

Creating fictional characters:

The role of experience, personality, and social processes

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Abstract

Characters are considered central to works of fiction and essential to our enjoyment of them. We conducted an exploratory study to examine whether the ability to sketch engaging fictional characters is influenced by a writer's attributes. Samples of 93 Creative Writers and 114 Non-Writers generated character descriptions based on a portrait photograph. We measured Participants' experiences with reading and writing in various genres, their trait personality, their self-reported perspective-taking tendencies, and cognitive accessibility of social information. Next, 144 Raters read these sketches and assessed the characters for Interest, Likeability, and Complexity. Characters produced by Creative Writers were rated as more Interesting and Complex, though not more Likeable, than those produced by Non-Writers. Participants who wrote more fiction and poetry, and read more poetry, as well as those who scored high on Openness, sketched characters that were more Interesting and Complex. Moreover, Openness mediated the relationships between fiction-writing and poetry-reading and how Interesting characters were. Participants with higher levels of Perspective-Taking produced characters that were more Complex, however, those for whom social information was cognitively more accessible tended to create characters who were less Likeable. These findings suggest that there is a measurable influence of individual differences on the ability to develop compelling fictional characters during creative writing.

Keywords: fiction; characters; writing; personality; social processing

Introduction

As readers and watchers of fiction, we know characters such as Sherlock Holmes, Anna Karenina, and Mrs. Dalloway, in something like the way we know people in our daily interactions. We may think about these characters' intentions, respond emotionally to their actions, and invest ourselves in their outcomes, even though we know they are not real (Mar & Oatley, 2008; Gardner & Knowles, 2008). Those who teach writing argue that engaging characters are at the center of all good fiction (Gardner, 1964) and that their creation is a writer's primary obligation (Rosenblatt, 1976; Stein, 1999). But what makes a writer capable of this? Here we present a preliminary study in which we explore how characteristics of a writer might predict how engaging the characters they create are perceived.

What makes a character engaging?

To be engaging, a character must capture our interest and hold our attention in a story. This can happen when we take a character's perspective and imagine ourselves to be her or him, in a process known as identification (Cohen, 2001). Alternatively, we can form a parasocial relationship with the character (Horton & Wohl, 1956; Rubin & McHugh, 1987; Klimmt, Hartmann & Schramm, 2006). Parasocial relationships with fictional characters have aspects of real-world relationships, such as wanting to understand the character and creating a mental model to represent the character's personality (Dunbar, 2004). Researchers argue that identifying with a character or developing a parasocial relationship relies on our uninterrupted attention to the story or an ongoing and active engagement with the narrative (Cohen, 2001). The longer we give characters our attention the more familiar they become (Cohen, 2001; Rubin & McHugh, 1987). To be engaging, characters must therefore be interesting enough to hold our attention for the duration of a story, or perhaps even multiple stories over the course of a television series or a sequence of novels.

A second aspect of a character's engagingness is likeability. We may identify with characters we admire or find attractive (Cohen, 1999; Hoffner, 2005) and we are more likely to form parasocial attachments with characters we like (Conway & Rubin, 1991; Klimmt, Hartmann & Schramm, 2006; Tian & Hoffner, 2010). Not all engaging characters are likeable, however. When Richard III makes his entrance in Shakespeare's play of the same name, he tells the audience that because he is ugly, he cannot be loved, and therefore is "determined to prove a villain" (Shakespeare, 1623/1997). Despite the fact that he is disliked, his character is compelling. More recently, television series have been successful in depicting unpleasant characters as protagonists. *Breaking Bad* features Walter White, who starts as a dull high school teacher and becomes a methamphetamine cook (Ruiz, 2015). Viewers may not like Walter in the sense of wanting to spend time with him; he can be aloof, selfish, and cruel. Yet they find him, and the transformation of his character, compelling. Recently, research has begun to explore how parasocial relationships can also be formed with characters who are disliked (Dibble & Rosaen, 2015; Rosaen & Dibble, 2015).

Characters may also be engaging if they are complex. The idea of complexity in characters was introduced by Forster (1927), who distinguished flat characters from round ones. A flat character has just a single intention and a single role in a story. One of Forster's examples is Charles Dickens's Mrs. Mikawber who says, "I will never desert Mr. Mikawber," and she doesn't. Round characters are complex because they have several intentions, some of which may conflict with others or lead to unpredictable consequences. This unexpectedness introduced by round characters helps elicit our ongoing interest since we do not know exactly how they will behave. However, when characters act too unpredictably they run the risk of becoming incoherent or unbelievable (Saillenfest, 2014). Believability also seems to be an important aspect of characters since we are more likely to identify and

develop parasocial relationships with characters that we perceive as real (Cohen, 2001; Press, 1989; Schiappa, Allen, & Gregg, 2007; Gardner & Knowles, 2008). Engaging characters must therefore be conflicting and unpredictable enough to be complex, but not so much so that they stretch credulity and appear unrealistic.

It appears that some level of complexity is necessary to help characters appear lifelike. Research suggests that fictional characters seem to resemble real people, at least in terms of their dispositional tendencies. Johnson and colleagues (2011) recruited 519 literary scholars to select and rate the personality of characters from Victorian novels (e.g., by writers such as Jane Austen and George Eliot). Across 435 characters the Big Five personality traits were distributed in ways similar to those of real people in the day-to-day world (McCrae, 1992; McCrae, Gaines, & Wellington, 2012). Moreover, many writers have found that the characters they create can take on the qualities of real people, even appearing to develop autonomy (Taylor, Hodges, & Kohanyi, 2003). That is, for some writers, the characters they've created can come to seem like individuals with their own thoughts and perspectives, with whom writers converse and at times even argue. Writers who have these sorts of experiences are more likely to be published, suggesting that characters experienced as autonomous agents are more successful in engaging readers (Taylor et al., 2003). But what predicts whether a writer is likely to create an engaging character or not?

Habits that contribute to the creation of engaging characters

There has been little research that examines what characteristics of writers predict their ability to create engaging characters. That said, it seems likely that habits related to writing and reading might help. People who write fiction frequently seem likely to be better at creating engaging characters compared to those who write less frequently. These individuals may enjoy creative writing and may be inherently motivated to make characters

that are more complex by providing details and elaborating on their descriptions. Over time, experiences with creative writing are also likely to contribute to one's ability to sketch an engaging character. Interviews with published writers reveal that most of them write often (Kellogg, 2006). This involves the development of expertise by way of many self-imposed challenges to solve problems, as well as learning from others and from oneself (Ericsson & Leymann, 1999). The time spent developing one's writing can be thought of as a form of intense exploration (Oatley & Djikic, 2008; in press). It can even involve writing a series of novels, discarding each one until an acceptable version is discovered (Plimpton, 1989). In any event, those who have written more fiction will be more likely to have honed their skills at creating characters.

Reading habits may also be important, since reading exposes people to characters who vary in type and quality. In discussing the importance of creating vivid characters for writers, Rosenblatt (1976) writes that reading involves coming to understand "the psychology of characters". Readers may come to this understanding by being "side participants" to conversations between literary characters (Gerrig, 1993), just as they might get to know people in day-to-day conversation (Bortolussi & Dixon, 2003). In this way, a person who frequently reads fictional literature will have witnessed many conversations between a variety of characters and as a result might become better able to understand characters and their depiction.

Studies of published writers tend to corroborate this idea. They suggest that writers read extensively, often early on in childhood and throughout the lifespan (Piiro, 2002; Kellogg, 2006). Reading fiction predicts verbal abilities better than reading expository non-fiction (Mar & Rain, 2015; McGeown, Duncan, Griffiths, & Stothard, 2015; Spear-Swerling, Brucker, & Alfano, 2010) and so by reading fiction writers might not only learn about

characters but also improve their ability to depict these characters in literary way (Miall, 2006). The influence of reading genres other than fiction is less clear. In the case of poetry, for example, there are rarely explicit depictions of characters per se. That said, Peskin (2007) found that when text was presented as a poem, high-schoolers thought longer about it and made more references to its meaning and aesthetic elements, than when the same text was presented as prose. This suggests that poetry-reading prompts thoughtful reflection that may contribute to creating psychologically-realistic characters. In the absence of more relevant empirical evidence, however, the role of reading in other genres to characterization is not clear. Reading and writing habits are not the only factors that might help writers to create engaging characters; differences in various trait factors may also play a role in this ability.

