It is both timely and fitting that Anglistik as the journal of the German Association for the Study of English publishes an issue on Empirical Literary Studies (ELS). It is fitting because many of the early attempts to establish ELS were undertaken in Germany (cf., e.g., Groeben 1977; Schmidt 1980), and the "International Society for the Empirical Study of Literature" was also founded in Germany in 1987 (cf. Schmidt 1989). The publication is timely because after a long time of existing at the fringe of the discipline "Literary Studies," ELS is currently experiencing a moderate but unmistakable upswing of its institutional fortunes. The establishment of the Max-Planck-Institut für Empirische Ästhetik in Frankfurt in 2012 was both one of the most spectacular symptoms and a major accelerator of this trend. The latest step in this development is the foundation of ACCELS – the Aachen Center for Cognitive and Empirical Literary Studies – at RWTH Aachen University.

That it took ELS so long to take off is hard to understand at first glance. Why would Literary Studies restrict itself to dealing with professional interpretations and neglect the huge majority of reading processes, those of ordinary readers who read for pleasure and who do not have any training in literary analysis? In confining itself to highbrow interpretations, Literary Studies failed to account for exactly those phenomena that make its subject – literature – most relevant for cultures: its power to fascinate, move, and impress people of all backgrounds and ages. There are, we think, three major reasons for this strange situation:

a) Especially in English and American Studies, the dominance of text-centered approaches was hard to overcome. After the long age of New Criticism, structuralists and poststructuralists also focused on the sign system independent of its use by individual readers. Particularly in Deconstruction, the text "always already" did this or that, regardless of what readers did in the reading process (Spivak 1976, LXXVIII, and, for a more extensive analysis, Strasen 1996, 37-94). This provided a theoretical climate that was rather hostile to empirical approaches to literature.

b) The most mundane, but certainly not least important reason is that literary scholars are usually not trained in empirical methods. Consequently, there is always the danger of dilettantism when people with a hermeneutic training try to conduct empirical research.

c) Early empirical studies of literary phenomena tended to be even more modest in scope than they are today, a tendency that did and does not sit well with literary scholars who – in many cases – tend to be after the really big questions. This led to a certain impatience with empirical studies of literature, or as Mick Short put it in 2001:

We would like to thank Deborah de Muijnck, Jessica Jumpertz, Caroline Kutsch, Zoë Takvorian, Wiebke Tary, Katja Warstat-Willms, and Linda Wetzel for all their help in connection with this issue.
Empirical work on literature often gets a bad name in literary circles because it can be so careful about saying something that is true that it says very little indeed, or it says nothing that is useful from the critic's point of view. [...] Being careful not to claim more than you legitimately can is important if you are trying to be reasonable and objective, but we must try to answer questions that need asking [...]. (Short 2001, 342-344; italics in original)

To get to "answer the questions that need asking" with the help of empirical methods, however, is not as easy as it sounds, by far. A narratological category like "focalization," for instance, must be broken down into far more basic conceptual components to make it accessible to empirical research, and the amount of data you would need to generate in order to draw any conclusions on the effect of focalization on readers would have been very hard to manage with the tools of the 1980s and 90s.

Beginning with the 1990s, this situation slowly started to change. With the rise of pragmatics in linguistics the role of context in communication became increasingly obvious and the reception of linguistic pragmatics did much to help overcome the dominance of text-centered approaches in Literary Studies (cf., e.g., Geeraerts 2003 or Schmid 2003). At roughly the same time, from the 1990s onwards, the interest in the cognitive mechanisms that are used in meaning attribution increased in both linguistics and literary studies.²

It was around the turn of the century that this interest led to the establishment of new approaches, a fact that introductions to these approaches – such as Cognitive Stylistics (Semino and Culpeper 2002) and Cognitive Poetics (Stockwell 2002) – attest to. This 'cognitive turn' in literary studies, was, of course, implicitly also a turn to a renewed interest in the reader in literary studies. But even though cognitive approaches helped to develop intuitively plausible models of literary reception (Fludernik 1996; Jahn 1997; Herman 2002; Strasen 2008; 2013) or of specific elements in the reception process like characterization (Schneider 2001; 2013; Vaeßen 2018) or the representation of physical, logical, or human impossibilities (Alber 2016, 47-57), which were definitely an improvement over the classic approaches like Iser's (1978) and Fish's (1980), it became increasingly clear that a reception theory that wants to say anything about meaning attribution by flesh-and-blood readers (as opposed to idealized model readers or abstractly defined interpretive communities), had to be, at least in principle, empirically testable (see also Alber 2018, 37).

This theoretical development coincided with technological developments that seemed to justify the hope that at long last ELS would be able to research questions of

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² One reason for the increase of interest in cognitive mechanisms was that the US government had declared the 1990s the "decade of the brain." This significantly increased funding of research concerned with the workings of the human brain.

