Mediated relationships with TV characters

The effects of perceived and actual similarity in personality traits

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Five TV actors completed the Big Five personality scale for a character they played on a popular Israeli TV comedy. Viewers of each of these series completed the same scales both for themselves and as they thought the characters would have completed them. They then completed parasocial relationship and identification scales with respect to the same character. Perceived and measured similarity scores (i.e., using the actors' scores) were computed for each viewer-character pair. These similarity scores were then used to predict both parasocial relationship strength and the degree of identification. Results show that perceived and measured similarity are mostly unrelated and that perceived similarity, but not measured similarity, is related to parasocial relationships and identification. Implications of these results for mediated relationships theory and measurement validity are discussed.

Keywords: identification, parasocial relationships, mediated relationships, perceived similarity, media characters, character-audience similarity

The ability of humans to interact and identify with each other, even with fictional others, allows people to learn many new things and understand the world around them. Our ability to empathize, to see things from another person's point of view and to care about others, expands our social horizons and perspectives. Similarly, we can expand our social horizons through relationships with media personae that are beyond our immediate environment. Though interacting with, and learning from, others also occurs in the context of interpersonal communication, through mass media people are exposed to a much wider variety of people, places, and experiences that they can enjoy and from which we can learn. Thus mass media offer a rich and important source for mediated social interaction and for social learning.

Entertainment content has been shown to be especially effective for learning and persuasion, partially because audiences become involved in entertainment

and become attached to characters and media personas (Bandura, 2001). Research has advanced our understanding of how identification and parasocial relationships with media characters impact attitudes and behaviors (Tukachinsky & Tokunaga, 2013)., but we still know little about why people relate to specific characters in the first place and what drives the intensity of these responses. This study offers an innovative approach to testing the importance of the character/persona similarity to the development of mediated relationships.

Similarity, identification, and parasocial relationships

An accepted assumption is that readers or viewers are more likely to relate to characters or celebrities that are similar to themselves (e.g., Felitzen & Linne, 1975, Hoffner & Cantor, 1991; Tian & Hoffner, 2010). This theoretical assumption has also been the basis for practitioners choosing spokespersons for campaigns (Wilson, 2007), hosts or actors for movies and TV shows. Simply, if it is easier to like, to identify with, and to relate to those similar to us, then people appearing in campaigns and entertainment should be similar to their target audiences. In this study, we address the influence of audience-character similarity on both parasocial relationships and identification.

Parasocial relationships

Parasocial relationships (Horton & Wohl, 1956) are one-sided, friendship-like relationships that viewers develop over time with media personae (for reviews see: Giles, 2002; Hartmann & Goldhoorn, 2011). Parasocial relationships with media characters are central to audiences' attraction to both news and entertainment content. Several studies have compared parasocial to social relationships and shown that parasocial relationships are modeled after social relationships and that though they are not identical, parasocial and social relationships are similar in various ways (Branch, Wilson, & Agnew, 2013; Eyal & Dailey, 2012; Giles, 2002, Perse & Rubin, 1989, Schramm & Wirth, 2015). Thus, when looking for factors that may lead to the formation and strengthening of parasocial relationships, it makes sense to examine research on interpersonal relationships. One factor that is known to predict attraction to others in interpersonal relationships (McPherson, Smith-Lovin, & Cook, 2001; Silvia, 2005) is similarity. A meta-analysis of the similarity-attraction effect (Montoya & Horton, 2012) found that both shared personality traits and shared attitudes increased liking because similarity provides us with information about partners and increases our expectations that they possess positive attributes. Likewise, a media persona or character who shares our traits

should lead us to expect a more positive interaction. A similar media character is also likely to seem more relevant to audience members, and as Klimmt, Hartmann and Schramm (2006) argue, the relevance of a persona to an audience member is an important factor in creating more meaningful PSR

Several studies suggest that similarity indeed intensifies parasocial relationships. Turner (1991) reported that self-reported attitude homophily was a predictor of the strength of parasocial relationships, though appearance and background homophily was. Eyal and Rubin (2003) found that self-reported similarity to an aggressive character, but not trait aggression, was related to both identification and parasocial interaction. Tian and Hoffner (2010) found that perceived similarity positively predicted parasocial interaction. Though none of these studies provide experimental evidence that similarity increases parasocial relationship strength, there is evidence suggesting that such a link may exist.

