Personality Perception in *Game of Thrones*:

Character Consensus and Assumed Similarity

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Abstract

This study examined Big Five and Dark Tetrad personality perception for 56 characters from the popular TV show *Game of Thrones*—and the book series that inspired it, *A Song of Ice and Fire*—by 309 fans recruited from three relevant subreddits. Specifically, we examined *consensus*—the extent to which multiple perceivers (participants) rate one or more targets (characters) similarly—and *assumed similarity*—the extent to which perceivers (participants) see targets (characters) as they see themselves. Using cross-classified structural equation models (CC-SEMs), we found that consensus correlations were significant for all Big Five and Dark Tetrad traits, ranging from .54 for narcissism to .83 for agreeableness (*M* = .66, *SD* = .10). Assumed similarity slopes were positive (range: 0.07 to 0.29; *M* = 0.15, *SD* = 0.06) and significant for all traits except conscientiousness and open-mindedness. Thus, raters reliably assumed that characters were similar to themselves on 7 of 9 traits. Exploratory sex-differences analyses showed no sex-of-character effects, but significant sex-of-perceiver effects for conscientiousness, open-mindedness, and Machiavellianism; women perceived characters to be higher on these traits than men. In addition, women (vs. men) rated themselves as higher on extraversion, agreeableness, and conscientiousness, but lower on Machiavellianism. We also present rankings for characters with the highest and lowest scores on each trait. Broadly, this work is important not only for understanding how our perceptions of personality generalize to fictional characters, but also how we use fiction characters— and our perceptions of their personalities—to better understand our own social world.

Public Policy Relevance Statement:

Game of Thrones fans rated themselves and a least one character from the TV or book series on nine personality traits. First, fans showed high consensus or agreement in their ratings of different characters. Second, for 7 of 9 traits, fans assumed their own personalities were similar to those of characters they rated. Consistent with research, people perceive fictional characters' personalities in the same way they do real people.

Keywords:

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The HBO television series *Game of Thrones*—and the book series it's based on, *A Song of Ice and Fire* by George R. R. Martin—confront viewers and readers with complex characters that are neither stereotypically good nor evil, and rarely static over time or across situations. Nearly every major character is infused with flaws, riddled with moral failings, and experiences multiple traumatic losses. Thus, both the book and TV series—hereafter collectively referred to as *Game of Thrones*—may provide fertile ground for our growing understanding of how people perceive the personality traits of several complex characters, and whether people assume that characters have personalities are similar to their own personality traits.

Specifically, the present work examines personality consensus and assumed similarity. *Consensus* describes the extent to which multiple perceivers (participants) rate targets (characters) similarly. If people are rating *Game of Thrones* characters in largely the same ways, then consensus correlations should be positive and significant. This stands to reason because authors, screenwriters, and directors often strive to convey to audiences the specific personality traits or profiles of their characters. But because *Game of Thrones* relies on unreliable narrators and dynamic characters (many of whom feature "dark" personalities), it forces readers and viewers to especially vigilant of subtleties in characters' actions and motivations. *Assumed similarity* describes the association between perceivers' (participants') self-reports of their own personality traits and their ratings of targets (characters) on the same trait. In other words, assumed similarity assesses the extent to which people see their own traits in other people, or alternatively, the extent to which people see others as they see themselves. If people are

assuming their own personalities are similar to other characters, or are assuming that other characters share their own personality traits, then assumed similarity correlations should also be positive and significant. This also stands to reason in fiction and television, where authors, screenwriters, and directors strive to make their characters relatable on a personal level, even when the traits displayed are socially undesirable (e.g., antiheroes; see Jonason et al., 2012).

Theoretical Perspectives

Literary and television characters' personalities have been studied from multiple theoretical perspectives in psychology including personality, social, and media psychology.

Personality Psychology

Personality psychologists that study personality perception or judgment typically use the phrase *assumed similarity* to describe the cognitive bias that people often show in seeing their own traits in others. According to Kenny (2020), assumed similarity is "the extent to which a perceiver views the self in the same way as the perceiver views others" (p. 15) or "a perceiver's belief that a target is the same on some dimension as the perceiver sees him- or herself" (p. 358). Personality psychologists often assess assumed similarity by correlating perceivers' self-reported traits (participant's reported agreeableness) with perceivers' ratings of one or more targets' traits (participant's perception of their friend's level of agreeableness). In prior research, this correlation averages .25 (Human & Biesanz, 2011). In a meta-analysis of 24 round-robin studies, where everyone serves as both a target and a perceiver in small groups, assumed similarity correlations averaged .42 (*SD* = .21; Kenny & West, 2010). In a study focused on Big Five personality perception, assumed similarity correlations averaged .28,

ranging from .45 for agreeableness to .18 for conscientiousness (Srivastava et al., 2010). Research on well-acquainted people found that openness was the Big Five trait with the highest assumed similarity correlations (≈ .40; Lee et al., 2009). In a meta-analysis of Big Five traits, assumed similarity correlations were small-to-moderate for agreeableness (.25) and openness (.23), and small for conscientiousness (.13), neuroticism (.13), and extraversion (.09; Thielmann et al., 2020).

Social Psychology

Although many social psychologists also study person perception using assumed similarity, some use the related concept *false consensus effect* to describe a similar cognitive bias that likely influences personality perception (Ross et al., 1977). The false consensus effect (a.k.a. consensus bias) is a more general egocentric bias where people falsely believe that their own traits, beliefs, attitudes, and behaviors are more common than in reality, which leads them to believe that other people are more likely to share their own traits, beliefs, attitudes, and behaviors. For example, people's admiration for specific celebrities positively correlates with their over-estimation of other people's liking of the same celebrities (Collison et al., 2021). Another example is a politically progressive professor that incorrectly assumes that another professor they've just met also shares their political views (even controlling for base-rate differences). Thus, assumed similarity may be part of a broader social-cognitive bias—the false consensus effect—that colors the impressions and inferences that people have about others' thoughts, motives, and behaviors, including their personality traits. A meta-analysis of 115 false-consensus effects showed an average correlation of .31 (Mullen et al., 1985).

Media Psychology

A concept in media psychology adjacent to—yet different from—the social-personality concepts described above is that of *parasocial relationships* (PSRs), in which readers—or especially media viewers—see their favorite characters as friends to an extent that they function as de facto social relationships, albeit unreciprocated ones (Horton & Wohl, 1956). Parasocial interactions can be understood as a "type of intimate, friend-like relationship that occurs between a mediated persona and a viewer" (Rubin & McHugh, 1987, p. 280). Such one-sided viewer–character parasocial relationships can develop to the point where viewers "'know' such a persona in somewhat the same way they know their chosen friends: through direct observation and interpretation of his appearance, his gestures and voice, his conversations and conduct in a variety of situations" (Horton & Wohl, 1956, p. 216). Indeed, viewers may even engage in and reinforce parasocial relationships with their favorite characters by reading or writing about them in online forums (e.g., Reddit).

Centering on *Game of Thrones* characters, the present work relates most closely to second- or third-order parasocial interactions, where people form parasocial relationships at either a representational level (i.e., a TV actor portraying a character) or a purely parasocial level because there's no chance of contact (i.e., a fictional character from a fantasy series; Giles, 2002). Forming PSRs with characters from fantasy or science fiction series is not uncommon. For example, *Star Wars* fans formed stronger PSRs with characters from the original film series than newer ones in *The Force Awakens* sequel (Hall, 2017). Other research has focused on how fiction readers and movie watchers establish relations with fictional characters, finding that perceptions of character similarity, personal relevance, and valence (positive vs. negative) often relate

to people's involvement with, distance from, and appreciation of fictional characters (Konijn & Hoorn, 2005; Lieber & Schramm, 2017).