³ This is one of many reasons why, to the present day, there is a strong interdisciplinary cooperation between Cognitive Literary Studies, ELS, and Linguistics, a cooperation that has also left a trace in this issue in the form of the essay by Börgerding, Benen, and Bergs.
a scope that would bring it closer to the kind of questions traditional literary scholarship was interested in. As we have written elsewhere,

[...] the rapid development of ever more precise imaging technology like CT or fMRI triggered (often exaggerated) hopes that cognitive processes could become observable. [...] [A]nd most importantly, the breath-taking speed with which storage capacity and processing speed of IT systems increased made empirical methods seem feasible that had been considered to be convincing in theory but impossible in practice before.

(Alber, Kutsch, Strassen, forthcoming)

Though some of these hopes have proven to be exaggerated in the meantime, these developments triggered new research and the development of new methods in ELS. Starting with the groundbreaking Psychonarratology (2003) by Marisa Bortolussi and Peter Dixon via Scientific Methods for the Humanities (2009) by Willie van Peer, Frank Hakemulder, and Sonja Zyngier to Mind, Brain and Narrative (2012) by Anthony J. Sanford and Catherine Emmott and beyond, increasingly introductions and textbooks tried to adapt methods from cognitive science, psychology, and other empirical fields to the needs of ELS.

At this point, we would like to illustrate what exactly scholars do in the context of empirical experiments that concern literary studies. How does the paradigm of ELS work from a methodological perspective? What typically happens in the context of empirical investigations is that actual readers undergo a certain treatment. More specifically, they are confronted with one or several textual passages which they are asked to read, while their reactions are measured. In the context of experiments, one usually compares the effects of two or more conditions. These conditions concern different text features, different reading groups, or different contexts of reception – depending on what exactly the researchers want to measure.

Experiments begin with a problem that the researchers want to solve. They might, for instance, be interested in determining degrees of storyworld absorption (Kuijpers et al. 2014); in the effects of climate fiction on different groups of readers (Schneider-Mayerson 2018); in the ways in which recipients respond to literary depictions of rape (Koopman et al. 2012); in what happens when readers are confronted with phenomena that they consider to be impossible in the real world (Alber, Jumpertz, Kutsch, in preparation); in whether people who regularly read literature have a better theory of mind than those who read less frequently (Kidd and Castano 2013); in differences between literary and non-literary reading strategies (Mar et al. 2006); and so forth.

To solve the problem in question, the researchers generate a hypothesis, which makes a prediction that can be tested (and potentially falsified). The following statement is an example of such a hypothesis:

H1: It will be easier for readers to identify with a first-person compared to a third-person narrator.

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4 See also the article by Kuijpers, Douglas, and Kuiken in this issue.
This hypothesis predicts that a certain textual feature (the presence of a first-person as opposed to a third-person narrator) will influence the subjective readerly reactions (the degree of identification with the narrator).

If one wants to measure a readerly response such as identification, one should name conditions under which the phenomenon in question can be said to occur. The process of making phenomena measurable is called operationalization and begins with an operational definition. The term 'identification,' for example, can be defined as a "construct with at least two dimensions: empathy (cognitive and emotional) and the sensation of becoming the character, or merging" (Igartua 2010, 349). Empathy is commonly defined as the ability to imagine oneself in someone else's shoes (Koopman et al. 2012, 67), while merging concerns the impression of becoming this person (Ames et al. 2008). To measure different degrees of identification, one could, for instance, use a questionnaire with close-ended questions (such as "When I read the story, I could imagine what it must be like to be the narrator") followed by a five-point Likert scale that presents the readers with response options (from "strongly disagree" to "strongly agree"). Bortolussi and Dixon explain that "although measurements are often quantitative, they need not be." Indeed, "a measurement is anything that one can assess or evaluate about an individual, his or her behavior, or his or her situation" (2003, 45).

The researchers also have to determine what stimulus materials they want to use. In the context of H1, it makes sense to use two passages, namely one that features a first-person narrator and a second one that features a third-person narrator. The researchers will manipulate (and change) one aspect of the treatment to evoke different reactions from the participants (van Peer et al. 2012, 91). For example, one can use an original literary text that uses a first-person narrator and manipulate this text so that it uses a third-person narrator. The advantage of this method is that apart from the manipulation, the two texts will be (more or less) identical. Text manipulation makes it possible to rule out other factors that might influence the responses of the participants. The disadvantage of this method is that the manipulated texts often seem artificial or stilted. One can also argue that experiments that use manipulated materials can only say very little about how readers process actual literature. Alternatively, one could use two original literary texts. The advantage is that one uses actual literary material, but the disadvantage is that it is more difficult to rule out the impact of other (or confounding) factors.