Identification

Another reaction to media characters that is likely to be connected to audience-character similarity is identification. As distinct from parasocial relationships, identification is not a long-term relationship, but rather an on-line response to characters. Identification (Cohen, 2001) is seen as losing one's self in a character or putting one's self inside a character's head, adopting a character's perspective, wanting the character to succeed and empathizing with the character. Here too, there is reason to expect similar characters to elicit stronger identification as Hoffner and Cantor (1991) claim: "…media researchers have frequently argued that viewers identify with characters who are similar to themselves, or possess especially desirable attributes." (p. 88).

The assumption that similarity will increase identification is quite intuitive. Theoretically, similarity should increase the intensity of identification because it is easier to relate to, and understand, someone who is similar to you and is experiencing things that you are also likely to experience. The actions, situations, and responses of a similar character should also seem more realistic, and realism is known to be related to reactions to characters (Hoffner, 1996; Konijn, Nije Bijvank, & Bushman, 2007).

Empirically, however, the evidence is more complicated. Maccoby and Wilson (1957) failed in their attempt to manipulate identification by varying similarity in gender and social class. Several more recent studies have also directly tested the connection between similarity and identification. De Graaf (2014) found that whether characters had the same or different living arrangement as readers had an effect on the extent to which reading the stories reminded people of themselves but not on identification with the protagonist. Kauffman and Libby (2012) found that in-group members induced more identification, but McKinley (2010) found

that informing viewers of a TV drama episode that the protagonist was a college students like them did not impact their level of identification. Hoeken, Kolthoff and Sanders (2016) found that Law students were more likely than humanities students to identify with a lawyer and medical students were more likely than humanities students to identify with a doctor. Finally a meta-analysis (Tukachinsky, 2014) reported that manipulating similarity did not have a significant effect on identification.

In sum, there is empirical evidence supporting the similarity hypothesis but this evidence is mixed and requires further investigation. As far back as 1970, Simons, Berkowitz and Moyer wrote about the hypothesis that interpersonal similarity affects persuasion: "As a proposition about persuasion, it is still more a doctrine than an empirically grounded theory" (Simons, Berkowitz, & Moyer, 1970, p. 1), and it seems that in regards to the similarity hypothesis in the media context this is still quite true.

Similarity and perceived similarity

Research on similarity between audiences and media characters and its effects suggests that such a relationship may exist, but does not provide a conclusive test of this hypothesis. Many studies are based on self-report (e.g., Turner, 1991) and measure perceived similarity rather than similarity. Because fictional characters cannot complete surveys, researchers often substituted audience perceptions of similarity for more direct measures of similarity. Thus, the findings regarding similarity may be a function of measurement rather than valid findings. In addition, such methodology cannot establish causal order. Specifically, it is reasonable that increase perceptions of similarity identification or parasocial relationships because identifying with, or para-socially relating to a character should increases the sense that the character is similar to one's self. Hence, self-reports of perceived similarity cannot provide a compelling test for the similarity hypothesis.

Relying on perceptions of similarity as a proxy for similarity also ignores the degree to which audience perceptions of characters are dependent on interpretations. Different readers or viewers likely have different understandings of the same character's traits and so any measure of similarity or difference in personality would be affected by this variation. Thus, when audience members compare themselves to a character (in order to assess similarity) they are comparing themselves to their own interpretation of the character.

This leads to two problems. One is that viewers may project their own traits and characteristics onto the characters and thus see characters as more similar than they really are. That is, a funny viewer may see a character as funny and

an obstinate viewer may see a character as more pigheaded and this may serve as a likely alternative explanation to the correlation between perceived similarity and either identification or parasocial relationships. And similarity could also be a function of selective attention to a character's traits such that audience members may select to attend to, or accentuate, those character traits that they themselves have. Such selective perception would then lead to audiences feeling similar to characters. For example, a funny and obstinate viewer may perceive a character that is very unfunny but somewhat obstinate as similar because they notice the similarity in obstinacy and dismiss the dissimilarity in sense of humor. In sum, to be able to establish that similarity indeed causes identification and parasocial relationships, it is crucial that similarity be assessed using a description of the character that is independent of audiences' perceptions. To overcome these problems, in this study we obtain such a measure of characters' personality from the actors who played these characters.

An actor's assessment of a character s/he plays provides an independent and valid assessment of the character. It is independent in that it does not come from viewers. It is valid not in the sense that it is true or objective (how can any measure of a fictional character's personality be true?), but rather in the sense that an actor's understanding of a character is based on a professionally developed understanding of the character's personality and the inner motivations that drive a character's actions. It is the actor who portrays the character and therefore in a sense becomes the character for the viewers.