Regarding individual differences, people scoring higher on anxious—but not avoidant—adult attachment were more likely to form PSRs with their favorite TV characters, whereas the Big Five personality traits were unrelated to forming PSRs (Rain & Mar, 2021). Also, people's self-reported avoidant attachment correlated significantly with their perceptions of their favorite TV character's avoidant attachment (.12); no corresponding assumed similarity effect emerged for anxious attachment (Rain & Mar, 2021). Similarly, TV viewers with anxious-ambivalent attachment styles reported more negative reactions to the prospect of losing their favorite TV characters (Cohen, 2004).

Studies have also begun to focus on so-called "dark" or socially undesirable traits such as narcissism. For example, a recent study of fans' PSRs with their self-selected favorite comic book characters showed that people who chose heroes (vs. villains) were more narcissistic, and all three dark triad traits—Machiavellianism, narcissism, and psychopathy—were reliably related to greater PSR guidance, intimacy and familiarity, and desire to meet in-person (Brodie & Ingram, 2021). Relevant to the present research's topic but using neuroscience methods, people who identified more closely with *Game of Thrones* characters showed greater ventral medial prefrontal cortex (vMPFC) activity (a brain region associate with self–other processing) when thinking about those characters versus the self, and vMPFC activity was stronger for specific characters that individual participants liked more or identified more closely with (Broom et al., 2021).

Although the present work focuses on the personality psychology concept of assumed similarity, related concepts such as the false consensus effect and PSRs that

draw respectively from social and media psychological perspectives may contribute in some way to the broader gestalt prosses involved in judging other people's—or characters'—personality traits.

Personality Perception of Other People and Fictional Characters

Although people have been analyzing literary projection for over a century (Downey, 1912), empirical work based on quantitative data from scientifically supported frameworks such as the Five-Factor Model of personality (FFM) is relatively recent. The FFM posits five empirically supported personality traits (i.e., the Big Five): extraversion, agreeableness, conscientiousness, neuroticism (or emotional volatility), and openness to experience (or open-mindedness; John & Srivastava, 1999; Soto & John, 2017). These traits may relate to or even influence both how writers create characters and how they're perceived by media consumers (e.g., readers, viewers). For example, authors who scored higher on openness wrote character descriptions that were rated as more complex and interesting (Maslej et al., 2017). People scoring high on neuroticism were more likely to form strong PSRs with characters because they can serve as a substitute for comparatively more difficult face-to-face relationships (Tsay & Bodine, 2012). Research has also examined the extent to which people's self-reported personality traits reflect their beliefs about the personalities of fictional *Harry Potter* houses: extraverted Gryffindors, agreeable Hufflepuffs, clever Ravenclaws, and manipulative Slytherins (Crysel et al. 2015).

Several studies use measures of the Big Five to assess consensus, assumed similarity, or both in personality ratings of various targets, including strangers meeting in-person for the first time (zero-acquaintance personality judgment; Albright et al., 1988) and even people's spaces and objects, such as bedrooms and offices (Gosling et

al., 2002), clothing (Naumann et al., 2009), shoes (Gillath et al., 2012), laptop stickers (Campbell et al., 2022), and online-gaming avatars and usernames (Harari et al., 2015).

In contrast to the Big Five, the Dark Tetrad specifically assesses sub-clinical individual differences in four socially undesirable traits—Machiavellianism, narcissism, psychopathy, and sadism (Paulhus et al., 2020). *Machiavellianism* describes the extent to which people enjoy manipulating other for their own gain: an ends-justify-the-means philosophy. *Narcissism* reflects differences people's desire for leadership, need for attention, and belief in being superior to others. *Psychopathy* relates to people's recklessness, callousness, antisocialism, and antiauthoritarianism. *Sadism* describes people's desire to harm others or derive joy from others' suffering and misfortune.

Because the Dark Tetrad is a recent outgrowth of the Dark Triad (Paulhus & Williams, 2002), which neglects sadism, most research on consensus and assumed similarity effects have used Dark Triad measures (e.g., Jonason & Webster, 2010). For example, people scoring high on narcissism were more likely to engage positively with villain characters (Kjeldgaard-Christiansen et al., 2019) and identified more closely with characters who were similarly narcissistic (Gibson et al., 2018). Similarly, people scoring high on Machiavellianism identified more closely with villains and anti-heroes with similarly dark traits (Black et al., 2019). Beyond fictional characters, people can detect other's narcissism (Buffardi & Campbell, 2008) and extraversion (Kaye et al., 2020) when viewing their social media platforms such as Facebook profiles, as well as other Big Five traits when viewing others' personal websites (Vazire & Gosling, 2004).

The Present Study

In the present research, we focused on two sets of personality traits relevant to both characters and consumers of media and literature: The Big Five and the Dark

Tetrad. Specifically, we asked participants in three reddit fan-forums (i.e., subreddits) devoted to *Game of Thrones* discussions to (a) complete self-report measures of the Big Five and Dark Tetrad and then (b) rate at least one of 56 characters using the same Big Five and Dark Tetrad measures. This allowed us to assess consensus and assumed similarity. Given the literature review above, we developed three hypotheses (H1–H3):

1. H1: Because authors, screenwriters, and directors often strive to accurately convey the personality traits of their characters to readers and viewers, we expected positive and significant consensus correlations for all nine traits.

2. H2: Because meta-analytic data have shown the strongest assumed similarity effects for agreeableness and openness to new experience/open-mindedness, we hypothesized positive and significant correlations for both of these traits, and comparatively weaker—but still positive—assumed similarity effects for the other three Big Five traits.

3. H3: Although assumed similarity research on the Dark Tetrad is scant, we expected positive and significant assumed similarity effects for all four traits, in part because *Game of Thrones* tends to feature several characters with especially strong "dark" personality profiles.

On an exploratory basis, we also examined sex differences (for both participants and characters) and differences between ratings of book versus show characters. In addition, we also present ranking for *Game of Thrones* characters who were rated the highest and lowest on each of the nine personality traits.

Method

Participants

We recruited 317 participants ("redditors") from the online social news aggregation and discussion website reddit (https://www.reddit.com/). Specifically, we recruited redditors from three discussion groups on reddit ("subreddits" or "subs"): "Game of Thrones" (r/gameofthrones); "Pure A Song of Ice and Fire" (r/pureasoiaf), and "A Song of Ice and Fire" (r/asoiaf). These three subreddits host discussions focused mainly on the TV show, the book series, and a mix of both, respectively. Of these 317 redditors, 309 (97.5%) had sufficient data for analyses (i.e., rated both themselves and at least one character; see Procedure below). Of these 309 redditors, who ranged in age from 18 to 67 years (*Mdn* = 23.0, *M* = 25.7, *SD* = 8.4),[1] 186 (60.2%) were men, 121 (39.2%) were women, and 2 (0.6%) did not report their sex assigned at birth. In terms of gender expression, 178 (57.6%) were male or masculine, 117 (37.9%) were female or feminine, 11 (3.5%) were nonbinary, and 3 (1.0%) did not report.

Measures

Specific items for all measures described below appear in Table 1. Participants used response scales ranging from 1 (*Disagree strongly*) to 5 (*Agree strongly*).

The Big Five

Redditors completed the Big Five Inventory–2 Extra-Short (BFI-2-XS) form (Soto & John, 2017). The 15-item BFI-2-XS assesses each Big Five trait with three items each: extraversion, agreeableness, conscientiousness, neuroticism, and openness. Because each item draws on a unique facet of each trait, the measurement scope of the BFI-2-XS's traits is intentionally broad, meaning that the internal consistency reliabilities are often acceptable or modest, even for three-item scales.

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[1] One participant reported being 108 years old. Because centenarians are rarely Redditors, and because the next-oldest person reported being 67, we chose to omit this data point from the sample statistics for age.