Personality factors that contribute to the creation of engaging characters

Published writers tend to have higher levels of the Big Five personality trait Openness to Experience (Kaufman, 2002). This means that they are more likely to value intellectual and aesthetic experiences and are more likely to experience life with “fresh eyes” (Barron, 1968; McCrae & Sutin, 2009; Piirto, 2002). Higher levels of Openness have been found in writers working across diverse contexts, with comedy writers scoring higher in Openness than comedy performers, for example (Greengross & Miller, 2009). Another study found that undergraduate students who enjoyed creative writing were higher in Openness than students who did not (Maslej et al., 2014). Openness prompts people to seek a diverse range of life experiences, including various forms of art, which may usefully inform the process of creating a character. Openness may also help writers derive novel insights from their experiences, which can then be applied to this process. Another possibility is that creating complex characters with conflicting intentions or surprising traits may require a degree of creativity and divergent thinking, both of which have been associated with Openness

(McCrae, 1987). For these reasons, individuals higher in Openness seem likely to produce more compelling fictional characters.

Writers have also been associated with high levels of personality traits other than Openness. They have variously been described as more radical, dominant, and independent, as well as less conformist, suggesting they may also be less Agreeable (Drevdahl & Cattell, 1958; Barron, 1966). Some studies have found writers to be higher on Introversion and lower on Emotional Stability compared to the general population (Barron, 1966; Drevdahl & Cattell, 1958; Mohan & Tiwana, 1987; Kaufman, 2002; Oatley & Djikic, in press). Djikic, Oatley, and Peterson (2006) found that writers are often preoccupied by negative emotions, which may contribute to a compulsion to write (Djikic & Oatley, 2014). At the same time, however, this preoccupation may contribute to the finding that writers are often vulnerable to depression (Djikic & Oatley, 2014). Although these studies have demonstrated, or hypothesized, links between writing and personality traits other than Openness, it is unclear whether or how such traits might contribute to the ability to create engaging characters. In addition to different trait tendencies, it is possible that different modes of thinking among writers might help them to create engaging characters

Social processing tendencies and the creation of engaging characters

Writers are often characterized as keen observers of the human condition, sensitive to people and social situations (Djikic & Oatley, 2014). Writers may therefore be more likely to carefully observe people in the real world or pay special attention to characters when reading. As a result, they may have information about individuals and their traits more mentally accessible. Increased accessibility of social concepts could aid writers when they create characters, perhaps resulting in greater complexity for these characters. However, social processing tendency has not been previously examined in writers.

Some research has examined the ability of writers to understand how other people are thinking and feeling, using a self-report measure called the Interpersonal Reactivity Index (IRI; Davis, 1983). The IRI has four subscales, two of which are linked with this ability: Empathic Concern, feeling warmth or compassion for the emotional condition of others; and Perspective-Taking, the ability to imagine what other people may be thinking or feeling (Davis et al., 1983; Cliffordson, 2001). A study by Taylor and colleagues (2003) found that people who self-identified as writers scored higher than the general population on these subscales of the IRI. However, this finding was not replicated in another study by Bischoff & Peskin (2014), who found that writers did not report higher levels of Empathic Concern or Perspective-Taking. Writers in this sample also did not outperform control participants on a mental-inference task, nor did performance on this task predict the quality of a story they wrote. Given that Perspective-Taking is important for understanding people, however, this ability may help writers create more engaging characters specifically, if not create a better story overall. Understanding how others think or feel may help writers develop better models of what other people are like or it can lead them to more accurately predict the reactions of their readers, thereby helping them produce characters that are engaging.

Outline and hypotheses

Given that characters are so central to works of fiction, we ask what attributes help a writer to create engaging characters: ones that are interesting, likeable, or complex. We hypothesized that these attributes might include the habits of writing and reading, aspects of personality, and thinking about social concepts.

To explore these ideas, we conducted a preliminary study of people's abilities to create engaging characters by asking them to write brief character sketches. An initial sketch is part of Flaubert's five-stage theory, which is the best theory we know on how to write fiction (as

explained by Oatley & Djikic, 2008; see also di Biasi, 2002). Flaubert called the first stage the “résumé:” a sketch or outline plan of a character and an action or circumstance. Although the résumé changes and develops as writing progresses, it forms a foundational step in a character’s depiction. For his 1877 short story “Un coeur simple” (“A simple heart”) Flaubert’s résumé was of a woman who dies in a saintly fashion, who thinks her parrot is the Holy Spirit (Debray Genette, 2004). Brief character sketches have been used successfully in previous research to instantiate mental models of a character in order to make predictions regarding their behavior (Hassabis, et al., 2014).

After participants created a character, we recruited a second group of people (Raters) to assess how engaging the characters depicted in the sketches were. We predicted that participants who reported inclinations for writing and reading fiction would create characters that Raters found more engaging. We did not expect any contribution from the writing or reading of poetry or nonfiction, since these genres do not often feature characters. We also expected to find associations between the personality of participants and ratings of character sketches, with higher levels of Openness in participants being associated with more positive evaluations of their sketches. We predicted that social processing tendencies, namely Perspective-Taking and Empathic Concern from Davis's (1983) IRI along with the mental accessibility of social information, might help in the creation of engaging characters. After exploring these possible associations, we looked to see whether Openness and social processing tendencies could account for any observed relationships between writing and reading habits and judgments of character quality. Lastly, we examined whether a tendency to write longer descriptions might help to explain our findings, by seeing if the length of character sketches accounted for any observed associations between individual characteristics and judgments of character quality.

Method

Participants

The people who took part in the study were undergraduate students enrolled in an introductory psychology course at York University in Toronto. Students who created character sketches were in two groups: those who reported an inclination to write creatively (Creative Writers) and those who did not have this inclination (Non-Writers). Collectively we call them "Participants." We formed these groups using pre-screen items that Participants completed at the start of the term, at least four months prior to starting the study. These items were scored on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). The inclusion criteria for the Creative Writers group included responses of 4 or higher for "I enjoy writing fiction," and responses of 3 or higher for "I enjoy writing poetry" and "I am good at writing fiction or poetry." For the Non-Writers group, the inclusion criteria were responses of 2 or lower for these items. Very similar items pertaining to reading habits (identical to those employed in this study and described below) have demonstrated criterion validity with respect to expected outcomes (i.e., verbal ability; Mar & Rain, 2015). To match both groups on verbal ability, prospective Participants also rated themselves on two items: "I have good grammar and language skills" and "I have a good vocabulary," using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Only students who answered 4 or higher on these items were considered eligible for the study. A sample of 93 Creative Writers (71 female; $M_{age} = 20.32$, $SD_{age} = 3.89$) and 114 Non-Writers (71 female; $M_{age} = 21.03$, $SD_{age} = 4.40$) completed character sketches. The data from two Participants were not used: one did not indicate consent to participate and another was noted by an experimenter to be inattentive while responding.

Raters

We recruited another group from the same pool of undergraduates to rate characters depicted in participants' sketches. We obtained ratings from 247 students, but because ratings were to be completed online, we were concerned that students would not read the character sketches carefully. In an attempt to identify inattentive responders, we included two fake character sketches with specific rating instructions embedded in the text (for example “respond with a ‘3’ for the ratings corresponding to this description”). When Raters did not follow the instructions for either of these items, we inferred that they were not reading the descriptions carefully enough and excluded them. We removed data from 103 Raters, and our final set of Raters numbered 144 (114 female; Mage = 19.64, SDage = 4.08). To determine whether our exclusions from the group of Raters introduced bias, we examined whether those retained differed from those excluded. This was not the case with respect to age, gender, cultural background, years of education, or years of English fluency, age: Excluded: M = 19.30, 95% CI [18.75, 19.84], Retained: M = 19.64, 95% CI [18.96, 20.32], $t(233) = .714$, $p = .47$, $d = .10$; gender, $X^2(1) = .04$, $p = .85$, $\phi = .01$; cultural background, $X^2(13) = 14.38$, $p = .35$, $\phi = .25$; years of education, Excluded: M = 12.97, 95% CI [12.64, 13.30], Retained: M = 13.03, 95% CI [12.80, 13.27], $t(235) = .33$, $p = .74$, $d = .04$; or number of years of English fluency, Excluded: M = 18.56, 95% CI [18.00, 19.13], Retained: M = 19.01, 95% CI [18.46, 19.57], $t(237) = .10$, $p = .30$, $d = .15$. Each Rater evaluated a random subset of 28 character sketches and each character sketch was evaluated by a mean of 20.6 raters, range = 13–28, SD = 2.73.