External and internal similarity

To test the similarity hypothesis requires a clear definition of what exactly is meant by similarity. Similarity between characters and audience members can take various forms (e.g., demographic, appearance, attitude, personality) and it is unclear which type of similarity is likely to impact our reactions to characters. Importantly, there is reason to distinguish between external similarity (such as demographic, appearance, life circumstances or profession) and internal similarity (such as similarity in personality or emotions). Whereas the external similarity can create a bond based on group memberships, internal similarity is based on seeing characters who respond to situations in similar ways to one's self.

Experimental studies can manipulate external characteristics as a way to vary similarity (e.g., Cohen, Weimann-Saks, & Tregerman-Mazor, forthcoming). But it is much harder to manipulate internal similarity between audiences and characters without significantly changing the storyline and confounding similarity with

different plots or character behaviors. So, while experiments provide causal tests, they are limited to studying external similarity.

But given the theoretical arguments presented above for the similarity hypothesis it is highly likely that similarity of personality is crucial to developing identification and PSR. This is because entertainment content often appeals to us as individuals rather than as members of social categories. For example, how we react in romantic situations may have more to do with our personality than with our ethnic background.

As explained above, meaningfully manipulating character personality would be hard to do without major plot changes or damaging realism. Simply, characters with noticeably different traits would likely behave and react very differently to similar situations (e.g., a highly conscientious character behaving like a non-conscientious character at work or a very agreeable person and a non-agreeable person behaving the same on a date).

Using actors' reports on characters' personalities offers correlational data but provides independent sources of data that are compared to compute similarity. Using the unique perspective of actors into the characters they play, this method will allow a causal test of the hypothesis that viewers will create stronger identification and parasocial relationships with similar, as compared to dissimilar, characters. Specifically, we expect similarity in personality traits between TV viewers and characters to be associated with stronger identification and parasocial relationships.

Hypotheses

The first goal of this study is to test the assumption underlying previous studies that consider perceived similarity as a proxy for measured similarity. Testing the validity of this assumption is important both as a way to examine the methodological aspect of this practice but also because it is used to establish the causal order, such that the perceptions of similarity are assumed to be formed early in the exposure process and subsequently to affect identification and PSR.

H1: There will be a positive association between viewer-character similarity and perceived similarity across five personality traits.
H2: There will be a positive association between viewer-character similarity and an overall measure of perceived similarity.

As detailed above, greater personality similarity is expected to be associated with stronger identification and PSR. Though the design of this study is correlational, because the similarity measure is based on independent measures of personality

the possibility of reverse causation is ruled out. Simply, the extent of <u>viewers</u>' identification with a character, or the intensity of a parasocial relationship that a viewer has with a persona, cannot influence an <u>actor's</u> perceptions of character's personality.

H3: Viewer-character personality similarity will be positively associated with the level of identification of the viewer with the character.

H4: Viewer-character personality similarity will be positively associated with the intensity of the parasocial relationship the viewer reports with the character.

Method

Overview

The data for this project were collected as part of an undergraduate honors seminar. Six students were each instructed to complete 50 questionnaires from friends, co-workers or family. Students worked in pairs on separate projects examining the contribution of different sorts of similarity (i.e., similarity on different variables) to identification and parasocial interaction. Each pair of students chose two TV characters and was instructed to find viewers who knew those two characters and could complete a questionnaire regarding one of the two characters.

Questionnaires included demographic measures and a personality measure based on the Big Five Index (BFI) of personality (Costa & McCrae, 1992; Hebrew version: Etzion & Laski, 1998). Each respondent completed the personality scales twice: Once for him/herself and again to report on his/her perception of one character (the more familiar of the two). Each respondent also completed a parasocial relationship questionnaire and an identification measure for that character. Though each pair of students also included distinct measures in their study (e.g., gender roles, conformism), the present analysis examines only whether similarity in the Big Five personality traits contributes to identification and parasocial relationships.

Sample

The sample was a convenience sample and was arranged so that there were 50 respondents for each of five characters. It included 75 males and 166 females (nine respondents were removed – see below), the median age was 26. Ninety one percent of the sample was Jewish, the rest were Arabs (6.6%) or other (2.4%). Seventy percent were secular, 26% traditional and only 6% religious. Compared to the general population, the sample was skewed female, young, Jewish and secular.