Table 1. *Big Five and Dark Tetrad Items*

Scale or Item	Big Five Facet
Big Five: BFI-2-XS (Soto & John, 2017)	
Extraversion	
Tends to be quiet.[a]	Sociability
Is dominant, acts as a leader.	Assertiveness
Is full of energy.	Energy level
Agreeableness	
Is compassionate, has a soft heart.	Compassion
Is sometimes rude to others.[a]	Respectfulness
Assumes the best about people.	Trust
Conscientiousness	
Tends to be disorganized.[a]	Organization
Has difficulty getting started on tasks.[a]	Productiveness
Is reliable, can always be counted on.	Responsibility
Negative emotionality	
Worries a lot.	Anxiety
Tends to feel depressed, blue.	Depression
Is emotionally stable, not easily upset.[a]	Emotional volatility
Open-mindedness	
Is fascinated by art, music, or literature.	Aesthetic sensitivity
Has little interest in abstract ideas.[a]	Intellectual curiosity
Is original, comes up with new ideas.	Creative imagination
Dark Tetrad: SD4 (Adapted from Paulhus et al., 2020)	
Machiavellianism	
Thinks it's unwise to let people know one's secrets.	
Uses planning to manipulate the situation.	
Loves it when a tricky plan succeeds.	
Narcissism	
People see as a natural leader.	
Has a unique talent for persuading people.	
Has some exceptional qualities.	
Psychopathy	
Fights against authorities and their rules.	
Gets into dangerous situations.	
People regret messing with.	
Sadism	
Finds it funny when idiots fall flat on their face.	
Believes some people deserve to suffer.	
Knows how to hurt someone with words alone.	

Note. [a]Reverse-scored. Stem for all items: "I am [character name is] someone who…"

The Dark Tetrad

Redditors also completed a 12-item version of the 28-item Short Dark Tetrad (SD4; Paulhus et al., 2020). We chose items that seemed the most relevant and face-valid for rating fictional characters. The 12-item SD4 assesses each Dark Tetrad trait with three items each: Machiavellianism, narcissism, psychopathy, and sadism. We chose this shortened Dark *Tetrad* measure over the popular 12-item "Dirty Dozen" Dark *Triad* measure (Jonason & Webster, 2010) because we wished to assess sadism as well.

Procedure

After obtaining IRB approval from [university name withheld], we posted an invitation to participate on each subreddit that included the following information:

I'm studying people's perceptions of ASOIAF/GOT characters' personality traits.[2]

You can help by rating the personality traits of your favorite characters—as many

or as few as you'd like—by clicking here [link to online survey]. Many thanks!

Redditors that clicked the link went to an informed consent page. If they agreed to participate, they then went to a page assessing demographics (i.e., age, sex, gender) and familiarity with *Game of Thrones* (i.e., TV seasons watched, books read, subreddits frequented); most had read all five books to date and seen all eight seasons. Participants then went to a page to rate their own personality traits with the instructions: "First, please respond to the following 27 items about your own personality" and the prompt "I am someone who…" Following the self-reports, participants went to the character-rating page where they were presented with the prompt "Select a character to rate" with a drop-down menu of 56 characters (see Table 2). We included characters that (a)

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[2] ASOIAF/GOT refers to the *A Song of Ice and Fire* book series and the *Game of Thrones* television show.

Table 2. Game of Thrones *Characters Used as Targets in the Study*

ID	Character name	Book mentions	Ratings	Sex
1	Arya Stark	1,767	80	Female
2	Asha/Yara Greyjoy	364	21	Female
3	Barristan Selmy	560	27	Male
4	Bran Stark	1,439	23	Male
5	Brienne of Tarth	725	42	Female
6	Bronn	333	14	Male
7	Catelyn Stark	1,229	31	Female
8	Cersei Lannister	1,180	46	Female
9	Daario Naharis	46	8	Male
10	Daenerys Targaryen	1,594	55	Female
11	Davos Seaworth	676	38	Male
12	Eddard (Ned) Stark	1,367	42	Male
13	Edmure Tully	300	9	Male
14	Euron Greyjoy	253	13	Male
15	Gendry	271	5	Male
16	Gregor Clegane	369	3	Male
17	Grey Worm	43	1	Male
18	High Sparrow	38	2	Male
19	Hizdahr zo Loraq	267	2	Male
20	Hodor	329	3	Male
21	Jaime Lannister	1,701	65	Male
22	Jeor Mormont	493	2	Male
23	Joffrey Baratheon	1,042	8	Male
24	Jon Snow	3,009	62	Male
25	Jorah Mormont	523	10	Male
26	Khal Drogo	291	1	Male
27	Loras Tyrell	320	5	Male
28	Lysa Arryn	349	6	Female
29	Maester Aemon	310	8	Male
30	Maester Luwin	264	6	Male
31	Maester Pycelle	290	3	Male
32	Mance Rayder	385	5	Male
33	Margaery Tyrell	308	8	Female
34	Melisandre of Asshai	281	5	Female
35	Missandei	62	2	Female
36	Olenna Tyrell	44	6	Female
37	Osha	30	1	Female
38	Petyr Baelish	676	28	Male
39	Podrick Payne	45	2	Male
40	Ramsay Bolton	327	4	Male
41	Renly Baratheon	534	6	Male
42	Robb Stark	1,162	12	Male
43	Robert Baratheon	905	10	Male
44	Roose Bolton	353	8	Male
45	Samwell Tarly	1,140	8	Male
46	Sandor Clegane	579	24	Male
47	Sansa Stark	1,524	48	Female
48	Shae	47	2	Female
49	Stannis Baratheon	1,125	34	Male
50	Theon Greyjoy	999	23	Male
51	Tommen Baratheon	411	3	Male
52	Tormund Giantsbane	55	4	Male
53	Tyrion Lannister	2,932	45	Male
54	Tywin Lannister	681	21	Male
55	Varys	434	8	Male
56	Ygritte	51	6	Female

appeared in both the book and show and (b) had a substantial number (i.e., ≥ 30) of book mentions (see Shaswat, 2017).[3] They were then asked whether they were rating a character from the books or the show. They then completed the same 27-item personality survey with the prompt "This character is someone who…" After rating a character, participants chose to either "Keep rating characters" or "End the survey now." The former choice simply repeated the character-rating procedure above; the latter led to a one-paragraph debriefing of the study's purpose, including descriptions of the Big Five, the Dark Tetrad, consensus, and assumed similarity.

Data Analysis

We used a series of cross-classified structural equation models (CC-SEMs; Nestler & Back, 2017) to examine consensus and assumed similarity because the individual observations are nested in two sources of non-independence: targets (characters) and perceivers (raters). Cross-classified models are more appropriate than hierarchical because they account for both sources of non-independence—targets and perceivers—simultaneously. In contrast, hierarchical linear models, an observation can only be nested under one source at a time (i.e., either targets or perceivers, not both). Thus, CC-SEMs don't violate the independence-of-residuals assumption for these types of data, whereas hierarchical models do.

Using Mplus 8 (Muthén & Muthén, 1998–2017), we estimated latent variables at all levels for each personality trait for both ratings of characters and participants' self-ratings, which allowed for purer variance estimates that accounted for measurement error. Because we used multiple items as indicators of latent traits, our cross-classified

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[3] Log character book mentions positively correlated with log character ratings ($r = .76$, 95% CI [.63, .85]).

models also incorporate structural equations (SEM or latent-variable modeling).

