COMPLEX CHARACTERS OF MANY KINDS? GENDERED REPRESENTATION OF INNER STATES IN READING ANTHOLOGIES FOR CZECH PRIMARY SCHOOLS

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Abstract

L1 literacy instruction in Czechia largely relies on reading anthologies, i.e., textbooks containing short excerpts of literary texts from the 19th to 21st century. Focusing on current Year 3 anthologies (N = 13), we have developed a simple, scalable and transferable analytical procedure examining what types of characters (male, female, animal, other) are represented in the narratives included (N = 530), what experience dimensions (cognition, emotions, bodily engagement) these characters are attributed, and on what levels of complexity. We found that female characters overall are strongly underrepresented in the anthologies, including excerpts from the most recent children’s literature which is predominantly authored by women. Further, female characters show lower complexity than male characters in emotions, bodily engagement, and especially cognition. In a concluding case study of one particular text, we demonstrate how even excerpts with relatively complex characters of both genders may tend to perpetuate deeper imbalances. Our approach provides an experientially nuanced alternative to traditional content analysis yet its more basic steps remain easy to use for practitioners in selecting literary texts for teaching. It can be applied in research anywhere but also in designing classroom activities exploring diversity in stories, whether the focus is gender, ethnicity, or other.
1. INTRODUCTION

In recent decades, there has been much focus on the cognitive and affective effects of reading narrative fiction. Emotions and complex cognitive states have been recognised as core concerns of most literary narratives, and children’s literature has been no exception (see Wright and Cassidy, 1998). By unravelling the thoughts and feelings depicted in literary texts, readers are believed not only to experience pleasure, but also to improve their mind-reading abilities (Vermeule, 2010). The idea that reading fiction may enhance mentalisation (the understanding of others’ mental processes) and empathy (the understanding of others’ feelings) among adult readers has been unpacked at a theoretical level (Burke et al., 2016; Keen, 2007) and tested in empirical research (Djikic, Oatley and Moldoveanu, 2013; Mar and Oatley, 2008; Tamir, et al., 2016).

The fields of children’s literary criticism and pedagogy have always overlapped to some extent, both exploring the potentially edifying impact of children’s literature. Despite some friction (McGillis, 1998), it is justified to say that the two fields thrive on mutual contact. With the cognitive turn in literary studies, the debate about what children learn through exposure to narrative fiction has been enriched by researchers who highlight affective (Moruzi, Smith, and Ballen, 2018; Nikolajeva, 2016) and embodied (Harde and Kokkola, 2018) perspectives on children’s literature. Nikolajeva (2012, p. 277) suggests that for “a young reader, who may have limited experience of real-life emotions, literary, second-hand experience is particularly valuable.” Through literary texts, young readers also learn how to understand others’ thoughts and feelings (Schrijvers et al., 2016). In this article, we continue to tap the potential of interdisciplinary exchange by sharing an approach to literary texts used in educational settings that is informed by literary theory but lends itself to further applications in educational research and practice.

While existing empirical research seems to confirm that children’s empathy and mentalising skills flourish when they read literary narratives, both the specific classroom setup (Koek et al, 2019; Schrijvers et al., 2019) and choice of text remain vital (Kumschick, et al., 2014). Kucirkova (2019) contends that narratives generally provide space for perspective-taking and identification with others and, as such, may be a good tool for empathy-building. However, she emphasises the importance of specific textual features: “[C]hildren’s storybooks can act as prompts for practising cognitive empathy if they represent fictional narratives with diverse and frequent references to story characters’ feelings and offer space for adults’ mediation” (Kucirkova, 2019, p. 12; our italics). Or, as metaphorically expressed by Bishop, “if it is important for children of so-called minority groups to see themselves reflected in the literature they read, it is equally important to recognize that books can also be windows. Students from dominant social groups need to be able to look through the window of books to come to know people whose cultures are different from their own” (Bishop, 1990, p. 15). In some countries such as the UK, the need for experiential diversity in text choice, and for building young readers’ empathy more systematically, has given
rise to literacy NGOs specifically targeting these issues (e.g. EmpathyLab, Centre for Literacy in Primary Education).

Responding to these developments, our article considers the kinds of narrative prose that children are exposed to in L1 literacy classes in primary schools in Czechia, with particular regard to the respective emotional and cognitive states of characters in these works. The traditional cornerstone of L1 literacy learning in Czechia is the reading anthology—a phenomenon known, and partially researched, in a few other countries such as Croatia (Baranović et al, 2010), Serbia (Kolarić', 2008), Slovakia (Juščáková, 2021) or Switzerland (Bühlmann, 2009). Specifically, we analyse reading anthologies for Year 3 (i.e., pupils aged 8–10) and examine the types of characters they represent and the sorts of mediated experience by which this is accomplished. We also query the extent to which these narratives reflect the complex experiences of a range of characters. However, we deliberately refrain from considering who the main character is in each story. Given the brevity of the anthology excerpts, this would often be impossible. Rather, each character’s relative importance emerges inductively in our study: if a text endows a character with rich experiences, then this character emerges as important, whether or not they are prominent in the original work as a whole. While the materials that we review are often meant to be enhanced through teacher–pupil interaction, we choose to bracket off these contextual variables in order to establish the narratives that children and their teachers have at their disposal in the first place. After all, learning materials have a crucial effect on teachers’ practices (Fougt et al., 2020) and a majority of Czech teachers consider using textbooks in the classroom indispensable (Sikorová, 2001).