The characters

A pilot study was conducted in order to identify six characters that students were most likely to know. The pilot asked 172 respondents to rate their familiarity with 24 characters taken from four popular Israeli series that were broadcast at, or shortly before, the time of the study (November, 2013). The six most familiar characters were chosen for the present study. All characters had appeared on at least one full season of their respective shows. Two female character and four male characters were chosen from three different shows (The characters of Shai, Shani and Silvan from the series *Sabrei Maranan*; the character of Bushra and Amjad from *Arab Labor* and *Polishuk* from the series *Polishuk*). *Sabri Maranan* is a show that revolves around a married couple from different ethnic backgrounds and the interactions between their families. *Arab Labor* is a show about a young Arab family trying to integrate into Israeli society and *Polishuk* is a political comedy about an incompetent politician and his staff.

In order to be able to assess the similarity of audience members to characters we approached the actors and asked them to complete a short survey including the BFI the way they believe the character would respond to the measures. Of the six actors approached, five agreed to complete the survey "in character" and so the present study is based on a maximum of 250 viewers and five characters, 50 respondents for each character. The data regarding the sixth character for which no actor data could be collected, was discarded. Nine respondents were removed due to missing values and the final sample size was 241.

Measures

Each respondent completed a personal questionnaire and then chose one of two characters with which he or she was most, and at least 'Partially' familiar (defined in the survey as watching more than three episodes), and completed a questionnaire regarding that character. The personal questionnaire gathered demographic information such as age groups ('14–26', '27–41', '42–72'), gender, nationality ('Jewish', 'Arab', 'Other') and religiousness ('religious', 'traditional', 'secular') as well as relationship status ('in a relationship', 'not in a relationship').

The Five Factor Model (FFM)

This measure is a broad classification of personality traits. The model separates the human personality into a series of five dimensional traits (Costa & McCrae, 1992) also known as the Big Five Index (BFI). The FFM provides a consensual, objective, quantifiable description of the main surface tendencies of personality (Caprara, Barbaranelli & Livi, 1994) and it serves as an accepted framework for measuring

general personality structure (normal personality; Mount & Barrick, 1995). The first trait in the model, *neuroticism*, reflects a person's tendency to experience psychological distress. People who rank high in this trait are described as low esteem people with pessimistic attitudes (McCrae & Costa, 2008). *Extraversion*, the second trait, refers to people with social skills, numerous friendships and with enterprising vocational interests. The third factor, *openness to experience,* represents an individual's willingness to consider alternative approaches, be intellectually curious (Mount & Barrick, 1995) and have many different hobbies that they choose carefully (McCrae & Costa, 2008). *Agreeableness*, the fourth factor, describes people with forgiving attitudes, who believe in cooperation and are trusting, sympathetic and cooperative (Costa, McCrae & Dye, 1991). The fifth dimension, *conscientiousness,* describes people with leadership skills, long term plans, organized support networks and technical expertise (Costa, McCrae & Dye, 1991; McCrae & Costa, 2008).

Each respondent completed a personality questionnaire consisting of 41 items from the Hebrew version of the Big Five Index (BFI). Some items were dropped because of the length of the questionnaire. In addition, during the analysis a few items that reduced reliability were omitted resulting in our use of a total of 39 of the original 44 items (see Table 1 for details). However, items that reduced reliability were removed from all three applications of the scale (actors-characters, viewers-self and viewers-characters) so that all similarity scores would be based on identical scales. Thus, scales were not individually optimized for reliability and some of the reliabilities were lower than generally acceptable (See Table 1).

Table 1. Scale reliabilities (Chronbach's alpha)

	Audience-self	Audience-character	Actor-character
Extrovert (8 items)	.69	.74	.64
Agreeable (9 items)	.59	.83	.75
Neurotic (5 items)	.66	.69	.91
Conscientiousness (9 items)	.65	.70	.72
Open (10 items)	.69	.66	.73
PSI (10 items)	.86	NA	NA
ID (7 items)	.89	NA	NA

A perceived difference score was computed as the difference between the respondent's own score on each of the Big Five variables and the score s/he attributed to the character they chose. Because this study is about similarity (rather than difference), we subtracted each difference score from five, which is the? maximum difference, to compute a *perceived similarity score.*

In addition, the five actors playing the characters which were used in the study completed the Big Five personality questionnaire. They were instructed to complete the questionnaire 'in character', that is as they believe the character they played would complete it if they were real people. These instructions were stressed and repeated to ensure that actors understood we were interested in gauging the character's personality and not the actor's own personality or their perceptions of the character. So, for example, Polishuk would see himself as a confident, open and conscientious leader and this is how the measure was to be completed even though other characters (and probably the actor and most viewers) saw Polishuk as an incompetent politician and a buffoon.