Materials

Character sketches. Participants were given a head-and-shoulders photograph of a man and instructed as follows: “We’d like you to create an imaginary person in the same way a writer creates a fictional character for a story. We’ve given you a photograph of this

person's face to get you started. Please don't use a character you have created before (e.g., for a story) and please don't describe someone you know, have read about, or have seen in a movie or on TV." This task was intended to mimic the early stages of creating a character for a piece of narrative fiction, with the broad sketch of the character first being formulated. Our instructions were designed to engage Participants in a creative process to generate this character sketch, rather than rely upon recall of an already created character. Participants were told they had five minutes to type out a description of this character in a text box. We employed this time limit so that our Participants would not be overly burdened in light of the other measures that also needed to be completed. Moreover, this time seemed sufficient to produce an early sketch of an idea for a character, which was our intent. Previous research suggests that both men and women prefer male protagonists (Bortolussi, Dixon, & Sopcak, 2010), and so using a photograph of a man to prompt character sketches maximized the potential appeal of the characters created.

To begin, 205 Participants were asked to complete this task, but character descriptions were missing for nine Participants due to computer error or because they did not complete the task. We also discarded three descriptions because the text produced did not describe a character. This left a final sample of 193 character sketches.

Self-reported reading and writing habits. We measured Participants' self-reported reading and writing habits using 12 face-valid questions. Participants indicated whether they enjoyed reading and writing in different genres by responding to six statements: "I like to read fiction (/poetry, /nonfiction)" and "I like to write fiction (/poetry, /nonfiction)." Participants rated each statement on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). We also assessed the frequency of reading and writing by presenting the statements: "I read fiction (/poetry, /nonfiction)" and "I write fiction (/poetry,

/nonfiction).” The Participants responded to these statements on an 8-point scale ranging from 1 (never) to 8 (roughly every day). We combined enjoyment and frequency items for reading and writing in each genre to generate separate reading and writing experience scores for fiction, poetry, and nonfiction. Identical items for the assessment of reading have been found to have good internal reliability and criterion validity with respect to predicting verbal ability (Mar & Rain, 2015).

Author Recognition Test (ART). We also measured reading behavior of Participants using the ART (Stanovich & West, 1989). The ART is a list of names for which Participants indicate whether they recognize each one as that of an author. Participants are informed that the list also contains names of non-authors, so guessing will be detectable and therefore discouraged. This version of the ART contained 50 names of authors of fiction, 50 of authors of nonfiction, and 40 foils, names of people who were not authors (Mar et al., 2006). The ART is scored by subtracting the number of foils that are checked from the number of authors' names that are checked. Scores on the ART are a good proxy for the amount of reading people do (Allen, Cipelewski, & Stanovich, 1992; West, Stanovich, & Mitchell, 1993; Rain & Mar, 2014), and outcomes of reading, such as verbal ability (see Mol & Bus, 2011 for a meta-analysis of 99 studies).

Big Five Inventory (BFI). The BFI is a widely-used measure of the Big Five personality traits: Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness. The BFI has high internal consistency, test-retest reliability, and convergent validity with other personality measures (John & Srivastava, 1999). It presents 44 descriptive phrases, with each trait represented by 8 to 10 items. Participants indicated how much they related to each phrase on a five-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree), with responses grouped by trait and averaged.

The Interpersonal Reactivity Index (IRI). The IRI is a self-report measure with good reliability (both intra-scale and test-retest) along with good convergent validity (Davis, 1980). It has four subscales: Empathic Concern, Perspective-Taking, Fantasy, and Personal Distress. The Fantasy subscale reflects a tendency to become engaged with or absorbed by narratives (Mar et al., 2006) and the Personal Distress scale represents a tendency to feel anxiety in response to others in distress; Personal distress is likely more akin to a measure of Neuroticism than empathy (Mooradian, Davis & Matzler, 2011). Our primary interests were in Empathic Concern and Perspective-Taking, as described above. The IRI presents 28 phrases, with each subscale having seven items. Participants indicated how well each phrase described them on a 5-point Likert scale, ranging from 1 (does not describe me very well) to 5 (describes me very well).

Word Fragment Completion (WFC). To measure cognitive accessibility of social characteristics, we created a 13-item word-fragment completion task. Bassili and Smith (1986) developed this task to measure accessibility or activation of certain mental concepts. The task has been used widely to test the accessibility of different concepts or thoughts belonging to a particular theme (e.g., Harmon-Jones et al., 1997). In our version, each item was a series of letters and blanks that could be completed with a word that was a social characteristic or a word of some other kind. For example, participants could complete the fragment K_N_ with “KIND” (social characteristic) or “KING” (not a social characteristic). We also asked Participants to use their completed word in a sentence in order to clarify ambiguities. In this example, sentences such as “He is a kind person” or “A tiger is a kind of cat” clarified whether the word “kind” was being used in a social or non-social context. Two research assistants independently coded the responses to determine whether completed words referred to a social characteristic or a non-social word. In total, 1.1% of the responses

produced discrepant codings. Discrepant codings were resolved through discussion and one WFC item was discarded because of disagreement on what constituted a social or non-social response.

Procedure

Participants' personal characteristics and writing of sketches. Participants came to a laboratory at York University in Toronto, read a consent form that outlined the nature of the tasks and questionnaires, and indicated that they consented. To avoid biases in responses, we did not inform Participants of the study's focus on creative writing. Participants completed the self-reported reading and writing habits, ART, BFI, IRI, and WFC task in randomized order. Afterwards, they produced their character sketches. They also completed a lexical decision task, but we did not analyze data from this task for this study. The Participants provided some demographical information (i.e., their age and gender), then read a debriefing sheet and were given course credit as remuneration. (Personality data from this sample were previously published by Maslej et al., 2014.)

Raters' evaluations of character sketches. Raters participated online. They first read a consent form and then assessed a random subset of 28 character sketches from the 193 eligible sketches generated by Participants. They rated characters on three dimensions, each measured by a single item accompanied by a description elaborating on the construct: (1) "How INTERESTED are you in this character? (Would you like to know more about this character? Would you be interested in reading a book or watching a movie that had this character in it? Does the character draw your attention and hold it?); (2) "How much do you LIKE this character?" (Do you feel warmth toward this character? Is this character someone you would like to spend time with?); and (3) "How COMPLEX is the character?" (How detailed and multifaceted is this character? To what degree do you feel that you can fully

imagine this character?). The raters responded to each item on a Likert scale from 1 (Not at all) to 7 (Very much). After completing their ratings, they provided their age and gender, read a debriefing sheet, and received course credit for participation.

Results

Relationships among character ratings

Character sketches had a mean length of 109.37 words, range = 19–270, SD = 47.85. Table 1 presents examples of sketches with the highest and lowest ratings on Interest, Likeability, and Complexity. We examined associations among these dimensions using Pearson correlations. Interest and Complexity were closely related, $r(193) = .77$, 95% CI [.72, .83], $p < .001$. Interesting characters also tended to be more Likeable ($r(193) = .30$, 95% CI [.16, .42], $p < .001$), and Likeable characters tended to be more Complex, $r(193) = .29$, 95% CI [.16, .40], $p < .001$.

—Please Insert Table 1 Near Here—

The role of gender

There were more female than male Participants and Raters, but sketches were only of male characters. In light of this we examined possible gender differences in the quality of the characters produced, but found that average ratings across the character dimensions did not differ for male and female participants, Males: $M = 3.87$, 95% CI [3.68, 4.09]; Females: $M = 3.92$, 95% CI [3.80, 4.04], $t(190) = 0.28$, $p = .78$, $d = 0.07$. There is therefore little evidence that females had more difficulty generating a male character than males. We also examined whether Raters preferred characters of their own gender. Males did tend to rate the character depictions higher than females, but not to a statistically significant degree, Males: $M = 4.06$, 95% CI [3.81-4.32]; Females: $M = 3.87$, 95% CI [3.76-3.97], $t(142) = 1.57$, $p = .12$, $d = 0.30$.

Since the gender of Raters may have affected some ratings, we calculated the ratio of female to male Raters for each character sketch and controlled for this ratio in our analyses.

Do creative writers produce more engaging characters than non-writers?