By virtue of its emergent findings, our study contributes to the growing body of gender-oriented studies of curricular texts for children. According to the latest UNESCO report on gender (Antoninis, et al., 2020), female perspectives are still heavily underrepresented in textbooks in many countries. In the same vein, countless studies across many regions have considered—usually through some form of content analysis—how contemporary and older children’s reading materials represent male and female characters in their texts and illustrations (Adams, et al., 2011; Biemmi 2017; Bittmann, 1978; Monoyiou and Symeonidou, 2015; Weitzmann, et al., 1972). Clark (2002) argues that these mainly quantitative studies comparing the respective numbers of female and male characters, deserve their place in research since they allow us to track potential changes in gender balance over time. However, he calls for more qualitative studies and detailed examinations of texts in order to bring the unique voices of different groups to the fore. Convergently, gendered analyses of characters and character networks are also increasingly in the focus of computational literary studies (Čermáková and Mahlberg, 2021; Kraicer and Piper, 2019; Smeets et al., 2021) which in turn have a rich tradition of literary character theory to draw on (Rimmon-Kennan, 1983; Vermeule, 2020; Woloch, 2003) and which likewise tend to conclude that "quantitative statistical patterns only make sense when confronted and contextualised with close readings of specific cases" (Smeets et al., 2021, p. 86).
Regarding reading anthologies specifically, both Bühlmann’s (2009) content analysis of Swiss anthologies over six decades and the Croatia-based research of Baranović and colleagues (2010) show that male characters still outnumber their female counterparts and the leisure activities and professions of those female characters tend to be less varied. By using quantitative approaches, these researchers are able to work with relatively large corpora of texts and generalise about their gender balance. In contrast, Kolaríč’s (2008) study of selected texts from Serbian anthologies also reveals persistent gender stereotypes though she confines her close reading to only three texts. This narrow focus provides enough space to highlight discourses around gender and certain nationalist values.

In Czechia, gender equality in textbooks has been promoted at a national government level since 2004 when the first set of recommendations was published on evaluating gender equality in education, textbook assessment included (Valdrová, et al., 2004). Practitioners’ guidelines for gender-sensitive education emphasise that textbooks should feature varied experiences for both boys and girls of diverse backgrounds (Smetáčková, 2006). More recently, the government has released a strategic plan on further support for gender equality in education (Grecová, et al. 2020); gender representation in textbooks is again highlighted among its concerns. To date, however, there has been no systematic analysis of Czech textbooks in terms of gender.

Against this background, our work attempts to map a segment of the relatively vast territory of reading anthologies for Czech primary schools. Our approach here shifts between distant and close reading, combining larger-scale aggregate statistics with a case study. The latter showcases a qualitative in-text annotation method which was applied on a bespoke subsample of texts. However, our analytical procedure is transferable beyond the Czech context as well as beyond gender issues, beyond textbooks, or even beyond large sets of texts in general. It was designed to be economical and scalable yet more experientially nuanced than prevalent content analytical approaches which rely on simple character quantities. To this end, we have enlisted literary theory, the so-called cognitive strand specifically, and worked in a two-step fashion (whole-text, then in-text). At the same time, the procedure is accessible, intuitive and ready for use by anyone, including the busy practitioner choosing appropriate texts for their class.

1.1 Reading anthologies in Czechia

Reading anthologies are the key and sometimes the only literary reading resource that children in the lower grades are exposed to in Czech classrooms. For some children, they are the only such resource encountered anywhere. Although their use is not mandated by the government, these anthologies remain prominent in primary pedagogy (Janotová, 2017). Moreover, while Czech schools get reimbursed for authorised reading anthologies, the same does not apply to children’s story books. Si-korová (2007) asserts that financial reasons are crucial for schools when deciding
what textbook to use. Survey data also suggests that a majority of teachers experience lacking guidance in choosing and evaluating their textbooks (Sikorová, 2004). Currently, the Ministry of Education has authorised 13 Year 3 reading anthologies published between ten different educational publishers after the latest national curricular reform (2006). However, teachers normally focus on a single anthology for each age group. Unfortunately, there is limited data on which anthologies are used most frequently. A small survey among one hundred Year 3 teachers (Húšťová, 2021) and PIRLS 2016 data (Janotová, 2017) from Year 4 teachers suggest that anthologies by the following publishers are among the more popular (two-letter codes in square brackets as also listed in Appendix): Alter [AN, AP], Fraus [FR], Nová škola [NP], Nová škola - Duha [ND], SPN [SP]. However, we chose to analyse all 13 authorised anthologies to cover as much ground as possible.

The rationale behind our choice of Year 3 anthologies is twofold: first, as Czech is an orthographically shallow language and, thus, one that is relatively easy to decode, neurotypical L1 speakers have generally mastered the technical basics of reading by Year 3. This means that they have gained ample phonological/phonemic awareness and can usually decode longer texts. Second, Year 3 tends to correspond with the age when children transition into more or less autonomous reading as older family members and teachers step away from shared reading activities, expecting the child to develop their own reading practice (Košťálová, et al., 2010, p. 12).

The reading anthologies used in Czech classrooms typically contain a mix of narrative fiction excerpts and poems along with a limited amount of nonfiction and occasionally also comic strips. Texts are accompanied by illustrations and didactic components including comprehension tasks, authors’ biographical information, definitions of various terms and genres, quizzes, and suggestions for post-reading arts activities. The individual anthologies show many similarities in their literary content; many authors and sometimes even particular text excerpts recur. Across the 13 anthologies, we counted a total of 232 narrative prose authors of whom 142 had only one featured text. Ninety authors were represented repeatedly (in 27 cases by more than five excerpts), and they were together responsible for 374 excerpts, i.e., over 70% of all texts. The four most frequently featured authors (Astrid Lindgren, Frančišek Nepil, Martina Drijverová, and Ivona Březinová) produced 10% of all narrative texts in the corpus among them. Seventy-three percent of all texts were works by Czech authors, while 27% were Czech translations, from both major (e.g. German, English) and minor (e.g. Swedish, Vietnamese) languages. Like the Czech works, the translated texts dated from various periods, representing authors as distant in time as Hans Christian Andersen and David Walliams.