A measured difference score was computed for each personality dimension of the character as a mean of the relevant items completed by the actor. This score was then used to compute a measured similarity score for each audience member reflecting the similarity between the perception of the viewer's own personality and the character's personality (as reported by the actor). The similarity score was computed as the absolute value of the difference between the two scores. Again, we flipped the sign of each score such that larger numbers indicated more measured similarity.[1] Importantly, this score was not a difference score (Griffin, Murray, & Gonzalez, 1999) because the participants' score were not subtracted from a variable but rather from a constant (i.e., the actor's score) and so, many of the problems with difference scores do not apply in this context.[2] Again we subtracted each difference score from five, which is the maximum difference to compute a **measured similarity score**.

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[1]. The term "measured similarity" here may be somewhat misleading since it refers to measuring similarity using actors' ratings of character. It is used only as a contrast to "perceived similarity".

[2]. Results of analyzing difference scores may be confounded by the main effects of the components making up the differences. That is, if there are two highly emotional people like each other, is it their similarity in happiness that leads to increased mutual liking or simply happy people tend to like others more. Thus, Griffin, Murray and Gonzalez (1999) warn against the use of difference scores without considering the means and variances of the component main effects and the correlation among these components. In this study, however, difference scores are composed of the difference between the self-ranking of viewers and the ranking of the actor, which is a constant. This means that there is only one variable component that makes up the difference score (i.e., the actor's score) and so what is tested is simply a transformation of the viewers' scores. Therefore, the usual problems (Griffin, Murray, & Gonzalez, 1999) are not of concern. Moreover, the main dangers with difference scores come from attributing significant correlations that stem from main effects to the difference score. Since the main finding resulting from this analysis is the lack of findings this is not a danger. The same cannot be said of the perceived similarity scores that are difference scores and where a few significant results were found. However, these are of secondary importance and used only as a comparison.

At the end of the questionnaire, audience respondents also reported on how familiar they were with the character on which they responded using a scale ranging from 1 (minimal familiarity) to 3 (know the character well). They also completed a short identification scale (7 items) based on Cohen (2001) and a ten-item para-social relationship scale based on Rubin, Perse, and Powell (1985). Both scales consisted of Likert type statements to which participants responded using 1 (completely disagree) to 7 (completely agree) scales. Finally, as a validity measure a one-item overall perceived similarity measure was included (In general, I am similar to the character I chose, in terms of life circumstances, personality traits, characteristics, etc.).

Results

Preliminary analysis

All characters were familiar to respondents at least to a medium level. The most familiar was Bushra ($M = 2.58$, $SD = .68$), next was Shani ($M = 2.44$, $SD = .50$), Shai ($M = 2.39$, $SD = .75$), Polishuk ($M = 2.37$, $SD = .73$) and finally Silvan ($M = 2.29$, $SD = .94$). Mean scores of character traits as indicated by respondents and the gaps between actor and viewers' scores can be found in Table 2. Overall, mean measured similarity (i.e., the similarity between actor scores and viewers' scores of their own personality) was quite high ($M = 3.78$, $SD = 0.48$) and was somewhat less than mean perceived similarity, or the difference scores between viewers assessment of themselves and of characters ($M = 4.01$, $SD = 0.57$).

Table 2. Mean actor and viewer big five trait scores and mean similarity scores

Data source	Character	Extr	Agree	Cons	Neuro	Open
Viewers	Bushra	4.63	6.00	6.00	2.00	5.40
	Shani	5.38	3.75	4.56	4.75	4.00
	Shai	3.50	4.88	5.44	1.50	4.30
	Silvan	3.38	5.13	4.56	4.50	3.50
	Polishuk	4.29	5.00	3.44	5.50	3.20
Viewers	Mean Audience (SD)	3.87 (.80)	4.18 (.79)	4.24 (.79)	3.16 (.98)	4.04 (.68)
Similarity Scores (Scale 1–6)	Mean Perceived similarity (SD)	4.09 (0.72)	4.03 (0.86)	4.10 (0.72)	3.77 (0.98)	4.11 (0.73)
	Mean Measured Similarity (SD)	4.07 (0.68)	3.79 (0.89)	3.81 (0.83)	3.29 (.98)	4.16 (0.64)

Though this study is focused on testing the role of internal similarity, our data provided a limited opportunity to test whether audience members who chose characters of similar sex and similar nationality (Jews/Arabs) had stronger identification and parasocial relationships with them, as compared to those who chose characters of opposite sex and nationality.