After controlling for the gender of Raters, sketches of Creative Writers were more Interesting than those of non-writers, Creative Writers: $M = 4.06$, 95% CI [3.83, 4.28]; Non-Writers: $M = 3.65$, 95% CI [3.49, 3.79], $F(1, 189) = 6.10$, $p = .01$, $d = 0.44$. Their characters were also more Complex, Creative Writers: $M = 4.49$, 95% CI [4.33, 4.63], Non-Writers: $M = 4.13$, 95% CI [3.99, 4.27]; $F(1, 189) = 5.13$, $p = .03$, $d = 0.50$. Characters of Creative Writers were not, however, found to be more Likeable, Creative Writers: $M = 3.62$, 95% CI [3.38, 3.85], Non-Writers: $M = 3.60$, 95% CI [3.41, 3.81]; $F(1,189) = 0.07$, $p = .80$, $d = 0.02$.

Associations of habits of reading and writing with character ratings

We conducted a series of correlations (controlling for gender of Raters) to explore whether participants' reading and writing habits (of fiction, poetry, and nonfiction) predicted how Raters perceived the character sketches (see Table 2).

—Table 2 near here—

The greater an inclination toward writing fiction, the more Interesting and Complex were the character sketches Participants produced, Interesting: $pr(190) = .18$, 95% CI [0.02, 0.33], $p = .02$; Complex: $pr(190) = .21$, 95% CI [0.06, 0.34], $p = .004$. Poetry-writing was also associated with creating character sketches that were more Interesting and more Complex, Interesting: $pr(190) = .22$, 95% CI [0.07, 0.36], $p = .002$; Complex: $pr(190) = .19$, 95% CI [0.04, 0.33], $p = .01$. Writing nonfiction was not associated with any character ratings. No writing habits correlated with a tendency to sketch characters who were more Likeable.

To examine whether associations between poetry-writing and ratings of the character sketches remained after controlling for fiction-writing, we conducted partial correlations using fiction-writing as a covariate (in addition to Raters' gender). After controlling for fiction-writing, the correlation between poetry-writing and character Complexity was attenuated and no longer statistically significant, $r(190) = .11$, 95% CI [-0.01, 0.24], $p = .13$. Attenuation was also observed for ratings of how Interesting characters were, but here the correlation remained statistically significant, $r(190) = .16$, 95% CI [0.01, 0.30], $p = .03$.

Participants who reported a greater inclination to read poetry created characters who were rated more Interesting and Complex, Interesting: $r(190) = .15$, 95% CI [0.02, 0.29], $p = .03$; Complex: $r(190) = .15$, 95% CI [0.003, 0.29], $p = .04$. Reading habits for fiction and nonfiction, as assessed by our self-report questionnaire and the ART, were not associated with any ratings of character sketches.

Associations of personality and social processing with ratings of character sketches

Correlations between individual differences of Participants and ratings of their character sketches are presented in Table 3.

—Table 3 near here—

Neither age nor gender was strongly associated with ratings of characters. Younger Participants tended to create more Complex characters, but this effect was small and did not quite reach threshold for statistical significance, $r(190) = -.13$, 95% CI [-0.25, 0.00], $p = .07$. Of the Big Five personality traits, only Openness predicted ratings of characters. Participants higher in Openness created characters who were more Interesting and more Complex, Interesting: $r(190) = .21$, 95% CI [0.06, 0.36], $p = .004$; Complex: $r(190) = .19$, 95% CI [0.04, 0.33], $p = .01$. Participants who were low on Emotional Stability tended to create more Complex characters, with the association at threshold for statistical significance, $r(190) = -$

.14, 95% CI [-0.28, -0.01], $p = .05$. Complexity of character ratings was associated with higher levels of Fantasy and Empathic Concern: Fantasy: $pr(190) = .21$, 95% CI [0.06, 0.35], $p = .004$; Empathic Concern: $pr(190) = .16$, 95% CI [0.02, 0.30], $p = .03$. We also found marginal evidence that likeability of a character was associated with cognitive accessibility of social information in participants. Those who tended to complete word fragments with social traits created characters who were less Likeable, although this association fell just above threshold for statistical significance, $pr(190) = -.14$, 95% CI [-0.27, 0.01], $p = .06$.

Associations of personality traits with reading or writing habits and character ratings

We conducted a series of mediation analyses to determine whether trait tendencies of Participants could account for the associations observed between their reading and writing habits and how their characters were perceived. Possible mediators were identified as any trait associated with both a character rating and a reading or writing habit. Bootstrapped mediation analyses were conducted to explore indirect effects based on 5000 resamples (Preacher & Hayes, 2004).

We began by investigating mediators for the creation of Interesting characters. Fiction-writing habits and trait Openness were associated with creating Interesting characters, therefore we tested whether Openness mediated the relationship between fiction-writing and this character dimension (Figure 1a). Openness was indeed a partial a mediator of this relationship, $ab = 0.04$, $SE = 0.02$, 95% CI [0.004, 0.08]. Next, we tested whether Openness mediated the relationship between poetry-writing habits and creating Interesting characters, but the confidence interval for the indirect effect of Openness contained zero, $ab = 0.03$, $SE = 0.02$, 95% CI [-0.007, 0.07]. We also examined whether Openness mediated the relationship between poetry-reading and creating Interesting characters (Figure 1b). The analysis confirmed this mediation, $ab = 0.04$, $SE = 0.02$, 95% CI [0.003, 0.08].

Next, we examined possible mediators for the creation of complex characters. Since Openness and Emotional Stability, as well as the IRI subscales of Empathic Concern and Fantasy, were associated with creating Complex characters, we tested whether these individual differences acted as mediators of the relationship between Complexity and reading and writing habits. We did not find any evidence that these individual characteristics mediated associations between writing fiction and creating Complex characters. These characteristics also did not mediate the relationships between writing poetry, or reading poetry, and the creation of Complex characters. All ab path values ranged from 0 to 0.03, and all 95% confidence intervals included zero (See Appendix B for all values).

Associations of lengths of sketches with habits, traits, and character ratings

Finally, we considered whether sketch length mediated the association between being a creative writer and creating Interesting characters. Sketch length was a mediator of this relationship, $ab = -0.06$, $SE = 0.03$, 95% CI [-0.12, -0.01]. Creative Writers wrote longer descriptions, which were more likely to depict Interesting characters, than Non-Writers. Length also mediated the relationship between Creative Writer status and the creation of Complex characters, $ab = -0.08$, $SE = 0.03$, 95% CI [-0.15, -0.02]. The length of the sketches mediated relationships between fiction-writing habits and creating Interesting characters, as well as creating Complex characters, Interesting: $ab = 0.03$, $SE = 0.01$, 95% CI [0.01, 0.06]; Complex: $ab = 0.04$, $SE = 0.02$, 95% CI [0.009, 0.07]. The length of sketches also mediated the relationships between Emotional Stability and creating Complex characters, $ab = -0.1$, $SE = 0.04$, 95% CI [-0.18, -0.02], as well as between Fantasy and creating Complex characters, $ab = 0.13$, $SE = 0.04$, 95% CI [0.05, 0.22]. However, character description length did not mediate the relationships between writing poetry and creating Interesting or Complex characters, or the relationships between reading poetry and creating Interesting or

Complex characters. The length of the character sketches also did not mediate relationships between Openness and creating Interesting or Complex characters, nor did it mediate the relationship between Empathic Concern and creating Complex characters. For these analyses, all ab paths ranged from 0 to 0.08, and all 95% confidence intervals included zero (See Appendix B for exact values).

Discussion

Writing habits and creating characters. Creating successful works of fiction involves extensive writing and revision of drafts (Kellogg, 2006; Oatley & Djikic, 2008; Kaufman & Kaufman, 2009). Given the central role of characters in fiction (Rosenblatt, 1976; Gardner, 1964), this involves drafting and redrafting characters to practice character creation. Consistent with this, we found that the habit of writing fiction predicted how Interesting and Complex character sketches were found to be by Raters. We found no similar association for the habit of writing nonfiction, perhaps because this does not generally involve creating characters. The link between fiction writing and character ratings was partly explained by the length of the sketches. People who enjoy writing fiction and write frequently may have been more motivated to develop fuller characters, with more details, in longer sketches that were then rated as more interesting and complex (see Table 1).