This relative homogeneity across the Czech reading anthologies can be traced back to the early 1990s. This was the era of the radical rewriting and updating of curricular materials after the fall of communism in the country. Certain literary authors and 19th- and 20th-century works were established as canonical and have since been recycled in newer anthologies as well as re-editions of older ones, barely supplemented by more recent—let alone popular—fiction. Even so, there are some
differences in how particular anthologies frame literary excerpts. This especially concerns the average length of these texts and the pedagogical approach taken; different publishers prioritise different types of post-reading questions or provide for different degrees of interactivity. Some anthologies also diverge slightly from broader trends when it comes to their choice of genre (e.g. featuring more nonfiction), historical periods (e.g. including more recent texts), or authors (e.g. featuring more works by authors who double as the anthology’s editors).

Nevertheless, given the degree of overlapping content across these publications, our analysis treats all of these anthologies as a unified corpus. They provide a shared literary space for a large number of children—and teachers—throughout the country.

2. WHOLE-TEXT ANALYSES

To establish our corpus, we collected all 13 anthologies, digitised them for local storage, and then selected all of the narrative prose texts \(N = 530; M \text{ length} = 522 \text{ words}; R = 54-2040 \text{ words})\). To enable a comprehensive review of this quantity of textual data, we performed a two-step analysis.

In Step 1, our overall whole-text analysis, we plotted the representation of different types of characters across three dimensions of experience: cognitive activity, emotional experience and bodily engagement. This was done by assigning codes to each text as a whole to record the types of experiences that it did or did not represent for different types of characters. At this stage, we did not count how many experiences of particular types appeared in each text.

In the next phase, Step 2, we explored more nuanced aspects of these depictions of experiences by applying in-text annotation. Using the Atlas.ti qualitative data analysis software, we compiled a smaller sample of excerpts \(N = 44\) informed by the results of the preceding step. We prioritised long, emotionally and cognitively complex texts representing both male and female characters in a broad variety of inner states. Further, we considered the author’s gender, provenance and prominence in the whole corpus. Finally, we sought to include excerpts from as many anthologies as possible. We then annotated this sample for a number of textual traits that underlay and refined the earlier findings. In what follows, we report on the aggregate findings of Step 1 and present a case study based on our annotation work in Step 2. Further details of Step 2, including emergent quantitative trends in the qualitative findings (e.g. gendered differences in emotional body language), are the focus of forthcoming publications.

The work we have carried out was relatively time-intensive given our corpus size (530 excerpts, 276677 words in total) as compared to more automatised corpus-based approaches to literature (Čermáková and Mahlberg, 2021; Jacobs et al., 2020; Kraicer and Piper, 2019; Smeets et al., 2021). However, the advantage of our procedure, especially its whole-text coding phase under Step 1, is that it can be meaningfully used with much smaller sets, even for discriminating between any two texts.
competing for precious teaching time. It can also be applied independently of advanced specialist skills or software.

2.1 Coding procedure

We read through all of the narrative excerpts and coded them for the following variables: period, genre, author’s gender, and three different dimensions of experience: cognitive activity, emotional experience, and bodily engagement. Concerning the latter three dimensions, we coded for the presence or absence of the given state (0 vs. >0) and if it was present, its relative complexity (1 vs. 2; see below) for different categories of characters: female human (F), male human (M), animal (A), or other (O) where O represented personified inanimate objects or magical or allegorical creatures. We were acutely aware that diversity matters not just in the category of gender but also in other categories such as ethnicity, dis/ability, class or sexual orientation. However, the overwhelmingly ethnically homogeneous characters in our corpus, reflecting the relative homogeneity of the population until recently, made coding for ethnicity unsuitable at our level of nuance. Similarly, dis/ability, class or LGBTQ themes were - with scarce exceptions - not thematised in the corpus. Finally we also recorded the word count for each excerpt. Our coding process across these categories is summarised in Table 1 and explained further below.

Table 1. Step 1, coding variables in our current analysis. Where relevant, numerical codes are shown in brackets.

<table>
<thead>
<tr>
<th>Period</th>
<th>pre-1900 (0)</th>
<th>1901-45 (1)</th>
<th>1946-89 (2)</th>
<th>1990-00 (3)</th>
<th>2001-2014 (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genre</td>
<td>fiction</td>
<td>nonfiction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Author’s gender</td>
<td>female</td>
<td>male</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognition</td>
<td>none (0)</td>
<td>lower-order (1)</td>
<td>higher-order (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F/M/A/O</td>
<td>none (0)</td>
<td>primary (1)</td>
<td>secondary (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotion</td>
<td>none (0)</td>
<td>observer (1)</td>
<td>agent/experiencer (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bodily engagement F/M/A/O</td>
<td>none (0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Our periodisation reflects broader cultural-historical shifts, which in some cases also corresponded with major political milestones. During the communist era in Czechia (Period 2), for instance, official publishing options were restricted heavily by the totalitarian regime. In contrast, in the first decade after the regime’s collapse in 1989 (Period 3), the book market opened up to formerly banned authors of both Czech and foreign provenance. This allowed for the revision of pre-1990 reading anthologies (Segi Lukavská, 2018). Between Period 0 and Period 1, on the other hand, we mark a shift from an era of more traditional children’s stories, consisting largely of the folk and fairtales published by various collectors, to the first more “modern” texts, associated especially with the prominent modernist authors in our corpus. It
should be stressed, however, that these divisions were not absolute, and indeed some authors published works across several periods.

In the category of *genre*, we distinguished fiction from narrative nonfiction, having already removed non-narrative nonfiction (e.g. sets of instructions) and poetry from the corpus. For the purpose of our research, we defined nonfictional narratives as texts that “[promote] the expectation of [their] being true” (Duke and Tower, 2004, pp. 112-113), i.e., focused on their purported truth value and informational purpose. Again, the line between these categories was to some degree blurred. In the case of historical accounts that draw on mediaeval oral traditions, i.e., works presumably fictionalised to some extent, we coded the texts as nonfiction so long as they did not include any fantastical features.