Specifically, we examined consensus for each trait by decomposing variance among

target (character), perceiver (rater), and residual (observation) levels,[4] and dividing the

target variance by the total variance to yield a consensus correlation (which is also an

intraclass correlation or ICC; Kenny, 2020). We examined assumed similarity by

regressing the latent-variable trait at the perceiver level onto the perceivers' own latent-

variable self-reports for the same trait. Thus, we assessed assumed similarity as a slope

between two latent trait variables. The data were 964 observations across 56 characters

(targets) made by 309 participants (perceivers); thus, the average participant rated 3.12

characters of their choosing. Of the 964 ratings, 85.5% were for book characters, 11.7%

for TV characters, and 2.8% did not specify either. Because book and show characters

are generally similar, we first analyzed both together and then ran exploratory analyses

examining possible book–show differences, which omitted the 2.8% of ratings that

specified neither. Data, Mplus code, and survey screenshots are available here:

https://osf.io/dcnqa

Results

Descriptive Statistics

Means, *SD*s, and Cronbach's alphas for all measures for both targets and

perceivers appear in Table 3. For targets, alphas ranged from .50 (negative

emotionality) to .77 (agreeableness); for participants, they ranged from .36 (open-

mindedness) to .69 (extraversion), with the next-lowest being .52 (Machiavellianism).

Although an alpha of .36 is indeed low, recall that (a) the BFI-2-XS's traits are

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[4] Following convention (Claus et al., 2020; Campbell et al., 2022), identical items at different levels (i.e., character, rater, observation, and self-report) were constrained to be equal for model parsimony and to aid model convergence.

Table 3. *Descriptive Statistics for Targets/Characters and Perceivers/Raters*

Personality trait	Targets/characters (N = 964)				Perceivers/raters (N = 309)			
	MIC	α[a]	Mean	*SD*	MIC	α	Mean	*SD*
Big Five								
Extraversion	.29	.55	3.54	0.95	.42	.68	2.66	0.95
Agreeableness	.53	.77	2.69	1.18	.34	.60	3.30	0.88
Conscientiousness	.33	.58	3.71	0.95	.37	.63	2.82	0.92
Negative emotionality	.26	.50	3.11	0.96	.40	.66	3.25	1.00
Open-mindedness	.33	.60	3.07	0.97	.16	.36	4.03	0.67
Dark Tetrad composite	.22	.77	3.70	0.69	.16	.69	3.19	0.55
Machiavellianism	.45	.72	3.74	1.01	.27	.52	3.74	0.76
Narcissism	.29	.54	3.72	0.92	.36	.63	3.03	0.86
Psychopathy	.32	.58	3.85	0.94	.29	.56	2.56	0.85
Sadism	.48	.74	3.47	1.12	.36	.62	3.42	0.95

Note. MIC = mean inter-item correlation. [a]Reliabilities ignore non-independence.

intentionally broad and (b) Cronbach's alpha is a function of both the mean inter-item correlation (MIC) and the number of scale items (Cortina, 1993; Schmitt, 1996); as such, most of these reliability coefficients are acceptable given that they are based on three-item scales. For example, equivalent MICs of .16 yield an alpha of .36 for the three-item open-mindedness scale and an alpha of .69 for the 12-item Dark Tetrad composite. Our CC-SEM approach, which adjusts for measurement error, accounts for this unreliability.

Consensus and Variance Decomposition

We assessed consensus by examining the intraclass correlation coefficient (ICC) for targets (characters), which is also the proportion of total variance accounted for by targets (i.e., target ÷ (target + perceiver + residual); see Table 4). All variances were

Table 4. *Consensus and Assumed Similarity Effects*

	Variance decomposition (proportions)			Assumed similarity				
	Target	Perceiver	Residual				Slope 95% CI	
	(Consensus)			Slope	*SD*	*p*	LL	UL
Big Five								
Extraversion	0.704 (.73)	0.005 (.01)	0.254 (.26)	0.069	0.032	.013	0.005	0.138
Agreeableness	1.215 (.83)	0.011 (.01)	0.232 (.16)	0.123	0.044	.002	0.023	0.193
Conscientiousness	0.687 (.59)	0.048 (.04)	0.436 (.37)	0.094	0.047	.039	-0.010	0.178
Negative emotionality	0.367 (.56)	0.078 (.12)	0.216 (.33)	0.115	0.048	.002	0.027	0.222
Open-mindedness	0.609 (.65)	0.037 (.04)	0.291 (.31)	0.222	0.132	.039	-0.024	0.483
Dark Tetrad	0.116 (.72)	0.015 (.09)	0.031 (.19)	0.290	0.071	.000	0.166	0.440
Machiavellianism	0.124 (.58)	0.014 (.07)	0.075 (.35)	0.227	0.068	.001	0.095	0.361
Narcissism	0.395 (.54)	0.074 (.10)	0.267 (.36)	0.139	0.053	.002	0.042	0.245
Psychopathy	0.685 (.74)	0.067 (.07)	0.175 (.19)	0.121	0.053	.009	0.025	0.235
Sadism	0.961 (.74)	0.034 (.03)	0.303 (.23)	0.245	0.052	.000	0.147	0.365

Note. *N* = 964 cross-classified observations across 56 characters (target) and 309 raters (perceivers). Consensus effects are intraclass correlation coefficients (ICCs) that also the proportion of variance attributed to targets (i.e., target ÷ (target + perceiver + residual)). Assumed similarity is the slope of the latent perceiver variable regressed onto its respective latent variable for raters' self-reports; Bayesian estimates are shown; 95% CI = Bayesian credibility interval. *p*s ≤ .025 are considered significant.

statistically significant across all traits (supporting H1). Across the nine traits,

consensus correlations ranged from .54 (narcissism) to .83 (agreeableness), with a mean

of .66 (*SD* = .10). In other words, characters elicited nearly two-thirds of the variation in

participants' ratings independent of perceiver effects and residual error. In contrast, the

average trait had a perceiver effect of .05 (*SD* = .04) and an average residual effect of .29

(*SD* = .08). In addition, the Dark Tetrad, assessed via a hierarchical or second-order

latent trait, had a consensus correlation of .72.

Assumed Similarity

We assessed assumed similarity by regressing the latent variable for a given trait

at the perceiver level onto the latent variable for the same trait assessed via participants'

self-reports of their own personalities. In other words, the analyses tested

the extent to which people saw their own personalities in fictional characters or

assumed that such characters were similar to themselves. Assumed similarity effects

were significantly positive for three of the Big Five traits—extraversion, agreeableness,

and emotional negativity (showing mixed support for H2)—and all four Dark Tetrad

traits (supporting H3) as well as a second-order, latent-variable version of the Dark

Tetrad using all four traits (Table 4). For example, the assumed similarity slope for

agreeableness was 0.123, meaning that for every unit increase in the average

participant's latent self-reported agreeableness, their latent agreeableness ratings for

the average character increased by 0.123.

Sex Differences

On an exploratory basis, we also examined sex differences in personality

perception for both participant sex (i.e., biological sex assigned at birth, not gender) and

character sex (both coded men = 0.5, women = -0.5). Participants' sex related to their

perceptions of both their own and characters' personality traits. Specifically, men (vs. women) tended to view characters as less conscientious (b = -0.221 [-0.396, -0.114], p < .001), open-minded (b = -0.198 [-0.329, -0.062], p = .001), and Machiavellian (b = -0.076 [-0.137, -0.008], p = .014). Men (vs. women) also tended to view themselves as less extraverted (b = -0.296 [-0.578, -0.021], p = .016), agreeable (b = -0.279 [-0.510, -0.058], p = .006), and conscientious (b = -0.339 [-0.597, -0.083], p = .007), but also more Machiavellian (b = 0.121 [0.038, 0.209], p = .004).

Despite high consensus correlations, character sex significantly related to none of the nine traits examined, suggesting that characters' sexes contributed little to how they're perceived in terms of their personality traits.

