It is often assumed that narrating a story from the protagonist’s perspective increases the readers’ inclination to take over this perspective. In a questionnaire study, we examined to which degree different textual modes of narration (a) increase the degree to which the reader can generally relate to the protagonist (what we will call relatedness), (b) make the reader prone to imagine the scene from the spatial point-of-view of the protagonist, and (c) enhance the psychological perspective-taking of the reader, measured as identification with the protagonist. We employed two different types of texts—one literary and one non-literary—and tested them in four different modes of narration: free indirect discourse, psycho-narration, first-person narration and external focalization. In terms of the relatedness between the reader and protagonist and spatial perspective-taking the largest differences (descriptively) occurred between external focalization and psycho-narration ($p < .05$ for relatedness, $p < .05$ for spatial perspective-taking) and between external focalization and first-person narration ($p < .05$ for relatedness, for spatial perspective-taking $p < .1$). Identification, measured with items from a questionnaire on reading experience (Appel et al. 2002), was highest for first-person narration. Here, the difference between first-person narration and external focalization turned out significant only after including dispositional empathy, thematic interest for the text and attention during reading as covariates. Results for the other two perspective-taking measures were unaffected by the inclusion of the same covariates. In conclusion, our data show that first-person and psycho-narration increased the tendency to take over the perspective of the protagonist, but FID did not.

Keywords: perspective-taking; identification; narrative point-of-view; free indirect discourse

1 Introduction
There are many reasons why people read fiction. Among them is the possibility to partake in experiences otherwise inaccessible to us because of our confinement to our subjective experience in the here and now of the actual world: by reading fiction, we can transcend this limited horizon and “experience” situations—if only in a second-hand fashion—that are removed with respect to place, time, and modality (nomological, deontic, etc.), thus taking on, as it were, a perspective different from our own. One perhaps rather extreme case of transcending the limits of our own epistemic horizon is what we, for lack of a better term, will call perspective-taking: the impression on the part of the reader to actually “be in the story” and to take part in the situation described in the narrative from the perspective of one of the protagonists. This impression of a shifted perspective can affect different dimensions of the reader’s representation of herself in relation to the protagonist: firstly, it may affect the spatio(-temporal) properties of her self-representation within the mental representation she forms of the fictional world: she may self-locate in the here (and
the now) of the protagonist (rather than the here and now of the reading situation in the actual world); secondly, she may take over the epistemic position of the protagonist (i.e. “share” the latter’s experiences and beliefs), though not necessarily taking over the protagonist’s spatio-temporal location. What this amounts to is probably best captured by the philosophical term qualia: the distinctively subjective, introspectively accessible mental states that accompany experience and belief (see, e.g. Tye 2015). This includes proximal sensations like tasting a lemon, seeing a bright flash, having your arm pinched, etc.; but also less immediate sensations like experiencing annoyance, pity, etc. Finally, taking over the perspective of a protagonist might compel the reader to—at least partly—adopt even higher-order beliefs of the protagonist: e.g. his emotional, and perhaps even social, political and ethical attitudes. Although this may seem an extreme case, it is not uncommon that we indulge in works of fiction (novels, films, TV series) exactly because we are interested in a protagonist whose mental life is quite different from our own (because he lived 1000 years ago, or because he is a mobster, or a cannibal, or, well: a vampire). These three aspects of perspective-taking are, to a certain degree, independent of each other, and there are probably other aspects that play a role in perspective-taking. Still, it seems reasonable to assume that at least one of the three mentioned aspects of perspective-taking should be involved whenever a reader is taking over the perspective of a protagonist while reading.

The goal of our current contribution is a psycholinguistic, rather than a (psycho-)narratological one: we want to investigate to what extent different textual properties affect the degree to which perspective-taking takes place. We present an experiment in which readers read texts in four different textual conditions, corresponding to four modes of narration: free indirect discourse, first-person narration, psycho-narration and external focalization. To compare these four modes of narration, we have measured their effects on three dimensions of perspective-taking: relatedness (a rather abstract property representing how strongly the reader relates to the protagonist); spatial perspective; and identification. The concepts behind these dimensions will be laid out in more detail in the next section, as will be the textual properties we manipulated in our materials. An upfront caveat seems to be in order: given the psycholinguistic approach we take, we want to emphasize that we are aware that the phenomenon of perspective-taking has been extensively studied and modelled from a (psycho-)narratological and cognitive linguistic point of view, going under different terminological labels such as transportation, viewpoint, identification, and even empathy. Given that each of these concepts seems to be rather fraught with theoretical assumptions, and hence the demarcation lines between them vary depending on the theoretical approach, we prefer to remain neutral as to how the results of the current experimental enterprise relate to these broader theories of literary text comprehension. Thus, we tried to keep the theoretical assumptions entering into our dependent variables at a minimum, and conceive of our approach as being bottom-up, data-driven and exploratory, rather than top-down and hypothesis-testing. With this caveat in mind, we still consider our original findings an important contribution to a better understanding of the role of perspective-taking in reading fictional texts.

2 Background

In narrative texts, the feelings and thoughts of the protagonist can be delineated in many ways, and an author may choose how many details he provides concerning the inner workings of a character’s mind. It is often assumed that, when a story is narrated from the subjective point-of-view of the protagonist, this will make readers more prone to take over the perspective of that character or to get a feeling of “stepping into the protagonist’s shoes” (e.g. Oatley 1999: 445).
Some studies have tested this assumption with experimental methods and report tentative evidence that supports that notion. In a recent study by de Graaf et al. (2012), for instance, participants read a story about a job interview that was either written from the point-of-view of the applicant or from the point-of-view of a member of the selection committee. The narrative point-of-view was manipulated via making either the applicant or the member of the selection committee the protagonist in a first-person narration. Additionally, the respective character was made more prominent by devoting an extra paragraph to the description of something that had happened to him before the job interview. In a second experiment, the same manipulation was realized with a different story, which was about two sisters whose mother was in an irreversible coma. Participants from de Graaf et al.’s (2012) study reported higher identification with the character whose perspective was featured than with the second character. Identification was measured with questions about the extent to which participants felt empathy with the protagonist (“I empathized with the protagonist.”), had imagined being in the position of the protagonist (e.g. “During reading, I imagined what it would be like to be in the position of the applicant.”) and had the illusion of actually being the protagonist (“In my imagination, it was as if I was the protagonist.”).