To determine the relative complexity of characters’ *cognition*, we applied Nikolajeva’s (2013) interpretive schema. In describing the mentalisation skills of story protagonists, Nikolajeva refers to Zunshine’s (2006) concept of levels of intentional- ity in narratives; this distinguishes between lower-order cases where the narrator straightforwardly conveys that a character believes a certain thing, and higher-order cases where the reader must process additional nested levels of intentionality to reconstruct a character’s inner state. This might include cases where a character believes that their antagonist has certain ideas. However, unlike Zunshine and Nikolajeva, we did not identify these more granular levels of, for example, second, third, and fourth orders of cognition. Instead, we simply distinguished between lower-order cognition that represented cognitive activity per se (e.g. a character paying attention to something or thinking about or remembering it) and higher-order cognition where characters assessed other characters’ thoughts, wishes, motivations, and so forth.

Nikolajeva’s (2013) work similarly distinguishes primary from social emotions, referring here to Evans’s (2001) comprehensive interdisciplinary review among other sources. We followed this same conceptual lineage when coding for emotional complexity in our corpus. Primary emotions were identified as any emotional states which are “universal and innate […], of rapid onset”, i.e.: joy, distress, anger, fear, surprise and disgust (Evans, 2001, p. 5). In contrast, the remaining secondary emotions are associated with more learned, culturally specific, and “fundamentally social” states such as shame or jealousy (Evans, 2001, p. 20).

Turning to *bodily engagement*, we distinguished cases where characters appeared merely to observe events and phenomena in a storyworld from those where they played an active physical role in events or experienced them at a bodily level. Our decision to code for this kind of engagement was based on research which suggests that representations of agentive bodily movement and/or inner physical sensations can enhance our sense of proximity to characters (Kukkonen, 2019) and storyworlds in general (Kuzmičová, 2012), a tendency readily discernible in some young readers (Kuzmičová et al., 2022a,b). Variations in the explicitness of bodily engagement, however, led us to abandon this category as a stand-alone dimension during the in-text annotations under Step 2 (see also Section 3 below).
Animal characters were not classified according to their (implied) gender. Although some of these characters—particularly the more clearly anthropomorphic ones—conformed to many prevailing gender stereotypes, and indeed all nouns have a grammatical gender in the Czech language, assigning a specific gender to all animal characters proved impossible. Many creatures were gender-ambiguous even within the scope of a short excerpt. In one story by Karel Čapek (AP17), for instance, a newborn puppy was referred to by a neuter pronoun (“it was blind”; our italics) but given a female name (Dášenka). For similar reasons, we did not distinguish between male and female other characters since coding them based solely on their grammatical gender would in many cases have conflicted with their behavioural and other features.

While current scholarship tends to conceive of gender as unstable and fluid (Crisp, et al., 2018; Flanagan, 2008), binary coding (male vs. female) for human gender proved adequate in our case since there were no overtly genderqueer characters in the excerpts. All human characters were easily distinguishable as boys/men or girls/women for our purposes. Binary coding also ensured the compatibility of our study with earlier research involving larger text sets (e.g. Bühlmann, 2009; Čermáková and Mahlberg, 2021).

All coding was carried out by the two authors of this article. For the three dimensions of experience alone, this involved assigning a total of 6360 codes across 530 excerpts. A pilot sample of 528 value cells was completed by each of us independently. Cohen’s kappa (κ) inter-rater reliability coefficient for this data was calculated as near perfect at 0.83 for cognition, 0.9 for emotions, and 0.84 for bodily engagement. We resolved conflicting cases by discussion, which also produced guidance for further coding. Any subsequent uncertainties, which largely related to the appropriateness of a positive score (1 vs. 2), were recorded and discussed on an ongoing basis. This led to ad hoc consultations about more than one hundred discrete experience codes.

2.2 Results and discussion

2.2.1 Character representation

After coding, the data was aggregated and processed using descriptive and, where applicable, inferential statistics. Four text types emerged based on our investigation of the simple presence of different categories of characters in the text: Male & Female (N = 305), Male Only (N = 123), Female Only (N = 22), and Non-human Only (i.e., animal and/or other; N = 80). To be considered represented in an excerpt, a type of character had to score above zero on at least one of the three experiential dimensions (cognition, emotion, or bodily engagement). A clear asymmetry emerged in the representation of male and female characters so defined. In particular, there were more Male Only texts than Female Only texts. Even Non-human Only (mostly animal) stories significantly outnumbered Female Only ones owing to the traditionally strong
place of fables and other animal genres in the Year 3 curriculum. When the Male & Female texts were included, the overall figures showed that female characters were represented in only 61.7% of all texts in the corpus, while male characters were present in 80.8%.

Figure 1. Character representation: percentages of emerging text types in each period. A text type shows the human characters (by gender: male/female) and non-human characters with scores above 0 for at least one experiential dimension (cognition, emotion, bodily engagement) in a given excerpt.

The period in question proved an important factor. However, we did not find a straightforwardly progressive trend towards the equal representation of male and female characters over time. Counterintuitively, the excerpts dating from before 1900, i.e., from the oldest and also the smallest group of texts (N = 35), achieved the greatest gender balance given the proportion of Female Only texts (17%) and the overall percentage of texts including female characters (80%). Based on the total percentages for each gender, this period had an overall female to male ratio of 0.9. While Periods 1 (N = 43) and 2 (N = 212) had vastly different sample sizes, the two had comparable female to male representation ratios of 0.66 and 0.67, respectively, which put them at the very bottom of the range; Period 2 also had the highest percentage of Non-human Only texts (22.6%; these were mainly fables). The female to male representation ratio then rose to 0.83 in the post-1989 era of Period 3, and slipped again to 0.81 in Period 4, which had the second largest sample size (N = 157).
These trends did not, however, provide a full picture. A closer look at the data for Period 0, for example, showed that it could not be judged to be truly gender-balanced. In particular, the sample for this era consisted mostly (but not exclusively, see 2.2.2 below) of folk and fairytales, which placed female characters in culturally scripted roles like princesses, maids, stepmothers, and fairy godmothers. These roles tend to be more stereotypically linked with the domestic sphere and passive behaviour than those of their male counterparts. However, since we did not code for gender stereotyping during Step 1, keeping our procedure as simple as possible, our observations in this respect are anecdotal rather than systematic. As regards the surprising lack of progress towards equality in Period 4, this may be partially explained by examining the nonfiction excerpts from this period. While across the corpus, there was no statistically significant difference in gender representation between nonfiction and fiction (Fisher’s exact test), the nonfiction in Period 4 (8.9% of that sample) was highly disproportionate with regard to gender. Of its 14 nonfiction texts, only six included female characters and in two cases, those characters did not display any cognitive activity. The fiction from the same period, in contrast, included female characters far more often; they were present in 71.3% of texts. This disparity between nonfiction and fiction did not apply to male characters, who appeared in approximately 85% of the texts in each genre.