In general, the intensity of identification (M = 3.90, SD = 1.09) and parasocial relationships (M = 2.92, SD = 1.05) across five characters was not very high but provided sufficient variance. Two independent samples t-tests were conducted to compare those who responded regarding similar and dissimilar characters. The level of parasocial interaction was not greater among those who chose same-sex character (M = 2.86, SD = .99) than among those who chose an opposite-sex character (M = 2.87, SD = 1.01; $t(239)$ = .12, ns). However, sex similarity had an effect on identification, such that identification with a similar-sex character (M = 4.02, SD = 1.08) was stronger than with opposite-sex characters (M = 3.72, SD = 1.14; $t(237)$ = −2.03, p = .04).

A different pattern was found regarding nationality. No difference in identification was found between those who chose characters of similar nationality (M = 3.85, SD = 1.14) and those who chose a character of a different nationality (M = 3.91, SD = 1.02; $t(233)$ = 0.30, ns). Surprisingly, parasocial relationships were marginally stronger with characters of a dissimilar nationality (M = 3.16, SD = .96) than with characters of the same nationality (M = 2.82, SD = 1.04; $t(235)$ = 1.96, p = .05). Because most of those choosing characters of dissimilar nationality were Jewish respondents who chose the Arab character, we computed a t-test for the level of parasocial interaction between Jewish and Arab respondents. No difference was found (Arabs: M = 3.09, SD = 1.05; Jews: M = 2.87, SD = 1.03; $t(235)$ = −.83, ns). However, because there was only one Arab character it is very possible that this result is an idiosyncratic finding related to this character.

Hypotheses testing

The first hypothesis predicted an association between perceived and measured similarity. Correlations were computed between perceived and measured similarities for each of the five personality dimensions. Of the five relevant correlations, only one was significant and, surprisingly, in the opposite direction than expected. Measured and perceived similarity were negatively correlated on agreeableness (r = (191) −.43, p < .001). This means that the more the agreeableness score of an audience member was similar to the agreeableness score given to his/her favorite character by the actor, the less similarity he or she perceived. The same trend was found for the overall mean scores of measured similarity and perceived similarity, averaged across the five dimensions though this correlation was not significant

(r(199) = −.13, p = .06). Thus, the results for the first hypothesis suggest that perceived similarity and measured similarity are not related and that perceived similarity is not a reliable proxy for measured similarity. This suggests that perceived similarity scores do not reflect any real similarity but rather may be the result of projection or selective perception.

The second hypothesis predicted that measured similarity would be associated with a general measure of perceived similarity. To test H2, the one-item measure of general perceived similarity was regressed on the five measured similarity dimensions. None of the five coefficients were significant (all Ps > .20) suggesting a lack of relationship between perceived and measured similarity. Expectedly, the single-item measure of general perceived similarity was correlated with the mean of the five perceived similarity measures (r(233) = −.31, p < .01). This provides some evidence of reliability to the different measures of perceived similarity. In sum, and in line with the findings for H1, no support was found for H2. Perceived similarity in dimensions of personality was substantially related to overall perceived similarity, but did not have a relationship with measured similarity.

The third and fourth hypothesis stated that measured similarity will predict the extent of identification (H3) and parasocial interaction (H4). Two linear multiple regression were computed by regressing identification and parasocial relationship scores on the five measured personality similarity dimensions. Results can be found in Table 3. As can be seen in Table 3, measured similarity in none of the personality dimensions predicted identification. The regression model as a whole explained less than 1% of the variance in identification and was not significant (F(5, 249) = .92, ns). Thus H3 was rejected suggesting that viewers did not identify more with characters that had personalities similar to their own.