Book versus Show Differences

On an exploratory basis we examined book–show differences in mean character ratings, consensus, and assumed similarity by regressing each trait's latent intercept (based on overall character ratings) onto a book (coded 1) versus show (coded 2) variable, such that positive differences reflected higher average scores for show characters. Regarding mean ratings on the Big Five personality traits, people choosing to rate show (vs. book) characters gave them significantly higher scores on extraversion only (b = 0.277 [0.179, 0.414]; Table 5, left columns). In contrast, for the Dark Tetrad, people choosing to rate show (vs. book) characters gave them higher Dark Tetrad composite scores (b = 0.129 [0.071, 0.224]), which were driven by similarly significant trait differences on Machiavellianism, narcissism, and psychopathy, but not sadism (Table 5, left columns). Controlling for book–show differences had no meaningful effect on consensus, with proportions of variance explained changing no more than ±.02 for any trait across any source (i.e., target, perceiver, or residual). Thus, Table 4's consensus

Table 5. *Book versus Show Character Effects and Assumed Similarity Effects Controlling for Book versus Show*

| | Book vs. show effect on average rating | | | | | Assumed similarity controlling for book vs. show | | | | |
| | | | | Slope 95% CI | | | | | Slope 95% CI | |
	Slope	*SD*	*p*	LL	UL	Slope	*SD*	*p*	LL	UL
Big Five										
Extraversion	0.277	0.065	.000	0.179	0.414	0.060	0.032	.008	0.007	0.131
Agreeableness	-0.099	0.091	.127	-0.282	0.059	0.111	0.041	.010	0.011	0.187
Conscientiousness	0.117	0.092	.091	-0.053	0.300	0.106	0.054	.015	0.011	0.221
Negative emotionality	-0.101	0.095	.171	-0.278	0.095	0.708	0.128	.000	0.486	0.993
Open-mindedness	-0.001	0.099	.493	-0.224	0.179	0.244	0.130	.044	-0.035	0.446
Dark Tetrad	0.129	0.040	.000	0.071	0.224	0.314	0.072	.000	0.117	0.451
Machiavellianism	0.079	0.032	.007	0.015	0.145	0.242	0.069	.000	0.118	0.383
Narcissism	0.296	0.078	.000	0.141	0.442	0.170	0.052	.002	0.071	0.265
Psychopathy	0.249	0.069	.000	0.126	0.389	0.131	0.054	.001	0.032	0.239
Sadism	0.074	0.088	.249	-0.116	0.221	0.247	0.048	.000	0.168	0.354

Note. N = 935 cross-classified observations across 56 characters (target) and 308 raters (perceivers). Left columns: Average ratings are latent intercepts, where positive numbers reflect higher average scores for show (vs. show) characters. Right columns: Assumed similarity is the slope of the latent perceiver variable regressed onto its respective latent variable for raters' self-reports, controlling for book versus show differences. All columns: Bayesian estimates are shown; 95% CI = Bayesian credibility interval; *p*s ≤ .025 are considered significant.

results remain robust. In contrast, after controlling for book–show differences, the

assumed similarity for conscientiousness became significant (b = 0.106 [0.011, 0.221]);

no other trait assumed similarity effects changed regarding significance (Table 5, right

columns). In sum, although we detected some mean differences in overall ratings for

four of nine traits (all higher for show characters), book–show differences did not

translate into any systematic effects regarding consensus or assumed similarity.

Character Profiles

We also examined which characters had the highest and lowest ratings on each

trait and the Dark Tetrad composite. To assure stable estimates, we examined only the

19 characters who garnered more that 20 ratings. After calculating trait means for each

character, we sorted and ranked the highest and lowest five characters for each trait.

Regarding the Big Five traits (Table 6), three of the Lannisters (Cersei, Jaime,

and Tyrion) were among the most extraverted, whereas three of the Starks (Bran,

Eddard or Ned, and Sansa) were among the most introverted. Davos Seaworth (a.k.a.

the Onion Knight) was rated the most agreeable, whereas Cersei was the least agreeable.

The most conscientious characters included Barristan Selmy (former Knight of the

Kingsguard), Stannis Baratheon (military mastermind), and Tywin Lannister (always

making plans within plans); among the least were Theon Greyjoy and the Lannister

twins—Cersei and Jaime. Negative emotionality was highest for Theon Greyjoy

(tortured), Sansa Stark (pawn of others' games), Cersei Lannister (increasingly

paranoid), and Daenerys Targaryen (increasingly paranoid *and* delusional); it was

lowest Peter Baelish (calm and collected) and Tywin Lannister (calm, collected, and

emotionally stunted). The most open-minded characters included Tyrion Lannister

(bookworm and creative thinker), Daenerys Targaryen (the dreamer), and two of the

Stark children—Bran and Sansa; the least open-minded included Stannis Baratheon (staunch, stolid, stubborn), Cersei Lannister (who only seems open to goblets of wine), and two dutiful mercenaries—Barristan Selmy and Sandor Clegane (a.k.a. the Hound).

Table 6. *Top- and Bottom-Five Ranked Characters for Each Big Five Trait*

Rank	Extraversion	Agreeableness	Conscientiousness	Negative emotionality	Open-mindedness
1	Asha/Yara Greyjoy	Davos Seaworth	Barristan Selmy	Theon Greyjoy	Tyrion Lannister
2	Cersei Lannister	Barristan Selmy	Stannis Baratheon	Sansa Stark	Petyr Baelish
3	Arya Stark	Eddard Stark	Tywin Lannister	Catelyn Stark	Daenerys Targaryen
4	Jaime Lannister	Brienne of Tarth	Brienne of Tarth	Cersei Lannister	Sansa Stark
5	Tyrion Lannister	Bran Stark	Eddard Stark	Daenerys Targaryen	Bran Stark
15	Brienne of Tarth and Sandor Clegane	Sandor Clegane	Daenerys Targaryen and Sandor Clegane	Jaime Lannister	Stannis Baratheon
16	Bran Stark	Petyr Baelish	Jaime Lannister	Barristan Selmy	Theon Greyjoy
17	Eddard Stark	Stannis Baratheon	Bran Stark	Asha/Yara Greyjoy	Cersei Lannister
18	Davos Seaworth	Tywin Lannister	Cersei Lannister	Petyr Baelish	Barristan Selmy
19	Sansa Stark	Cersei Lannister	Theon Greyjoy	Tywin Lannister	Sandor Clegane

Note. Only characters with more than 20 responses are included.

Regarding the Dark Tetrad traits (Table 7), the most Machiavellian were Peter

Baelish (a.k.a. Littlefinger), Arya Stark (assassin-in-training), and three Lannisters—

Tyrion, Tywin, and Cersei. The least Machiavellian character was also arguably the most

Table 7. *Top- and Bottom-Five Ranked Characters for Each Dark Tetrad Trait*

Rank	Machiavellianism	Narcissism	Psychopathy	Sadism	Dark Tetrad
1	Petyr Baelish	Daenerys Targaryen	Daenerys Targaryen	Cersei Lannister	Tyrion Lannister
2	Tyrion Lannister	Tywin Lannister	Arya Stark	Tyrion Lannister	Petyr Baelish
3	Tywin Lannister	Jon Snow	Sandor Clegane	Petyr Baelish	Arya Stark
4	Cersei Lannister	Jaime Lannister	Asha/Yara Greyjoy	Sandor Clegane	Daenerys Targaryen
5	Arya Stark	Asha/Yara Greyjoy	Jaime Lannister	Jaime Lannister	Jaime Lannister and Tywin Lannister
15	Davos Seaworth and Sandor Clegane	Bran Stark	Tywin Lannister	Jon Snow	Sansa Stark
16	Barristan Selmy	Brienne of Tarth	Eddard Stark	Davos Seaworth	Davos Seaworth
17	Brienne of Tarth	Cersei Lannister	Catelyn Stark	Barristan Selmy	Brienne of Tarth
18	Bran Stark	Sandor Clegane	Bran Stark	Brienne of Tarth	Bran Stark
19	Eddard Stark	Theon Greyjoy	Sansa Stark	Eddard Stark	Eddard Stark

