disorders. *Medical Journal of Australia*, 181 (S7), 29–46.  
<https://doi.org/10.5694/j.1326-5377.2004.tb06352.x>
- Kellett, J. B., Humphrey, R. H., & Sleeth, R. G. (2002). Empathy and complex task performance: Two routes to leadership. *The Leadership Quarterly*, 13(5), 523–544.  
[https://doi.org/10.1016/S1048-9843\(02\)00142-X](https://doi.org/10.1016/S1048-9843(02)00142-X)
- Kellett, J. B., Humphrey, R. H., & Sleeth, R. G. (2006). Empathy and the emergence of task and relations leaders. *The Leadership Quarterly*, 17(2), 146–162.  
<https://doi.org/10.1016/j.leaqua.2005.12.003>
- Kidd, D. C., & Castano, E. (2013). Reading literary fiction improves theory of mind. *Science*, 342(6156), 377–380. <https://doi.org/10.1126/science.1239918>
- Kidd, D. C., & Castano, E. (2019). Reading literary fiction and theory of mind: Three preregistered replications and extensions of Kidd and Castano (2013). *Social Psychological and Personality Science*, 10(4), 522–531.  
<https://doi.org/10.1177/1948550618775410>

- Kong, Y., Seo, Y. S., & Zhai, L. (2018). Comparison of reading performance on screen and on paper: A meta-analysis. *Computers & Education*, 123, 138–149. <https://doi.org/10.1016/j.compedu.2018.05.005>
- Koopman, E. M. (2013). The Attraction of tragic narrative: Catharsis and other motives. *Scientific Study of Literature*, 3(2), 178–208. <https://doi.org/10.1075/ssol.3.2.03koo>
- Koopman, E. M. (2014). Reading in times of loss: An exploration of the functions of literature during grief. *Scientific Study of Literature*, 4(1), 68–88. <https://doi.org/10.1075/ssol.4.1.04koo>
- Koopman, E. M. (2015a). Empathic reactions after reading: The role of genre, personal factors and affective responses. *Poetics*, 50, 62–79. <https://doi.org/10.1016/j.poetic.2015.02.008>
- Koopman, E. M. (2015b). How texts about suffering trigger reflection. *Psychology of Aesthetics, Creativity and the Arts*, 9(4), 430–441. <https://doi.org/10.1037/aca0000006>
- Koopman, E. M. & Hakemulder, F. (2015). Effects of literature on empathy and self-reflection: A theoretical-empirical framework. *Journal of Literary Theory*, 9(1), 79–111. <https://doi.org/10.1515/jlt-2015-0005>
- Kuhn, A. (2015). Lesen. In U. Rautenberg (Ed.), *Reclams Sachlexikon des Buches: Von der Handschrift zum E-Book* (3rd ed.), 257–258). Reclam.
- Kuhn, A., & Hagenhoff, S. (2015). Digitale Lesemedien. In U. Rautenberg & U. Schneider (Eds.), *Lesen: Ein interdisziplinäres Handbuch*, 361–380. De Gruyter. <https://doi.org/10.1515/9783110275537>
- van Kuijk, I., et al. (2018). The Effect of Reading a Short Passage of Literary Fiction on Theory of Mind: A Replication of Kidd and Castano (2013). *Psychology*, 4(1): 7. <https://doi.org/10.1525/collabra.117>
- Kuiken, D., Miall, D. S., & Sikora, S. (2004). Forms of Self-Implication in Literary Reading. *Poetics Today* 25(2), 171–203. <https://doi.org/10.1215/03335372-25-2-171>
- Laermans, J., Scheers, H., Vandekerckhove, P., & De Buck, E. (2020). PROTOCOL: Recreational book reading for promoting cognitive functioning and emotional well-being in older adults: A systematic review. *Campbell Systematic Reviews*, 16(4), Article e1117. <https://doi.org/10.1002/cl2.1117>
- Lee, A. T. C., Richards, M., Chan, W. C., Chiu, H. F. K., Lee, R. S. Y., & Lam, L. C. W. (2018). Association of daily intellectual activities with lower risk of incident dementia among older Chinese adults. *JAMA Psychiatry*, 75(7), 697–703. <https://doi.org/10.1001/jamapsychiatry.2018.0657>
- Levitt, H., Rattanasampan, W., Chaidaroon, S. S., Stanley, C., & Robinson, T. (2009). The process of personal change through reading fictional narratives: Implications for psychotherapy practice and theory. *The Humanistic Psychologist*, 37(4), 295–321. <https://doi.org/10.1080/08873260903113501>
- Lewis, K. M. (2000). When leaders display emotion: How followers respond to negative emotional expression of male and female leaders. *Journal of Organizational Behavior*, 21(2), 221–224. [https://doi.org/10.1002/\(SICI\)1099-1379\(200003\)21:2<221::AID-JOB36>3.0.CO;2-0](https://doi.org/10.1002/(SICI)1099-1379(200003)21:2<221::AID-JOB36>3.0.CO;2-0)
- Lupker, S. (2005). Visual word recognition. In M. J. Snowling & C. Hulme (Eds.), *The Science of Reading: A Handbook*, 39–60. Blackwell.