Other studies have investigated the effect of narrative perspective on what de Graaf et al. (2012) term the “illusion of being the protagonist”, and report evidence that suggests that the description of a protagonist’s inner life is associated with a mental representation of the scene from her visual point-of-view (Owens et al. 1977; Sato et al. 2012).

Narrative perspective can be implemented through different textual properties, and various ways of conveying character consciousness have been distinguished within narratology, ranging from interior monologue to a “behavioristic mode” of narration in which events are told such that only what is visible from the outside is presented, and the descriptions of inner thoughts and emotions of characters are omitted from the narration (some passages in Thomas Hardy’s novels come to mind as examples for this mode of narration).

We approached the question whether differences in mode of narration systematically affect the degree to which participants take over the perspective of a protagonist with an empirical study. To this end, we employed different ways of mediating a character’s inner mental life. We were particularly interested in a narrative mode often used to describe the mental life of characters: free indirect discourse (FID). FID can be described as a mixture of indirect and direct discourse (see example 1). As in indirect discourse (ID), person and tense refer to the context of the utterance situation. Thus, the person whose thoughts and speech are rendered is typically not referred to in the first person but in the third person and tense may be shifted to past tense, even when the “original” speech or thought would plausibly be given in present tense. Commonalities with direct discourse (DD) exist in the sense that the speech or thought in FID is normally not embedded, and indexical expressions like deictic terms or modal particles are interpreted as referring to the here and now of the protagonist, respectively her attitudes (see Maier 2015, for a recent formal semantic approach to the phenomenon). FID has often been said to create the impression of a direct rendering of a protagonist’s thoughts or speech (Fludernik 2003).

(1) a. Direct discourse
   He thought: “Why on earth have I been so fortunate to find myself here with this life?”

   b. Indirect discourse
   He wondered why (on earth) he had been so fortunate to find himself in that place in his life.
c. Free indirect discourse

Why on earth had he been so fortunate to find himself here with this life?

When thoughts are presented in FID, it counts as a means to narrate from the subjective point-of-view of a protagonist (see e.g. Köppe & Kindt 2014). In FID, indexical elements and other speaker-related expressions cannot be interpreted as related to the speaker’s/narrator’s perspective. In literary texts, FID mostly occurs in the third person and past tense. Evidence suggests that FID makes a character’s thoughts more visible, understandable and transparent to readers (Hakemulder & Koopman 2010; Kotovych et al. 2011); this might, for example, involve that a passage rendered in FID might contain expressions that are idiosyncratic to the character (but not the narrator). These and other aspects of FID have been subject to experimental investigation. For example, Dixon & Bortolussi (1996) report empirical support for the assumption that FID increases readers’ sympathy for protagonists. Schram (1991) conducted a study on narrative perspective in which he manipulated the point-of-view through the presence/absence of FID for a literary and a non-literary text. Students in Schram’s study tended to recognize themselves in the protagonist to a greater extent when the story contained FID, but only for those texts in which the main protagonist was male. Interestingly, those effects were not found for all questions pertaining to identification (e.g. no effects were found on whether participants felt that they and the protagonist were the same person, whether they had forgotten about themselves and their environment during reading and whether they felt empathy with the protagonist).

In our study, we pitted FID against psycho-narration and first-person narration. Psycho-narration is a way to present the thoughts and feelings of a character in an often condensed form in which the choice of expressions typically does not correspond to the idiolect of the character (Nünning & Nünning 2004); that is, in contrast to FID, the words by which the mental life of the protagonist is rendered are not linked to her manner of expression, nor is the description of the mental and emotional state of the protagonist something that has to correspond to anything the character has consciously put into words in her head. The description of a protagonist’s inner feelings and thoughts in psycho-narration can also include subconscious or pre-verbal content (Cohn 1978).

In first-person narration the story is told by a narrating I who takes part in the fictional world (Nünning & Nünning 2004). In our study, we used a form of first-person narration in which the first-person narrator is the protagonist with a focus on the disclosure of her inner thoughts and feelings.

Given these three forms of narration—FID, psycho-narration and first-person narration—we put forward the following research questions:

Does narrative mode influence readers’ perspective-taking? And, if it does, how do the different types of narration affect perspective-taking on different dimensions?

3 Experimental evidence

To answer these research questions, texts with the description of the protagonist’s inner mental life by means of FID, first-person narration and psycho-narration were compared to texts without the description of the protagonist’s inner thoughts and feelings (external focalization). Moreover, readers’ dispositional empathy, thematic interest for the text and focus of attention during reading were explored as additional covariates.

Perspective-taking was measured by means of a relatedness scale, a graphical representation of spatial perspective in mental imagery and questions about the extent of self-reported identification with the protagonist. Those dependent variables represent our
attempt to cover three different aspects of perspective-taking in the context of reading a narrative—using one unspecific and two more specific measures. The unspecific measure was designed to assess how strongly the reader can generally relate to the protagonist, which might (but need not) include taking over the spatial or psychological perspective of the protagonist. The two more specific measures assess to what extent the reader takes over the spatial perspective of the protagonist in mental imagery and the perspective of the protagonist in a psychological sense, by which we mean how strongly the reader has the impression to understand and identify with the overall situation, and, in particular, the feelings and thoughts of the protagonist.