Turning to the specific reasons for the gender imbalance in recent nonfiction, we found that the Male Only texts were often excerpts from works of popular history. In the Czech curriculum, history still tends to be taught as a sequence of events driven by remarkable men; meanwhile “her-story” is overlooked (Labischová and Gracová, 2013). Disconcertingly, this pattern was also reflected in the anthology excerpts. While, for example, the Period 4 sample contained five texts from the historical works of contemporary Czech author Martina Drijverová, two of these included no female characters whatsoever while another two portrayed female characters who were not ascribed any cognitive states. On the other hand, female characters were present in seven of the eight excerpts from Drijverová’s fiction, some of which was published in Period 2 or 3, and these characters were consistently shown to be actively engaged in cognitive processes. However, based on the respective percentages of female and male characters, Period 4 fiction alone still yields a 0.84 female-to-male ratio, suggesting that the imbalance in the representation of female and male characters in this era may be due to the nature of its fiction and nonfiction alike.

Another variable that influenced gender representation was the author’s own gender, but again this worked differently than might be expected. First, while 39% of the entire corpus came from the works of female authors, these excerpts were not more frequently Female Only than those written by male authors. Female Only texts accounted for a curiously low 3.9% of all texts by female writers and 4.5% of all texts by male writers. The Male Only texts were more frequently authored by male writers than by their female peers. As these texts represented 27.8% of all texts by
male authors and 16% of those by female authors, this difference was statistically significant (Fisher’s exact test) at $p < .01$.

Second, the share of female-authored texts increased over time. Across the entire corpus, we calculated a female to male author ratio of 0.74. This included works that were single-authored and those authored by a group of writers of one gender. Between Periods 1 and 4, this ratio rose steadily from 0.2 to 1.94, with nearly twice as many female-authored as male-authored excerpts in Period 4. (In Period 0, the ratio was 0.48 owing to the prominence of one female romantic writer, Božena Němcová.) Still, as we have seen, this reversal of female and male authorship representation was by no means reflected in character representation. Rather, 19 of the 27 Male Only excerpts published in Period 4 were authored by women. Notably all of the anthologies were published in first or revised editions in Period 4 and were also edited or co-edited by women, with male collaborators on only two of the editorial teams out of 13. Clearly, then, involving more women in the creation and compilation of textbook content did not necessarily ensure gender-balanced materials. These findings are convergent with Kraicer and Piper’s large-scale analysis of contemporary novels which showed that “women authors [...] maintain a tendency towards featuring and populating their narratives with more characters that are men” (Kraicer and Piper, 2019, p. 3).

Differences emerged across the anthologies, a perspective that is especially relevant for the practitioner. Overall, the anthologies did not differ much in the extent to which male characters were represented. This ranged from 90 to 100% of all excerpts featuring at least one human character. However, the anthologies proved to vary strongly as to the inclusion of female characters. In *Prodos* and *Fraus* (short anthology names used here are listed in Appendix) female characters appear, respectively, only in 55% and 56% of the human-populated texts. In *Alter*, at the other end of the spectrum, female characters appear in 89% of the texts, although this percentage is still lower than the lowest representation percentage for male characters. However, some of the anthologies include larger proportions of single-gender and/or single-character stories. Thus, the female to male representation ratio may be more accurate as a basis for comparison. *Alter* again shows the highest gender balance with a female to male representation ratio of 0.94. At the opposite end is *Fraus* with a ratio of 0.57.

### 2.2.2 Complexity of characters’ experiences

In the previous section, we reported on key trends in gender representation, as defined in terms of the sheer presence or absence of a male or female character engaged in one of the given dimensions of experience. These findings were based on the entire corpus. We turn now to the two overlapping subcorpora of human-populated texts ($N = 439$) in which male characters ($N = 428$) and/or female characters ($N = 327$) were present in this sense. Our concern in these cases was *how*, that is, through which experiential categories and in what combinations, the different
genders were represented. We conceived of the variations in numerical scores across the three categories of experience (i.e., totalling 1-6 per character type) as reflecting different degrees of complexity attributed by a given text to each gender.

In this regard, we found key differences between longer and shorter excerpts where longer excerpts were those exceeding the median length (493 words). Overall, there was more variation between individual shorter excerpts concerning character complexity by gender. This was understandable since shorter texts provide less space to explore a variety of characters and inner states. Several excerpts from J. K. Rowling’s *Harry Potter and the Philosopher’s Stone* and *Harry Potter and the Chamber of Secrets* (Table 2) may serve to illustrate this phenomenon. Based solely on the emotion and cognition scores of the female and male characters, there were striking differences among these excerpts: while excerpt FR58 contained only male characters and conveyed little of their thoughts or feelings, ST42 presented complex male and female characters.

Table 2. Emotion (Emo) and cognition (Cog) for female (F) and male (M) characters across all excerpts from the *Harry Potter* series in our corpus. N = given character type is not represented. All scores for bodily engagement (Bod) were above 0 where the given character type was represented. Relevant Bod F values: 1 (ND28); 2 (TA01); 2 (ST42). Length shows the word count.