- Mar, R. A., & Oatley, K. (2008). The function of fiction is the abstraction and simulation of social experience. *Perspectives on Psychological Science*, 3(3), 173–192. <https://doi.org/10.1111/j.1745-6924.2008.00073.x>

- Mar, R. A., Oatley, K., Hirsh, J., de la Paz, J., & Peterson, J. (2006). Bookworms versus nerds: Exposure to fiction versus non-fiction, divergent associations with social ability, and the simulation of fictional social worlds. *Journal of Research in Personality*, 40(5), 694–712. <https://doi.org/10.1016/j.jrp.2005.08.002>
- Mar, R. A., Oatley, K., & Peterson, J. (2009). Exploring the link between reading fiction and empathy: Ruling out individual differences and examining outcomes. *Communications*, 34(4), 407–428. <https://doi.org/10.1515/comm.2009.025>
- Mazzocco, P. J., Green, M. C., Sasota, J. A., & Jones, N. (2010). This story is not for everyone: Transportability and narrative persuasion. *Social Psychological and Personality Science*, 1(4), 361–368. <https://doi.org/10.1177/1948550610376600>
- McNicol, S. (2018). Theories of bibliotherapy. In S. McNicol & L. Brewster (Eds.), *Bibliotherapy*, 23–40. Facet.
- Miall, D. S., & Kuiken, D. (2002). A feeling for fiction: Becoming what we behold. *Poetics* 30(4), 221–241. [https://doi.org/10.1016/S0304-422X\(02\)00011-6](https://doi.org/10.1016/S0304-422X(02)00011-6)
- Ministerium für Bildung, Wissenschaft und Weiterbildung (2021). *Lehrpläne*. <https://lehrplaene.bildung-rp.de/>
- Moritz, S., Hauschildt, M., Murray, S. C., Pedersen, A., Krausz, M., & Jelinek, L. (2018). New wine in an old bottle? Evaluation of myMCT as an integrative bibliotherapy for obsessive-compulsive disorder. *Journal of Obsessive-Compulsive and Related Disorders*, 16, 88–97. <https://doi.org/10.1016/j.jocrd.2017.12.009>
- Mumper, M. L., & Gerrig, R. J. (2017). Leisure reading and social cognition: a meta-analysis. *Psychology of Aesthetics, Creativity, and the Arts*, 11(1), 109–120. <https://doi.org/10.1037/aca0000089>
- MVB (2021). *Head thing instead of belly feeling*. <https://mvb-online.com/booksellers/reading-rationales>
- Nationaler Lesepakt (2021). *Motivation und Ziele*. <https://nationaler-lesepakt.de/index.html>
- Oatley, K. (1999). Why fiction may be twice as true as fact: Fiction as cognitive and emotional simulation. *Review of General Psychology*, 3(2), 101–117. <https://doi.org/10.1037/1089-2680.3.2.101>
- Organisation for Economic Co-operation and Development (2013). *OECD Skills Outlook 2013: First results from the survey of adult skills*. <http://doi.org/10.1787/9789264204256-en>