Note. Only characters with more than 20 responses are included.

politically naïve—Eddard Stark. Narcissism was especially high in Daenerys Targaryen, Tywin and Jaime Lannister, and two leaders—Jon Snow and Asha/Yara Greyjoy (recall that leadership is often a facet of narcissism). The least narcissistic character was Theon Greyjoy, who began his arc as a cocky youth but has since been mentally and physically humbled by repeated torture. The most psychopathic characters included Daenerys Targaryen, Arya Stark, Sandor Clegane, and Jaime Lannister, all of whom have killed others without remorse; the least psychopathic included four Starks—Eddard, Catelyn, Bran, and Sansa. The most sadistic characters were Cersei, Tyrion, and Jaime Lannister as well as Peter Baelish and Sandor Clegane; the least was Eddard Stark. Regarding the Dark Tetrad composite, highest characters were Peter Baelish, Arya Stark, Daenerys Targaryen, and three Lannisters—Tyrion, Jaime, and Tywin. The least "Dark" characters included Davos Seaworth, Brienne of Tarth, and three Starks—Brad, Eddard, and Sansa.

Discussion

We examined the extent to which over 300 fans of *Game of Thrones* showed consensus in their ratings of 56 characters' personality traits and assumed similarity—assuming those characters' traits were similar to their own self-reported traits. Our hypothesis that participant raters would show significant consensus (i.e., perceiver variance; H1) was supported for all nine traits and the Dark Tetrad composite. Our prediction that assumed similarity would be significant for both extraversion and open-mindedness (H2) met with mixed support because only three Big Five traits showed significant assumed similarity effects—extraversion, agreeableness, and emotional negativity; conscientiousness may be considered a fourth, but it only became significant after controlling for book–show differences in character ratings. Although open-mindedness had the largest assumed similarity slope (0.222) it also had the most error

(*SD* = 0.132), which may relate to the fact that self-reported open-mindedness had the lowest reliability (.36) despite our adjustment for measurement error via CC-SEM. Our expectation that all four Dark Tetrad traits would show significant assumed similarity slopes was supported (H3). Exploratory sex-difference and book–show-difference effects showed no systematic patterns, but may provide some impetus for further consideration in similar studies assessing personality perception of fictional characters portrayed across multiple media.

Characters' trait rankings produced by participants' ratings made sense at face value, suggesting that participants took their rating tasks seriously. These sensible rankings along with the consensus findings also suggest that author George R. R. Martin (and various screenwriters and directors for the TV show) did a remarkable job of conveying characters' personality traits despite their complex motivations and behaviors that often evolve over time. Another possibility is that both readers and viewers develop streamlined or simplified versions of fictional characters personalities—ones that they can more easily relate to or identify with—regardless of authors' or screenwriters' skills.

Theoretical Implications: Personality Traits

The present findings have multiple theoretical implications for both personality and social psychology. For example, the present work shows that at least two of the most-studied metrics in interpersonal perception—consensus and assumed similarity (Kenny, 2020)—extend to fictional characters. In contrast, in most prior studies in personality and social psychology, consensus and assumed similarity have been assessed in small groups of unacquainted people using round-robin designs (where everyone serves as both a target and perceiver). That people view fictional characters in much the same way they view real people is unsurprising, but it is also theoretically reassuring

and meaningful because this is among the first studies to show such effects. From another perspective, the present findings may also provide some indirect support for social psychological theory pertaining to the false consensus effect. Consistent with the false consensus effect, people appeared to believe that *Game of Throne* characters shared their own personality traits, or were more similar to themselves than might be objectively expected. This was especially consistent for Dark Tetrad traits, where people higher on such traits as Machiavellianism and sadism also believed that the characters they chose to rate were higher on those traits.

Practical Applications: Characters in Literature and Popular Media

The present work may also have some practical and methodological applications for media psychology. Although media psychology frequently examines PSRs between viewers and the favorite characters (or the actors who play them), they are often assessed in terms of perceived closeness, identification, or self–other overlap; examining assumed similarity with the methods used here could arm researchers with another potential tool to study PSRs. Although PSRs were not a focus of this study, we suspect that assumed similarity slopes correlate positively with more direct measures of identifying with a given character (or actor), such as perceived closeness. Again, PSRs and assumed similarity are distinct concepts, but we speculate that they may be moderately related, and examining both in the study warrants further investigation.

Our research is also potentially groundbreaking because it is the first to use CC-SEMs to examine consensus and assumed similarity in fans' ratings of fictional characters' personalities. First, collecting cross-classified data may be ideal for such investigations because they allow participants to choose and rate as many characters as they want (or as few, so long as they rate at least one character). Using cross-classified

analysis also optimally accounts for non-independence in both sources of variance: targets (characters) and perceivers (participant raters). Studies of this nature that don't use cross-classified analyses (or similar mixed-effect models that treat both targets and perceivers as random factors) are violating independence-of-errors assumptions, which inflate false-positive error rates, and only generalize to either targets or perceivers, not both. Cross-classified analyses circumvent this issue by modeling both target and perceiver effects simultaneously, rather than arbitrarily nesting one within the other. Second, our latent-variable approach allowed use to model measurement error, which is especially important when participants' limited time demands brief trait measures (e.g., those with only 3 items). Thus, we believe that future studies in media psychology that wish to assess characters' personalities should consider an CC-SEM approach when collecting and analyzing data.

Limitations and Future Directions

The present work had multiple limitations. First, selection bias likely played a role because we allowed people to choose which of 56 available characters to rate. We chose this method because we asked fans on reddit to participate for free, and felt that they'd be more likely to rate more characters if we'd let them choose their own. That we generated 964 character ratings (i.e., $\approx$ 26,000 items) is a testament to this method's effectiveness. Nevertheless, this method's drawbacks included (a) more popular characters receiving more ratings (and less popular receiving fewer) and (b) people's choices influencing the extent of their assumed similarity. In other words, although our assumed similarity effects were impressive, because we let people choose their own characters to rate, we cannot empirically separate assumed similarity effects from selection bias.

To be sure, media and character selection and interaction is often a dynamic and interactive process that may involve reinforcing feedback loops. For example, the Media Practice Model (Steele & Brown, 1995) suggests that media consumers' *identities* motivate their *selection* of characters to attend to, which in turn spurs increased *interaction* (e.g., cognitive, emotional, behavioral investment) with characters, which then influences *application* (e.g., appropriation, incorporation) into daily life, which feeds back onto informing media consumers' *identities* or senses of self. Thus, selection effects appear to be an integral part of people's identification with fictional characters. Nevertheless, we believe—but cannot empirically show—that selection effects may have inflated or augmented the "true" assumed similarity effects, which we could have assessed had we randomly assigning (sets of) characters to perceivers. Thus, future research may wish to consider trading off (a) giving participants the freedom and incentive to rate which characters they want (as we did) versus (b) controlling for selection bias by having participants rate a common set of characters or randomly assigning characters to participants.

Other selection effects may have also influenced the present findings. Specifically, more than any other Big Five trait, people scoring higher on openness are more likely to be interested in multiple types of literature and television programs (Kraaykamp & Van Eijck, 2005). Consequently, people who are engaged fans of *Game of Thrones* are likely to be more open-minded than the general population, and may hence self-select into choosing to read or watch the series, frequent online fan forums hosted by reddit, and subsequently participate in our study. Despite that we found no meaningful book–show differences, research on book–film franchises (e.g., *Harry Potter*, *The Hunger Games*; Garmon et al., 2018) has shown that college students may repeatedly read or watch such

series based on their own self-socialization uses of media (SSUMs; e.g., entertainment, sensation-seeking, coping, cultural identification), which may present yet another form of self-selection bias. Thus, selection biases likely affected multiple aspects of this study. We caution readers that our findings may not generalize beyond the *Game of Thrones* fandom, or even beyond active redditors or the subset of people enthusiastic enough to take our survey for free (Simons et al., 2017). Although we did not collect data on race, ethnicity, or nationality, we suspect that—in addition to being fairly young and mostly male—our participants we mostly White, European or North American, English-speaking, educated enough to read > 5,000 pages of text, and wealthy enough to afford HBO subscriptions, each of which limit the generalizability of our findings (Henrich et al., 2010).