One of the goals of ELS is to determine the relationship between different variables. Hypotheses posit a causal relationship between two variables. In other words, they take the form "If X then Y" (or "Y is influenced by X"). In the case of H1, X stands for the kind of narrator that the text uses, whereas Y stands for the degree of identification with the narrator. X is called the independent variable, while Y is called the dependent variable. The independent variable is the factor that is manipulated, whereas the dependent variable is what is expected to change through the manipulation (Bortolussi and Dixon 2003, 51-52). H1, for instance, argues that the subjectively perceived degree of identification (Y) depends on the question of whether the text uses a first- or a third-person narrator (X).
The researchers should also be aware of interfering (or confounding) variables. In the context of H1, it would, for example, make a difference if one of the used narrators was overt (and communicated directly to the reader) and the other one covert (and remained hidden in the discursive shadows). One should make sure that the narrators in both passages are either covert or overt.\footnote{See also the discussion section of the essay by Jumpertz and Tary in this issue.} If one wants to avoid sequence effects, it is important to randomize the order of the stimulus materials through complete or partial counterbalancing (if the participants are confronted with several text passages) and the order of the questions. Furthermore, one should distribute the participants "over the conditions in such a way that each participant has an equal chance of being assigned to one of the treatments" (van Peer et al. 2012, 91). One way of doing this would be to ask the participants to draw numbers and to then design two groups, namely one that drew even and another one that drew uneven numbers.

One usually argues that experiments are only statistically significant if they involve at least 30 participants ($n = 30$). The recruiting of test subjects is not always easy and often results in the use of convenience samples (such as students from one's classes or friends and acquaintances). It is also necessary to use a control group, i.e., a group that is identical to the treatment group with one exception: the control group does not receive the treatment. Control groups are important because they allow the researchers to make causal inferences: the differences between the two groups only have to do with the fact that one group received the treatment, whereas the other one did not. In the context of H1, one could, for instance, use a passage written in you-form, i.e., a passage that neither uses a first- nor a third-person narrator. Finally, a pilot study should be carried out before the actual experiment to make sure that the questionnaire or technical apparatus works and also that the textual passages and the questions are understandable.

The methodological principles outlined here enable literary scholars to address the readerly processing of literary texts in a highly systematic manner. Since ELS typically involves the testing of falsifiable hypotheses (although there are of course also explorative studies that generate testable hypotheses), it can be seen as a science in the sense of Karl Popper (1934). The questions that can be asked and answered by ELS are usually more specific and thus smaller in scale than those that traditional literary scholars are typically interested in. The most important difference between ELS and traditional (hermeneutic) approaches is that empirical investigations move the field beyond the idealized reader concepts mentioned at the beginning of this introduction. ELS zooms in on the reactions of groups of actual (flesh-and-blood) readers. In this context, Bortolussi and Dixon write that "each reader's constructions must be viewed as valid and appropriate given that reader's knowledge, background, goals, and personality" (2003, 44). Furthermore, "there is the recognition that the response to and interpretation of a literary work is not homogenous within any group of readers." At the same time, however, ELS operates on the basis of the "assumption that literary processing is not entirely idiosyncratic, and that the processes used by readers are amenable to scientific investigation and description" (2003, 43).
The articles collected here seek to document some of the work that is currently being done in the context of ELS. Our goal is to convey a sense of how this new paradigm works and what scholars within the paradigm do. With regard to the contributors, we have opted in favor of a 'healthy mix' between established figures in the field as well as up-and-coming younger scholars. We would like to end this introduction by briefly summarizing the topics of the individual articles in this issue.

To begin with, Paul Sopcak, Don Kuiken, and David S. Miall present two interrelated studies that deal with the effects of free indirect style (FIS) in George Eliot's *Middlemarch* (1871). Many literary scholars have already speculated about readerly reactions to FIS. While some see the characters' subjectivities as being subordinated to the novel's omniscient narrator, others perceive autonomous and co-present consciousnesses. The second group, i.e., the one that posits multiperspectivism, also debates whether the subjectivities are chaotically dispersed or ordered in a coherent manner. Interestingly, the series of replicated results that Sopcak, Kuiken, and Miall present demonstrates that readers tend to connect FIS with co-present consciousnesses and also that they perceive these autonomous subjectivities as being coherently ordered.