- Organisation for Economic Co-operation and Development (2016). *Skills matter: Further results from the survey of adult skills (OECD Skills Studies)*. <http://doi.org/10.1787/9789264258051-en>
- Organisation for Economic Co-operation and Development (2019). *Skills matter: Additional results from the survey of adult skills (OECD Skills Studies)*. <https://doi.org/10.1787/1f029d8f-en>
- Panero, M. E., Weisberg, D. S., Black, J., Goldstein, T. R., Barnes, J. L., Brownell, H., & Winner, E. (2016). Does reading a single passage of literary fiction really improve theory of mind? An attempt at replication. *Journal of Personality and Social Psychology*, 111(5), 46–54. <https://doi.org/10.1037/pspa0000064>
- Pehrsson, D. E., & McMillen, P. S. (2005). A bibliotherapy evaluation tool: Grounding counselors in the therapeutic use of literature. *The Arts in Psychotherapy*, 32(1), 47–59. <https://doi.org/10.1016/j.aip.2004.11.001>
- Pino, M. C., & Mazza, M. (2016). The use of “literary fiction” to promote mentalizing ability. *PLoS ONE*, 11(8), Article e0160254. <https://doi.org/10.1371/journal.pone.0160254>
- Pleimling, D. (2012). Social reading: Lesen im digitalen Zeitalter. *Aus Politik und Zeitgeschichte*, 62(41/42), 21–27.

- Preston, J., & Wegner, D. (2005). Ideal agency: The perception of self as the origin of action. In T. Tesser, J. Wood, & D. Stapel (Eds.), *On building, defending, and regulating the self*, 103–126. Taylor & Francis.
- Quinlan, J. A., Padgett, J. K., Khajeh Nassiri, A., & Mar, R. A. (2022). Does a brief exposure to literary fiction improve social ability? Assessing the evidential value of published studies with a p-curve. *Journal of Experimental Psychology: General*. Advance online publication. <https://doi.org/10.1037/xge0001302>
- Rastle, K. (2018) Visual word recognition. In S.-A. Rueschemeyer & M. G. Gaskell (Eds.), *The Oxford handbook of psycholinguistics* (2nd ed), 48–70. Oxford University Press.
- Rayner, K., Pollatsek, A., Ashby, J., & Clifton, C. (2012). *Psychology of reading* (2nd ed.). Psychology Press.
- Reich, L., Szwed, M., Cohen, L., & Amedi, A. (2011). A ventral visual stream reading center independent of visual experience. *Current Biology*, 21(5), 363–368. <https://doi.org/10.1016/j.cub.2011.01.040>
- Reichle, E. D., Pollatsek, A., Fisher, D. L., & Rayner, K. (1998). Toward a model of eye movement control in reading. *Psychological Review*, 105(1), 125–157.