3.1 Methods

3.1.1 Participants

A total of 108 persons (106 students of Goettingen University and two high-school graduates) participated in this study in exchange for monetary compensation or course credit. Data from 26 participants had to be excluded, as they had already participated in a previous study on FID in our laboratory ($n = 3$), because they were not native speakers of German ($n = 11$), or had been tested with a text in the first-person condition that contained a grammatical error ($n = 12$). These data sets were replaced with data from 26 new participants. Thus, data from 108 participants (31 male, 75 female, 2 not specified) entered the analysis. Mean age was 23.86 years ($SD = 3.61$, range = 19–41 years). The number of participants was balanced across conditions and text types. A total number of 96 participants was tested with the manipulated versions of either the literary or non-literary text (24 per condition; within each condition half with the literary and half with the non-literary text type) and 12 with the original version of the literary text.

3.1.2 Design

We employed a between-subjects design with four conditions (FID/psycho-narration/first-person/external focalization). Each narrative mode was tested with a literary and non-literary text. The non-literary text was created for the experiment. In addition to the four manipulated versions of the literary and non-literary text, the original, unaltered passage from the literary text was included to check whether the manipulation of the text had an impact on the reader’s perception of the text. Also, inter-individual differences in self-reported dispositional empathy, attention during reading (i.e. how attentively participants had read the text) and thematic interest for the text were assessed. This allowed us to take inter-individual differences on those measures into account by including them in the statistical model as additional covariates.

To assess perspective-taking, we employed the following three measures:

- A schematic drawing that participants made, showing to which extent they had imagined the scene from the spatial perspective of the protagonist (the diagram task; s. part A of the materials section). This measure was targeted at the spatial dimension of perspective-taking.
- An adapted version of the Inclusion of Other in the Self (IOS) Scale (Aron et al. 1992) with which we assessed how strongly participants felt themselves to be entering into a relation with the protagonist, ranging from no relation to complete overlap (see part B2 of the materials section for details). This measure was intended to tap into the relatedness dimension of perspective-taking.
- A subset of items from the dimension identification from the questionnaire on multiple facets of the reading experience developed by Appel et al. (2002). These items consisted of questions about how well participants could
understand the feelings and thoughts of the protagonist, how strongly they could empathize with the protagonist and whether they could find similarities between themselves and the protagonist (see part B4 of the materials section), thus exploring the identification dimension of perspective-taking.

3.1.3 Materials

The literary text was taken from the short story Sterben by Arthur Schnitzler (1894, Reclam edition 2006: 89–91) which is about a female protagonist, Marie, and her boyfriend Felix, who suffers from a fatal illness. In the passage chosen for the experiment, the couple is travelling to Italy. The scene is located in a train compartment. While Felix is asleep, Marie is watching him, reflecting about her feelings, which fluctuate between sadness, exhaustion, guilt and a sense of relief about not being in his position. Eventually, Marie falls asleep. When she wakes up, she notices that Felix is laying motionless on the seats staring at the roof of the compartment. Marie is terrified by this sight. At the end of the scene, Felix suddenly makes an attempt to jump up, but immediately falls back on his seat, because he is too weak to stand.

Since we were particularly interested in the effect of FID on perspective-taking, we selected a passage that contained a large proportion of FID; thus, this passage abounds with cues for FID like (thought) exclamations, questions, predicates of personal taste, particles, etc. (see Eckardt 2014, for a list of FID cues, and Dancygier 2012, for some discussion). Yet we created an FID version of this passage as the thoughts and feelings of Marie are mainly but not exclusively described in FID in the original passage. The original text also contains an abrupt shift from past tense to present tense which is not unusual for Schnitzler’s novels (Neuse 1934). This change in tense was not present in the FID version. Thus, four manipulated versions were created:

- Psycho-narration: descriptions of the inner mental life of the female protagonist which were written in FID in the original passage were rewritten to psycho-narration, e.g. *But what was this?* was changed to *At once she was puzzled*.
- FID: only few changes were made to the original version. We added FID cues to some sentences which described the thoughts and feelings of the protagonist and which were not clearly written in FID, e.g. *She felt calm* was changed to *She was quite calm*.
- Subjective first-person: based on the original version with pronouns changed from third to first-person, e.g. *Why had she started up so violently?* was changed to *Why had I started up so violently?*
- External focalization: no descriptions of inner thoughts or feelings of the protagonist. When emotions or thoughts are mentioned it is from the point-of-view of an outside observer. Thus, we rewrote all descriptions of inner thoughts or feelings of the protagonist in the original, e.g. from *She felt calm* to *She appeared calm*.

As one anonymous reviewer has pointed out to us, these rather subtle changes exemplified here do not in and of themselves determine the overall mode of narration. Rather, it is the sum of these subtle changes that may let the reader infer that a certain passage is written in FID rather than in psycho-narration. To get a better impression of this cumulative effect of the linguistic cues to certain modes of narration, the interested reader is referred to Appendix A.

The non-literary text also featured two characters: a female protagonist, who is in the emotional dilemma of wanting to publish her novel but fears the critics, and a second
character, her room-mate Felix who, as she remembers, had tried to reassure her in the past. The text mainly describes the protagonist’s doubts about her novel and writing skills. Her thoughts are interrupted at the end of the scene, when Felix enters her room and invites her to drink a cup of coffee with him. Again, four versions of the text were created (FID/psycho-narration/first-person/external focalization). Here, the initial version of the text was written in first-person narration. Then the pronouns from the first-person version were changed to third person and the text was rewritten in the same way as the literary text passage to obtain the three remaining text versions. We kept the text length constant across all manipulated text versions (literary text: 36–37 sentences; non-literary text: 33–35 sentences; see Appendix A for the complete literary text in all conditions in German with English translation).