<table>
<thead>
<tr>
<th>Text ID</th>
<th>Length</th>
<th>Emo F</th>
<th>Emo M</th>
<th>Cog F</th>
<th>Cog M</th>
<th>Plot summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>FR58</td>
<td>164</td>
<td>N</td>
<td>0</td>
<td>N</td>
<td>1</td>
<td>Harry reads a list of necessary equipment for Hogwarts.</td>
</tr>
<tr>
<td>KP17</td>
<td>437</td>
<td>N</td>
<td>2</td>
<td>N</td>
<td>2</td>
<td>Harry meets Draco for the first time and gets into a fight with him.</td>
</tr>
<tr>
<td>ND28</td>
<td>531</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>Harry and the Weasleys meet at King’s Cross Station.</td>
</tr>
<tr>
<td>TA01</td>
<td>688</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>Harry and Ron rescue Hermione after she is attacked by a troll.</td>
</tr>
<tr>
<td>ST42</td>
<td>1050</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>Ron receives a Howler. With Harry and Hermione, they enjoy their first classes in Hogwarts.</td>
</tr>
</tbody>
</table>

Clearly, excerpt length was not the only crucial factor when considering character complexity. Choosing an excerpt from works like the *Harry Potter* books means encountering many characters, some of whom show clear personal growth over the course of the story; potential excerpts obviously vary significantly. Closer inspection of Table 2 reveals that in excerpts FR58, KP17, and TA01, female characters were either not represented at all or they appeared in the role of a victim, enabling the active male characters to stand out. Put differently, the “flatness” of female characters makes the male characters more “round” (Woloch, 2003). On the other hand, in ND28 and ST42, Molly Weasley and Hermione played important parts in the narrative and appeared as full-fledged characters. All of this demonstrates the key role of anthology editors in foregrounding or downplaying character diversity and complexity. This finding is also potentially relevant to practitioners; teachers who select
literary excerpts for their classes should be aware that through their selection, they might, deliberately or not, showcase or eliminate certain character types.

All in all, female characters showed less complexity than male characters. This difference was statistically significant (Kruskall Wallis test) overall as well as for each dimension of experience: cognition ($H(1) = 65.997$, $p < .001$), emotion ($H(1) = 33.735$, $p < .001$), bodily engagement ($H(1) = 57.346$, $p < .001$). These disparities emerged both in longer texts (> 493 words), where female characters had lower scores than their male counterparts for bodily engagement and cognition on average, and in shorter texts (< 493 words) where female characters had lower scores for emotion and cognition. Turning to specific periods, Period 4 again stood out for its unequal gender representation. Indeed, the greatest overall gaps between male and female character complexity were found in Period 1 (average score difference = 0.63) and Period 4 (average score difference = 0.51). In this most recent sample, the imbalance appeared consistently across all three experiential dimensions as well as in both shorter and longer texts.

This finding was also surprising since our overall analyses showed that, on average, female authors created slightly more complex characters than male authors did (total average score difference = 0.11) and, as we have noted, female authors significantly outnumbered male writers in Period 4. However, the women authors of this period diverged from this trend and depicted characters of both genders who were, in fact, less complex overall than those created by male authors (total average score difference = -0.22). In terms of the male-female disparity in character complexity, this was particularly salient in the work of Czech (rather than foreign) women writers. This group included e.g. Petra Bendová, Viola Fischerová, Alena Ježková, Šárka Váchová and the most represented author in this category, Ivona Březinová, who is also the subject of a separate case study below.

Here it is worth looking at the example of Ježková, a prolific, genre-crossing author whose works are also available in English translation. Her contribution to the subcorpora comprised four Male Only texts (popular history/nonfiction), one Female Only text (fiction), and six Male & Female texts (fiction). The latter included four excerpts in which the male characters were more complex than their female counterparts and another two texts in which the opposite was true. Of the works with more complex female characters, one (SP24) focused on a traditional celebration at the home of a family from a minority group (the Vietnamese-Czech community), as seen through the eyes of a local Czech family; the women from the two cultures were shown chatting about recipes while a male character entertained the group with fireworks. The second story (SP16) concerned a man who was unable to take care of his child after his wife passed away and had found a new spouse. However, this stepmother treated the child cruelly before pushing him into a gorge and ultimately committing suicide. In these and many other examples we encountered during the coding process, female character complexity emerged as, in fact, subservient to traditional scripted roles (the homemaker, the evil stepmother). Contemporary Czech works were, thus, exposed as gender conservative in this context.
Across the individual anthologies, the mean complexity of female characters again varies more (from 3.33 in Klett to 5.53 in Alter) than the mean complexity of male characters (from 3.94 in Klett to 5.83 in Alter). Notably, in terms of the female to male mean complexity ratio, we found perfect gender balance in two anthologies, Fraus (0.99 ratio) and Prodos (1.00 ratio), where texts with female characters were severely underrepresented as shown above. Clearly, then, there is no straightforward relationship between the extent to which female characters are represented on the one hand and the relative complexity of female characters, when represented, on the other. However, Alter scored exceptionally well on all measures, with a female to male mean complexity ratio of 0.95.

When we compared overall male and female character complexity across individual dimensions of experience, the greatest difference in average scores arose at the level of cognition (score difference of 0.19). Across all of the periods, male characters were generally ascribed more higher-order cognition than their female counterparts, and this was true for both shorter and longer texts. The sole exception was for short texts from Period 0 in which female characters were often the protagonists. These works included classics such as Johanna Spyri’s Heidi and Božena Němcová’s The Grandmother (Babička). However, in the context of our subcorpus of 439 human-populated excerpts, they represented a tiny sample of 12 texts.

3. A CASE STUDY: IVONA BŘEZINOVÁ’S A BOY AND HIS DOG (KLUK A PES)

As we have seen, our initial “distant” approach managed to reveal distinct imbalances and trends in the overall corpus. However, interpreting these trends required closer inspection. In this section, we present a case study that may provide a practical illustration of the potential benefits of the Step 2 annotation procedure and its relationship to Step 1 coding. This study, which focuses on a text from Period 4 by Ivona Březinová, a Czech female author, offers an alternative perspective on unexpected gender imbalances.