Table 3. Linear multiple regression predicting identification and parasocial interaction with **measured similarity** scores on the big-5 personality dimensions

	Identification				Parasocial relationships			
	B	SE	T	P	B	SE	T	P
Extrovert	−.08	.10	−0.76	ns	−.12	.09	−1.31	ns
Neurotic	.01	.07	−0.08	ns	.06	.07	0.91	ns
Agreeable	−.13	.10	−1.38	ns	−.15	.09	−1.68	ns
conscientiousness	.20	.11	1.86	ns	−.03	.10	−0.28	ns
openness	.02	.14	0.09	ns	.22	.11	1.95	<.06
Constant	4.01	.65	6.16	<.01	3.05	.61	4.97	<.01

Of the five personality dimensions, only similarity in openness marginally predicted parasocial relationships ($b = .22$, $SE = .11$, $p = .053$). Thus, H4 was partially supported, but since the regression model as a whole explained less than 2% of the variance in parasocial relationships and was not significant ($F(5, 251) = 1.93$, $p = .09$) it is hard to see this model as supporting the hypothesis.

As a comparison to the regression models predicting identification and parasocial relationships from measured personality similarity, and as a way to test if the lack of support for H3 and H4 were simply an artifact of low reliabilities attenuating the relationships, the same analyses were conducted using the perceived personality measures as predictors (See Table 4). The model for identification explained five percent of the variance and was highly significant ($F(5, 257) = 3.96$, $P = .002$), though only the coefficient for conscientiousness was significant. However, the model predicting parasocial interaction with perceived personality similarity explained 14% of the variance and was highly significant ($F(5, 258) = 9.44$, $P < .001$). Furthermore, perceived similarity in three of the five dimensions (extroversion, conscientiousness and openness) significantly predicted parasocial relationships. The comparison of the models predicting identification and parasocial relationships from perceived and measured similarity suggests that while perceived similarity is associated with responses to characters, measured similarity is not.

Table 4. Linear multiple regression predicting identification and parasocial interaction with **perceived similarity** scores on the big-5 personality dimensions

	Identification				Parasocial relationships			
	B	SE	T	P	B	SE	T	P
Extrovert	.15	.09	1.58	ns	.22	.88	2.58	<.05
Neurotic	−.03	.07	−0.35	ns	.06	.07	0.92	ns
Agreeable	.09	.09	1.02	ns	.13	.05	1.65	ns
conscientiousness	.30	.10	2.86	<.01	.26	.10	2.71	<.01
openness	.05	.09	0.49	ns	.22	.09	2.47	<.05
Constant	1.66	.58	2.86	<.01	−.66	.54	−1.21	ns

To further test the role of perceived similarity, the single-item similarity measure was correlated with both identification and parasocial relationships. Both correlations were substantial, positive and highly significant (identification: $r(235) = .48$, $p < .001$; parasocial relationships: $r(236) = .47$, $p < .001$), suggesting that perceived similarity, and to an even greater degree general similarity, is related to responses to characters but that measured similarity is not. Again, these results support the notion that perceived similarity reflects responses to, and relationships with, characters rather than being a function of actual similarity.

Discussion

The results of this study show that similarity between audiences and media perso-
nas does not increase identification or parasocial interaction. Perceiving a charac-
ter as similar, in contrast, does seem to be associated with parasocial relationships
and somewhat with identification. Finally, perceived similarity to media personae
was not related to measured similarity. These findings raise several issues.

Perceived similarity is not a proxy for similarity

That perceived similarity was not related even to measured similarity is at first
glance surprising as we expect perceptions to be related to reality. If similarity,
as measured in this study (using actors' ratings) is in fact a valid measure, why
is it not related to perceptions of similarity? This critique goes to the crux of the
present argument. First, there is growing evidence that perceptions, and perhaps
especially perceptions of the self, are often far off the mark (for a comprehensive
current review see Kahneman, 2011). Second, previous experimental research
(Cohen, Weimann-Saks & Mazor-Tregerman, 2017) has produced some initial
findings showing that in the context of narrative entertainment demographic sim-
ilarity is also not connected to perceived similarity or to identification, suggesting
that perceived similarity may be unrelated to any real similarity. It should not be
surprising that if, as our data show, similarity in gender and nationality did not
influence perceptions of similarity, neither did similar personality traits. Third, it
is important to remember that processing entertainment, and specifically fiction,
is not about comparing it to reality but about activating our imagination. Though
in advertising, demographic similarity has been shown to increase perceived simi-
larity (Tukachinsky & Tokunaga, 2013), well developed narrative characters may
engage us and make us feel close to them regardless of who they are or whether
they are similar to us.