Participants who reported writing poetry also tended to create characters who were more Interesting, even after fiction-writing habits were controlled for. The length of character sketches did not, however, account for this relationship. Like fiction-writing, poetry-writing may enable people to practice creating character attributes, since poetry sometimes involves distinct poetic voices (Eliot, 1953). In poetry, physical characteristics, intentions, and actions in a plot, may not feature as prominently as they do in fiction, but poetic voices can be represented, subtly, by manner of speech. Alternatively, writing poetry

may involve exploring and expressing complex emotions, which may help people write of characters with complex emotional lives.

Reading habits and creating characters. Whereas habits of writing fiction were associated with more engaging character sketches, habits of reading fiction were not. In hindsight, it makes sense that simply consuming fiction without an eye toward character would not be a strong predictor of sketching a character who is engaging. Listening to music, for example, does not transform us into musicians.

Rather than quantity, the quality of fiction that people choose to read may be important. Kidd and Castano (2013; in press) found that reading literary fiction based on complex characters improved people's understanding of others, whereas reading popular fiction did not (cf. Fong, Mullin, & Mar, 2013). Literary works invite people to engage with texts in a way that is "writerly" (Barthes, 1975). The implication is that readers who enter a writerly mode of thought write their own versions of the stories they read. The writerly mode requires active problem solving and is encouraged by expertise (Ericsson & Lehmann, 1999), so that writerly readers become more skilled over time and better able to write fiction, including the character sketches for this study. By contrast, the reading of popular fiction may be more likely to occur in a "readerly" mode, which involves passive absorption. Barthes (1975) calls this "a kind of idleness" so this mode would have no implied effects on the ability to write well.

In line with the idea that reading in a writerly way may help character creation, we found that Participants who reported reading more poetry were more likely to create characters who were Interesting and Complex. We also found that the personality trait of Openness partially mediated the relationship between poetry-reading and creation of engaging characters.

Seeking out a diverse range of experience, which may include exploring complex emotions,

may be a characteristic of readers of poetry who are high in Openness. When a reader who is an expert trained in literary criticism reads a challenging poem, she or he is able to draw on understandings of the poetry's structures as well as means used in interpretation. The result is a better understanding of the poem than is available to novices (Peskin, 1998). Future work on character creation may therefore need to measure the reading of literary and popular fiction separately, with the idea that readers experienced in creating meaning in literary texts (prose and poetry) may be more likely to create compelling characters. A second implication is that engaging with works of literary fiction (both prose and poetry) may not only improve understanding of character, but that writerly reading may itself be a form of writing and may have some of the same kinds of effects as the habit of writing frequently.

Personality. The finding that the personality trait of Openness predicted more engaging character sketches is consistent with other research that has found published writers to be high in this trait (Kaufman, 2002). Our study goes further in suggesting that not only did Openness tend to be higher among Creative Writers, it may help to explain why the reading and writing habits of writers predicted the creation of more engaging characters. Openness mediated the relationships between writing fiction and creating Interesting characters, as well as between reading poetry and creating Interesting characters. Participants high in Openness might both be more likely to write fiction and read poetry, as well as more likely to derive insights from these experiences in ways that contribute to an ability to create Interesting characters.

We found that people who scored lower on Emotional Stability tended to create characters who were Complex. Since low Emotional Stability is the tendency to experience more negative emotional states, this finding is consistent with research suggesting that writers are often preoccupied by their own negative emotions (Djikic, Oatley, & Peterson,

2006). Our finding, which is at the threshold of statistical significance, that the length of character sketches mediated the relationship between Emotional Stability and character Complexity, tentatively suggests the idea that a preoccupation with negative emotions may prompt people to write more (Djikic & Oatley, 2014).

The tendency to become immersed in narratives, as measured by the Fantasy subscale of the IRI, was also associated with creation of more Complex character sketches and suggests that this tendency might help writers imagine characters in more fully realized and intricate ways. Social processing tendencies. Previous research suggests that Perspective-Taking does not predict the quality of writers' stories (Bischoff & Peskin, 2014) and we similarly found that Perspective-Taking does not predict the quality of character sketches. Rather, in our study, it was a concern for the emotional states of others (as assessed by the Empathic Concern subscale on the IRI) that predicted the creation of more Complex characters. This concern might prompt writers to think more deeply about human psychology and the human condition, resulting in the production of more multidimensional characters.

The Likeability of characters. An unexpected result was that Likeability of characters was distinct from the other aspects of an engaging character, and not strongly associated with rated Interest or Complexity. Likeability was operationalized in part as the degree to which Raters wanted to spend time with the characters, a judgment that might be based on compatibility between them and these characters. Rather than being a reflection of character quality, Likeability might have reflected how agreeable the character seemed, or how similar the character appeared to the Rater. Interpersonal attraction is influenced by similarity, in that we tend to like people who we think are similar to ourselves (Montoya, Horton, & Kirchner, 2008). We are also more likely to identify with and develop parasocial relationships with characters we think are similar to us (Cohen, 1999; Cohen, 2001; Tian & Hoffner, 2010;

Barnes, 2015). In this way, whether a character is Likeable or not might be a more idiosyncratic judgment compared to character Complexity and Interest. Our study did not assess perceived similarity between Raters and characters, however, and this remains a topic for future research.

Length of sketches. To distinguish between the capacity to create characters and the motivation to write longer character descriptions, we considered whether the length of sketches could account for the relationships between habits and traits of Participants and the way their characters were perceived. Although all Participants were given the same amount of time, some chose to write more than others and so perhaps the length of the character sketches may reflect a motivation to elaborate upon a created character. The length of sketches might also reflect speed or fluency of cognitive processing, or perhaps even typing ability, and so the factors driving these differences in how much was written are admittedly somewhat opaque to us.

Creative Writers wrote longer sketches than did the Non-Writers and longer sketches were also evaluated as more Interesting. The length of these sketches also helped explain the observed associations between character ratings and fiction-writing habits, Emotional Stability, and the tendency to become absorbed in stories (the IRI subscale, Fantasy). Thus, enjoying fiction-writing, being preoccupied with negative emotions, or having a tendency to become immersed in a fictional world may have contributed to a motivation to write longer character sketches, which in turn led to the development of more Interesting or Complex characters. However, sketch length did not explain relationships between character ratings and engaging with poetry, Openness or Empathic Concern. These traits may therefore underlie the capacity to create compelling characters, unrelated to a motivation to write longer and more detailed character sketches.

Limitations of the study

This study is the first we know of that explores whether personal attributes predict the ability to sketch a character of the kind that appears in fiction. As a result, it was by necessity an exploratory study and one whose results should be replicated independently. Many of the observed associations were not large and we did not correct for multiple comparisons in our analyses. Moreover, by relying on a psychology student sample, the generalizability of our findings might be limited and not extend to other populations (e.g., older adults). As compared to the general population, psychology students may be more interested in understanding how people think or feel and so our Participants might have had a larger repertoire of knowledge about human psychology to draw from when creating characters. In other words, there may have been a restriction of range problem with less variability in these interests for our sample than one would observe in the general population. That said, this would result in an attenuation of observed associations and so a more diverse sample may reveal stronger effects.

Our study also relied on face-valid self-reports, which have some well-known limitations. Measurement error introduced by biased or socially desirable responding might have attenuated or masked other potential associations. Future studies should therefore explore this topic using behavioral measures. Similarly, experimental studies that control and manipulate opportunities to write fiction and poetry, or provide opportunities to train perspective-taking or other forms of empathy, would allow researchers to explore the causal direction of these relationships.

Although we measured a number of individual attributes, only a few predicted the ratings of the character sketches, and the predictors were not large. Much of the variance in an ability to create compelling characters remains unexplained and so the topic is ripe for

future investigation. Some other factors that may be worthy of future investigation include television and film viewing habits, for example. Another limitation is that we only measured three aspects of what makes a character engaging: Interest, Likeability, and Complexity. In the future, it would be valuable to assess other aspects of characters, such as their coherence, the distinctiveness of their traits, and the nature of their motives.

The character sketches in this study were created in only five minutes, which left little time for revision. As a result, our task reflects only the initial generation of a rough sketch or idea for a character, rather than the full development of a character that takes place over time through multiple revisions. It is possible that Creative Writers familiar with the task of sketching a character required less time to compose an engaging character and that given more time or information Non-Writers might also generate similarly rich characters. In subsequent studies, asking participants to spend longer on writing, revising, and refining a character, would better approximate how writers develop full characters as part of an actual short story, novel or screenplay.