- Reinke, O. (2023). *Putting ERICS to the test: reading in Italy, Spain and Norway*. Aldus Up. <http://www.aldusnet.eu/k-hub/putting-erics-test-reading-italy-spain-norway/>
- Richardson, F. M., Seghier, M. L., Leff, A. P., Thomas, M. S., & Price, C. J. (2011). Multiple routes from occipital to temporal cortices during reading. *Journal of Neuroscience*, 31(22), 8239–8247. <https://doi.org/10.1523/JNEUROSCI.6519-10.2011>
- Ritchie, S. J., Bates, T. C., & Plomin, R. (2015). Does learning to read improve intelligence? A longitudinal multivariate analysis in identical twins from age 7 to 16. *Child development*, 86(1), 23–36. <https://doi.org/10.1111/cdev.12272>
- Rizzolo, D., Zipp, G. P., Stiskal, D., & Simpkins, S. (2009). Stress management strategies for students: The immediate effects of Yoga, humor, and reading on stress. *Journal of College Teaching & Learning*, 6(8), 79–88. <https://doi.org/10.19030/tlc.v6i8.1117>
- Rosete, D., & Ciarrochi, J. (2005). Emotional intelligence and its relationship to workplace performance outcomes of leadership effectiveness. *Leadership & Organization Development Journal*, 26(5), 388–399. <https://doi.org/10.1108/01437730510607871>
- Samur, D., Tops, M., & Koole, S. L. (2018). Does a single session of reading literary fiction prime enhanced mentalising performance? Four replication experiments of Kidd and Castano (2013). *Cognition and Emotion*, 32(1), 130–144. <https://doi.org/10.1080/02699931.2017.1279591>
- Saxer, U. (1995). Lesen als Problemlösung: Sieben Thesen. In B. Franzmann, W. D. Fröhlich, H. Hoffmann, B. Spörri, & R. Zitzlsperger (Eds.), *Auf den Schultern von Gutenberg: Medienökologische Perspektiven der Fernsehgesellschaft*, 264–268. Quintessenz.
- Schiappa, E., Gregg, P. B., & Hewes, D. E. (2005). The parasocial contact hypothesis. *Communication Monographs*, 72(1), 92–115. <https://doi.org/10.1080/0363775052000342544>
- Schneider, U. (2015). Frühe Neuzeit. In U. Rautenberg & U. Schneider (Eds.), *Lesen: Ein interdisziplinäres Handbuch*, 739–763. De Gruyter. <https://doi.org/10.1515/9783110275537>
- Schneider, U. (2019). Facettenreich und unverzichtbar: Die multiplen Leistungen und Funktionen der Kulturtechnik Lesen. *Aus Politik und Zeitgeschichte*, 69(12), 9–14.

- Sharma, V., Sood, A., Prasad, K., Loehrer, L., Schroeder, D., & Brent, B. (2014). Bibliotherapy to decrease stress and anxiety and increase resilience and mindfulness: A pilot trial. *Explore*, 10(4), 248–252. <https://doi.org/10.1016/j.explore.2014.04.002>
- Sikora, S., Kuiken, D., & Miall, D. S. (2010). An uncommon resonance: The influence of loss on expressive reading, *Empirical Studies of the Arts* 28(2), 135–153. <https://doi.org/10.2190/EM.28.2.b>
- Sikora, S., Kuiken, D., & Miall, D. S. (2011). Expressive reading: A phenomenological study of readers' experience of Coleridge's »Rime of the Ancient Mariner«, *Psychology of Aesthetics, Creativity, and the Arts* 5(3), 258–268. <https://doi.org/10.1037/a0021999>
- Singer, L. M., & Alexander, P. A. (2017). Reading on paper and digitally: What the past decades of empirical research reveal. *Review of Educational Research*, 87(6), 1007–1041. <https://doi.org/10.3102/0034654317722961>
- Skeide, M. A., Kumar, U., Mishra, R. K., Tripathi, V. N., Guleria, A., Singh, J. P., Eisner, F., & Huettig, F. (2017). Learning to read alters cortico-subcortical cross-talk in the visual system of illiterates. *Science advances*, 3(5), e1602612. <https://doi.org/10.1126/sciadv.1602612>
- Slater, M. D., Johnson, B. K., Cohen, J., Comello, M. L. G., Ewoldsen, D. R. (2014). Temporarily expanding the boundaries of the self: Motivations for entering the story world and implications for narrative effects. *Journal of Communication*, 64(3), 439–455. <https://doi.org/10.1111/jcom.12100>
- Sørensen, K., Pelikan, J. M., Röthlin, F., Ganahl, K., Slonska, Z., Doyle, G., Fullam, J., Kondilis, B., Agrafiotis, D., Ueters, E., Falcon, M., Mensing, M., Tchamov, K., van den Broucke, S., & Brand, H. (2018). Health literacy in Europe: comparative results of the European health literacy survey (HLS-EU). *European Journal of Public Health*, 25(6), 1053–1058. <https://doi.org/10.1093/eurpub/ckv043>
- Stroebe, M., & Schut, H. (1999). The Dual Process Model of Coping with Bereavement: Rationale and description. *Death Studies*, 23(3), 197–224. <https://doi.org/10.1080/074811899201046>
- Tabullo, A. J., Navas Jiménez, V. A., & García, C. S. (2018). Associations between fiction reading, trait empathy and theory of mind ability. *International Journal of Psychology & Psychological Therapy*, 18(3), 357–370.