Regarding future directions, researchers are increasingly turning to machine-learning analyses of text-based literature (Flekova & Gurevych, 2015) and social media (Tskhay & Rule, 2014) to make inferences about people's or character's personalities. Future research should integrate input from both perceivers and text-based learning algorithms to fine tune models of accuracy and assumed similarity in understanding how we perceive the personality traits of fictional characters.

On a theoretical level, we stress that concepts such as assumed similarity differ from the PSRs that some people—especially diehard fans—can form with fictional characters because one can view someone as similar to oneself without having a close psychological relationship with a given character, and one can have a PSR with a character without assuming similar personality traits between oneself and the character. Nevertheless, we speculate that people who *do* form PSRs with their favorite characters are more likely to assume greater similarity between themselves and that character than

would be objectively warranted; however, because we focused solely on assumed similarity and did not assess PSRs, this possibility remains a potentially fruitful avenue for future study.

Conclusions

The present work examined fans' consensus and assumed similarity in their ratings of 56 *Game of Thrones* characters on nine personality traits—the Big Five and the Dark Tetrad. Overall, people showed significant consensus for all nine traits. In other words, different people viewed different characters in roughly similar ways. People also assumed that their own personality traits were similar to those of the characters they rated for most of the nine traits examined, including extraversion, agreeableness, conscientiousness (but only when controlling for book–show differences), emotional negativity (or neuroticism), and all four Dark Tetrad traits. This study is important because it is among the first to show that, in terms of consensus and assumed similarity, people—or at least our sample of *Game of Thrones* fans on Reddit—tend to make the same personality attributions about fictional characters that they do for other people in real life. In addition to drawing theoretical parallels between personality and social psychological perspectives on personality perception, the present work also contributes to media psychology in terms of its possible implications for future PSR research and its practical application of a promising advanced method—CC-SEMs—for assessing consensus and assumed similarity in fictional characters in popular media.

References

Albright, L., Kenny, D.A., & Malloy, T.E. (1988). Consensus in personality judgments at zero acquaintance. *Journal of Personality and Social Psychology, 55*(3), 387–395. https://doi.org/10.1037/0022-3514.55.3.387

Black, J.E., Helmy, Y., Robson, O., & Barnes, J.L. (2019). Who can resist a villain? Morality, Machiavellianism, imaginative resistance and liking for dark fictional characters. *Poetics, 74,* 101344. https://doi.org/10.1016/j.poetic.2018.12.005

Brodie, Z.P., & Ingram, J. (2021). The dark triad of personality and hero/villain status as predictors of parasocial relationships with comic book characters. *Psychology of Popular Media, 10*(2), 230–242. https://doi.org/10.1037/ppm0000323

Broom, T.W., Chavez, R.S., & Wagner, D.D. (2021). Becoming the King in the North: identification with fictional characters is associated with greater self–other neural overlap. *Social Cognitive and Affective Neuroscience*, *16*(6), 541–551. https://doi.org/10.1093/scan/nsab021

Buffardi, L.E., & Campbell, W.K. (2008). Narcissism and social networking web sites. *Personality and Social Psychology Bulletin, 34*(10), 1303–1314. https://doi.org/10.1177/0146167208320061

Claus, A.M., Arend, M.G., Burk, C.L., Kiefer, C., & Wiese, B.S. (2020). Cross-classified models in I/O psychology. *Journal of Vocational Behavior*, 103447. https://doi.org/10.1016/j.jvb.2020.103447

Campbell, J.T., Turner, I., & Webster, G.D. (2022). Open laptops, open minds: Consensus and accuracy in Big Five personality perception from laptop stickers. *Journal of Research in Personality, 96,* 104186. https://doi.org/10.1016/j.jrp.2021.104186

Cohen, J. (2004). Parasocial break-up from favorite television characters: The role of

   attachment styles and relationship intensity. *Journal of Social and Personal*

   Relationships, 21(2), 187–202. https://doi.org/10.1177/0265407504041374

Collisson, B., McCutcheon, L.E., Johnston, M., & Edman, J. (2021). How popular are

   pop stars? The false consensus of perceived celebrity popularity. *Psychology of*

   Popular Media, 10(1), 14–20. http://dx.doi.org/10.1037/ppm0000271

Cortina, J.M. (1993). What is coefficient alpha? An examination of theory and

   applications. *Journal of Applied Psychology, 78*(1), 98–104.

   https://doi.org/10.1037/0021-9010.78.1.98

Crysel, L.C., Cook, C.L., Schember, T.O., & Webster, G.D. (2015). Harry Potter and the

   measures of personality: Extraverted Gryffindors, agreeable Hufflepuffs, clever

   Ravenclaws, and manipulative Slytherins. *Personality and Individual*

   Differences, 83, 174–179. https://doi.org/10.1016/j.paid.2015.04.016

Downey, J.E. (1912). Literary self projection. *Psychological Review, 19*(4), 299–311.

   https://doi.org/10.1037/h0072382

Flekova, L., & Gurevych, I. (2015, September). Personality profiling of fictional

   characters using sense-level links between lexical resources. In Proceedings of the

   2015 Conference on Empirical Methods in Natural Language Processing (pp.

   1805-1816).

Garmon, L.C., Glover, R.J., & Vozzola, E.C. (2018). Self-perceived use of popular culture

   media franchises: Does gratification impact multiple exposures? *Psychology of*

   Popular Media Culture, *7*(4), 572–588. http://dx.doi.org/10.1037/ppm0000153

Gibson, B., Hawkins, I., Redker, C., & Bushman, B.J. (2018). Narcissism on the Jersey

   Shore: Exposure to narcissistic reality TV characters can increase narcissism

levels in viewers. *Psychology of Popular Media Culture, 7*(4), 399–412.

https://doi.org/10.1037/ppm0000140

Giles, D.C. (2002). Parasocial Interaction: A review of the literature and a model for

future research. *Media Psychology, 4,* 279–305.

https://doi.org/10.1207/S1532785XMEP0403_04

Gillath, O., Bahns, A.J., Ge, F., & Crandall, C.S. (2012). Shoes as a source of first

impressions. *Journal of Research in Personality, 46*(4), 423–430.

https://doi.org/10.1016/j.jrp.2012.04.003

Gosling, S.D., Ko, S.J., Mannarelli, T., & Morris, M.E. (2002). A room with a cue:

Personality judgments based on offices and bedrooms. *Journal of Personality*

and Social Psychology, 82(3), 379–398. https://doi.org/10.1037/0022-

3514.82.3.379

Hall, A.E. (2019). Identification and parasocial relationships with characters from Star

Wars: The Force Awakens. *Psychology of Popular Media Culture*, *8*(1), 88–98.

https://doi.org/10.1037/ppm0000160

Harari, G.M., Graham, L.T., & Gosling, S.D. (2015). Personality impressions of world of

Warcraft players based on their avatars and usernames: Consensus but no

accuracy. *International Journal of Gaming and Computer-Mediated*

Simulations, *7*(1), 58–73. https://doi.org/10.4018/IJGCMS.2015010104

Henrich, J., Heine, S.J., & Norenzayan, A. (2010). The weirdest people in the world?