The dependent variables were assessed with a paper-pencil questionnaire comprising four parts:

- Diagram task (A)
- Rating scales (B)
  - Saarbrücker Persönlichkeitsfragebogen (SPF, Paulus 2009), a questionnaire on dispositional empathy (C)
- Socio-demographic questions (D)

### 3.1.3.1 Part A: Diagram task (spatial perspective-taking)

In part A, participants were asked about the visual perspective from which they had imagined the scene described in the text. To assess spatial perspective-taking, a diagram was used that represented the location of the scene (literary: train compartment, non-literary: protagonist’s room). Within this diagram, the positions and viewing directions of the two characters were already marked.

Participants were instructed to add a cross at the position from which they had imagined the scene and an arrow to indicate their viewing direction. (Instruction: Max is a director and wants to shoot the final scene from the text. Therefore, he has already marked the positions of the two protagonists. Max wants to depict the perspective from which you have imagined the scene. Where would he have to put his camera? Mark the position of the camera with a cross and the viewing direction with an arrow.)

Before addressing this task (i.e. on a previous page in the questionnaire) participants filled out an empty version of this diagram, i.e. the diagram did not contain pre-marked positions and viewing directions of the two protagonists (see Appendix C for a detailed listing of all parts of the questionnaire and the order in which they were presented). Here, participants were asked to depict how they had visualized the scene by marking the position and viewing direction of the two protagonists in addition to their own position and viewing direction. (Instruction: In this task you are asked to depict how you have imagined the scene. On this page, you see the schematic drawing of a room. Please indicate with two crosses the positions where you have imagined the female and the male protagonist. Please depict the positions exactly as you have visualized them. Mark with an arrow the direction in which the protagonists were looking. From which perspective did you imagine the scene? Please mark the position that you had within the scene or from which you had looked at the scene. Mark your position with a cross and your viewing direction with an arrow.) The empty diagram was included before the non-empty diagram for the following reasons: the main reason was to prevent confusion about the predefined positions of the two protagonists in the non-empty diagram. Besides, the empty diagram served as a reference when the position and/or viewing direction in the non-empty diagram could not be clearly assigned to one category or participants missed to indicate one or both of them (in 22 cases, 20%, the
second, non-empty diagram was not filled out completely and thus the scoring was based on the first, empty diagram).

### 3.1.3.2 Part B: Rating scales (contains all questions about relatedness, identification, thematic interest and focusing attention)

Part B of the questionnaire can be grouped into five subparts (B1 – B5).

In part B1, participants were asked whether they had experienced mental imagery during reading and to shortly describe the most vivid images they could remember. Participants in this part also indicated on a 5-point scale how vividly they had imagined the voice (e.g. pitch, intonation) of the female protagonist (1 = no imagination at all, 5 = very vivid imagination).

In part B2, we assessed via an adapted version of the Inclusion of Other in the Self (IOS) Scale (Aron et al. 1992) how strongly participants could relate to the protagonist. The original IOS measures interpersonal closeness in relationships. The scale is composed of seven pairs of circles, similar to Venn-diagrams, with increasing degrees of overlap. One circle is labeled self and the other circle other. Respondents are instructed to “please circle the picture that best describes your current relationship”. In the current study, the labels of the circles were modified to Du selbst (self) and Protagonistin (female protagonist). Participants were asked to choose the pair of circles that best represented how strongly they had felt that the text had put them into the position of the female protagonist during reading.

Part B3 contained the Transportation Scale – Short Form from Appel et al. (TS-SF, 2015). The TS-SF measures how strongly readers feel to be transported into the narrative world during reading (see e.g. Green & Brock 2000). The full set of questions in English is printed in Appel et al. (2015).

Part B4 consisted of a subset of questions from the dimensions identification,1 being there, vividness, parasocial interaction and analytic mode of reception from the reading experience questionnaire (Fragebogen zum Leseerleben, Appel et al. 2002), a questionnaire that assesses multiple facets of the reading experience. (Since not all of the questions in the Appel et al. materials pertained to our investigation, we chose to select only those that might possibly shed some light on our dependent variables.)

From part B, only the results of the adapted IOS and the identification dimension are reported in the results section of this study.2 The ten questions taken from the identification dimension of Appel’s questionnaire on reading experience are questions about the extent to which the reader (a) can understand the feelings and thoughts of the protagonist, (b) feels sorry for the protagonist and (c) perceives similarities between herself and the protagonist (e.g. whether the reader thinks that she would behave similarly to the protagonist in the protagonist’s situation).

Part B5 contained questions from the dimensions focusing of attention (i.e. how attentively did participants read the text) and thematic interest stemming from the same questionnaire. Also included was a manipulation check question about narrative perspective (asking whether the text was written from the perspective of the female protagonist). All questions from parts B3 and B5 were answered on a 7-point scale (1 = not at all, 7 = completely).

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1 Questions about admiration of the protagonist were dropped from the identification dimension.

2 As they are not immediate measures of perspective-taking, the results from the dimensions parasocial interaction, vividness, being there and analytic mode of reception (questionnaire on reading experience from Appel et al. 2002), as well as transportation (TS-SF from Appel et al. 2015) and the question of how vividly the participant imagined the protagonist’s voice are not reported in the results section. Their means and standard deviations across the different text versions are reported in Appendix D.
3.1.3.3 Part C: Saarbrücker Persönlichkeitsfragebogen (dispositional empathy)

Part C of the questionnaire consisted of the Saarbrücker Persönlichkeitsfragebogen (SPF, Paulus 2009), a questionnaire based on the Interpersonal Reactivity Index from Davis (IRI, Davis 1983), that assesses interindividual differences in self-reported empathy with 16 items. The IRI is one of the most frequently used measures of dispositional empathy. It consists of four subscales measuring different aspects of empathy. The first subscale (Perspective-Taking) measures the tendency to spontaneously adopt the psychological point-of-view of someone else. The subscale Empathetic Concern measures the tendency to feel sympathy for someone else. The Fantasy subscale measures the tendency to transpose oneself into fictional characters from stories and movies and the subscale Personal Distress the tendency to feel distress and discomfort when observing another person’s negative experience. The SPF contains less items than the IRI and scores from the SPF can be summarized to get one general empathy score (Paulus 2012).

