What makes for a good hero?

Fictional characters have distinct personalities [10, 12]. Whether they are naïve and innocent like Forrest Gump or rebellious and brave like Mulan, we relate to them as if they were real people [20, 21, 22, 24]. In fact, literary and cinematic research suggests that our enjoyment of stories hinges primarily on our identification with—or at least our interest in—the principal characters [21, 24]. Here, we investigate the associations between character personality and audience ratings, and how these associations vary across genres.

Character personality

Certain traits of fictional characters make it more (or less) likely that we empathize with them [20, 8, 6]. Some studies (and movie reviews) suggest that characters should be "realistic," "complex," or "3D" [27, 28, 29, 50]. However, characters should also be understandable, meaning their traits and motivations should become readily apparent to the observer [11]. Unclear or incoherent character behavior is usually met with disapproval by audience members [6]. Thus, writers often create characters with recognizable yet extreme personalities that adhere to well-known archetypes [25, 30].

Realism and understandability are important qualities, but they are usually insufficient to engage people in a character's story; there are countless realistic and understandable characters that do not hold our interest. Thus, researchers have analyzed which additional features boost the appeal of fiction characters, with a prominent example being dispositional *warmth* [26, 27]. Book reviewers are more likely to endorse a book if they liked the protagonist [31], and people generally enjoy spending time with moral characters [27]. Psychological theory also supports the suggested effect; warmth and agreeableness are crucial traits for social bonding [32]. People are more likely to approach someone—physically and emotionally—if they appear agreeable, warm, and pro-social [32, 33, 37], which could lay the foundation for enjoying a story about this person [27], especially if the story has a happy ending [38].

Thus, interdisciplinary scholarship supports the Warmth Hypothesis:
Movies with warmer protagonists receive more favorable audience evaluations.

However, it is undeniable that many popular stories have fairly disagreeable protagonists [10, 39]. There are countless successful movies about grumpy detectives, psychopathic geniuses, and dismissive love interests. If the next James Bond stopped drinking alcohol, kept to the speed limit, and disarmed villains with kindness and diplomacy—fans would be confused, and movie ratings would likely plummet.

To shed light on people's paradoxical liking of unlikable characters, psychologists have considered complementary traits. They find that low-warmth individuals *can* be liked, as long as they compensate for their lack of warmth with other attributes, most commonly competence [34, 35]. Accordingly, TV show audiences have been found to embrace characters either for their warmth or their competence, depending on the respective portrayals [40].

Rather than *liking* competent characters, audiences might admire them for their success, intelligence, or other desirable attributes, and engage in wishful identification [44]. Inhabiting a super competent protagonist allows observers to feel powerful, making for a pleasurable viewing experience [45, 46].

In fact, as soon as a character is admired, their immoral behaviors and social shortcomings are actively justified and excused by fans [23]. Thereby, competent characters can *appear* warmer, more attractive, and more moral to onlookers, especially in collaborative scenarios [41, 42], or when their questionable behaviors are committed for a good cause [43].

Thus, next to agreeableness, we investigate the Competence Hypothesis:
Movies with more competent protagonists receive more favorable audience evaluations.

Genre-specific preferences

Given the potential benefits of warmth and competence, it may seem optimal to create protagonists with *both* attributes. However, such multi-talented characters are often judged as too perfect, unrealistic, forgettable, and less relatable [39, 51, 52]. Based on reviews and writing tutorials, many people subscribe to the credo that good characters have flaws [53].

Thus, writers often strive for a balance of warmth and competence when creating their characters, either intuitively or deliberately, and the correct choice may depend on the story's target audience [61]. Some viewers enjoy the vicarious rush of danger and skill when watching a criminal mastermind outmaneuver the police in a high-stakes car chase. Others prefer the cozy comfort of a likable protagonist awkwardly bumping into their love interest in a lighthearted romance or comedy film [47, 48, 49]. Considering these different audiences, it therefore stands to reason that a good protagonist aids in fulfilling their respective viewers' needs and desires. A moral and agreeable protagonist can facilitate feelings of warmth and imagined companionship among viewers of a romantic movie [54]. Similarly, a strong and daring hero can help action fans feel empowered and thrilled [55]. In sum, the varying motivations of audience members entail a varying importance of character agreeableness and competence, respectively.

Thus, we also investigate the Genre Hypotheses:

a) The association between warmth and movie ratings will vary across genres.

b) The association between competence and movie ratings will vary across genres.

Method

We will empirically test the Warmth, Competence, and Genre hypotheses (see above) by regressing movie ratings on protagonists' warmth and competence scores, which we will obtain through AI annotations of raw movie scripts. The chosen methodology can be quickly adapted for studying closely related research questions (e.g., about other personality traits).

Data

We will analyze the 2,858 films from the Movie Scripts Corpus dataset from Kaggle [60]. This dataset includes movie titles, release years, directors, genres, IMDb ratings, number of dialogue lines per character, and every movie's full-length script, which will be used to annotate the warmth and competence of the protagonists. Given the potentially high number of genres, we will only analyze the twelve most common genres across movies.

Procedure

The character with the highest number of dialogue lines (according to the Kaggle character data) will be selected as the movie's protagonist. Their warmth and competence scores will be generated with the LLM_annotate Python package [58], which produces character annotations based on collaboration between LLM and human text reviews. While listing actions, statements, and prominent omissions of the chosen character in the provided script, the LLM makes stepwise adjustments of the protagonist's warmth and competence score (e.g., "Ignores Mary's question — > minus one agreeableness"). Human supervision is given by selecting a random sample of LLM annotations for manual review in LLM_annotate's GUI. The degree of LLM-Human agreement will be included in the Results section. LLM_annotate requires a definition and example indicators of the annotated traits, which were set in line with the trait explanations in [60]:

"A character's warmth refers to their tendency to be good-natured, trustworthy, tolerant, friendly, and sincere. Positive examples: Organizes a get-together, admits to insecurity. Negative examples: Rejects someone, boasts."

"A character's competence refers to their tendency to behave capably, skillfully, intelligently, and confidently. Positive examples: Wins something, takes a calculated risk. Negative examples: Embarrasses themselves, fails to understand something."

Statistical Analysis

All hypothesis tests will be conducted in R using the brms package [59]. Bayesian regression models will be fitted with the package's default settings, provided that convergence diagnostics are satisfactory. Focal regression coefficients will be assigned Beta(1,1) priors scaled from -1 to 1. Bayes Factors will be computed against a point null hypothesis. Continuous variables will be standardized.

To test the Warmth and Competence Hypotheses, the movie's IMDb rating will be regressed on the protagonists' average annotation scores in separate models. To test the Genre Hypotheses, we will include interaction terms between the respective trait and the movie genres. If these extended models provide a better fit than the main-effect-only model (according to Bayes Factor comparisons), we will interpret this as evidence in favor of the Genre Hypotheses. Simple effects

will be explored through visual inspection. Further exploration will include the interaction between warmth and competence, and their respective interactions with gender.

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