Finally, one major characteristic that we did not assess in this study was verbal ability. Although we employed a pre-screen to select Participants who reported having good vocabularies and writing skills, we did not measure directly the verbal abilities of our Participants. Verbal ability may be associated with many of the habits and traits we measured, and may also affect how characters are perceived. For example, descriptions that were well-written or written by people with higher verbal abilities may have been rated more positively. Future research should examine the role of verbal abilities in developing fictional characters.

Conclusion

This study demonstrates that there are consistent and measurable individual differences that help predict whether a writer can create an engaging character. Our findings

offer some steps towards understanding what enabled authors such as Arthur Conan-Doyle, Leo Tolstoy, and Virginia Woolf to be so successful at creating much-admired fictional characters.

References

- Allen, L., Cipielewski, J., & Stanovich, K. E. (1992). Multiple indicators of children's reading habits and attitudes: Construct validity and cognitive correlates. *Journal of Educational Psychology*, 84(4), 489-503.
- Barnes, J. L. (2015). Fanfiction as imaginary play: What fan-written stories can tell us about the cognitive science of fiction. *Poetics* 48, 69-82.
- Barron, F. (1968). Creative Writers. In R.S. Albert (Ed.), *Genius & Eminence* (pp. 315-324). New York: Pergamon Press.
- Barron, F. (1966). The psychology of the creative writer. *Theory into Practice*, 5(4), 157-159.
- Barthes, R. (1975). *S / Z* (R. Miller, Trans.). London: Cape.
- Bassili, J. N., & Smith, M. C. (1986). On the spontaneity of trait attribution: Converging evidence for the role of cognitive strategy. *Journal of Personality and Social Psychology*, 50(2), 239-245.
- Bischoff, T., & Peskin, J. (2014). Do fiction writers have superior perspective taking ability? *Scientific Study of Literature*, 4, 125-149.
- Bortolussi, M., & Dixon, P. (2003). *Psychonarratology: Foundations for the empirical study of literary response*. New York: Cambridge University Press.
- Bortolussi, M., Dixon, P., & Sopčák, P. (2010). Gender and reading. *Poetics*, 38, 299-318.
- Cliffordson, C. (2001). Parents' judgments and students' self-judgments of empathy: The structure of empathy and agreement of judgments based on the interpersonal reactivity index (IRI). *European Journal of Psychological Assessment*, 17(1), 36.
- Cohen, J. (1999). Favorite characters of teenage viewers of Israeli serials. *Journal of Broadcasting & Electronic Media*, 43(3), 327-345.
- Cohen, J. (2001). Defining identification: A theoretical look at the identification of audiences with media characters. *Mass Communication & Society*, 4(3), 245-264.

- Conway, J. C., & Rubin, A. M. (1991). Psychological predictors of television viewing motivation. *Communication Research*, 18(4), 443-463.
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology*, 10, 85-104.
- Davis, M.H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113-126.
- Dibble, J. L., & Rosaen, S. F. (2015). Parasocial interaction as more than friendship. *Journal of Media Psychology*, 23(3), 122-132.
- De Biasi, P. M. (2002). Flaubert: The labor of writing. In A.-M. Christin (Ed.), *A history of writing* (pp. 340-341). Paris: Flammarion.
- Debray Genette, R. (2004). Flaubert's "A simple heart," or how to make an ending: A study of manuscripts. In J. Deppman, D. Ferrer & M. Groden (Eds.), *Genetic criticism: Texts and avant-textes* (pp. 69-95). Philadelphia: University of Pennsylvania Press.
- Djickic, M., & Oatley, K. (2014). On the fragility of the artist: Art's precarious triad. In J. C. Kaufman (Ed.), *Creativity and mental illness* (pp. 281-294). New York: Cambridge University Press.
- Djickic, M., Oatley, K., & Peterson, J. (2006). The bitter-sweet labor of emoting: The linguistic comparison of writers and physicists. *Creativity Research Journal*, 18, 191-197.
- Drevdahl, J. E., & Cattell, R. B. (1958). Personality and creativity in artists and writers. *Journal of Clinical Psychology*, 14(2), 107-111.
- Dunbar, R. I. M. (2004). *The human story: A new history of mankind's evolution*. London: Faber.
- Eliot, T. S. (1953). *The three voices of poetry* (pp. 89-102). National Book League.
- Ericsson, K. A., & Lehmann, A. C. (1999). Expertise. In M. A. Runco & S. R. Pritzker (Eds.), *Encyclopaedia of Creativity, Volume 1* (pp. 695-706). San Diego: Academic Press.
- Flaubert, G. (1877). *Un coeur simple*. Paris: Livre de Poche (current edition 1994).

- Fong, K., Mullin, J. B., & Mar, R. A. (2013). What you read matters: The role of fiction genres in predicting interpersonal sensitivity. *Psychology of Aesthetics, Creativity, and the Arts*, 7, 370-376.
- Forster, E. M. (1927). *Aspects of the novel*. London: Edward Arnold.
- Gardner, J. (1964). *The art of fiction*. New York: Knopf, reissued by Random House, 1991.
- Gardner, W. L., & Knowles, M. L. (2008). Love makes you real: Favorite television characters are perceived as “real” in a social facilitation paradigm. *Social Cognition*, 26(2), 156-168.
- Gerrig, R. J. (1993). *Experiencing narrative worlds: On the psychological activities of reading*. New Haven: Yale University Press.
- Green, M. C., & Brock, T. C. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology*, 79(5), 701-721.
- Hakemulder, F. (2008). Imagining what could happen: Taking the role of a character on social cognition. In S. Zyngier, M. Bortolussi, A. Chesnokova & J. Auracher (Eds.), *Directions in empirical literary studies: In honor of Willie van Peer* (pp. 139-153). Amsterdam: Benjamins.
- Harmon-Jones, E., Simon, L., Greenberg, J., Pyszczynski, T., Solomon, S., & McGregor, H. (1997). Terror management theory and self-esteem: Evidence that increased self-esteem reduced mortality salience effects. *Journal of Personality and Social Psychology*, 72(1), 24-36.
- Hassabis, D., Spreng, R. N., Rusu, A. A., Robbins, C. A., Mar, R. A., & Schacter, D. L. (2014). Imagine all the people: How the brain creates and uses personality models to predict behavior. *Cerebral Cortex*, 24, 1979-1987.
- Greengross, G., & Miller, G. F. (2009). The Big Five personality traits of professional comedians compared to amateur comedians, comedy writers, and college students. *Personality and Individual Differences*, 47(2), 79-83.

- Hoffner, C., & Buchanan, M. (2005). Young adults' wishful identification with television characters: The role of perceived similarity and character attributes. *Media psychology*, 7(4), 325-351.
- Horton, D., & Wohl, R. R. (1956). Mass communication and para-social interaction: Observations on intimacy at a distance. *Psychiatry*, 19, 215-229.
- John, O. P., & Srivastava, S. (1999). The Big-Five Trait Taxonomy: History, Measurement, and Theoretical Perspectives. In L. Pervin, O. P. John (Eds.), *Handbook of personality: Theory and research*. New York: Guilford Press.
- Johnson, J. A., Carroll, J., Gottschall, J., & Kruger, D. (2011). Portrayal of personality in Victorian novels reflects modern research finding but amplifies the significance of agreeableness. *Journal of Research in Personality*, 45, 50-58.
- Kaufman, J. (2002). Dissecting the golden goose: Components of studying creative writers. *Creativity Research Journal*, 14(1), 27-40.
- Kaufman, S. B., & Kaufman, J. C. (Eds.). (2009). *The psychology of creative writing*. Cambridge University Press.
- Kellogg, R. T. (2006). Professional writing expertise. *The Cambridge handbook of expertise and expert performance*, 389-402.
- Kidd, D. C., & Castano, E. (2013). Reading literary fiction improves theory of mind. *Science*, 342, 377-380.
- Kidd, D. C., & Castano, E. (in press). Different stories: How levels of familiarity with literary and genre fiction relate to mentalizing. *Psychology of Aesthetics, Creativity, and the Arts*.
- Klimmt, C., Hartmann, T., & Schramm, H. (2006). Parasocial interactions and relationships. *Psychology of Entertainment*, 291-313.
- Maslej, M. M., Rain, M., Fong, K., Oatley, K., & Mar, R. A. (2014). The hierarchical personality structure of aspiring creative writers. *Creativity Research Journal*, 26(2), 192-202.