- Tamir, D. I., Bricker, A. B., Dodell-Feder, D., & Mitchell, J. P. (2016). Reading fiction and reading minds: The role of simulation in the default network. *Social Cognitive and Affective Neuroscience*, 11(2), 215–224. <https://doi.org/10.1093/scan/nsv114>
- Rautenberg, U., & Schneider, U. (Eds.) (2015). *Lesen: Ein interdisziplinäres Handbuch*. De Gruyter. <https://doi.org/10.1515/9783110275537>
- The Reading Agency, & BOP Consulting. (2015). *Literature Review: The impact of reading for pleasure and empowerment*. <https://readingagency.org.uk/news/The%20Impact%20of%20Reading%20for%20Pleasure%20and%20Empowerment.pdf>
- van Dijk, T. A., & Kintsch, W. (1983). *Strategies of discourse comprehension*. Academic Press.
- van Lankveld, J. J. D. M., van de Wetering, F. T., Wylie, K., & Scholten, R. J. P. M. (2021). Bibliotherapy for sexual dysfunctions: A systematic review and meta-analysis. *The Journal of Sexual Medicine*, 18(3), 582–614. <https://doi.org/10.1016/j.jsxm.2020.12.009>
- van Peer, W., Hakemulder, J., & Zyngier, S. (2007). Lines on feeling: Foregrounding, aesthetics and meaning. *Language and Literature*, 16(2), 197–213. <https://doi.org/10.1177/0963947007075985>

- Verghese, J., Lipton, R. B., Katz, M. J., Hall, C. B., Derby, C. A., Kuslansky, G., Ambrose, A. F., Sliwinski, M., & Buschke, H. (2003). Leisure activities and the risk of dementia in the elderly. *The New England Journal of Medicine*, 348, 2508–2516. <https://www.doi.org/10.1056/NEJMoa022252>
- Verhoeven, L., & Perfetti, C. (2008). Advances in text comprehension: Model, process and development. *Applied Cognitive Psychology*, 22(3), 293–301. <https://doi.org/10.1002/acp.1417>
- Vezzali, L., Stathi, S., Giovannini, D., Capozza, D., & Trifiletti, E. (2015). The greatest magic of Harry Potter: Reducing prejudice. *Journal of Applied Social Psychology*, 45(3), 105–121. <https://doi.org/10.1111/jasp.12279>
- Williams, C., Wilson, P., Morrison, J., McMahon, A., Walker, A., Allan, L., McConnachie, A., McNeill, Y., & Tansey, L. (2013). Guided self-help cognitive behavioural therapy for depression in primary care: A randomised controlled trial. *PLoS ONE*, 8(1), Article e52735. <https://doi.org/10.1371/journal.pone.0052735>
- Wilson, R. S., Mendes de Leon, C. F., Barnes, L. L., Schneider, J. A., Bienias, J. L., Evans, D. A., & Bennett, D. A. (2002). Participation in cognitively stimulating activities and risk of incident Alzheimer disease. *JAMA*, 287(6), 742–748. <https://doi.org/10.1001/jama.287.6.742>
- Wittmann, M., & Pöppel, E. (1999). Neurobiologie des Lesens. In B. Franzmann, K. Hasemann, D. Löffler, & E. Schön (Eds.), *Handbuch Lesen*, 224–239. K. G. Saur.
- Wittmann, R. (2019). *Geschichte des deutschen Buchhandels* (4th ed.). C. H. Beck.
- Zunshine L. (2006). *Why we read fiction: Theory of mind and the novel*. Ohio State University Press.