Finally, though the measure used in this study for characters' personality is
novel and thus should be treated with some suspicion, it should be evaluated based
on its assumptions and methods. That the results it produced are counter-intuitive
in that similarity is not related to either perceptions of similarity, identification
or parasocial relationships, should not be the basis for deciding that the measure,
rather than our intuition and pre-conceptions, is invalid.

An implication of these findings is that perceived similarity should not be
used as a proxy for real similarity in studies linking similarity to various outcomes
(e.g., persuasion, liking). Though this study cannot provide a clear answer as to
what does influence perceived similarity it does suggest that in this case percep-
tions do not reflect reality. The most likely hypothesis is that someone we like and

identify with comes to be seen as more similar to us, whether because their behavior is projectively interpreted to seem more similar or whether because of selective perceptions that accentuate those characteristics of the character that are shared. Or, a character with which we have developed a long-term parasocial relationship can come to seem more like us as they become more familiar (Rubin & McHugh, 1987). Indeed Murray (2005) found that in interpersonal relationships satisfaction predicts and causes perceptions of similarity to partners.

Differences between parasocial relationships and identification

Though overall, measured similarity did not predict the intensity of reactions to television characters, the results for parasocial relationships (H4) were somewhat more positive than for identification (H3). Similarity in openness was a marginally significant predictor of parasocial relationships and explained a small portion of the variance in parasocial relationships, whereas none of the predictors were significant for identification. This is theoretically consistent with the differences between these two forms of mediated relationships (Cohen, 2009). Parasocial relationships are best thought of as akin to friendships and similarity should make this easier. Identification, on the other hand, requires becoming absorbed in a narrative and it is quite possible that a well-constructed narrative can create identification with a character that is nothing like a viewer. Simply, the power of imagination that is integral to identification allows us to momentarily assume the place of a character within a well-constructed story world.

There is evidence that similarity has an effect on interpersonal liking and on the extent to which one person can influence another. But to what extent should this evidence extend to mediated contexts? Here, too, there is reason to expect a difference between parasocial relationships and identification. There is much evidence showing the ways in which parasocial relationships resemble social relationships (e.g., Branch, Wilson, & Agnew 2013; Cohen, 2010; Cole & Leets, 1999) and so it is reasonable to assume that the effects of similarity in social relationships will extend to parasocial relationships as well. However, there is no equivalent research showing that identification follows social relationships and there is less reason to expect that it should. Whereas people interact with us, narratives create a closed world into which we are allowed to enter imaginatively. It is our ability to imagine the narrative world, rather than its verisimilitude that is likely to be of primary importance.

Limitations and future direction

This study has several limitations that ought to be considered. First, fictional characters do not have personalities. The measures of character personality, as completed by actors, are one interpretation of how characters are understood. Though an actors' interpretation is privileged in that it is a product of much work and attention and in that it shapes the performance that audiences see, it is, in the final analysis, one interpretation. On the methodological front it should be noted that the reliabilities of the personality scales that were used for viewers and characters were not as good as expected. Though the BFI measure is generally reliable (John & Srivastrava, 1999) it should be noted that the BFI was not meant to report on the personality of others and so reporting on characters may be legitimately unreliable. Why the audience measures were not reliable remains unclear, though the use of a translated measure may be partly responsible. Another limitation of the current study, one that may also be related to the reliability issue, is that data were collected by students in a variety of face-to-face settings. The sample itself was also not a traditional student sample which is an advantage in terms of external validity, but also may decrease response consistency. In all, and despite these problems, our results raise serious doubts about the role of similarity in the ways viewers react to television characters. It seems that demographic casting choices may be less important than quality performances in getting viewers to relate to fictional characters.

In this study, similarity in personality traits was investigated. Personality traits are central to human behavior (Funder, 2001; Pervin, 1989) and how people react to social situation like the one's depicted in television comedy. However, future research should look at other forms of internal similarity such as similar past experiences, espousing similar social values and similarity in emotional responses. It is likely that the types of similarity that affect reactions to characters will vary from genre to genre and they perhaps will even depend on specific topics of shows or episodes. Thus, more research leading to a general theory of the effects of similarity on responses to characters is needed.

The present findings also stress the importance of distinguishing between perceptions and realities in this context. Only studies that carefully manipulate or otherwise measure measured audience-persona similarity in various characteristics and their effect on various types of mediated relationships will advance this goal. Understanding the role of audience-persona similarity in the creation of mediated relationships will in turn advance our understanding of how and why we relate to people in the media, an important aspect of our enjoyment of media entertainment and its social impact.

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