3.1.3.4 Part D: Socio-demographic information

In part D participants gave socio-demographic information (age, gender, native language, field of study). They also indicated whether they had noticed any peculiarities in the texts or had recognized the text (the last question was only asked for the different versions of the literary text; only one participant reported to have recognized the passage from Sterben).

3.1.4 Procedure

Participants were tested in groups of up to 20 people in a lecture hall of Goettingen University or individually in the laboratory of the Courant Research Centre “Text Structures”. The two non-student participants were tested in a quiet room at their workplace. One session took approximately 30 minutes. At the beginning, each participant was randomly assigned to one of the conditions.

On the first page of the questionnaire, participants were asked to read a passage from a story and afterwards answer questions about their imagination of the scene as well as their general impression of the text. Moreover, a very short introduction to the story was given (literary: Since her boyfriend Felix had been diagnosed with a serious illness, his girlfriend Marie had been taking care of him. Currently, the couple was on a train journey., non-literary: Marie was a writer and lived together with her flat mate Felix. Currently, she was sitting in her room and writing a novel.) Both texts were labeled as passages that originated from a narrative. On the next page, the stimulus text was presented. After reading the text, participants started filling out the questionnaire, which was administered in two steps: in the first step, the instruction, the text and the empty diagram were handed out. After that, participants received the second (non-empty) diagram and the remaining questions. We did that in order to avoid that the predefined positions in the non-empty diagram influenced participants’ visual imagery.

3.1.5 Analysis

The evaluation of the diagrams followed a fixed coding scheme. The spatial perspectives that participants had indicated in the diagrams were coded by the first author and a second coder into 14 categories, with each category representing a different spatial arrangement (see Appendix B). Results were compared across coders and cases in which judgments differed were discussed. When coders could not reach an agreement, a third independent coder assigned the case to one of the 14 categories (three cases). Afterwards, the 14 categories were comprised into four categories: no, low, intermediate or high alignment of the participant’s spatial perspective with the protagonist’s perspective (see Appendix B).
Data were analyzed with the software R (R Core Team 2015). Results from the adapted IOS and the identification dimension were analyzed with ordinary least square regression. As spatial-perspective taking was a categorical variable that could be ranked (in the sense that higher values indicate a stronger degree of adapting the spatial position of the female protagonist in mental imagery), data from the diagram task were analyzed with ordinal logistic regression (Agresti 2002) using the function polr from the R package MASS (Venables & Ripley 2002). Ordinal logistic regression is an extension of logistic regression. Logistic regression is suited for analyzing binary outcome variables, while ordinal logistic regression can be used to analyze ordinal outcome variables with more than two (ordered) categories. From the ordinal logistic regression, we report estimated regression coefficients and cumulative odds ratios (i.e. exponentiated regression coefficients). In our analysis, the cumulative odds ratio can be interpreted as the amount by which the odds (chance) of being in a higher spatial perspective-taking category (versus all lower categories) change when going from external focalization to the respective internal point-of-view narrative mode (e.g. from external focalization to FID).

In all regression models, the categorical factor narrative mode was dummy coded with the reference category external focalization, i.e. each of the estimated regression coefficients represents the comparison between the respective internal point-of-view condition (FID/psycho-narration/first-person/external focalization) and the external focalization condition.

3.1.6 Research questions

Our study aimed at answering the question to which degree participants (a) felt that they could relate to the protagonist (adapted version of the IOS from Aron et al. 1992), (b) took over the spatial perspective of the protagonist and (c) could identify with the protagonist (questions from the dimension identification, Appel et al. 2002), and the question how these variables differed in the subjective point-of-view narrative modes (first-person, FID, and psycho-narration) as compared to the narration with external focalization.

In a separate analysis, interindividual differences in dispositional empathy, thematic interest for the text and attention during reading were included as covariates (in addition to the variable narrative mode).

3.1.7 Data check

Focusing attention: on average, participants reported to have read the texts attentively ($M = 5.22$, $SD = 1.15$) with no significant differences between experimental conditions ($R^2 = .02$, $F(3,92) = 0.65$, $p = .58$, $\beta_{\text{FID}} = -0.18$, $t = -0.56$, $p = .57$; $\beta_{\text{Psycho-narration}} = 0.22$, $t = 0.68$, $p = .49$; $\beta_{\text{First-person}} = 0.18$, $t = 0.56$, $p = .57$) or text types ($R^2 = .002$, $F(1,94) = 0.23$, $p = .62$, $\beta = 0.11$, $t = 0.48$, $p = .62$).

Thematic interest: while overall, the interest for the topic of the text was on an intermediate level ($M = 3.65$, $SD = 1.22$), there were systematic differences between text types and conditions. Thematic interest was significantly lower for the non-literary than for the literary text type ($R^2 = .08$, $F(1,94) = 8.81$, $p < .01$; $M_{\text{Non-literary}} = 3.30$, $SD_{\text{Non-literary}} = 1.22$, $M_{\text{Literary}} = 4.01$, $SD_{\text{Literary}} = 1.12$; $\beta = -0.71$, $t = -2.97$, $p < .01$). Compared to external focalization, thematic interest was significantly lower in the FID condition and tended to be lower in the first-person condition, whereas no such difference was observed between psycho-narration and external focalization ($R^2 = .11$, $\beta_{\text{FID}} = -1.04$, $t = -3.10$, $p < .01$; $\beta_{\text{First-person}} = -0.65$, $t = -1.94$, $p = .05$; $\beta_{\text{Psycho-narration}} = -0.21$, $t = -0.64$, $p = .51$; see Table 1)

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3 We also conducted robust regression suited for non-normal response variables for these two variables. Results from the analyses did not differ.
for descriptive statistics). For the group who had read the original version, thematic interest was similar in magnitude to the external focalization condition ($M_{\text{Original}} = 4.15$, $SD_{\text{Original}} = 1.39$).