Behavioral and Brain Sciences, 33(2–3), 61–83.

https://doi.org/10.1017/S0140525X0999152X

Horton, D., & Wohl, R.R. (1956). Mass communication and para-social interaction: Observations on intimacy at a distance. *Psychiatry, 19*(3), 215–229. https://doi.org/10.1080/00332747.1956.11023049

John, O.P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L.A. Pervin & O.P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York: Guilford.

Jonason, P.K., & Webster, G.D. (2010). The Dirty Dozen: A concise measure of the Dark Triad. *Psychological Assessment, 22*(2), 420–432. https://doi.org/10.1037/a0019265

Jonason, P.K., Webster, G.D., Schmitt, D.P., Li, N.P., & Crysel, L. (2012). The antihero in popular culture: Life history theory and the dark triad personality traits. *Review of General Psychology*, *16*(2), 192–199. https://doi.org/10.1037/a0027914

Kaye, L.K., Wall, H.J., & Hird, A.T. (2020). Less is more when rating extraversion: Behavioral cues and interpersonal perceptions on the platform of Facebook. *Psychology of Popular Media*, *9*(4), 465–474. https://doi.org/10.1037/ppm0000263

Kenny, D.A. (2020). *Interpersonal Perception* (2nd ed.). New York: Guilford

Kenny, D.W., & West, T.V. (2010). Similarity and agreement in self- and other perception: A meta-analysis. *Personality and Social Psychology Review, 14*(2), 196–213. http://doi.org/10.1177/1088868309353414

Kjeldgaard-Christiansen, J., Fiskaali, A., Johnson, J.A., Clasen, M., Høgh-Olesen, H., & Smith, M. (2019). Who Roots for the Villain: A Survey on the Psychology of

Positive Engagement with Villainous Characters. Paper presented at SCSMI 2019, Hamburg, Germany.

Konijn, E.A., & Hoorn, J.F. (2005). Some like it bad: Testing a model for perceiving and experiencing fictional characters. *Media Psychology*, *7*(2), 107–144. https://doi.org/10.1207/S1532785XMEP0702_1

Kraaykamp, G., & Van Eijck, K. (2005). Personality, media preferences, and cultural participation. *Personality and Individual Differences, 38*(7), 1675-1688. https://doi.org/10.1016/j.paid.2004.11.002

Lee, K., Ashton, M.C., Pozzebon, J.A., Visser, B.A., Bourdage, J.S., & Ogunfowora, B. (2009). Similarity and assumed similarity in personality reports of well-acquainted persons. *Journal of Personality and Social Psychology*, *96*(2), 460–472. https://doi.org/10.1037/a0014059

Liebers, N., & Schramm, H. (2017). Friends in books: The influence of character attributes and the reading experience on parasocial relationships and romances. *Poetics, 65,* 12–23. http://dx.doi.org/10.1016/j.poetic.2017.10.001

Muthén, L.K. and Muthén, B.O. (1998–2017). *Mplus User's Guide* (8th ed.). Los Angeles, CA: Muthén & Muthén.

Naumann, L.P., Vazire, S., Rentfrow, P.J., & Gosling, S.D. (2009). Personality judgments based on physical appearance. *Personality and Social Psychology Bulletin, 35*(12), 1661–1671. https://doi.org/10.1177/0146167209346309

Nave, G., Minxha, J., Greenberg, D.M., Kosinski, M., Stillwell, D., & Rentfrow, J. (2018). Musical preferences predict personality: Evidence from active listening and Facebook likes. *Psychological Science, 29*(7), 1145–1158. https://doi.org/10.1177/0956797618761659

Maslej, M.M., Oatley, K., & Mar, R.A. (2017). Creating fictional characters: The role of experience, personality, and social processes. *Psychology of Aesthetics, Creativity, and the Arts, 11*(4), 487–499. https://doi.org/10.1037/aca0000094

Mullen, B., Atkins, J.L., Champion, D.S., Edwards, C., Hardy, D., Story, J.E., & Vanderklok, M. (1985). The false consensus effect: A meta-analysis of 155 hypothesis tests. *Journal of Experimental Social Psychology, 21,* 262–283. https://doi.org/10.1016/0022-1031(85)90020-4

Nestler, S., & Back, M.D. (2017). Using cross-classified structural equation models to examine the accuracy of personality judgments. *Psychometrika, 82*(2), 475–497. https://doi.org/10.1007/s11336-015-9485-6

Paulhus, D.L., Buckels, E.E., Trapnell, P.D., & Jones, D.N. (2020). Screening for dark personalities. *European Journal of Psychological Assessment*, 37(3), 208–222. https://doi.org/10.1027/1015-5759/a000602

Paulhus, D.L., & Williams, K.M. (2002). The Dark Triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, *36*, 556–563. https://doi.org/10.1016/S0092-6566(02)00505-6

Rain, M., & Mar, R.A. (2021). Adult attachment and engagement with fictional characters. *Journal of Social and Personal Relationships*. https://doi.org/10.1177/02654075211018513

Ross, L., Greene, D., & House, P. (1977). The false consensus effect: An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology, 13*(3), 279–301. https://doi.org/10.1016/0022-1031(77)90049-X

Rubin, R.B., & McHugh, M.P. (1987). Development of parasocial interaction

   relationships. Journal of Broadcasting & Electronic Media, 31(3), 279–292.

   https://doi.org/10.1080/08838158709386664

Schmitt, N. (1996). Uses and abuses of coefficient alpha. *Psychological Assessment,*

   8(4), 350–353. https://doi.org/10.1037/1040-3590.8.4.350

Shawat, S. (2017, June 2). The 250 most mentioned characters in ASOIAF so far! *The*

   Lord of the Books. https://booksofthelord.wordpress.com/2017/06/02/the-250-

   most-mentioned-characters-in-asoiaf-so-far/

Simons, D.J., Shoda, Y., & Lindsay, D.S. (2017). Constraints on generality (COG): A

   proposed addition to all empirical papers. *Perspectives on Psychological Science,*

   12(6), 1123–1128. https://doi.org/10.1177/1745691617708630

Soto, C.J., & John, O.P. (2017). Short and extra-short forms of the Big Five Inventory–2:

   The BFI-2-S and BFI-2-XS. *Journal of Research in Personality, 68,* 69–81.

   https://doi.org/10.1016/j.jrp.2017.02.004

Srivastava, S., Guglielmo, S., & Beer, J.S. (2010). Perceiving others' personalities:

   Examining the dimensionality, assumed similarity to the self, and stability of

   perceiver effects. *Journal of Personality and Social Psychology, 98*(3), 520–534.

   https://doi.org/10.1037/a0017057

Steele, J.R., & Brown, J.D. (1995). Adolescent room culture: Studying media in the

   context of everyday life. *Journal of Youth and Adolescence, 24*(5), 551–576.

   https://doi.org/10.1007/BF01537056

Thielmann, I., Hilbig, B.E., & Zettler, I. (2020). Seeing me, seeing you: Testing

   competing accounts of assumed similarity in personality judgments. *Journal of*

Personality and Social Psychology, 118(1), 172–198.

https://doi.org/10.1037/pspp0000222

Tskhay, K.O., & Rule, N.O. (2014). Perceptions of personality in text-based media and

OSN: A meta-analysis. *Journal of Research in Personality, 49,* 25–30.

https://doi.org/10.1016/j.jrp.2013.12.004

Tsay, M., & Bodine, B.M. (2012). Exploring parasocial interaction in college students as

a multidimensional construct: Do personality, interpersonal need and television

motive predict their relationship with media characters? *Psychology of Popular*

Media Culture, 1(3), 185–200. https://doi.org/10.1037/a0028120

Vazire, S., & Gosling, S.D. (2004). e-Perceptions: Personality impressions based on

personal websites. *Journal of Personality and Social Psychology, 87*(1), 123–132.

https://doi.org/10.1037/0022-3514.87.1.123