Caroline Kutsch uses a qualitative interview study to address the role of experientiality (understood as the impact that reading a narrative has on its readers) and storyworld absorption (i.e., the subjective impression of 'being there' in the world of a narrative) in the reading process. She is interested in the kinds of story-driven experiences that flesh-and-blood readers report when being asked about the processing of fictional narratives. Kutsch also wants to determine how experientiality and storyworld absorption are related. On the basis of her interviews, she deduces dimensions of experientiality (such as the memory of a concrete experience, the memory of general frames of knowledge, bodily reactions, emotional reactions, and previous experiences with literature) and she shows that storyworld absorption can be seen as a specific type of story-driven experience: its dimensions are ultimately subdimensions of experientiality.

Moniek M. Kuijpers, Shawn Douglas, and Don Kuiken develop a reading habits questionnaire (RHQ) which captures the actual reading frequency across a broad spectrum of genres. The goal is to design a universal measure that can be used in cross-cultural contexts to find out which habits influence the reading experience and the effects of reading. One can use the RHQ to analyze the distribution of scores across a range of different fiction and non-fiction genres, zoom in on common generic distinctions, or identify groups of readers who habitually read certain combinations of text genres. For instance, it becomes possible to compare the personality traits of avid (literary) readers and non-readers, or to compare the kinds of experiences they commonly report when reading certain types of texts (e.g., enjoyment, absorption, or frustration).

Sara Whiteley examines the judgements made by reading groups regarding Alex Woods, the narrator of Gavin Extence's *The Universe Versus Alex Woods* (2013). Whiteley seeks to explain why readers in all of the groups interpreted the narrator as being "autistic," as having "Asperger's syndrome," or as being on "the autistic
In addition, it is striking that many readers compared Alex Woods to the narrator of Mark Haddon's *The Curious Incident of the Dog in the Night-Time* (2003), which is widely read as a portrayal of a boy with Asperger's syndrome. Whiteley shows that readers' attributions of autism to Alex Woods were part of their category-based interpretations, particularly characterizations of Alex as being different from prototypical instances of other categories, such as that of a teenage boy. The ascriptions were also often related to claims about points of narrative contact with Haddon's novel. This interrelation suggests that readers' perceptions of a mind style are influenced by their 'narrative schemas,' which may feature only partial representations of the textual cues of particular works.

Frank Hakemulder presents a new model aimed at understanding what happens in the interaction between the reader and stylistic features of a text that we associate with literature or the literary. His model focuses on the well-known concept of 'foregrounding' and synthesizes the ideas about what makes literary reading unique (because of stylistic aspects) and valuable (i.e., meaningful in a more personal way). Hakemulder argues that to study and effectively apply the power of style, we will need an interdisciplinary approach on foregrounding. In this context, he also shows that there are several different ways of approaching the subject, and that, ideally, none of them should do without the other.

Jessica Jumpertz and Wiebke Tary address the question of whether readers tend to identify with first-person rather than third-person narrators, and narrators that use internal focalization rather than those that use external focalization. They demonstrate that focalization has a greater impact on identification than narration, but narration may still influence identification: the subjectively perceived degree of identification was higher in cases of internal focalization and also with regard to first-person narrators. In addition, Jumpertz and Tary show that identification is linked to the narrator's presence (or overtness) – the participants needed a clearly recognizable (or personalized) narrator to identify with him or her. Narrative presence can thus be seen as a presupposition for readers' identification with a narrator but the degree of identification also depends on the distance between the narrator and the focalizer, and the restriction of information through the type of focalization.

Pia Börgerding, Marie-Christine Benen, and Alexander Bergs investigate the willingness and abilities of hearers to deal with unexpected input. They resort to the model of probabilistic thinking, Bayesian inference, and predictive coding in the processing of surprising idiomatic expressions. When the input is unexpected and reaches a particular threshold, hearers utilize general cognitive principles in order to arrive at plausible interpretations, which in turn updates their predictive system for new input. In other words, speakers who encounter 'new' but still explainable idioms find it increasingly easier to process the new input. However, once a particular point is reached and the input is no longer compressible, hearers will in fact reject the structures as being nonsensical.

Andrea Macrae analyzes the relationships between reading and gaming habits, mental imagery constructions, and the process of perspective-taking on the basis of a short fictional scenic narrative. She shows that those who read frequently have a greater tendency to construct mental imagery when reading than those who read less
frequently. The various potential causal explanations for this correlation warrant investigation, particularly given the potential developmental aspects of mental imagery ability. In addition, Macrae demonstrates that frequent readers are more likely to visualize a scene from the perspective of the character than infrequent readers. For the former group, psychosocial factors may potentially add to the effects of linguistic cues prompting visualization from the character's perspective. For the latter group, other factors may override the linguistic cues which encourage perspective-taking.

We sincerely hope that this issue illustrates the scope and sophistication of current work in ELS and thus helps to further establish ELS as one necessary approach among others in the context of Literary Studies as a whole (see also Alber, Kutsch, and Strasen, forthcoming).

Works Cited


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