**Manipulation check (perspective-rating):** first-person and psycho-narration versions were perceived as being written from the perspective of the female protagonist to a significantly higher extent than externally focalized texts ($R^2 = .18$, $F(3,92) = 6.79$, $p < .001$; $\beta_{\text{First-person}} = 1.45$, $t = 2.98$, $p < .01$; $\beta_{\text{Psycho-narration}} = 1.08$, $t = 2.22$, $p < .05$; for the descriptive statistics see Table 1). However, no such difference was observed between the FID versions and the externally focalized versions ($\beta_{\text{FID}} = –0.45$, $t = −0.93$, $p = .34$). So one should keep in mind that FID is not comparable to first-person narration and psycho-narration with respect to the amount to which participants recognized that the texts were written from the subjective point-of-view of the protagonist.

There were no significant differences between text types ($R^2 = .0001$, $F(1,94) = 0.01$, $p = .91$; $M_{\text{Non-literary}} = 5.38$, $SD_{\text{Non-literary}} = 1.91$, $M_{\text{Literary}} = 5.42$, $SD_{\text{Literary}} = 1.78$; $\beta = –0.04$, $t = −0.11$, $p = .91$).

### 3.2 Results

#### 3.2.1 Adapted version of the Inclusion of Other in the Self (IOS) Scale

**Relatedness** (adapted IOS) had a mean value of 3.98 ($SD = 1.87$). There was no significant difference between ratings from those participants who had read the non-literary text and those who had read the literary text ($R^2 = .02$, $F(1,94) = 2.73$, $p = .10$, $M_{\text{Non-literary}} = 4.29$, $SD_{\text{Non-literary}} = 1.83$; $M_{\text{Literary}} = 3.67$, $SD_{\text{Literary}} = 1.87$; $\beta = 0.62$, $t = 1.65$, $p = .10$).

Participants reported a significantly higher degree of relatedness with the protagonist in the first-person and psycho-narration condition than the external focalization condition ($R^2 = .13$, $F(3,92) = 4.83$, $p < .01$; $\beta_{\text{First-person}} = 1.58$, $t = 3.10$, $p < .01$; $\beta_{\text{Psycho-narration}} = 1.12$, $t = 2.20$, $p < .05$). FID and external focalization did not differ significantly on the relatedness measure ($\beta_{\text{FID}} = 0.04$, $t = 0.08$, $p = .93$).

An exploratory look at the descriptive data shows differences between literary and non-literary texts (see Figure 1). Whereas for the literary text type, the same pattern as in the overall analysis is observed, for the non-literary text type only first-person seems to differ clearly from external focalization. Only small differences in the relatedness measure were observed when comparing the original version of the Schnitzler text passage and the external focalization condition.

In summary, the first-person and psycho-narration condition were associated with a stronger feeling of being able to relate to the protagonist during reading than external focalization, whereas FID was not.

### Table 1: Means and standard deviations for focusing attention and thematic interest.

<table>
<thead>
<tr>
<th>Narrative mode</th>
<th>Focusing attention Mean (SD)</th>
<th>Thematic interest Mean (SD)</th>
<th>Perspective-rating Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FID</td>
<td>4.98 (1.26)</td>
<td>3.09 (1.09)</td>
<td>4.42 (2.41)</td>
</tr>
<tr>
<td>Psycho-narration</td>
<td>5.40 (1.06)</td>
<td>3.92 (1.33)</td>
<td>5.96 (1.68)</td>
</tr>
<tr>
<td>First-person</td>
<td>5.35 (0.99)</td>
<td>3.48 (1.06)</td>
<td>6.33 (0.82)</td>
</tr>
<tr>
<td>External focalization</td>
<td>5.17 (1.29)</td>
<td>4.14 (1.18)</td>
<td>4.88 (1.45)</td>
</tr>
</tbody>
</table>

*a* = mean differs significantly ($p < .05$) from external focalization.
3.2.2 Spatial perspective-taking

Only four participants reported to have completely adopted the spatial position of the female protagonist in their imagination. In the majority of cases of spatial perspective-taking within the manipulated text versions (i.e. FID, psycho-narration, first-person and external focalization), participants had imagined standing beside or behind the female protagonist, looking in the same direction as her (35 cases). Few reported low perspective-taking (7 cases), standing in the middle, just sharing the female protagonist’s looking direction. The overall amount of spatial perspective-taking did not differ significantly between literary and non-literary texts ($R^2_{\text{McFadden}} = 0.009$, $\beta = -0.53$, $\exp(\beta) = 0.58$, $t = -1.33$, $p = .18$). Thus, it was not the case that participants who had read a version from the literary text were per se significantly more prone to adopt the spatial perspective of the main protagonist.

The highest proportion of spatial perspective-taking was observed in the psycho-narration condition (58%) and the lowest in the external focalization condition (29%). First-person (54%) and FID (50%) ranged between those two. The difference between psycho-narration and external focalization was significant, the difference between first-person and external focalization was marginally significant and no significant effect was found for FID ($R^2_{\text{McFadden}} = 0.02$, $\beta_{\text{psycho-narration}} = 1.25$, $\exp(\beta_{\text{psycho-narration}}) = 3.50$, $t = 2.11$, $p < .05$; $\beta_{\text{first-person}} = 1.09$, $\exp(\beta_{\text{first-person}}) = 2.99$, $t = 1.84$, $p = .06$; $\beta_{\text{FID}} = 0.81$, $\exp(\beta_{\text{FID}}) = 2.24$, $t = 1.37$, $p = .16$).