In Step 2, we observed various depictions of emotions and thought processes in the excerpts in the corpus. We then examined how these experiences were depicted (e.g. explicitly or implicitly, verbally or nonverbally) to gain a more nuanced understanding of the texts. While our original analysis was based on the original Czech texts, in the case study below we quote from our own ad hoc English translation.

Březinová’s work is particularly well-suited for an exemplary study since she is strongly represented in our corpus with 12 excerpts from 9 books; while two of these excerpts date to Period 3, the remainder are from Period 4. Furthermore, her work introduces diverse characters to young readers. The texts drawn from in our corpus feature male characters from ethnic minority groups (The Enchanted Classroom - Začarovaná třída), a male character coming to terms with his grandfather’s Alzheimer’s disease (Smarties for Grandpa Ed - Lentilka pro dědu Edu), female characters living in a non-traditional family (Vera, Nika and the Seven Grandmas - Věra, Nika a sedm babiček), a female character exploring a new culture (The Ebony Doll -
Panenka z ebenového dřeva), and a male character dealing with a worsening disability (A Boy and His Dog - Kluk a pes). Since Březinová clearly strives to highlight certain kinds of diversity in her books, we were keen to examine how diverse her characters were in terms of gender.

Our case study excerpt comes from the book A Boy and His Dog (NN01; 523 words). Step 1 coding showed that this text achieved a high level of character complexity and seeming gender balance, with both male and female characters experiencing higher-order cognition and secondary emotions. Based on the in-text annotation during our Step 2 analyses, the excerpt was also saturated with references to emotional and cognitive states; there was a relatively high ratio of emotional and cognitive experiences to the length of the text. However, the annotation also exposed a large gap in the numbers of male (N = 27) and female (N = 9) emotional and cognitive instances. While girls were characterised almost equally in terms of their experiences of emotions (5 instances) and cognition (4 instances), boys and men were associated with more cognitive processes (18) than emotions (9).

The excerpt tells the story of the first day back at school of Julin, a nine-year-old boy who has recently had to swap his crutches for a wheelchair. He is about to face his old classmates in a new role and he worries about his support dog, Caesar, who also heads to a school of his own so that he can help Julin, as we discover in Fig. 2.

Figure 2. Illustration of the annotation procedure in Atlas.ti, excerpt NN01. Discrete cognitive and emotional instances of male (M) and animal (A) characters are captured in the right-hand panel. Cog 1 = lower-order cognition, cog 2 = higher-order cognition; emo 1 = primary emotion, emo 2 = secondary emotion.

At first, Julin is amused by the similarities between himself and his dog. However, when he senses Caesar’s confusion, his attention shifts to the animal’s feelings. As Julin consoles Caesar, he feels guilty and starts to worry about the dog’s wellbeing.
It is only after these selfless reflections that Julin refers ironically to his own concern about his classmates’ responses. Still he is optimistic about the future.

Although Julin is in a tough situation, he does not let his emotions overwhelm him. His detachment is expressed through the predominantly third-person narration, which turns to an inner monologue when he blames himself for inconveniencing Cæsar. While Julin finds himself in circumstances that produce multiple emotions, the passage balances them out with references to many thought processes, most of which involve higher-level cognition.

In contrast to Julin and his emotionally and cognitively rich inner world, the female characters - Julin’s mother and his classmates Dana and Ilča - either appear briefly in the story without displaying any emotional or cognitive states or they have a role to play in events but show much less richness and variety in their thoughts and feelings. In the following passage, for example, Julin’s classmate Dana admonishes his male friend Mirek for a supposedly inappropriate remark. However she herself turns out to be the insensitive one (see Fig. 3).

“Row, cool wheels,” Mirek whistled admiringly as Julin entered the locker room. “[I wouldn’t mind having one of those too.”

“You’re such an idiot,” Dana shouted at him, “Julin has a wheelchair because he doesn’t have legs.”

“I do have legs,” Julin said.

“Yeah, he does,” Mirek stood beside Julin, staring at Dana contemptuously.

“In fact, you don’t have a head. Or if you do, it’s totally empty.”

“Mirek, would you mind helping me with the zipper?” Julin asked in a soft voice. He didn’t want Dana to think he didn’t have hands or something. She was capable of anything.

When Mirek talks to Julin, he does so without any pity. At the start of the passage, we might assume that Mirek is mocking Julin and being sarcastic. However, he is simply pointing out positive aspects of his friend’s situation. Mirek’s behaviour — and here we mean not only his words but also his physical proximity and gestures — suggest his empathy for Julin. He tries to minimise Dana’s potentially shaming comment and stand up for his friend. Although his empathy and mentalisation skills are for the most part implied, Julin takes notice of them since he later turns to Mirek for help.

On the other hand, Dana’s inner states, her motivation, and emotions remain unexplained. She is only judged and ridiculed by the others. Later in the text, Julin expresses his distrust of her. And while both Dana and Mirek are shown from outside, only Dana is hard to sympathise with. However, the excerpt also mentions another female character, Ilča, who is a friend of Julin (see Fig. 4).
Figure 4. Illustration of the annotation procedure in Atlas.ti, excerpt NN01. Discrete cognitive and emotional instances of male (M) and female (F) characters are captured in the right-hand panel. Cog 1 = lower-order cognition, cog 2 = higher-order cognition; emo 1 = primary emotion, emo 2 = secondary emotion.

When Ilča complains about her books, Julin immediately responds with a solution and offer to help. Unlike with Dana, we have a glimpse into Ilča’s inner life through the free indirect discourse in this passage. However, the only thing we know of her thoughts and feelings is that she wonders whether Dana envies her. Ilča is Julin’s friend and as such, she is given more space to express her emotions. The passage above suggests she is irritated or trying to amuse her friends, and she also experiences enthusiasm and something like vanity or perhaps the pleasure of revenge over Dana. She gains depth as readers are left to wonder about her thoughts and emotions. Even so, she is depicted as somewhat passive, the object of Julin’s help (enabling him to be portrayed as a caring character), as opposed to Mirek, who stands up for his friend.