- Mar, R. A., & Oatley, K. (2008). The function of fiction is the abstraction and simulation of social experience. *Perspectives on Psychological Science*, 3(3), 173-192.
- Mar, R. A., Oatley, K., Hirsh, J., dela Paz, J., & Peterson, J. B. (2006). Bookworms versus nerds: Exposure to fiction versus non-fiction, divergent associations with social ability, and the simulation of fictional social worlds. *Journal of Research in Personality*, 40, 694-712.
- Mar, R. A., & Rain, M. (2015). Narrative fiction and expository nonfiction differentially predict verbal ability. *Scientific Studies of Reading*, 19, 419-433.
- McCrae, R. R. (1992). The five factor model: issues and applications. *Journal of Personality and Social Psychology* (Special issue), 60(2), 175-215.
- McCrae, R. R., Gaines, J. F., & Wellington, M. A. (2012). The five-factor model in fact and fiction. In I. B. Weiner, H. A. Tennen & J. M. Suls (Eds.), *Handbook of psychology*, Vol. V. Personality and social psychology. Hoboken, NJ: Wiley.
- McCrae, R. R. & Sutin, A. R. (2009). Openness to experience. In M. R. Leary & R. H. Hoyle (Ed.). *Handbook of Individual Differences in Social Behavior* (pp. 257–273). London: Guilford.
- McGeown, S. P., Duncan, L. G., Griffiths, Y., & Stothard, S. E. (2015). Exploring the relationship between adolescents' reading skills, reading motivation and reading habits. *Reading and Writing*, 28, 545–569. doi:10.1007/s11145-014-9537-9
- Miall, D. S. (2006). *Literary reading: Empirical and theoretical studies*. New York: Peter Lang.
- Mohan, J. & Tiwana, M. (1987). Personality and alienation of creative writers: A brief report. *Personality and Individual Differences*, 9(3), 449.
- Montoya, R. M., Horton, R. S., & Kirchner, J. (2008). Is actual similarity necessary for attraction? A meta-analysis of actual and perceived similarity. *Journal of Social and Personal Relationships*, 25(6), 889-922.

- Mol, S. E., & Bus, A. G. (2011). To read or not to read: A meta-analysis of print exposure from infancy to early adulthood. *Psychological Bulletin*, 137(2), 267-296.
- Mooradian, T. A., Davis, M., & Matzler, K. (2011). Dispositional empathy and the hierarchical structure of personality. *The American Journal of Psychology*, 124(1), 99-109.
- Oatley, K. (2016). Fiction: Simulation of social worlds. *Trends in Cognitive Sciences*, 20(8). doi: org/10.1016/j.tics.2016.06.002
- Oatley, K., & Djikic, M. (2008). Writing as thinking. *Review of General Psychology*, 12, 9-27.
- Oatley, K., & Djikic, M. (in press). The creativity of literary writing. In J. C. Kaufman, J. Baer & V. Glaveneau (Eds.), *Cambridge handbook of creativity across different domains*. Cambridge: Cambridge University Press.
- Peskin, J. (1998). Constructing meaning when reading poetry: An expert-novice study. *Cognition and Instruction*, 16, 235-263.
- Peskin, J. (2007). The genre of poetry: Secondary school students' conventional expectations and interpretive operations. *English in Education*, 41, 20-36.
- Piirto, J. (2002). *My teeming brain: Understanding creative writers*. New Jersey: Hampton Press.
- Plimpton, G. (Ed.) (1989). *Women writers at work: The Paris Review interviews*. New York: Penguin.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers* 2004, 36(4), 717-731.
- Press, A. (1989). Class and gender in the hegemonic process: Class differences in women's perceptions of television realism and identification with television characters. *Media, Culture and Society*, 11, 229-251.

- Rain, M. & Mar, R. A. (2014). Measuring reading behaviour: Examining the predictive validity of print-exposure checklists. *Empirical Studies of the Arts*, 32, 93-108.
- Rosaen, S. F., & Dibble, J. L. (2015). Clarifying the role of attachment and social compensation on parasocial relationships with television characters. *Communication Studies*, 1-16.
- Rosenblatt, L. (1976). *Literature as exploration* (Third edition). New York: Noble and Noble.
- Rubin, R. B., & McHugh, M. P. (1987). Development of parasocial interaction relationships. *Journal of Broadcasting & Electronic Media*, 31(3), 279-292.
- Ruiz, J. (2015). Dark Matters: Vince Gilligan's *Breaking Bad*, Suburban Crime Dramas, and Latinidad in the Golden Age of Cable Television. *Aztlan: A Journal of Chicano Studies*, 40(1), 37-62.
- Taylor, M., Hodges, S.D. & Kohanyi, A. (2003). The illusion of independent agency: Do adult fiction writers experience their characters? *Imagination, Cognition and Personality*, 22(4), 361-380.
- Tian, Q., & Hoffner, C. A. (2010). Parasocial interaction with liked, neutral, and disliked characters on a popular TV series. *Mass Communication and Society*, 13(3), 250-269.
- Saillenfest, A., & Dessalles, J. L. (2014). Can believable characters act unexpectedly? *Literary and Linguistic Computing*, 29(4), 606-620.
- Schiappa, E., Allen, M., & Gregg, P. B. (2007). Parasocial relationships and television: A meta-analysis of the effects. In R.W. Preiss, B. M. Gayle, N. Burrell, M. Allen, & J. Bryant (Eds.), *Mass media effects research: Advances through meta-analysis*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Shakespeare, W. (1623). *The Norton Shakespeare* (Ed. S. Greenblatt). New York: Norton (current edition, 1997).

- Spear-Swerling, L., Brucker, P. O., & Alfano, M. P. (2010). Relationships between sixth-graders' reading comprehension and two different measures of print exposure. *Reading and Writing*, 23, 73–96. doi:10.1007/s11145-008-9152-8
- Stanovich, K. E., & West, R. F. (1989). Exposure to print and orthographic processing. *Reading Research Quarterly*, 24(4), 402-433.
- Stein, S. (1999). *How to grow a novel: The most common mistakes writers make and how to overcome them*. New York: St Martin's.
- West, R. F., Stanovich, K. E., & Mitchell, H. R. (1993). Reading in the real world and its correlates. *Reading Research Quarterly*, 28(1), 35-50.

Table 1
Character sketches with the highest and lowest ratings

Most interesting ($M = 6.05$) Most complex ($M = 5.57$)	“This is John. John was born in 1954 in Petawawa, Ontario. His mother was a school teacher and his father a clergyman. John was raised in the Roman Catholic faith. He has struggled with repressed homosexuality his entire life. John's family is incredibly conservative and unbearably strict and structured. His childhood was built on routine that included morning prayers, Catholic school, evening chores, and regular church attendance. John never quite fit in as a child. He was always maladjusted, struggling to make friends and build connections with people. He was often punished at home for breaking pieces of his mother's china, and reprimanded by his father for his lack of interest in hunting and sports. John is now married to a woman named Betty and has two children named Simon and Jonathan. He struggles with depression and his marriage has suffered because of the secret of his sexuality that he has kept hidden all his life. His youngest son, Jonothan, is perhaps most affected by this familial situation. Jonothan is a shy and reserved boy who struggles with emotional connection. He loves his father very much and has adopted the shy sensitivity of his father.”
Least interesting ($M = 1.6$) Least complex ($M = 2.19$)	“I feel the guy is tough because his lips, seriously looking, 40-50 years old. This is a teacher who teaches in high school or college. He has 2 kids, son and daughter.”
Most likeable ($M = 5.57$)	“This is Jeff. He is a 48 year old plumber who owns his own small business. He has a wife, two daughters, and a son. He works as much as he possibly can in order to be able to pay for his kids' schooling. He is a hard-worker and a funny guy. He makes his wife laugh on a regular basis, which keeps them best friends throughout their marriage. He never went to college or university himself, which is why he wants better for his kids. He took over his dad's plumbing company after his passing. The family is not struggling financially, however, they are just able to make ends meet with a little to spare. He makes sure that his Sundays off are spent with his family, since he works so much during the week. They have a good-sized home just on the outskirts of the city, where they have lived since.”
Least likeable ($M = 1.23$)	“A character who is guilty of killing someone. Planned a fraud. Rapist. Boring. Mean father. Hurts people. Not exciting.”

Note. The most interesting character depiction was also rated as the most complex. The least interesting character depiction was also rated as the least complex.