In an exploratory comparison of text types we observed an interesting contrast between the literary and non-literary texts. Looking only at the literary text, variations in the amount of spatial perspective-taking between conditions were bigger (summarized percentage of categories 4, 3 and 2 for psycho-narration: 75%, FID: 67%, first-person: 58% and external focalization: 25%) than for the non-literary texts (summarized percentage of categories 4, 3 and 2 for psycho-narration: 42%, FID: 33%, first-person: 50% and external focalization: 33%, see Figure 2). This suggests that the effects were more pronounced for the manipulated versions of the literary text than the versions of the non-literary text.\footnote{We restrict the description for the differences between conditions for the two text types to the descriptive level, due to the small sample size per group (12 participants per condition within each text type).}

In summary, participants in the psycho-narration condition on average showed stronger alignment of spatial perspective with the female protagonist than those in the external focalization condition. Participants in the first-person condition showed a higher degree of spatial perspective-taking as a trend and no effect was observed for participants in the FID condition.

Figure 1: Means and standard errors of values from the adapted IOS.
3.2.3 Identification

Scores from the questions from the identification dimension of the questionnaire on reading experience by Appel et al. (2002) were averaged for each participant (Cronbach’s α = .77). Overall, the mean value of identification scores was 4.60 (SD = 0.93). Literary and non-literary texts did not differ significantly regarding the identification dimension ($R^2 = 0.004, F(1,94) = 0.38, p = .53, \beta = -0.11, t = -0.61, p = .53$). No significant effect of narrative perspective on identification was observed ($R^2 = .03, F(3,92) = 1.05, p = .37, \beta_{First-person} = -0.28, t = -1.06, p = .28; \beta_{Psycho-narration} = -0.07, t = -0.29, p = .77; \beta_{FID} = 0.18, t = 0.69, p = .49$; see Figure 3 for the data pattern).

3.2.4 Inclusion of covariates attention, thematic interest and dispositional empathy

The scores from the overall empathy scale of the SPF as well as the scores from the dimensions focusing attention and thematic interest (questionnaire on reading experience, Appel et al. 2002) were, in addition to text condition, included as covariates in the model for all three analyses.

![Figure 2: Relative frequencies of spatial perspective-taking categories.](image)

![Figure 3: Means and standard errors for identification (subset of questions from the questionnaire on reading experience by Appel et al. 2002) for conditions and text types.](image)
The analyses show that the effects of narrative mode on relatedness and spatial perspective-taking did not change due to the inclusion of the additional covariates. However, identification was significantly higher in the first-person than in the external focalization condition in the augmented models (see Table 2).

We computed correlations between the three measures of perspective-taking. Relatedness was positively correlated with identification ($r = .61, p < .001$). Spatial perspective-taking did not correlate significantly with relatedness (Spearman’s $\rho = .18, p = .08$) nor with identification (Spearman’s $\rho = -.02, p = .88$).

### 4 Conclusion

The current study was designed to test whether effects of different types of narrative mode on perspective-taking (s. Introduction) can be pinned down empirically, and to which degree the perspective of the protagonist may actually be taken on by the reader.

Our data suggest that describing the inner thoughts and feelings of a protagonist via psycho-narration or first-person narration elicits a stronger feeling of taking over the perspective of the respective protagonist than narration in which no such insight into the inner mental life of the protagonist is given. This was shown with measures of spatial perspective-taking in mental imagery as well as with a more abstract, conceptual measure of perspective-taking, an adapted version of the IOS. The outcome of the experiment for psycho-narration and first-person narration is in line with results of former studies reporting evidence that narrative perspective influences identification with a protagonist (e.g. Owens et al 1977; de Graaf et al. 2012; Sato et al. 2012). As we did not find the same effects for FID, the results for psycho-narration do not seem to generalize to any form of inner thought description.

These results raise a number of questions. First of all, it may come as a surprise that FID did not induce as strong an effect on perspective-taking as could have been supposed given earlier results. As FID can, especially in comparison to psycho-narration, be assumed to be

<table>
<thead>
<tr>
<th>Covariates</th>
<th>Relatedness $(\text{Adjusted } R^2 = .23)$</th>
<th>Spatial perspective-taking $(\text{R}^2_{\text{McFadden}} = .07)$</th>
<th>Identification $(\text{Adjusted } R^2 = .41)$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$ (SE) $t$ $p$</td>
<td>$\beta$ (SE) $t$ $p$</td>
<td>$\beta$ (SE) $t$ $p$</td>
</tr>
<tr>
<td>FID</td>
<td>0.58 (0.50) 1.16 .25</td>
<td>0.69 (0.63) 1.09 .28</td>
<td>0.21 (0.22) 0.97 .33</td>
</tr>
<tr>
<td>Psychonarration</td>
<td>1.19 (0.48) 2.50 &lt;.05*</td>
<td>1.41 (0.62) 2.28 &lt;.05*</td>
<td>0.003 (0.21) 0.01 .99</td>
</tr>
<tr>
<td>First-person</td>
<td>1.90 (0.48) 3.94 &lt;.001**</td>
<td>1.20 (0.63) 1.92 .06</td>
<td>0.49 (0.21) 2.35 &lt;.05*</td>
</tr>
<tr>
<td>Dispositional empathy</td>
<td>0.07 (0.03) 2.47 &lt;.05*</td>
<td>0.06 (0.04) 1.63 .10</td>
<td>0.047 (0.013) 3.63 &lt;.001**</td>
</tr>
<tr>
<td>Thematic interest</td>
<td>0.33 (0.16) 2.03 &lt;.05*</td>
<td>-0.14 (0.20) -0.71 .48</td>
<td>0.36 (0.07) 5.09 &lt;.001**</td>
</tr>
<tr>
<td>Focusing attention</td>
<td>0.11 (0.15) 0.72 .48</td>
<td>-0.42 (0.19) -2.27 &lt;.05*</td>
<td>0.04 (0.07) 0.61 .54</td>
</tr>
</tbody>
</table>

(all VIF-values were below 3).
a rather immediate rendering of the protagonist’s mental life, we may ask ourselves why in our experiment FID apparently had a weaker effect on perspective-taking than psychonarration, or, on some of our dependent variables, no effect at all. In what follows, we will try to give some more or less speculative answers to these questions, and, wherever it appears feasible, point to directions for further research.