In sum, Březinová presents the protagonist of her story as an active, complex character. By hinting at some of her characters’ emotions, she offers readers the chance to reconstruct these—sometimes ambivalent—feelings for themselves. Julin is shown to be someone who tries to distract attention away from his own situation by focusing on the needs and feelings of others. His friend Mirek also seems like an active, complex figure. The two girls Dana and Ilča, on the other hand, appear to exist mainly to create opportunities for their male counterparts to display their strength or friendship. Finally, the text establishes a contrast between Julin, who stays rational even in the face of a challenging situation, and the female characters, who are more emotional, in an unflattering way.

As we noted at the outset, Březinová’s excerpt showed a high level of character complexity based on our Step 1 analysis. However, once subjected to the more granular annotation of Step 2, it lends support to the disconcerting and counterintuitive idea of an inverse relationship between a text’s recency and its gender balance, as seen from our Step 1 analysis. A Boy and His Dog does include female characters who experience emotions and attempt to read the minds of others. Nevertheless their
function in the excerpt is primarily to make the male characters look good. The girls’ motivations conform to gender stereotypes or are seen as not at all important.

4. CONCLUSION

We began this article by asking about the kind of texts children are exposed to in Czech primary schools. The answers we arrive at are sobering. From a gender standpoint, anthologies for Year 3 pupils do not provide diverse reading materials. Girls and women are greatly underrepresented in these anthologies and when they do appear, the complexity of the inner states ascribed to them is not remotely comparable to that of male characters. This is especially true for cognitive processes, and current practice suggests that female characters either do not think at all or they are more self-absorbed and less inquisitive about other minds than male characters. This lack of diversity is particularly worrisome because research suggests that using gender-fair texts in schools can change children’s preconceptions and expand their understanding about what behaviours are male- and female-appropriate (Karniol and Gal-Disegni, 2009; see also Richter, et al., 2014). Kucirkova highlights that “identification with characters who are dissimilar from the readers is the most valuable contribution of children’s storybooks to cognitive empathy” (Kucirkova, 2019, p. 1). Hence, boys should have the opportunity to face rounded female characters the same way girls are given opportunities to identify with complex male characters.

Our Step 1 analysis showed a striking gender imbalance in favour of male characters in the most recent excerpts. This runs counter to the assumption that curricular materials become more gender-equal over time. Such a trend cannot be presumed even when the proportion of female to male authors changes to women’s advantage. Our case study of Březinová’s A Boy and His Dog provides more evidence of the benefits of integrating whole-text coding with an in-text approach. Even an excerpt that appeared to be gender-balanced in Step 1 was revealed by Step 2 to promote an unequal portrayal of character complexity between its male and female characters. As a method, Step 1 clearly enabled us to orientate ourselves in the face of a large corpus, detect patterns and trends (and so, choose texts for further study). However Step 2 allowed us to focus on characters’ emotions and thought processes discretely, assess the quality of specific depictions of emotion and cognition, and later identify passages of particular interest.

Although Czech textbook reviewers are advised to consider whether curricular materials provide a balanced representation of male and female characters and avoid gender biases (Valdrová, et al., 2004), our analyses showed that most of the authorised reading anthologies do not adhere to these standards. Under these circumstances, teachers should be particularly alert to the content of the anthologies they use and carefully select texts for in-class reading with a view to the richness and diversity of character experience. Curricular texts should also be screened for gender stereotyping (Karniol and Gal-Disegni, 2009; Valdrová, et al., 2004). This is a perspective we did not incorporate from the start in order to keep Step 1 manageable, but...
later found essential when nuancing some of the findings, e.g., the very high representation of female characters in the oldest group of texts. Our Step 2 as shown in the case study enables addressing such nuances at depth.

Hunter and Chick (2005) recommend compensating for gender-imbalanced reading materials by including additional books that feature strong characters from minority communities and explicitly discussing existing imbalances. For the practitioner perspective especially we have offered a selection of comparisons across the individual anthologies, focusing on both the positive and some of the negative extremes. The anthologies differ much more in the representation and complexity of female than male characters. An anthology published by Alter ([AN], specifically) stood out as an example of good practice as it scored better than other anthologies in terms of a balanced representation of male and female characters and also showed high complexity for both male and female characters, along with a balanced female to male mean complexity ratio.

Stark imbalances of experience representation in curricular materials exist no doubt in countries beyond Czechia and pertain also to categories other than gender, perhaps most notably race, ethnicity, dis/ability, and sexual orientation (Armstrong, 2021; Hayes and Bulat, 2017; Marmer and Sow, 2015). However, before imbalances can be compensated for, they have to be identified by educators first. We hope to have demonstrated that the basic three (inner experience dimensions) by three (degrees 0-1-2 of representation) by N (character types of one’s choosing) matrix of our Step 1 procedure is suitable not just for large bodies of texts but even on a much smaller scale, e.g., when anthology editors are choosing texts for inclusion and when teachers are deciding which text to use in class and how.

As for the latter question, classroom activities in which children themselves would perform whole-text evaluations as shown under Step 1, or even, in more advanced stages, in-text analyses akin to Step 2, would combine many of the benefits toward (inter)personal (Kumschick, et al., 2014) and critical thought (Koek, et al., 2019) development that progressive literary education has to offer. In employing concepts from cognitive literary studies to assess texts along different dimensions of experience and their representation, complexity, and variety, this approach departs from traditional evaluations based on content analysis, which have focused solely on the presence of characters of different types or their pre-selected characteristics (such as chores, interests or occupation) and thus evaluated the texts as more or less stereotypical. Instead, our method may help researchers as well as practitioners identify texts that invite young readers to experience the rich bodily sensations, emotions and thoughts of diverse characters, and so, interact with these varied perspectives.

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REFERENCES


Complex characters of many kinds?


APPENDIX. LIST OF READING ANTHOLOGIES

Note: “čítanka” = reading anthology; anthology short names used in the main text are shown in round brackets, two-letter codes are shown in square brackets.

Potůčková, J. (2012). Čítanka 3 pro základní školy. Studio 1+1. [ST]