Table 2

Correlations between character ratings and Participants' reading and writing habits, controlling for rater gender ratios

	Writing fiction	Writing poetry	Writing nonfiction	Reading fiction	Reading poetry	Reading nonfiction	Reading fiction (ART)	Reading nonfiction (ART)
Character rating	<i>r</i> (95% CI)	<i>r</i> (95% CI)	<i>r</i> (95% CI)	<i>r</i> (95% CI)	<i>r</i> (95% CI)	<i>r</i> (95% CI)	<i>r</i> (95% CI)	<i>r</i> (95% CI)
Interest	.18 (0.02, 0.33) <i>p</i> = .02	.22 (0.07, 0.36) <i>p</i> = .002	-.01 (-0.14, 0.13) <i>p</i> = .91	-.02 (-0.17, 0.15) <i>p</i> = .84	.15 (0.02, 0.29) <i>p</i> = .03	.004 (-0.15, 0.15) <i>p</i> = .96	-.05 (-0.20, 0.11) <i>p</i> = .48	-.01 (-0.15, 0.13) <i>p</i> = .90
Likeability	.05 (-0.10, 0.19) <i>p</i> = .51	.03 (-0.11, 0.18) <i>p</i> = .65	.11 (-0.04, 0.25) <i>p</i> = .13	-.04 (-0.19, 0.11) <i>p</i> = .62	.03 (-0.11, 0.17) <i>p</i> = .65	.07 (-0.08, 0.23) <i>p</i> = .35	-.05 (-0.21, 0.12) <i>p</i> = .52	-.02 (-0.16, 0.14) <i>p</i> = .82
Complexity	.21 (0.06, 0.34) <i>p</i> = .004	.19 (0.04, 0.33) <i>p</i> = .01	-.06 (-0.19, 0.09) <i>p</i> = .48	.09 (-0.05, 0.24) <i>p</i> = .19	.15 (0.003, 0.29) <i>p</i> = .04	-.02 (-0.17, 0.13) <i>p</i> = .76	-.06 (-0.18, 0.05) <i>p</i> = .39	-.05 (-0.18, 0.08) <i>p</i> = .50

Note. ART = Author Recognition Task. All confidence intervals are bootstrapped based on 1000 resamples, bias-corrected and accelerated. Correlations in which confidence intervals do not include zero are in bold.

Table 3

Correlations between character ratings and individual differences of Participants

Trait tendency	Interest	Likeability	Complexity
	<i>r</i> (95% CI) <i>p</i>	<i>r</i> (95% CI) <i>p</i>	<i>r</i> (95% CI) <i>p</i>
Gender	.03 (-0.16, 0.07) <i>p</i> = .67	.11 (-0.10, 0.20) <i>p</i> = .15	.042 (-0.17, 0.33) <i>p</i> = .56
Age	-.03 (-0.18, 0.13) <i>p</i> = .73	-.05 (-0.21, 0.01) <i>p</i> = .47	-.13 (-0.25, 0.00) <i>p</i> = .07
E	.06 (-0.08, 0.20) <i>p</i> = .42	.01 (-0.12, 0.13) <i>p</i> = .86	.08 (-0.06, 0.22) <i>p</i> = .28
A	-.03 (-0.18, 0.14) <i>p</i> = .68	-.01 (-0.15, 0.15) <i>p</i> = .94	-.06 (-0.20, 0.11) <i>p</i> = .42
C	-.015 (-0.17, 0.15) <i>p</i> = .83	.005 (-0.13, 0.15) <i>p</i> = .95	-.010 (-0.15, 0.12) <i>p</i> = .89
ES	-.01 (-0.16, 0.14) <i>p</i> = .86	.02 (-0.12, 0.16) <i>p</i> = .76	-.14 (-0.28, -0.01) <i>p</i> = .05
O	.21 (0.06, 0.36) <i>p</i> = .004	.06 (-0.06, 0.20) <i>p</i> = .38	.19 (0.04, 0.33) <i>p</i> = .01
PT	.04 (-0.11, 0.23) <i>p</i> = .58	-.04 (-0.17, 0.11) <i>p</i> = .56	-.01 (-0.14, 0.14) <i>p</i> = .86
FS	.08 (-0.05, 0.22) <i>p</i> = .26	.04 (-0.09, 0.17) <i>p</i> = .58	.21 (0.06, 0.35) <i>p</i> = .004
EC	.08 (-0.07, 0.24) <i>p</i> = .28	.08 (-0.06, 0.20) <i>p</i> = .29	.16 (0.02, 0.30) <i>p</i> = .03
PD	-.13 (-0.30, 0.00) <i>p</i> = .08	.02 (-0.12, 0.14) <i>p</i> = .80	-.06 (-0.20, 0.08) <i>p</i> = .44
Social trait accessibility	.02 (-0.14, 0.16) <i>p</i> = .80	-.14 (-0.27, 0.01) <i>p</i> = .06	-.02 (-0.17, 0.14) <i>p</i> = .83

Note. E = Extraversion, A = Agreeableness, C = Conscientiousness, ES = Emotional Stability, O = Openness, PT = Perspective Taking, FS = Fantasy, EC = Empathic Concern, PD = Personal Distress. All confidence intervals are bootstrapped based on 1000 resamples, bias-corrected and accelerated. Correlations in which confidence intervals do not include zero are in bold.

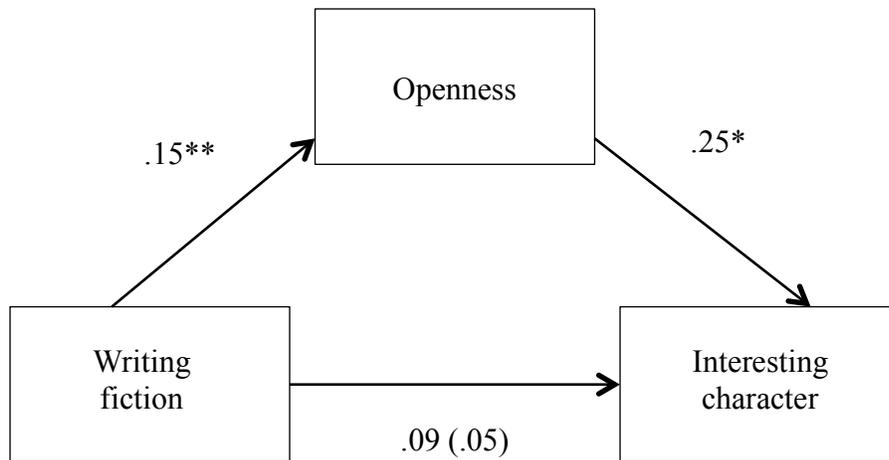


Figure 1a. Regression coefficients for the relationship between writing fiction and creating Interesting characters, as mediated by Openness. The regression coefficient for this relationship, controlling for Openness, is in parentheses.

* $p < .05$

** $p < .01$

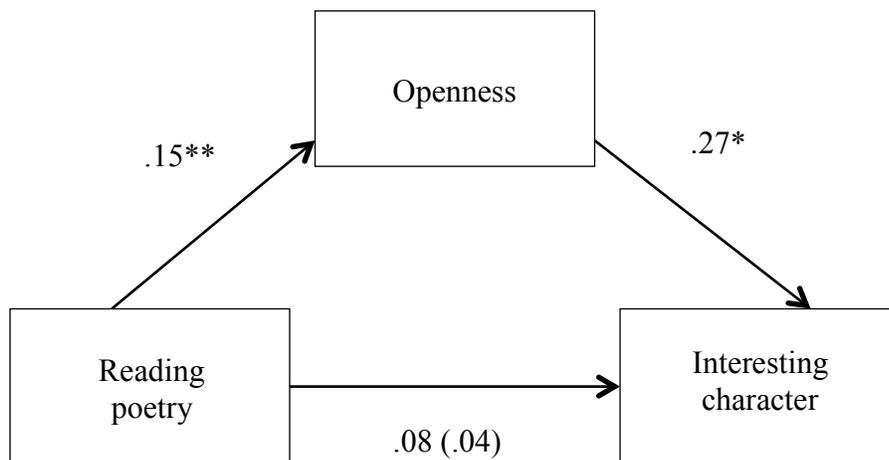


Figure 1b. Regression coefficients for the relationship between reading poetry and creating Interesting characters, as mediated by Openness. The regression coefficient for this relationship, controlling for Openness, is in parentheses.

* $p < .05$

** $p < .01$