Since the current study presents, to our knowledge, the first attempt to directly compare different modes of presentation of the mental life of a protagonist by measuring variables indexing different dimensions of perspective-taking, it is probably needless to say that the experiment reported here, and the conclusions that may be drawn from it, have some limitations; the most conspicuous one being the employment of narrative mode as a between-subjects factor. A further point is the relatively low statistical power (24 per condition) for this kind of design. It is perfectly possible that our failure to find the predicted effect of FID is simply due to a power problem. Although we randomly assigned participants to conditions, we cannot preclude the possibility that, given the lack of power, the results are somewhat skewed. Although we have no independent measure of the possibly relevant traits of the individual participants in the four groups (like, e.g. their reading-span), we want to point out that thematic interest for the text was lower in the FID group than in all other groups. Be that as it may, we are currently not able to provide a conclusive data-driven explanation for the results of the FID condition, and have to refrain from further speculation about possible problems with our sample.

Pursuing a different line of reasoning, one might also speculate that, even though FID constitutes a representation of a character’s consciousness, this does not necessarily mean that a narrator expresses empathy towards that character through FID. Because FID is closer to direct discourse than psychonarration is (Sanders & Redeker 1996), it is very well possible that FID is interpreted as a device which effects a stronger distancing of the narrator from the character in comparison to psycho-narration by delegating the responsibility for the wording partly to the character. Such distancing of the narrator from the character’s stance in its most extreme form has been described mainly for speech representation through FID, which often results in irony, but might also, to a weaker extent, apply to thought representation in FID.

An interesting observation we made in our data is that text type seemed to play a role. The effects were stronger for the literary than the trivial text, especially for psychonarration, but descriptively also for FID. At the moment, we cannot tell apart whether this was due to the topic, which in the literary passage also seemed more interesting to participants, the quality of the literary text (e.g. depth and sophistication of description of thoughts and feelings), or some other more idiosyncratic characteristics of the texts we used (e.g. for one text, participants might have formed a concrete mental image more readily). Altogether, more texts have to be used in follow-up studies to make more generalizable conclusions about the effects of different narrative styles and text types. In reaction to a point raised by an anonymous reviewer, we want to point out that crossing a factor that manipulates the mode of narration with a factor like literariness of the text may create a dilemma: if a certain mode of narration like FID is a hallmark of literary style (but see Redeker 1996), then creating a non-literary condition containing FID might create a rather unnatural piece of prose. It seems that to tackle methodological questions like these, a lot more work has to be done, both on the linguistic and the psychological side.

Another result worth discussing is the overall low percentage of cases in which a complete shift to the spatial location of the protagonist took place, i.e. cases in which participants indicated to have imagined to be the protagonist in the diagram task measuring spatial perspective-taking. This shows that narrative perspective, unlike other linguistic
expressions that encode an origo-shift, like the second person singular pronoun, does influence perspective-taking in a more gradient fashion. Perspective-taking does not seem to be a default in the comprehension of subjective point-of-view narratives, and, quite obviously, it also depends on other factors which influence identification (e.g. trait empathy); see the contributions in Dancygier & Sweetser (2012) for further discussion in the framework of Cognitive Linguistics.

As a last note about our results, methods to measure different dimensions of identification and perspective-taking and their relation to each other should be investigated further, both with respect to their validity and their reliability. In our study, the impression of a reduced distinction between oneself and the protagonist (adapted IOS) and spatial perspective-taking were affected by narrative perspective-taking, whereas we did not find evidence for effects on the identification questions unless additional covariates were taken into account. In future research, different ways of measuring identification should be compared.

By way of concluding, and on a more general note, we may ask ourselves to which extent even powerful incentives to take on the perspective of a protagonist like FID and psycho-narration can indeed be expected to induce an absolute perspectivization. Given that all three dimensions of perspective-taking alluded to in the introduction may be classified as instances of mental representations involving a de se component—all of them being variants of self-locating in different domains: space, experience, and mental attitudes—it seems, from a philosophical perspective, to be rather obvious that something like a complete shift of the perspective of the reader to that of the protagonist (i.e. a complete overlap of their spatio-temporal, experiential, not to speak of higher-order origo) is not to be expected: if it is indeed true that these dimensions constitute the hallmarks of The Self, and each individual’s privileged access to it, it should not come as a surprise that even strong inducements to take on another individual’s perspective never lead to an abandonment of The Self. It remains to be shown, and shown empirically, what, given this upper bound of perspectivization, the degree of involvement with another person’s mental life can be.

**Abbreviations**

FID = free indirect discourse, DD = direct discourse, ID = indirect discourse, IOS = Inclusion of Other in the Self Scale, IRI = Interpersonal Reactivity Index, TS-SF = Transportation Scale – Short Form, SPF = Saarbrücker Persönlichkeitsfragebogen

**Additional Files**

The Additional files for this article can be found as follows:

- **Appendix A.** Experimental materials: versions of the literary text. DOI: https://doi.org/10.5334/gjgl.225.s1
- **Appendix B.** Coding procedure for the spatial perspective-taking categories. DOI: https://doi.org/10.5334/gjgl.225.s2
- **Appendix C.** Experimental procedure. DOI: https://doi.org/10.5334/gjgl.225.s3
- **Appendix D.** Descriptive results for additional questions/dimensions from the questionnaires. DOI: https://doi.org/10.5334/gjgl.225.s4

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Competing Interests
The authors have no competing interests to declare.

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